West Basin Municipal Water District

Ocean Water Desalination Project

Final Environmental Impact Report

Volume 2

State Clearinghouse Number 2015081087

October 2019

TABLE OF CONTENTS

West Basin Municipal Water District
Ocean Water Desalination Project Final EIR

Volume 3

Figures

Tables

Appendices

SECTION 10
Introduction to the Final EIR

10.1 Overview of the Final EIR and CEQA Requirements

This Final Environmental Impact Report (Final EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) as amended (Public Resources Code Section 21000 et seq.) and CEQA Guidelines (California Administrative Code Section 15000 et seq.). The Final EIR incorporates, by reference, Draft EIR Sections 1 through 9, and Appendices 1 through 11 (State Clearinghouse No. 2015081087) as they were originally prepared and published by West Basin Municipal Water District (West Basin) for the Ocean Water Desalination Project (Project).

In accordance with Section 15132 of the CEQA Guidelines, the Final EIR consists of the following:

a. The Draft EIR or a revision of the draft
b. Comments and recommendations received on the Draft EIR either verbatim or in summary
c. A list of persons, organizations, and public agencies commenting on the Draft EIR
d. The responses of the Lead Agency to significant environmental points raised in the review and consultation process
e. Any other information added by the Lead Agency

Before West Basin considers approval of the Project, it must certify that the Final EIR: (1) has been completed in compliance with CEQA; (2) was presented to the West Basin Board of Directors who reviewed and considered it prior to approving the Project; and (3) reflects West Basin's independent judgment and analysis (CEQA Guidelines Section 15090).

Section 15004 of the CEQA Guidelines states that before the approval of any project subject to CEQA, the Lead Agency must consider the final environmental document, which in this case is the Final EIR. This Final EIR for the Ocean Water Desalination Project includes the following sections as a continuation of sections included in the Draft EIR:

Section 10: Introduction to the Final EIR.

Section 11: Refinements to the Project Description. The Project Description has been revised based on comments received on the Draft EIR and is presented here in its entirety.

Section 12: Master Responses. This section provides comprehensive discussions on a set of reoccurring themes identified by commenters on the Draft EIR.

Section 13: State Agency Comments and Responses. This section includes all comments received on the Draft EIR from state agencies, followed by all written responses to each state agency comment.

Section 14: Local Agency Comments and Responses. This section includes all comments received on the Draft EIR from local agencies, followed by all written responses to each local agency comment.

Section 15: Tribal Nation Comments and Responses. This section includes all comments received on the Draft EIR from Tribal Nations, followed by all written responses to each Tribal Nation comment.

Section 16: Organization Comments and Responses. This section includes all comments received on the Draft EIR from organizations or non-governmental organizations, followed by all written responses to each organization comment.

Section 17: Individual Comments and Responses. This section includes all comments received on the Draft EIR from individuals, followed by all written responses to each individual comment.

Section 18: Revisions to the Draft EIR Text. This section includes all changes made to the Draft EIR in response to comments received on the Draft EIR, or otherwise initiated by West Basin as the Lead Agency. Changes are shown in ~~strikeout~~ for deletions, and <u>underlined</u> for additions.

Section 19: References. This section includes all new references cited in the Final EIR. Any references cited from the Draft EIR are not repeated.

Section 20: Report Preparers. This sections lists all West Basin staff and consultants who assisted in preparation of the Final EIR.

Appendices 4A, and 12 through 15: These include the technical appendices to Draft EIR Appendix 4A (Intake Effects Assessment Report) and Final EIR Appendices/Supplemental Studies.

10.2 CEQA Process

Public Participation Process

Notice of Preparation and Public Scoping

In accordance with Section 15082 of the CEQA Guidelines, a Notice of Preparation (NOP) of an EIR was prepared and circulated for review to applicable local, state, and federal agencies and the public. The NOP was distributed on August 31, 2015, with a 45-day public review period concluding on October 15, 2015. A public scoping meeting was held on September 30, 2015, at

the Edward C. Little Water Recycling Facility, located at 1935 South Hughes Way, El Segundo, California. The NOP provided the public and interested public agencies with the opportunity to review the proposed Project and to provide comments or concerns on the scope and content of the environmental review document, including: the range of actions; alternatives; mitigation measures, and significant effects to be analyzed in depth in the EIR. In addition to this public scoping meeting, three additional outreach meetings were held: one for the environmental community on September 29, 2015; one for neighboring El Porto community residents within 300 feet of the proposed ocean water desalination facility site on September 29, 2015; and one for agencies and interested parties on September 30, 2015. These meetings were formatted as an informational open-forum where members of the environmental community, neighboring El Porto residents, public agencies, and interested parties/members of the public could learn about the proposed Project as well as orally present input directly to West Basin staff in an effort to assist in further refining the intended scope and focus of the EIR, as described in the NOP. A total of 19 comment letters were received in response to the NOP. The comment letters received during the NOP comment period, along with a summary of the issues raised during the public scoping meetings, are included in Draft EIR Appendix 1B.

Notice of Availability of the Draft EIR

The Notice of Availability (NOA) of the Draft EIR was posted on March 27, 2018, with the Los Angeles County Clerk-Recorder and filed with the Office of Planning and Research. The Draft EIR was circulated to federal, state, and local agencies and interested parties requesting a copy of the Draft EIR. The Draft EIR was also posted on West Basin's website online (http://westbasindesal.com/draft-eir.html). Copies of the Draft EIR were also made available to the public at the following locations:

- West Basin Municipal Water District (17140 South Avalon Boulevard, Carson, CA 90746)
- Carson Library (151 East Carson Street, Carson, CA 90745)
- Culver City Julian Dixon Library (4975 Overland Avenue, Culver City, CA 90230)
- El Segundo Public Library (111 West Mariposa Avenue, El Segundo, CA 90245)
- Gardena Mayme Dear Library (1731 West Gardena Boulevard, Gardena, CA 90247)
- Inglewood Public Library (101 West Manchester Boulevard, Inglewood, CA 90301)
- Malibu Library (23519 West Civic Center Way, Malibu, CA 90265)
- Manhattan Beach Library (1320 Highland Avenue, Manhattan Beach, CA 90266)
- Palos Verdes Peninsula Center Library (701 Silver Spur Road, Rolling Hills Estates, CA 90274)
- Redondo Beach Main Library (303 North Pacific Coast Highway, Redondo Beach, CA 90277)
- West Hollywood Public Library (625 N San Vicente Boulevard, West Hollywood, CA 90069)

Given the scale and complexity of the Project, the public review period was extended by West Basin, from the initial 60 days to a total public review period of 91 days, beyond the legal obligation of 45 days under CEQA requirements. The public comment period concluded on June 25, 2018 at 5:00 p.m. CEQA Guidelines Section 15087(a) requires that a Lead Agency provide notice of availability of a Draft EIR in at least one of three ways: (1) publication in a newspaper; (2) physical posting of the notice where the project would be located; and (3) direct mailing to the owners and occupants of property contiguous to the project's location. As the Lead Agency, West Basin exceeded these CEQA public notification requirements in the following ways: produced press releases; published newspaper ads/legal notices in 12 newspapers; conducted a radius mailing of owners and occupants up to 1,500 feet from the project site; mailed the NOA to approximately 213 public agencies, stakeholders, and interested parties; and posted a large poster board of the NOA at the project site's southern boundary at the intersection of 45th Street and Ocean Drive in Manhattan Beach.

Draft EIR Public Meetings

During the Draft EIR public review period, West Basin held two public meetings, on April 25, 2018, and May 12, 2018, to provide Project information and receive public comments on the Draft EIR. At the public meetings, a number of technical experts who were involved in preparation of the Draft EIR were available at technical stations to engage with and answer questions from interested parties. Additionally, West Basin staff gave a plenary overview presentation on the Project and the associated environmental impacts. Following the presentation at the public meetings, West Basin management and staff engaged in a plenary question and answer session with attendees and explained that questions asked and answered at the meetings would not be included in the Final EIR. Formal comments would continue to be accepted via an online Public Comment Form or by email as explained at the meeting, and attendees were encouraged to submit written comments. As a result, the comments responded to in this Final EIR include all written comments received on the Draft EIR via email or in writing. The questions received at the public meetings, which were submitted via speaker cards, were all responded to verbally at the public meetings and therefore are not included as official comments in the Final EIR.

A cumulative total of 151 attendees signed in upon arrival to the public meetings. Attendees included representatives or staff from elected official offices, federal agencies, and community organizations.

Potential Final EIR Certification and Approval

CEQA Guidelines Section 15088 requires that West Basin, as the Lead Agency, evaluate and prepare written responses to comments on significant environmental issues received from parties that have reviewed the Draft EIR. The written responses to commenting public agencies shall be provided at least 10 days prior to the certification of the Draft EIR (CEQA Guidelines Section 15088(b)).

Prior to considering the Project for approval, West Basin, as the Lead Agency, will review and consider whether the information presented in the Final EIR:

a. Has been completed in compliance with CEQA

b. Has been presented to the Board of Directors as the decision-making body for the Lead Agency, which reviewed and considered it prior to approving the Project

c. Reflects West Basin's independent judgment and analysis

If and when the Final EIR is certified, the West Basin Board of Directors may proceed to consider Project approval (CEQA Guidelines Section 15090). Prior to approving the Project, West Basin must make written findings and adopt statements of overriding considerations for each unmitigated significant environmental effect identified in the Final EIR in accordance with Sections 15091 and 15093 of the CEQA Guidelines.

If the Project is approved and the Final EIR is certified, West Basin will file a Notice of Determination (NOD) pursuant to Section 15094 of the CEQA Guidelines with the Office of Planning and Research and the Los Angeles County Clerk.

10.3 Comments Received on the Draft EIR

Table 10-1 includes a comprehensive list of all comments received on the Draft EIR. As described in Section 10.1, state agency comments and responses are included in Section 13; local agency comments and responses are included in Section 14; Tribal Nation comments and responses are included in Section 15; organization comments and responses are included in Section 16; and individual comments and responses are included in Section 17. Comment letters are generally organized alphabetically rather than by the date they were received. A total of 213 comment letters were received on the Draft EIR.

TABLE 10-1
LIST OF DRAFT EIR COMMENT LETTERS

Letter Code	Commenting Party	Date Received
State Agency		
CALT	California Department of Transportation	May 24, 2018
CCC	California Coastal Commission	June 22, 2018
CDFW	California Department of Fish and Wildlife	June 25, 2018
CEC	California Energy Commission	June 25, 2018
DTSC	California Department of Toxic Substances Control	June 20, 2018
LARWQCB	Los Angeles Regional Water Quality Control Board	June 25, 2018
NAHC	Native American Heritage Commission	May 23, 2018
SLC	California State Lands Commission	June 25, 2018
Local Agency		
CARS	City of Carson	June 25, 2018
CULV	City of Culver City	June 4, 2018

Letter Code	Commenting Party	Date Received
ELSEG	City of El Segundo	June 21, 2018
HAW	City of Hawthorne	May 21, 2018
HBCH	City of Hermosa Beach	June 25, 2018
MLBU	City of Malibu	June 25, 2018
MBCH	City of Manhattan Beach	April 24, 2018
MBCH2	City of Manhattan Beach 2	May 1, 2018
MBCH3	City of Manhattan Beach 3	June 25, 2018
RBCH	City of Redondo Beach	May 8 , 2018
LADPR	Los Angeles County Department of Parks and Recreation	May 24, 2018
LADWP	Los Angeles Department of Water and Power	June 25, 2018
LASAN	Los Angeles Bureau of Sanitation	April 9, 2018
MWD	Metropolitan Water District	June 25, 2018
SCAQ	South Coast Air Quality Management District	May 15, 2018
SCG	SoCal Gas	April 19, 2018
SCG2	SoCal Gas 2	July 17, 2018
Tribe		
GK	Gabrieleno Band of Missions Indians - Klzh Nation	April 1, 2018
GK 2	Gabrieleno Band of Missions Indians - Klzh Nation 2	April 4, 2018
Organization		
BP	Brenntag Pacific	April 23, 2018
EJ	Environmental Justice, Community, and Indigenous Groups	June 25, 2018
EOGB	Environmental Organizations and Green Business	June 25, 2018
GSW	Golden State Water Company	June 25, 2018
HTB	Heal the Bay	June 25, 2018
LAW	Los Angeles Waterkeeper	April 27, 2018
LAW2	Los Angeles Waterkeeper 2	June 25, 2018
NRG	NRG Energy, Inc.	June 25, 2018
OFSP	Ocean Front Strand Properties	May 23, 2018
SCLA	Sierra Club Angeles Chapter	June 21, 2018
UPRR	Union Pacific Railroad	May 25, 2018
Individual		
ABD	Abdelnur, Diego	April 25, 2018
ADA	Adams, Gladi	March 29, 2018
AFF	Affonso, Jane	May 1, 2018
AHE	Ahearn, Grant and Lynn	April 24, 2018
ALV	Alvarez, Jose and Liz	April 6, 2018
ANO	Anonymous	May 12, 2018
ARE	Arensdorf, Karen	April 11, 2018

Letter Code	Commenting Party	Date Received
ASH	Ashouri, Aida	June 25, 2018
BAC	Bachelder, Laura	March, 29, 2018
BAR	Barisa, Bart	May 12, 2018
BAUJ	Baumann, James	April 6, 2018
BAUL	Baumann, Liane	April 10, 2018
BECB	Becker, Bill	June 22, 2018
BECR	Becker, Richard	April 23, 2018
BES	Beswick, Paul	June 20, 2018
BOO	Boone, Peter	April 26, 2018
BOR	Boroch, Frank	April 7, 2018
BRAD	Brady, Theresa	June 25, 2018
BRAI	Braitman, Samuel J.	April 6, 2018
BRAU	Braunecker, Bonnie	June 21, 2018
BRAU2	Braunecker, Bonnie 2	June 21, 2018
BRI	Bringleson, Niklas	April 26, 2018
BUE	Bueltel, Michelle	April 10, 2018
CHA	Chang, Peter	April 6, 2018
CHR	Christopher, D.	April 25, 2018
CLA	Clayton, Ben	June 20, 2018
COC	Cochran, Brian	May 7, 2018
COC2	Cochran, Brian 2	June 20, 2018
COHJ	Cohen, Julia	April 25, 2018
COHS	Cohen, Stephen	May 14, 2018
CON	Constant, Terry	April 29, 2018
CROC	Croce, Renee	April 7. 2018
CROF	Croft, Amy	June 21, 2018
CUN	Cunningham, Glenn E.	May 16, 2018
DAV	Davidov, Thomas	April 25, 2018
DEF	DeFrank, Victoria Lynn	June 21, 2018
DEL	Delk, Patricia	March 28, 2018
DOD	Dodd, Clinton D.	June 8, 2018
DOL	Doll, Dina	May 7, 2018
DUN	Dunlap, Lesley	April 7, 2018
DUN2	Dunlap, Lesley 2	May 15, 2018
EVE	Everts, Conner	April 25, 2018
FEA	Feakins, Sarah	June 23, 2018
FER	Ferniany, Michael	March 29, 2018
FON	Fontana, Barbra	April 24, 2018
FOR	Forrest, Christopher	April 26, 2018
FRAN	Francois, Dean	April 25, 2018

Letter Code	Commenting Party	Date Received
FRAN2	Francois, Dean 2	April 25, 2018
FRAS	Fraser, Robert	April 5, 2018
FREE	Freeman, Robert	June 22, 2018
FREG	Frego, Scott	June 25, 2018
GAL	Gallman, Robert	April 12, 2018
GILM	Gilmer, Carrie	April 24, 2018
GIL	Gilmoure, Steve	April 6, 2018
GIL2	Gilmoure, Steve 2	April 7, 2018
GRA	Grant, Margaret	June 18, 2018
GUR	Gurewitz, David	April 26, 2018
GUT	Gutierrez, Felipe	June 20, 2018
HARD	Hardin, Mary	May 25, 2018
HAR	Harris, Susan	May 18, 2018
HIR	Hirsch, Emanuel	April 25, 2018
HOP	Hopwood, Marsha	May 12, 2018
JASJ	Jasaitis, Jay	March 28, 2018
JASJ2	Jasaitis, Jay 2	June 23, 2018
JASM	Jasaitis, Maria Dalia Sofija	June 20, 2018
JOH	Johnson, Dave	April 7, 2018
KAR	Karen	April 29, 2018
KEL	Keller, Harry E.	April 10, 2018
KEN	Kendall, Rebecca	June 24, 2018
KER	Kernan, Lindsey	May 4, 2018
KLA	Klafter, Aaron	April 12, 2018
KLI	Klink, Karen	May 29, 2018
KRE	Kreger, Michael	March 28, 2018
LEL	Lelchuck, Andrew	April 6, 2018
LIB	Libbey, Thomas	June 20, 2018
LOM	Lombard, David	June 20, 2018
LON	London, Janet	March 28, 2018
MAGG	Maggay, Kevin	April 30, 2018
MAGI	Magiawala, Dr. Kiran R.	April 25, 2018
MAL	Malpee, Peggy	April 11, 2018
MARA	Marron, Andrea	April 6, 2018
MARA2	Marron, Andrea 2	April 25, 2018
MARJ	Marron, Joseph	June 21, 2018
MAS	Mason, Allan	April 30, 2018
MATL	Matlosz, Shawn	April 24, 2018
MATT	Matthes, Ella	March 30, 2018

Letter Code	Commenting Party	Date Received
MCM	McManis, Craig	March 28, 2018
MCM2	McManis, Craig 2	June 20, 2018
MCP	McPherson, Rachel	June 25, 2018
MER	Merkin, Arthur	May 2, 2018
MIC	Michel, Suzanne	May 26, 2018
MIL-Z	Miller-Zarneke, Tracey	June 25, 2018
MILE	Miller, Emmett	April 7, 2018
MILM	Millington, Manuela	May 25, 2018
MIT	Mitchell, Jane	April 25, 2018
MOE	Moe, Annelisa	April 25, 2018
MOI	Moir, Elizabeth	May 12, 2018
MOO	Moore, Lynne	June 12, 2018
MURE	Munillo, Esteban	March 28, 2018
MURS	Steve Murillo	April 25, 2018
MURS2	Murillo, Steve 2	April 25, 2018
MURS3	Murillo, Steve 3	April 25, 2018
MUP	Murphy Perkins, Bob & Michelle	June 24, 2018
MYE	Myers, Frank	June 21, 2018
NEA	Neal, Jan	June 25, 2018
NEE	Neel, Sean	March 28, 2018
NEL	Nelson, Tennyson	May 8, 2018
NOL	Nolan, Phoebe	April 7, 2018
NOR	Norrie, Robert	April 25, 2018
ORA	Oram, Kelly	April 24, 2018
ORT	Ortega, Evan	April 25, 2018
PAN	Pancake, Jerry	April 6, 2018
PAN2	Pancake, Jerry 2	April 25, 2018
PAR	Parker, Kathleen	May 16, 2018
PER	Perelson, Cindy	April 26, 2018
PHE	Phelps, Andrew	March 27, 2018
PHE2	Phelps, Andrew 2	June 25, 2018
PHI	Phillips, Wendy	June 25, 2018
POL	Pollard, Linda	June 20, 2018
POM	Pompilio, Joie	April 26, 2018
POP	Pope, Mary	June 09, 2018
RAM	Ramirez, John	April 26, 2018
REN	Reniche, Michele	May 9, 2018
RIZ	Rizzi, Joseph	March 30, 2018
RIZ2	Rizzi, Joseph 2	April 23, 2018

Letter Code	Commenting Party	Date Received
SAB	Sabosky, Terri	March 28, 2018
SAC	Sackett, Amanda	April 25, 2018
SALA	Salas, Steve	June 18, 2018
SALO	Salonen, Laura	April 7, 2018
SBE	Sberna, Angelina	May 14, 2018
SCHR	Schroeder, Matthew	April 11, 2018
SCHU	Schultz, Janice	March 28, 2018
SCHUJ	Schulz, Juli	June 20, 2018
SCHUV	Schulz, Vic	March 28, 2018
SEN	Senser, Gary	April 11, 2018
SHA	Shamos, Elias	April 6, 2018
SIE	Sievers, Bob	March 28, 2018
SIE2	Sievers, Bob 2	March 28, 2018
SIEN	Sievers, Nate	April 25, 2018
SLO	Slominski, Marilyn	May 12, 2018
SMI	Smith, K.	April 10, 2018
SOD	Soderberg, Jane	April 26, 2018
SPI	Spiewak, Aaron	April 10, 2018
STAC	Stanich, Christy	May 12, 2018
STAJ	Stanich, Jim	May 12, 2018
STAN	Stansbury, Travis	April 12, 2018
STAU	Stauber, Nic	April 12, 2018
STAV	Stavropolous, Willliam	March 28, 2018
TEL	Tellis, Ed	May 7, 2018
TIS	Tisdale, Ralph	March 28, 2018
TIS2	Tisdale, Ralph 2	April 25, 2018
UGA	Ugarte, Gregory	May 25, 2018
UNG	Ungoco, Joseph	April 2, 2018
VAN	Van Neas, Debra	April 24, 2018
VIC	Vickers, Norman	April 12, 2018
WAL	Wald, Mark	April 24, 2018
WEI	Weinsheim, Kyle	May 7, 2018
WEN	Wenglikowski, Laura	April 25, 2018
WIC	Wickemeyer, Kelly	April 09, 2018
WILC	Wilcox, John	June 24, 2018
WIL	Williams, Tom	March 30, 2018
WIL2	Williams, Tom 2	March 31, 2018
WIL3	Williams, Tom 3	April 1, 2018
WIL4	Williams, Tom 4	April 25, 2018

Letter Code	Commenting Party	Date Received
WIL5	Williams, Tom 5	June 25, 2018
WIN	Wingate, Carol	April 25, 2018
WOO	Woodcock, Darryl	May 29, 2018
YOCO	Young, Colleen	June 25, 2018
YOJE	Young, Jefferson	April 25, 2018
YOJU	Young, Julie	April 25, 2018
ZAN	Zani, Chad	May 16, 2018
ZAR	Zaremski, Dr. Lori	April 25, 2018
ZAR2	Zaremski, Dr. Lori 2	April 25, 2018
ZUA	Zuanich-Ferrell, Jacqueline	April 26, 2018
ZUA2	Zuanich-Ferrell, Jacqueline 2	June 20, 2018

SECTION 11
Refinements to the Project Description

11.0 Introduction

Following the publication and circulation of the Draft Environmental Impact Report (Draft EIR), and after considering and responding to agency and public comments on the Draft EIR, West Basin Municipal Water District (West Basin) refined the Project Description. The revisions to the Draft EIR Section 3, *Project Description*, are described below. The revisions to the Project Description do not change the Draft EIR conclusions, nor do they result in any new impacts, impacts that are more adverse or severe than disclosed in the Draft EIR, or impacts that warrant consideration of additional mitigation measures or alternatives to reduce or avoid new or more adverse impacts. As such, recirculation of the Draft EIR is not necessary.

The following key revisions have been incorporated into the Final EIR Project Description:

- **Ocean Concentrate Discharge Facilities**: The Final EIR includes a linear diffuser design to replace the rosette diffuser design described in the Draft EIR. Revisions to the description of the discharge components for the Local Project, and for the Regional Project, are reflected in Sections 3.4.1 and 3.4.2, respectively. Revisions to the description of the construction methods for the Local Project discharge components, and for the Regional Project discharge components, are reflected in Sections 3.5.1 and 3.5.2, respectively.
- **Concrete Plug Removal**: As part of the decommissioning of the El Segundo Generating Station, NRG has plugged the existing 12-foot diameter intake and discharge tunnels with concrete. Before West Basin can utilize the tunnels, the concrete plugs must be removed. A description of the demolition and removal of the concrete plugs is reflected in Section 3.5.1.

The revised Section 3, *Project Description*, is presented below in its entirety. In addition to the revisions to the diffuser system and the description of the concrete plug removal activities, other clarifications to the Project Description were made as a result of agency and public comments on the Draft EIR. West Basin also made revisions for clarity. The revised Section 3, *Project Description*, provides the reader with a stable and finite Project Description that includes and accurately describes all elements of the Project. Text that is deleted from the Project Description is shown in ~~strikethrough~~, and new, or added text is shown as <u>underlined</u>.

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SECTION 3
Project Description

3.1 Project Overview

West Basin's proposed Ocean Water Desalination Project (Project) would produce 20 million gallons per day (MGD) of potable water supply (Local Project), with potential expansion to up to 60 MGD (Regional Project). The Local Project would provide approximately ~~11~~ 10 percent of West Basin's water demand, relieving pressure on the heavily constrained supply of imported water. The new water source would increase the overall water supply reliability, drought resiliency, and water security in the region. The Local Project would be used to serve communities within West Basin's service area. The Regional Project would be initiated by West Basin in partnership with other local and regional partners, such as Metropolitan Water District of Southern California (MWD), to meet the demands and increase water supply reliability for a larger portion of the Southern California community. This Project Description describes the Local Project (20 MGD) at a "project level," pursuant to CEQA Guidelines Section 15161, and the Regional Project (60 MGD) at a "program level," pursuant to CEQA Guidelines Section 15168, assuming implementation of the Local Project has already occurred.[1] The Ocean Water Desalination Project consists of:

- A new **ocean water desalination facility** consisting of a pretreatment system and a reverse osmosis (RO) system to be constructed at the existing El Segundo Generating Station (ESGS) site that would produce 20 MGD (expandable to 60 MGD) of potable drinking water.
- An **ocean water intake system and brine discharge system** consisting of repurposing and upgrading existing offshore intake and discharge tunnels that would deliver raw ocean water to the desalination facility and discharge concentrated seawater back to the ocean.
- A **desalinated water conveyance system** to be constructed inland of the ESGS to deliver potable water produced at the new desalination facility to the local and regional water supply systems.

These proposed facilities are described in detail below. Since these are preliminary designs based on current conditions, the details may change as the designs become finalized.

[1] Because some of the Regional Project's specific details have not yet been determined, the Regional Project is evaluated at a programmatic level. However, where available, this EIR includes substantial detailed descriptions and analyses, and sufficiently conservative assumptions (as described in Section 3.2 and each impact section) such that the Regional Project's environmental impact analysis should minimize the scope of any further CEQA review of the Regional Project.

3.2 Project Location

The new ocean water desalination facility would be constructed at the existing 33-acre ESGS site, an industrial property located on the Santa Monica Bay coast at 301 Vista del Mar, El Segundo, California. The ESGS property is located in the South Bay region of Los Angeles County within West Basin's service area, just south of Los Angeles International Airport (LAX), as shown in **Figure 3-1**. West Basin provides potable water to 9 retailers (including investor-owned utilities as well as City and County Water Departments) that service 17 cities in southern Los Angeles County in the area shown in **Figure 3-2**.

Surrounding land uses include Santa Monica Bay to the west, Vista del Mar and the Chevron El Segundo Oil Refinery to the east, the Chevron Marine Terminal to the north, and 45th Street and the city of Manhattan Beach to the south. Other notable nearby land uses include the Los Angeles Department of Water and Power's Scattergood Generating Station located approximately 0.25 miles north, the City of Los Angeles–owned Hyperion Water Reclamation Plant located 0.5 miles north, and LAX located approximately 2.5 miles north. Recreational areas adjacent to the Project include the Marvin Braude Bike Trail and public beaches to the west.

Access to the ESGS is provided via Vista del Mar and a private gated access road located approximately 750 feet north of 45th Street. Existing ground elevations at the site slope from east to west from 90 feet to 20 feet above mean sea level.

Within the ESGS facility there are two potential locations for the proposed Project: one located at the northern portion of the ESGS site (North Site), and the other at the southern portion (South Site). The South Site is an approximate 13-acre area that was the previous site for two large above-ground fuel oil tanks, which were removed in 2013. The ESGS North Site is an approximate 8-acre area located in the middle of the ESGS property, which was the previous site for two NRG Energy (NRG) conventional steam turbine units (Units 3 and 4) that were decommissioned (December 2015) but are still existing on-site. These existing power generating stations would need to be demolished prior to constructing the Project on the North Site. **Figure 3-3** shows the locations of the two proposed site alternatives within the ESGS property.

The ocean water intake and concentrate discharge tunnels proposed for utilization were installed in 1965 to supply cooling water to the power generating stations that have occupied the ESGS site. **Figure 3-4** shows the location of the existing offshore tunnels.

Potable water produced at the facility would be conveyed to the existing local water distribution system through a new conveyance system. The new conveyance system would connect to the local distribution system serving the cities of El Segundo, Redondo Beach, Lawndale, Gardena, and Hawthorne and portions of unincorporated Los Angeles County, and/or MWD's feeder system. Proposed distribution pipeline alignments and pump station locations are shown in **Figure 3-5**. A schematic concept of the entire desalination process is included in **Figure 3-6**.

3.3 Project Objectives

West Basin's goal is to guarantee future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan. The need for water supply reliability has been highlighted by increased frequency and prolonged duration of recent droughts and decreasing reliability of imported water supplies.

The Project objectives of West Basin's proposed Ocean Water Desalination Project are to:

- Diversify West Basin's water source portfolio to increase reliability in the near and intermediate term (5–15 years) and the long term (15–30 years) while reducing reliance on imported water.
- Improve water security through West Basin's increased local control of water supplies and infrastructure.
- Improve West Basin's local control of future water costs and long-term price stability.
- Improve climate resiliency by developing a water source that is less susceptible to hydrologic variability.
- Develop a potable water supply that is economically viable and environmentally responsible.

3.4 Project Components

3.4.1 Local Project

Ocean Water Desalination Facility

The proposed desalination facility would consist of multiple buildings and structures supporting the desalination process. The basic components would include an intake pump station, a pretreatment system to remove large particles and suspended solids, an RO desalination treatment to remove dissolved salt from the seawater, post-treatment water conditioning facilities, final product water storage (referred to as a clearwell), desalinated water pump station, and brine discharge pump station. **Figure 3-7** and **Figure 3-8** provide process flow charts for the Local Project. Residuals handling and disposal facilities would be needed to accommodate backwash water and solids from the treatment and membrane cleaning processes. In addition, appurtenant facilities, for storing and handling chemicals and for generating and/or receiving and distributing power, and an Administration/Operations Building would be required. A new access road would be constructed to provide access from the north. **Table 3-1** lists primary components of the treatment facility.

Figure 3-9 and **Figure 3-10** show the two possible desalination facility layouts that could be used for the Local Project at the ESGS South Site and ESGS North Site. The Local Project would require 45 MGD of ocean water to meet the 20 MGD product water volume. The tallest building would be approximately 40 feet from the existing ground elevation for ESGS South Site and

65 feet for the ESGS North Site. **Figures 3-11** through **3-14** illustrate approximate building heights and ground elevations.

TABLE 3-1
LOCAL PROJECT DESALINATION FACILITY UNIT PROCESS / BUILDING FOOTPRINT AT ESGS SOUTH SITE AND NORTH SITE

Facility	South ESGS Site Footprint (SF)	North ESGS Site Footprint (SF)
Intake/Discharge Vault	2,450	2,450
Intake Pump Station	3,150	3,150
Pre-Treatment Option: High-Rate Granular Media Filters	NA[1]	NA[1]
Pre-Treatment Option: HRGMF Filtrate Storage Basin	12,150	12,800
Pre-Treatment Option: Membrane Filtration	13,770	13,770
Pre-Treatment Option: MF Filtrate Storage Basin	13,770	13,770
Pre-Treatment Option: MF Filtrate Channel	1,500	1,500
Reverse Osmosis	NA[1]	NA[1]
Permeate Tank	3,600	3,600
Calcite Contactors	12,750	9,500
Chemical Handling & Residuals Management	NA[1]	NA[1]
Product Water Storage Basin	20,300	20,300
Desalinated Water Pump Station)	5,000	4,200
Surge Tanks	3,850	3,850
Waste Backwash Water Equalization	9,900	9,450
WBW Treatment (Clarifier)	4,125	4,900
Treated WBW Storage	4,125	4,550
Discharge Storage Basin	1,200	3,000
Discharge Pump Station	NA	3,500
Electrical Substation Phase 1	11,340	10,500
Joint Administration/Operations	15,000	15,000

NOTES:
[1] Located above or beneath other facilities.

Intake Pump Station

Ocean water would be pumped from the existing ESGS tunnel via a system of onshore pipelines and an intake pump station. The intake tunnel enters a belowground rectangular intake vault near the end of the tunnel within the ESGS site. Vertical intake pumps, drawing water directly from the wet well, would pump the water into the intake pipeline system. For the Local Project, this intake pump station would have a pumping capacity of 42 to 45 MGD (depending on the ultimate process design), and a combined horsepower (HP) of approximately 750 HP (for a desalination facility at the ESGS North Site) to 950 HP (for a desalination facility at the ESGS South Site), plus appropriate standby capacity. For the ESGS South Site, the ocean feedwater would be

conveyed directly to pretreatment system facilities via one or two parallel buried high-density polyethylene (HDPE) pipelines 2,100 feet in length parallel to and inland of the bike path. For the ESGS North Site, feedwater would be pumped directly into adjacent pretreatment facilities.

Pretreatment Facilities

Ocean water received from the intake system would be delivered to pretreatment facilities that consist of either high-rate granular media filtration followed by membrane filtration (HRGMF/MF) or granular media filtration (GMF). The HRGMF/MF preliminary treatment process (Figure 3-7) was pilot-tested by West Basin and produced effective and efficient pretreatment for the downstream MF processes; while the alternative GMF approach (without the MF treatment process; Figure 3-8) has been used with success in other large-scale desalination facilities, such as the Claude "Bud" Lewis Carlsbad Desalination Plant in San Diego County, California. Both employ periodic backwashing, using filtrate, and result in a waste stream that is 1 to 3 percent of the filtered flow. Initial mechanical screens or HRGMF would remove large suspended particles and algae larger than 100 microns. Low dosages of ferric-based coagulant (3 to 5 mg/L) may be dosed in the feedwater in response to raw water quality issues such as algal bloom events. Backwash water may be recovered back to the head of the pretreatment process to operate at essentially 100 percent recovery or may be discharged to the ocean through the discharge facility.

In the case of the HRGMF/MF approach (Figure 3-7), the HRGMF filtrate would be conveyed through the additional MF pretreatment. The MF pretreatment system would consist of a number of discrete process units housing hollow fiber membrane modules, valve manifolds, and connecting piping to direct the flow of feed, filtrate, cleaning solutions, backwash supply, backwash waste, and compressed air.

Accumulated solids would be removed from the MF membranes through the backwashing process, which is required to keep the membranes functioning properly. It may become necessary to routinely add hypochlorite to the backwash if there is an increase in organic or biological fouling to the membranes. This process would generate a backwash that would contain chlorine residuals requiring dechlorination. Other chemicals that may be used for cleaning MF systems typically include citric acid and caustic soda. All waste chemical cleaning solutions from the MF cleaning process would be collected in a holding tank. From there, the waste solutions would be pumped to a chemical waste neutralization system for treatment and disposal (see *Residuals Handling and Disposal*).

As an alternative to the HRGMF/MF pretreatment process, a GMF pretreatment system (Figure 3-8) may be employed. GMF pretreatment would replace the HRGMF/MF membranes with granular media filters consisting of deep bed gravity granular media filters arranged around a pipe gallery that would contain feed piping and valves, backwash, and surface wash piping and valves, filter control valves and compressed air piping and valves. The backwashing process would occur approximately once per day, resulting in a backwash stream that is approximately 3 percent of the filtered flow.

Reverse Osmosis Treatment Process

Desalination would be accomplished using RO, a process which pushes water through semi-permeable membranes to remove dissolved salts, producing a purified permeate stream and a concentrated brine stream. The proposed process would include a first-pass RO membrane system treating the pretreated ocean water supply, and a second-pass system treating a portion[2] of the product water from the first-pass system. Recovery in each RO pass (the amount of permeate extracted per gallon of feedwater) is expected to be 50 percent for the first-pass system and 90 percent for the second-pass system.

The second-pass system is intended to assist in additional removal of monovalent ions, such as boron and chloride. The final product water will meet a target boron concentration of 0.5 mg/L, a bromide concentration level of less than 0.3 mg/L, and a chloride concentration level of less than 100 mg/L. Caustic and antiscalant chemicals (approved for use in potable water treatment facilities) may be added to the second-pass RO feed to allow the treatment process to operate at high recovery without causing scaling issues.

The RO system would include four individual first-pass process trains,[3] and two second-pass process trains, with each process train being composed of a, high-pressure pump, membrane elements in 8-inch-diameter pressure vessels mounted on racks (arrays), and connecting piping and valve manifolds for feed, permeate, cleaning, and flush supplies. The first-pass RO process would include energy recovery devices (ERDs). Centralized membrane cleaning systems would serve the multiple trains and a 500,000-gallon permeate storage tank (outside of the RO Building) would be provided for flushing and to provide a source of permeate to the RO system during shut-downs. All RO equipment would be housed in a single large building.

Antiscalant may also be added to the first-pass RO feedwater to protect the RO process membranes. A portion of the permeate water from the first-pass RO would be further processed by the second-pass RO treatment. The second-pass RO process permeate would flow through calcite contactors, then blend with the balance of first-pass permeate. Approximately 24 percent of the final product would receive second-pass treatment, on average. Concentrate from the RO system would be permitted for discharge to the existing ESGS discharge tunnel.

Similar to MF membranes, RO membranes are periodically cleaned with chemicals every 4 to 12 months. Alkaline solutions would be used periodically to remove silt deposits and biofilms from membranes, while acidic solutions would be applied to dissolve metal oxides or scales. Cleaning solutions often contain additional chemicals to improve membrane cleaning, including alkaline detergents (e.g., dodecyl sulfate, dodecyl sulfonate, which are approved for use in potable water treatment systems).

All RO chemical systems would be housed within the RO Building. All waste chemical cleaning solutions would be collected in a holding tank. From the holding tank, the waste solutions would

[2] On an annual average, approximately 24 percent of the total product would come from the second pass. During warm summer months, approximately 40 percent of the total product water would be from the second-pass RO.

[3] "Train" is industry terminology for one of two or more complete RO installations, including membranes and high-pressure pump operating in parallel.

be transferred to the chemical waste neutralization system in the Chemical/Residuals Handling Building and then pumped to one of the potential sanitary sewer systems.

Post-Treatment of Permeate

Following the Second-Pass RO system, permeate water would flow to calcite contactors for stabilization, and then be blended with the first-pass RO permeate bypass stream. Subsequently, post-treatment includes pH adjustment and disinfection with sufficient contact time to meet pathogen destruction and inactivation requirements per the California Division of Drinking Water pursuant to state and federal drinking water regulations.

Post-treatment would add calcium and alkalinity into the permeate water by first adding carbon dioxide to the permeate, and then allowing it to flow through a calcite contactor before adding caustic soda. The post-treatment process would be assessed during final design and implementation to ensure proper dosage selection and operational control for the proposed facility.

Following stabilization, the pH of the water would be adjusted through the addition of sodium hydroxide (caustic soda). Sodium hypochlorite and ammonia would be used to produce chloramine for disinfection purposes. Chloramine would be added ahead of the product water storage tank for disinfection at a dosage rate necessary to achieve pathogen inactivation and destruction. For the Local Project, the product water storage tank has been sized for 3.4 million gallons (MG) to provide 4 hours of contact time plus approximately 0.4 MG of operational storage for a total of 3.8 MG. The 4 hours of contact time is provided to achieve the aforementioned disinfection. At the outlet of the tank, but prior to distribution, additional chloramine would be added to restore the chloramine residual to targeted levels.

Desalinated Water Storage and Pumping

For the Local Project, the 3.8 MG product water storage tank (referred to as a clearwell) would be positioned beneath the RO Building and connected to the desalinated water pump station. The desalinated water pump station would pump desalinated water into a new pipeline, which would convey the desalinated water to the distribution system. The desalinated water pump station would use vertical turbine pumps with floor-mounted motors to pump desalinated water into a new pipeline that would convey the desalinated water to the distribution system. For the 20 MGD Local Project, the 22.5 MGD pump station would operate at approximately 2,400 HP (1,700 KW). Surge-control facilities, consisting of one or more hydro-pneumatic tanks, would be required to protect the pump station and pipeline system from hydraulic transients and surges. The surge tanks would be connected to the discharge of the pump station and would be located next to the pump station.

Residuals Handling and Disposal

Residuals handling facilities would include waste backwash treatment, solids handling, and chemical waste neutralization systems.

Waste Backwash Treatment

The waste washwater from initial screening and pretreatment backwashes would flow by gravity to an equalization basin located beneath the Chemical/Residuals Handling Building. From this basin, flow would be pumped at a constant rate to a clarifier equipped with settling plates for solids removal. Ferric chloride (coagulant) is added in the waste washwater treatment. The clarified effluent would either be pumped to the head end of the plant (i.e., waste washwater recycling) or be permitted for pumping to the discharge pipeline where it would mix with RO brine and be discharged to the existing ESGS discharge tunnel.

Solids Handling and Treatment

The solids removed in the backwash water process would be pumped to centrifuges for dewatering. A polymer may be used in the centrifuge process. The centrifuge facilities would be located in the Chemical/Residuals Handling Building. The dewatered solids would be collected and hauled for disposal or beneficial reuse where possible. Generation of centrifuge cake solids would vary according to seasonal ocean water quality variations, but is expected to be in the range of 0.05 to 0.2 cubic yards (CY) per million gallons of desalinated water produced.

Chemical Waste Neutralization

Membrane cleaning operations would produce approximately 500,000 gallons per year of waste stream for the Local Project. The waste stream would be captured in on-site holding tanks and neutralized and then pumped to the existing sanitary sewer system, which would be to either city of El Segundo or city of Manhattan Beach local sanitary sewer lines.

Chemical Storage and Handling

Chemicals required for the treatment process would be stored on-site and used for control of biological fouling, pretreatment, membrane cleaning, and post-treatment. These chemicals typically include:

- Sodium hypochlorite, which may be used periodically to shock-chlorinate the intake piping system and would be used in the chemical enhanced backwash (CEB) for the MF process, and in the calcite backwash stream.
- Sodium bisulfite, which would be added at the intake pump station to neutralize the chlorine residual that remains after shock chlorination, and for neutralizing chlorine in the spent CEB and calcite backwash.
- Ferric-based coagulant, which would be added routinely during the flocculation process as part of the GMF pretreatment train, or intermittently to the HRGMF and MF processes.
- Citric acid and other proprietary chemicals (approved for use in potable water treatment facilities), for membrane cleaning operations.
- Carbon dioxide and calcite, for post-treatment.
- Ammonia (aqueous form) and sodium hypochlorite, to preform chloramine for pretreatment (optional) and disinfection.
- Caustic soda (sodium hydroxide) for pH adjustment of the second-pass RO feed water and desalinated water.

- Proprietary antiscalant chemicals (approved for use in potable water treatment facilities) for the RO process.
- Polymer (i.e., binding agent) for the centrifuge process (filter backwash solids).

Table 3-2 lists the chemicals, their application, ~~dosages, and annual usage~~and storage for the Local and Regional Projects. Bulk chemicals would be stored in gaseous form (carbon dioxide), solid form (calcite), and liquid form (all other chemicals.) All chemicals would be safely stored in bulk on-site in the Chemical/Residuals Handling Building or the Pretreatment Building and RO Building. The bulk storage systems would be designed to provide 10 to 20 days of storage at average dosage rates. The bulk storage would vary according to chemical, and would include small drums and totes (less than 200 gallons), fixed tanks and bins (1,000–15,000 gallons each), and mobile (trailer-mounted) horizontal tanks (up to 7,500 gallons each). Each bulk liquid chemical storage area would be equipped with a separate chemical spill containment area for each chemical capable of containing 110 percent of the maximum amount of that liquid chemical stored on-site. Chemical transportation, storage, and use would comply with state and federal requirements.

TABLE 3-2
DESALINATION FACILITY CHEMICALS

Chemical	Purpose	Local Project Storage Capacity (gallons)	Regional Project Storage Capacity (gallons)
Sodium Hypochlorite	Intake Shock Chlorination Preformed Chloramine for bio-control Post-Treatment Disinfection	16,000 ~~11,000~~	48,000 ~~33,000~~
Sodium Bisulfite	Dechlorination of shock chlorination Dechlorination of MF Filtrate Concentrate Discharge	5,000 ~~4,000~~	15,000 ~~12,000~~
Aqueous Ammonia ~~Sodium Hypochlorite~~	Preformed Chloramine for bio-control Post-Treatment Disinfection	3,000 ~~294,000~~	9,000 ~~882,000~~
Ferric Chloride ~~Aqueous Ammonia~~	Pretreatment Waste Backwash Treatment ~~Preformed Chloramine for bio-control~~	6,000 ~~53,000~~	18,000 ~~159,000~~
Antiscalant ~~Ferric Chloride~~	First Pass RO Second Pass RO ~~Pretreatment~~	1,500 ~~118,000~~	4,500 ~~354,000~~
Sodium Hydroxide ~~Sodium Bisulfite~~	Second Pass RO Post-Treatment ~~Dechlorination of MF Filtrate~~	10,000 ~~8,000~~	30,000 ~~24,000~~
Polymer ~~Antiscalant~~	Waste Backwash Treatment – Centrifuge ~~First-Pass RO~~	100 ~~33,000~~	300 ~~99,000~~
~~Antiscalant~~	~~Second-Pass RO~~	~~2,000~~	~~6,000~~
~~Sodium Hydroxide~~	~~Second-Pass RO~~	~~48,000~~	~~144,000~~
~~Ferric Chloride~~	~~Waste Backwash Treatment~~	~~12,000~~	~~36,000~~
~~Polymer~~	~~Waste Backwash Treatment - Centrifuge~~	~~30~~	~~90~~
~~Sodium Bisulfite~~	~~Concentrate Discharge~~	~~60,000~~	~~180,000~~

Carbon Dioxide (gas)	Post-Treatment	-	-
Calcite (solid)	Post-Treatment	-	-
~~Sodium Hydroxide~~	~~Post-Treatment~~	~~185,000~~	~~555,000~~
~~Sodium Hypochlorite~~	~~Post-Treatment Disinfection~~	~~72,000~~	~~216,000~~
~~Aqueous Ammonia~~	~~Post-Treatment Disinfection~~	~~13,000~~	~~39,000~~

Administration/Operations Building

The Administration/Operations Building would be a four-story, 60,000-square-foot facility to accommodate the desalination facility operational and administrative staff. West Basin and NRG would split use of the building. The building would include space for facility administration, visitors, and public water education. It would include a reception area (including public education exhibits), administrative offices, conference room, restrooms, an auditorium with capacity for approximately 50 persons, lunchroom/kitchen, operations center, lockers, and a maintenance workshop. Parking for this facility would be a single-level parking lot located adjacent to the Administration/Operations Building.

Power Supply and Distribution

Power to the ocean water desalination facility would be provided via overhead power lines directly from Southern California Edison (SCE). Electrical power supply required for the desalination facility, intake pump station, and desalinated water pump station is estimated at 12.4 MW for the Local Project; refer to **Table 3-3**. It is anticipated that the Local Project would require a total annual demand of 105,000 megawatt hours (MWh) per year. An electrical substation would be installed on site to lower the voltage from service voltage to site distribution voltage (Figures 3-9 and 3-10).

TABLE 3-3
LOCAL PROJECT SUMMARY OF ELECTRICAL POWER SUPPLY SUMMARY (MW)

Component	Local Project Estimated Power Supply Requirements (MW)
Intake and Pretreatment	0.9
First-Pass Reverse Osmosis[1]	8.3
Second-Pass Reverse Osmosis[1]	0.6
Post-Treatment	0.1
Distribution	1.7
Residuals and Other	0.4
Miscellaneous	0.1
Contingency	0.4
TOTAL	**12.5**

NOTES:
These are preliminary estimates for purposes of CEQA analysis and may be modified during the Project's regulatory permitting, final design, and/or construction process.
[1] Energy consumption is estimated based on the use of existing energy recovery device technology.

Utility Connections

Utility services for potable water, sewage, communications, and possibly natural gas would use the existing utility service connections at the ESGS North Site. Sanitary sewer connection would be made to either: (1) the existing sewer in Manhattan Beach that connects with the Los Angeles County Sanitation District's Joint Water Pollution Control Plant in Carson that discharges into the Pacific Ocean at Palos Verdes or (2) a connection would be installed to the existing sewer in El Segundo to the north that connects to the City of Los Angeles Hyperion Treatment Plant that discharges into the Santa Monica Bay. More information on utilities within the Project area is included in Section 5.16, *Utilities and Service Systems*.

Screened Ocean Intake and Concentrate Discharge

The proposed Project would intake ocean water and discharge concentrated ocean water via the existing 12-foot-inside-diameter ESGS tunnels (**Figure 3-15)**. The tunnels are approximately 23 feet apart on center (approximately 9 to 10 feet apart edge to edge) and are buried approximately 6 to 10 feet below the ocean floor. The northern tunnel is approximately 500 feet longer than the southern tunnel. The tunnels were previously used for cooling water intake and discharge associated with ESGS Units 3 and 4, which have been decommissioned.

The proposed Project would repurpose the northernmost of the two tunnels for the intake. This tunnel extends on a downward slope 2,579 feet from the existing onshore gate structure to a 26-foot by 20-foot vertical concrete intake structure on the ocean floor. The existing tunnel is equipped with four intermediate access structures (manholes) that extend above the ocean floor. The water depth at the existing intake structure is approximately 28 feet, and the top of the existing intake structure is approximately 15 feet below the water surface.

The southern tunnel would be repurposed for the discharge, and extends on a downward slope 2,078 feet from the existing onshore gate structure to a 26-foot by 20-foot vertical concrete discharge structure similar to the intake structure. The existing tunnel is equipped with three intermediate access structures (manholes) that extend above the ocean floor. The water depth at the existing discharge structure is approximately 28 feet and the top of the structure is approximately 20 feet below the water surface.

Ocean Intake Facilities

The existing intake structure is shown in **Figure 3-16a**. The Local Project would involve installation of five new 42-inch pipes inside the existing ESGS intake tunnel to convey ocean water to the desalination facility onshore.[4] Only two on these pipelines would be used for the Local Project, and the three additional pipelines would be installed for the Regional Project. The existing intake structure would be modified ~~with~~ by installing an extended header pipe connected to 12 new ~~wedgewire screen~~ risers ~~and screens~~. The Local Project would attach wedgewire screens to four of the risers and eight risers would remain capped (see **Figure 3-16b**). The tops of

[4] Installation of five pipelines within the existing intake tunnel represents the worst-case construction impact scenario given that the conditions of the tunnels are unknown. In the future, if West Basin determines that the conditions of the tunnels are adequate and chooses to use the existing tunnel without internal pipe installation, construction impacts and schedule would be reduced.

the wedgewire screens would be approximately 18 feet below the water surface and approximately 13 feet above the ocean floor.

To install the new intake screens at the terminus of the tunnel, the existing riprap around the concrete risers would be removed. The riprap ~~would~~ may be temporarily stockpiled on the ocean floor. If this is infeasible, the riprap would be stockpiled on barges which would then likely be towed to the POLA/POLB to store the riprap in harbor during construction. Dredging of the ocean floor would be required to expose the existing intake structure. A hole would be cut into the structure and the area in front of the structure would be dredged to allow for insertion of the five 42-inch pipes. Once the new pipelines were installed into the 12-foot-diameter tunnel, a new header would be installed at the end of the tunnel and intake risers and wedgewire screens would be attached. The new header would be secured to the ocean floor with new foundation piles. Once the wedgewire screens were attached to the new header, the header would be covered with the previously dredged material. The installation process is depicted in **Figure 3-16c**.

The Local Project would use only four risers and wedgewire screens. The new header would be equipped with eight additional risers that could accommodate up to 12 wedgewire screens in the future if the Regional Project is pursued, eliminating additional disturbance of the seafloor during underwater installation. The proposed intake structure for the Regional Project is depicted in **Figure 3-16d**.

The total intake flow for the Local Project would be 42.2 MGD if the plant uses GMF pretreatment and 45.4 MGD if the plant uses HRGMF/MF pretreatment. Although not required, if treated waste washwater is internally recycled (which would reduce the volume of treated waste washwater), the intake flow could be reduced to approximately 41 MGD.

The openings of the wedgewire screens would not exceed 1 millimeter (mm; or 0.04 inch) and would have a through-screen velocity of less than 0.5 feet per second (fps), consistent with the California Ocean Plan requirements for ocean water desalination facilities. This could be accomplished with up to four wedgewire screens in a cylinder (likely) or plate configuration with a total (combined) net open area of at least 140 square feet. The total gross screen area would be approximately three times the net open area, depending on the design and specified wire size. **Figure 3-17** shows a typical wedgewire screen.

West Basin Ocean Water Desalination Project/ 170766

SOURCE: ESA 2018

Figure 3-17
Typical (Cylindrical) Wedgewire Screen Design

NOTES: The wedgewire screen slot size is smaller than the thickness of a United States penny coin (1.52 millimeters).

To prevent excessive macro-biofouling inside the intake piping system from restricting or blocking water flow, biofouling control such as a shock chlorine solution may be used. If so, the solution would be applied via diffusers in the intake piping system between the screens and the intake pump station. This would require installation of a small-diameter (2-inch) pipe within ~~each of~~ the existing 12-foot-diameter ~~existing~~ intake tunnel and appropriately placed diffusers to deliver the solution into the intake piping system. The solution would be applied for 2 to 12 hours as often as two times per month. During this routine maintenance procedure, the chlorinated water would be dechlorinated with sodium bisulfite onshore and then go through the normal treatment processes.

Ocean Concentrate Discharge Facilities

The proposed Project would discharge continuous flows of concentrate (brine) from the RO process, and potentially also treated washwater from process washing operations, to the ocean. The existing discharge structure is shown in **Figure 3-18a**. The terminus of the discharge tunnel is approximately 500 feet closer to shore than the terminus of the intake tunnel. Similar to the intake system, five new 42-inch pipelines would be installed inside the existing ESGS discharge tunnel (see **Figure 3-18b**).[5] Only two pipelines would be used for the Local Project, and the three additional pipelines would be used to meet the demands of the Regional Project. Similar to the intake tunnel, to access the offshore terminus of the discharge pipeline, the existing riprap around the discharge tower would be removed and either temporarily stockpiled on the seafloor or stored in barges in harbor during construction. ~~cut and then cast aside; while the tunnel exposed through dredging.~~ The area ~~in front of~~ around the terminus structure would be dredged to allow for the new pipelines to be inserted into the tunnel and construction of the new discharge manifold.

Once the new pipelines are installed, a multi-port diffuser system consisting of a pipe manifold with multiple ~~duckbill~~ diffuser ports would be installed directly onto the side of the existing

5 Installation of five pipelines within the existing discharge tunnel represents the worst-case construction impact scenario given that the conditions of the tunnels are unknown. In the future, if West Basin determines that the conditions of the tunnels are good and chooses to use the existing tunnel without internal pipe installation, construction impacts and schedule would be reduced from what is analyzed in this EIR. As a result, this EIR analyzed the worst-case scenario.

discharge tower, and extend approximately 120 feet south. A total of fourteen 9-inch diameter diffuser ports would be installed during construction of the Local Project[6]. ~~existing discharge tower. A total of eight duckbill diffuser ports would be installed during construction of the Local Project; however, only four ports would be used for the Local Project (see Section 3.6 below). The remaining four ports would be needed for the Regional Project.~~ The diffuser ports would be positioned approximately 15.5 ft apart, with seven diffuser ports on opposite sides (14 total) of the discharge pipe at approximately 8 feet above the ocean floor and approximately 20 feet below the ocean surface (**see Figure 3-18c**). ~~The diffuser ports would be positioned 8 feet above the ocean floor and approximately 20 feet below the ocean surface (see **Figure 3-18c**).~~ They would be designed at a 60^{O} upward angle to allow for high dilution and rapid reduction of salinity, consistent with the California Ocean Plan. Once installed, the exposed end of the tunnel would be resealed and covered with the stockpiled dredge material and the stockpiled riprap would be put back around the discharge tower. ~~They would be designed at different angles for lower velocity discharge in order to substantially reduce turbulence mortality while achieving California Ocean Plan dilution requirements. Once installed, the exposed tunnel would be covered either with the cast aside dredge material.~~ The installation process is demonstrated in **Figure 3-18d**.

For the 20 MGD Local Project, the normal amount of flow to be discharged from the ocean desalination facility would be approximately 25.4 MGD, which would be composed of approximately 20.9 MGD of RO concentrate (brine) and 4.5 MGD of treated backwash water from the HRGMF and MF processes; the salinity of the combined flow would be 62.0 ppt. If washwater is internally recycled, the normal discharge flow would be reduced to approximately 21 MGD, composed of 20.9 MGD of RO brine and 0.1 MGD from the washwater recycling process (Figure 3-7); the salinity of the combined flow would be 67.8 ppt. If a GMF process is used for pretreatment, and washwater is not internally recycled, the typical total discharge volumetric flow would be approximately 22.2 MGD, composed of 20.9 MGD of brine and 1.3 MGD of treated backwash water from the GMF process. If washwater is internally recycled, the normal discharge flow would be approximately 21 MGD, composed of 20.9 MGD of RO brine and 0.1 MGD from the washwater recycling process (Figure 3.8). Provisions would be included for addition of sodium bisulfite in the concentrate discharge to remove any residual chloramine if/when preformed chloramine addition is in use as a bio-control method in the treatment process.

At times, during startup and infrequently during upsets while the plant is in operation, it may be necessary to bypass the entire treatment facility to discharge. While the expected frequency of such events is minimal at several times a year for a duration of approximately one to 24 hours each, the discharge system would be ~~Thus, the discharge system would be~~ sized for a peak discharge from the plant of 41 to 46 MGD.

Onshore Discharge Facilities

For a desalination facility located at the ESGS North Site, a 45 MGD discharge pump station (225 HP) would be required to deliver normal and bypass operation flows and to overcome

[6] The same fourteen diffuser ports would also be utilized for the Regional Project, although at a diameter of 13.9 inches to accommodate the higher flow rate.

friction losses in the discharge piping and diffuser nozzles. A desalination facility located at the ESGS South Site would be located at a higher elevation and the discharge could flow by gravity through the discharge piping to the discharge diffusers.

Desalinated Water Conveyance

New conveyance infrastructure would convey product water from the desalination facility to the existing distribution system that delivers potable water to local area and regional supply feeders owned by MWD. The closest regional potable water feeder system is MWD's West Basin Feeder located within Manhattan Beach Boulevard and the West Coast Feeder located within El Segundo Boulevard. Both of these regional feeders are fed by the MWD Sepulveda Feeder, which is located within the north-south Van Ness Avenue. The locations of existing MWD facilities are shown in Figure 3-5.

Several conveyance alignment alternatives may be used to convey desalinated water from the proposed desalination facility to MWD Feeders System, as shown in Figure 3-5. From the desalination facility, the new pipeline route would head north on Vista del Mar Boulevard, then slightly east on Grand Avenue, and continue east along El Segundo Boulevard to the intersection with Aviation Boulevard. Conveyance option alternative alignments could potentially include parallel alignments continuing along Grand Avenue, along Franklin Avenue, or through Chevron's property (see Figure 3-5). From the intersection of Grand Avenue and Aviation Boulevard, the proposed conveyance pipeline alignment would travel north on Aviation Boulevard to West 120th Street, where it would turn east and connect to the MWD Feeder at Van Ness Avenue. To connect the desalinated water conveyance pipeline to the west end of the existing West Basin Feeder, a pipeline would travel south on Inglewood Avenue from West 120th Street to Manhattan Beach Boulevard. Additionally, pipeline alternative alignments would be routed through various alternative routes to connections along the existing West Basin and West Coast Feeders. The various pipeline conveyance and alternative conveyance routes are shown in Figure 3-5.

3.4.2 Regional Project

The 60 MGD Regional Project would be an expansion of the initial 20 MGD Local Project that may occur in one or two increments (Phases 2 and/or 3). The Regional Project would add incrementally to the already constructed Local Project (see Figures 3-7 and 3-8, which also illustrate a process flow diagram for the Regional Project).

Ocean Water Desalination Facility

Figure 3-19 and **Figure 3-20** show two desalination facility layouts for the ESGS ~~South~~ North Site and the ESGS ~~North~~ South Site, respectively. The majority of the facilities needed to operate the Regional Project would already have been constructed as part of the Local Project, with several modifications required to operate the additional volume. Table 3-1 identifies facility components and square footage of the Regional Project additions.

Pretreatment Facilities

The same pretreatment processes with additional treatment capacity would be required for the Regional Project to support the 60 MGD Regional Project. If MF pretreatment is used, the MF Buildings for Phase 2 (40 MGD) and Phase 3 (60 MGD) could be constructed in a stacked configuration on the Phase 1 MF Building and MF Filtrate Storage Basin, respectively.

RO Treatment Process

The same pretreatment processes with additional treatment capacity would be required for the Regional Project to support the 60 MGD Regional Project. Each phase of expansion would require an additional set of first-pass RO and second-pass RO treatment equipment and buildings to support the subsequent production expansion of up to 40 MGD and 60 MGD Regional Projects.

Post-Treatment of Product Water (Permeate)

The same post-treatment processes with additional treatment capacity would be required for the Regional Project. For the 60 MGD Regional Project, the product water storage tank (referred to as a clearwell) has been sized for 10.0 MG to provide 4 hours of contact time plus approximately 1.4 MG of operational storage, for a total of 11.4 MG.

Desalinated Water Storage and Pumping

Desalinated water would be stabilized and dosed with chloramine before it enters the product water storage tank. For the 60 MGD Regional Project, two additional 3.8 MG storage tanks would be installed beneath the RO Buildings underneath the desalinated water pump station. The desalinated water pump station would use vertical turbine pumps with floor-mounted motors to pump desalinated water into a new pipeline that would convey the desalinated water to the distribution system. For the 60 MGD Project, the 67.5 MGD pump station would operate at approximately 7,200 HP (5,600 kW).

Surge control facilities, consisting of several hydro-pneumatic tanks, would be required to protect the pump station and pipeline system from hydraulic transients and surges. The surge tanks would be connected to the discharge of the pump station and would be located as close as possible to the pump station.

Residuals Handling and Disposal

Residuals handling processes for waste backwash treatment and solids residuals handling for the Regional Project would be the same except that the facilities would be incrementally larger than those described for the Local Project. Although the amount of CIP waste generated by the 60 MGD Project would be approximately three times more than for the Local Project, it is expected that CIPs would be staggered to limit the maximum daily discharge to be the same volume as for the Local Project.

Chemical Storage and Handling

Chemical storage and handling facilities for the Regional Project would be housed in the same facilities built by the Local Project. The footprint of the facilities would not change with the expansion to the Regional Project. On-site storage of chemicals would be sufficient for 10 to 20 days of usage at average dosage rates (see **Table 3-2**).

Administration/Operations Building

The Administration/Operations Building would not change with expansion to the Regional Project.

Power Supply and Distribution

Power to the desalination facility would be provided via overhead power lines directly from SCE. One or more electrical substations would be required to lower the voltage from service voltage to site distribution voltage. Electrical power supply required for the desalination facility and ancillary intake pump station and desalinated water pump station is estimated at 40 MW for the 60 MGD Regional Project (see **Table 3-4**). It is anticipated that the Regional Project would require this power continuously, resulting in a total annual demand for 323,244 MWh per year.

Utility Connections

Utility connections for the Regional Project would be the same to those described for the Local Project.

TABLE 3-4
REGIONAL PROJECT SUMMARY OF ELECTRICAL POWER SUPPLY REQUIREMENTS (MW)
(INCLUDES LOCAL PROJECT)

Component	Regional Project Estimated Power Supply Requirements (MW)
Intake and Pretreatment	2.7
First-Pass Reverse Osmosis[1]	25.0
Second-Pass Reverse Osmosis[1]	1.7
Post-Treatment	0.2
Distribution (On-Site + Off-Site)	5.7 + 2.2
Residuals and Other	1.0
Miscellaneous	0.3
TOTAL	**38.8**

NOTES:
These are preliminary estimates for purposes of CEQA analysis and may be modified during the Project's regulatory permitting, final design, and/or construction process.
[1] Energy consumption is estimated based on the use of energy recovery devices (ERD).

Screened Ocean Intake and Concentrate Discharge

Ocean Intake Facilities

The total intake volumetric flow for the 60 MGD Regional Project would be 126.6 MGD if the ocean water desalination facility uses GMF pretreatment and 136.2 MGD if the facility uses HRGMF/MF pretreatment. The intake flow would be reduced to approximately 123 MGD if treated backwash water is internally recycled.

An additional up to 8 wedgewire screens would be attached to the additional risers installed during construction of the Local Project. Since these risers would already be installed, impacts of the installation of these additional screens would be minimal. The pipeline portals within the intake structure would be opened to use all five of the 42-inch HDPE pipelines installed during the construction of the Local Project. Figure 3-16d illustrates the proposed Regional Project configuration.

Onshore Intake Facilities

Ocean water from the existing tunnel would be conveyed to the desalination facility via a system of an intake pump station and onshore pipelines. The intake pumping capacity for the 20 MGD Local Project would be expanded to accommodate the 60 MGD Regional Project. Ocean water would be pumped by the intake pump station with larger pumping capacity to the pretreatment facility. Expansion of the intake pump station from the initial 20 MGD phase to accommodate the Regional Project would involve adding additional pumps to increase pumping capacity to 126–136 MGD (depending on the pretreatment process that is used) within the same structure. The pumps would have a total combined horsepower of at least 2,300 HP (for a desalination facility at the ESGS North Site) to 3,000 HP (for a desalination facility at the ESGS South Site), plus appropriate standby capacity.

For the ESGS South Site, ocean feedwater would be conveyed directly to pretreatment system facilities via two buried parallel HDPE pipelines 2,100 feet in length. At least one of these pipelines would have been installed for the initial 20 MGD Local Project. For the ESGS North Site, feedwater would be pumped directly into adjacent pretreatment facilities.

Ocean Concentrate Discharge Facility

For the 60 MGD Regional Project, the normal amount of flow to be discharged from the ocean desalination facility would be approximately 76.2 MGD, which would be composed of approximately 62.7 MGD of RO concentrate (brine), and 13.5 MGD of treated backwash water from the HRGMF and MF processes; the salinity of the combined flow would be 62.0 ppt. If the washwater is internally recycled, the normal discharge flow would be reduced to approximately 63 MGD with 62.7 MGD from the RO process and 0.~~1~~ 3 MGD from the washwater recycling process (Figure 3-7); the salinity of the combined flow would be 67.8 ppt.

If a GMF process is used for pretreatment, and washwater is not internally recycled, the typical total discharge volumetric flow would be approximately 67.2 MGD, composed of 62.7 MGD of brine and 4.5 MGD of treated backwash water from the GMF process. If washwater is internally

recycled, the normal discharge flow would be approximately 63 MGD, composed of 62.7 MGD of RO brine and 0.3 MGD from the washwater recycling process (Figure 3-8).

At times, during startup and infrequently during upsets while the plant is in operation, it may be necessary to bypass ~~the entire feedwater flow system to discharge~~ certain processes. While the expected frequency of such events is minimal at two or three times a month for a duration of approximately one to 24 hours each, the discharge system would be ~~Depending on pretreatment processes and washwater recycling, the discharge system would be~~ sized for a peak discharge of 83 to 95 MGD, depending on the pretreatment process and washwater recycling~~.~~

The five discharge pipelines would be used to convey concentrate to the multi-port diffuser previously installed on the existing discharge tower. The fourteen diffuser ports installed during the Local Project would be removed, and the fourteen larger diameter (13.9 inches) would be installed to accommodate the larger flow. The diffuser ports would be positioned approximately 20 feet below the ocean surface at Mean Lower Low Water. They would be designed and oriented in an array to comply with California Ocean Plan dilution requirements. Figure 3-18c illustrates the proposed diffuser configuration. ~~A total of eight duckbill diffuser ports, which would be installed during construction of the Local Project, would be used. Only four ports would be used for the Local Project. The remaining four ports would be commissioned during the construction phase of Regional Project to meet accommodate the additional volumetric flow. The diffuser ports would be positioned approximately 20 feet below the ocean surface at Mean Lower Low Water. They would be designed at different vertical angles than the Local Project for lower velocity discharge in order to comply with California Ocean Plan dilution requirements. Figure 3-18d illustrates the proposed Regional Project configuration.~~

Onshore Discharge Facilities

For a desalination facility located at the ESGS North Site, which has a relatively low elevation, a 95 MGD 500 HP discharge pump station would be required to deliver normal and bypass operation flows and to provide sufficient hydraulic head to maintain a desired exit velocity at the diffuser nozzles. A desalination facility located at the ESGS South Site would be located at a higher elevation and the discharge could flow by gravity through the discharge piping to the discharge diffusers.

Desalinated Water Conveyance Facilities

For the Regional Project, a 48-inch- or 54-inch-diameter Regional Pipeline would be extended from the 54-inch Local Project Pipeline within El Segundo Boulevard to a connection on MWD's existing Sepulveda Feeder on Van Ness Boulevard. The alignment for the Regional Pipeline would be one of the variant alignments shown in Figure 3-5. A regional pump station would also be required somewhere along the Regional Pipeline alignment in order to provide the additional pressure needed to connect to the Sepulveda Feeder. This regional pump station could be sized for up to 67.5 MGD to allow for all flow from the desalination facility to be pumped to the Sepulveda Feeder. The alternative pipeline corridors for the Regional Pipeline and five potential sites for the regional pump station are shown in Figure 3-5.

3.5 Local Project Construction

Construction (including demolition and site preparation) and commissioning of the 20 MGD Local Project would require up to 72 months and is assumed to commence in 2021, with completion estimated by 2027 (depending on the selected site), subject to the timing of Project approval and permitting. Various types of construction activities would be required, as described below. Given that the project design is still at conceptual stage, design criteria and field data required to determine construction technique and technologies are unavailable. The descriptions provided below provide conservative assumptions of construction techniques and technologies that may be selected.

3.5.1 Ocean Water Desalination Facility Construction

Construction activities for the Local Project ocean water desalination facility on the ESGS South Site would require approximately 15 months of site excavation and preparation and approximately 45 months of construction of the desalination facility, discharge pump station, and desalinated water pump station. The ESGS North Site construction activities would require approximately 6 months of demolition of existing NRG Units 3 and 4, approximately 15 months of site excavation and preparation, and approximately 32 months of construction of the desalination facility (53 months). Work is anticipated to occur 5 days per week from 7 AM to 6 PM. Construction worker trips would be expected to occur before 7 AM in the morning and either before 4 PM or after 6 PM in the afternoon and would therefore occur outside the peak traffic hours (generally the peak hour of traffic occurs between 7 AM and 9 AM in the morning and 4 PM and 6 PM in the afternoon). However, some demolition and materials removal or import may need to occur during the night for oversized loads. Oversized loads and other heavy-duty vehicles would primarily get to and from the site using main traffic conduits such as Vista Del Mar and Imperial Highway except for special circumstances to minimize traffic load in residential areas. Construction workers and equipment would access the site via the existing ESGS access road. It is anticipated that West Basin would use a shuttle service for construction workers to reduce construction worker traffic and facilitate site access. Construction activities would include:

- Demolition and removal of existing NRG Units 3 and 4 (ESGS North Site) would involve:
  - Removal of any asbestos and hazardous materials.
  - Demolition of Unit 3 and 4 structures.
  - Pull down Units 3 and 4 (20 to 90 feet tall—these are the main power plant structures and exhaust stacks).
  - Demolish at-grade and below-grade concrete foundations. This would require excavations ranging from 5 to 20 feet deep. It is anticipated that groundwater control would be provided for these excavations such that the base would be stable for placing structural fill.
  - Crush on-site asphalt/concrete rubble.
  - Haul asphalt, concrete, and other demolition wastes.

- Initial excavation:[7]
  - For the ESGS South Site, initial excavation and export of 300,000 CY of material, of which approximately 120,000 CY would be brought back (or stockpiled on site) for backfilling completed structures. Backfill could be stored on-site at the Potential Construction Staging/Laydown Area identified in Figure 3-5 or at a number of off-site staging areas; refer to **Figure 3-21**. Dewatering of the excavated area may be required.
  - For the ESGS North Site, initial excavation of 120,000 CY of material, of which approximately 85,000 CY would be exported, and 35,000 CY would be temporarily stored on the ESGS South Site. This temporary stockpile would be used to backfill completed structures. Dewatering of the excavated area may be required (see discussion in Section 5.8).
  - Pile driving (if necessary) (ESGS North and South Sites).
- Construction of deep reinforced concrete hydraulic structures. These activities may include ground improvement measures, deep foundation construction, constructing foundation mats, or laying pipes.
- Backfilling of deep hydraulic structures. Structural fill would be brought up to the new construction site working grade.
- Construction of buildings for the various process and non-process components.
- Installation of mechanical and electrical equipment.
- Grading and paving of site circulation roads and parking areas.
- Landscaping and revegetation.

Construction staging areas would be required for all phases of construction. For construction of the ESGS North Site, the ESGS South Site would serve as the location for construction staging and construction personnel parking. For construction on the ESGS South Site, a suitably sized (minimum 3 acres) off-site location would be required. Potential laydown/staging areas for the proposed Project are shown in Figure 3-21. It is anticipated that West Basin would use a shuttle service for construction workers to reduce construction worker traffic and facilitate site access.

Demolition of NRG Concrete Plug

As part of the El Segundo Power Generating Station (ESGS) decommissioning process, the existing 12-foot diameter intake and discharge pipelines have been plugged with concrete by NRG.

During the construction of the desalination plant Intake Pump Station (IPS) vault, removal of the concrete plug may be by either of the following processes:

a) **Intake Pump Station vault surrounding plug** - the section of tunnel containing the concrete plug would be completely removed after construction of a new intake vault surrounding the plugged tunnel. Building a new intake vault around the existing intake and discharge tunnel and plugs would require that a portion of the Intake Pump Station be extended towards the NRG western property line to completely encompass the NRG plugs

[7] Depending on the amount of soil that is contaminated, the amount of excavated soil reused on-site could vary. However, this Draft EIR analyzes the worst-case scenario of soil export and reuse (and associated truck trips).

in the tunnels (pipelines). The new vault would be separated into two separate vaults, one for the intake and one for the brine discharge. Upon completion of the IPS vault, the plugged section of both intake and discharge tunnels would be cut flush with the inside wall of the new vault and completely demolished, see **Figure 3-26**. This would be done "in the wet" by flooding the newly constructed intake vault with potable water before cutting away the plugs with a diamond wire saw (powered by a 25 to 40 hp gas generator with a minimum of 25kW output). The section of 12-foot diameter concrete plug would be supported by a 100-ton to 200-ton crane during cutting, and hoisted out of the new intake vault once cut free. The extracted pipe/plug would then be broken up on site with an excavator with a demo-hammer attachment, and subsequently hauled away to a concrete recycling facility.

Building a new intake vault around the existing tunnels and plugs is anticipated to take approximately 16 to 24 weeks (or 4 to 6 months) and would occur during the Intake Pump Station construction. This work is anticipated to be performed with the same equipment used to construct the Intake Pump Station, Initial Site Work and Ground Improvements, and Underground Piping.

b) **Chipping out concrete plug from within the tunnel** – the plug would be removed by being chipped out from within the tunnel, after construction of a new intake vault. This option would be similar to option a, above, but the new intake vault would only be constructed up to the end of the plugs in the intake and discharge tunnels. The existing plugs would then be chipped out from within the existing tunnels, see **Figure 3-27.** Demolition of the two proposed 12-foot diameter by 20-foot long, concrete plugs would be by a team of divers chiseling out the concrete underwater from the landward side of the plug (no divers would work on the plug from entering the tunnel via the seaward side). Chiseling of the plug would likely occur at a rate of 2 to 3 feet per week and would require at least two teams of divers (with 3 to 4 divers per team with a supervisor) working simultaneously on the intake and discharge plugs both for safety and to avoid fatigue. The overall dive and support crew would be about twenty to thirty people. Total anticipated time to demolish the two plugs is approximately 8 to 10 weeks (or 2 to 3 months).

In either option, the demolished concrete plug, about 84 cubic yards per plug, would be loaded into trucks and hauled to landfill for disposal, or an approved concrete recycling plant. At a weight of approximately two tons per cubic yard of concrete, we anticipate that approximately 20 truckloads would be needed to transport the roughly 168 cubic yards of demolished concrete to a recycling plant for processing into road base material for future use.

Ocean Intake and Discharge System Onshore Construction Assumptions

Table 3-5 includes the construction activity assumptions associated with the different phases of ocean water desalination facility construction, construction equipment required, associated vehicle trips, and duration of activities. See **Figure 3-22** for a detailed schedule of construction activities associated with the Local Project.

TABLE 3-5
LOCAL PROJECT OCEAN WATER DESALINATION FACILITY ONSHORE CONSTRUCTION ASSUMPTIONS

Component	Construction Activity	Construction Equipment	Vehicle Trips	Local Project Schedule/Duration
Demolition of Existing NRG Units 3 and 4 (North Site Only)				
Demolition	• Removal of any asbestos and hazardous materials • Demolition of structures • Pull down units • Demolish at-grade and below-grade concrete foundations • Crush on-site asphalt/ concrete rubble • Haul asphalt, concrete, and other demolition wastes • Estimated amount of material to be hauled away: 80,000 CY	• Concrete/Industrial Saws: 1 • Excavators: 3 • Rubber Tires Dozers: 4 • Tractors/Loader/ Backhoes: 3	• 0 delivery trips per day • 30 worker commute trips per day • 5,715 one-way haul trips for export	Months 1 to 6 (129 working days)
Intake/Discharge terminus				
Demolition	3,700 CY of terminal Structure 300 cy of concrete pad. Total 8,000 tons of export	• Concrete/Industrial Saws: 1 • Excavators: 3 • Rubber Tires Dozers: 4	• 0 delivery trips per day • 20 worker commute trips per day • 791 one-way haul trips for export	Months 7 to 9 (66 working days)
Site Preparation	6,000 CY of export	• Rubber Tires Dozers: 3 • Tractors/Loaders/ Backhoes: 4	• 18 worker commute trips per day • 750 one-way haul trips for export	Months 10 and 11 (44 working days)
Grading	5,000 CY for pipeline insertion pit 5,000 CY for intake pump station Total 10,000 cy export	• Excavators: 2 • Graders: 1 • Rubber Tires Dozers: 1 • Scrapers: 2 • Tractors/Loaders/ Backhoes: 2	• 20 worker commute trips per day • 1,250 one-way haul trips for export	Months 12 to 14 (66 working days)
Intake Pump Station Construction	Structural concrete Structural steel Installation of mechanical and electrical equipment	• Forklifts: 1 • Generator Sets: 1 • Tractors/Loaders/ Backhoes: 1 • Welders: 1	• 20 worker commute trips per day on average	Months 15 to 37 (500 working days)

Component	Construction Activity	Construction Equipment	Vehicle Trips	Local Project Schedule/Duration
Desalination Facility Site Work (20 MGD Local Project)				
Initial Site Work and Ground Improvements	South Site[1]: • 300,000 CY excavation • 300,000 CY export • 120,000 CY import/fill	• Excavators: 2 • Graders: 1 • Rubber Tires Dozers: 1 • Scrapers: 2 • Tractors/Loaders/ Backhoes: 2	• 0 delivery trips per day • 20 worker commute trips per day • 52,500 one-way haul trips for import/export	Months 10 to 25 (303 working days)
Initial Site Work and Ground Improvements	North Site • 120,000 CY excavation • 85,000 CY export • 35,000 CY import/fill	• Excavators: 2 • Graders: 1 • Rubber Tires Dozers: 1 • Scrapers: 2 • Tractors/Loaders/ Backhoes: 2	• 0 delivery trips per day • 20 worker commute trips per day • 15,000 one-way haul trips for import/export	Months 10 to 25 (303 working days)
Underground Piping	Trenching/jack-and-boring/ directional drilling (North Site)	• Concrete/Industrial Saws: 1 • Excavators: 1 • Rubber Tired Dozers: 1 • Directional Drill Rig: 1 (assume used for ~2 months only)	• 0 delivery trips per day • 15 worker commute trips per day	Months 15 to 28 (200 working days)
	Trenching/jack-and-boring/ directional drilling (South Site)	• Concrete/Industrial Saws: 1 • Excavators: 1 • Rubber Tired Dozers: 1 • Directional Drill Rig: 1 (assume used for ~2 months only)	• 0 delivery trips per day • 15 worker commute trips per day	Months 15 to 28 (200 working days)
Desalination Facility Construction				
	Foundation installation/deep reinforced concrete hydraulic structures	• Cranes: 1 • Forklifts: 3 • Generator Sets: 2 • Tractors/Loaders/ Backhoes • Welders		Months 24 to 37 (300 working days)

Component	Construction Activity	Construction Equipment	Vehicle Trips	Local Project Schedule/Duration
	Building construction (North Site) Structural concrete Structural steel	• Cranes: 1 • Forklifts: 3 • Generator Sets: 3 • Tractors/Loaders/ Backhoes: 3 • Welders: 4		Months 38 to 64 (580 working days)
	Building construction (South Site) Structural concrete Structural steel	• Cranes: 1 • Forklifts: 3 • Generator Sets: 3 • Tractors/Loaders/ Backhoes: 3 • Welders: 4		Months 38 to 64 (580 working days)
	Mechanical and electrical equipment installation	• Cranes: 1 • Forklifts:3 • Generator Sets: 3 • Welders: 4		Months 45 to 64 (400 working days)
	Startup/Commissioning/ Performance Testing	• No additional equipment		Months 54 to 64 (200 working days)
	Paving including access roads	• Pavers: 1 • Paving Equipment: 1 • Rollers: 1		Month 64 (20 working days)

NOTES:
[1] These assumptions are conservative. However, based on existing reports, it appears that the contamination is relatively shallow and that on-site reuse of the excavated materials is likely which would substantially reduce trips.

3.5.2 Screened Ocean Intake and Concentrate Discharge Facilities Construction

Ocean Intake and Concentrate Discharge

Construction of the ocean intake and concentrate discharge system would require approximately ~~3~~one (1) year~~s~~, and is anticipated to occur in parallel with ocean water desalination facility construction. Work is anticipated to occur 5 days per week during daylight hours, although marine construction activities could require up to 72 hours of continuous construction in desirable sea conditions. Nighttime lighting would be low intensity (ideally, sodium), properly shrouded and installed/positioned to minimally illuminate the decks for the safety of onboard personnel, and not the ocean waters. Installation of the intake screens and discharge diffusers requires that barges, support vessels, equipment and crew be mobilized offshore of the plant. Offshore

cConstruction operations include vessel anchoring, dredging, riprap ~~reconfiguration~~ removal and re-installation, existing intake and discharge intake modifications, and pile driving.

Construction Vessels

The primary piece of heavy equipment needed for site preparation, installing the intake screens and discharge diffusers, and stockpiled riprap placement is a large derrick barge with a crane on deck. This derrick barge would be between approximately 150 feet wide and 300 feet long and the crane on the deck of the derrick barge would be between 120-ton and 300-ton class. Smaller crew and supply vessels from the Port of Los Angeles (POLA) or Port of Long Beach (POLB) or closer harbors (e.g., Marina del Rey or King Harbor) would shuttle workers to the offshore work site two times daily (additional trips may be needed to deliver equipment and supplies) and be used to perform environmental monitoring.

The intake screens and discharge diffusers would be transported out to the derrick barge on site via a separate tug and transport (deck) barge from the POLA/POLB, and would likely require three to four round-trips to the site. Additional tug boats and deck barges would also be needed to temporarily hold the stockpiles of riprap retrieved from the seafloor around the intake and discharge structures until the stone is put back ~~replaced~~ around the modified structures. The deck barges holding the riprap may be towed back to the POLA/POLB if deemed necessary due to weather or other conditions, which would require another three to five round-trips to the site depending on the size of barges available. The deck barges range in length between approximately 200 and 300 feet long by up to 50 feet wide, and the support tugs are up to 90 feet long.

Site Preparation

Anchoring

Anchoring is required during construction to ensure that the derrick barge and other offshore equipment remain stationary. The contractor would identify and map all areas of kelp, seagrasses, and hard substrate found within the work area, to avoid or minimize construction and operational impacts by anchors, buoys, cables, riprap, and dredging spoils during the Project construction and maintenance.

Temporary mooring buoys for the derrick barge, as shown in **Figure 3-23**, would be used and located to prevent anchor wires from dragging on the bottom and wearing against existing pipelines. Anchors and associated gear would be retrieved upon completion of construction. If the installation of the new pipes within the existing intake and discharge pipes is required, the derrick barge would need to be repositioned about 1,500 feet offshore of whichever tower was being modified.

The derrick crane barge and other ancillary barges will have the appropriate navigation lights at night, and day markers during the day for operations offshore in accordance with U.S. Coast Guard Navigation Rules, in particular Rule 30 - Anchored Vessels and Vessels Aground, including exhibiting when anchored:

I. At night, an all-round white anchor light both bow and stern (lower then bow light), and the available working lights to illuminate the deck;

II. During the day, a black round ball navigation shape.

Riprap ~~Reconfiguration~~ Removal and Re-installation

Installation of the intake screen and discharge diffuser would require removing and ~~reconfiguring~~ re-installing an estimated 2,000 tons of riprap around the existing intake structure and similarly approximately 2,000 tons of riprap around the discharge pipeline tower structure. The riprap surrounding both the intake and discharge towers ~~would~~ may be removed and temporarily stockpiled on the seafloor. Assuming the rock would be stockpiled in a roughly 3-foot to 4-foot high by 100-foot diameter mound with 2 horizontal to 1 vertical (2H:1V) slopes, the estimated area of seafloor that would be temporarily covered is approximately 4,000 square feet (or slightly less than 0.1 acre).

If ~~this~~ stockpiling on the seafloor is infeasible, the riprap would be stockpiled on barges which would then likely be towed to the POLA/POLB to store the riprap in harbor during construction. After installation of the new intake and discharge ~~header~~ pipe manifolds ~~and discharge diffusers~~, the stockpiled riprap would be ~~placed~~ put back around the modified intake and diffuser structures. The final post-construction riprap footprint area will be approximately the same as the existing benthic footprint.

Dredging around the Intake Tower

Installation of the intake screens and ~~header~~ manifold piping and the new HDPE piping inside the existing 12-foot intake tunnel (pipeline) requires that the seafloor be dredged (excavated by barge mounted crane with a clamshell bucket) approximately 20 feet below the existing seafloor. Up to ~~21,646~~ 21,035 CY of sediment would be excavated and stockpiled on the seafloor adjacent to the intake tower, with an approximate intake tower dredge area of 1.50 acres. The associated stockpile area adjacent to the intake tower excavation would be approximately ~~3.35~~ 3.26 acres (assuming 4 feet of material above seafloor to maintain stability) for a total cumulative disturbance area of ~~4.85~~ 4.76 acres for the intake. A schematic of the intake dredging footprint is shown in **Figure 3-24**. Dredge volume quantities are included in **Table 3-6**.

TABLE 3-6
OFFSHORE DREDGE VOLUMES

Scenario	Subset	Volume of Dredge Material	Dredge Footprint	Stockpile Footprint	Cumulative Disturbed Footprint
Intake	12 Intake Screen Risers	21,035 ~~21,646~~CY	1.50 acres	3.26 ~~3.35~~ acres	4.76 ~~4.85~~ acres
Discharge	14 Diffuser Ports	14,062 ~~13,608~~ CY	1.10 ~~0.98~~ acres	2.18 ~~2.11~~ acres	3.28 ~~3.09~~ acres

~~SOURCE: GHD 2017~~
SOURCE: GHD 2019

Dredging around the Discharge Tower

Installation of the discharge diffusers and the new HDPE piping inside the existing 12-foot ~~intake~~ discharge tunnel (pipeline) would require that the seafloor be dredged (excavated by barge mounted crane with a clamshell bucket) approximately 20 feet below the existing seafloor. Up to 14,062 ~~13,608~~ CY of sediment would be excavated and stockpiled on the seafloor adjacent to the discharge tower, with an approximate discharge tower dredge area of 1.10 ~~0.98~~ acres. The associated stockpile area adjacent to the intake tower excavation would be approximately 2.18 ~~3.09~~ acres assuming 4 feet of material above seafloor to maintain stability. The total cumulative disturbance area for the discharge would be 3.28 acres, and a ~~A~~ schematic of the discharge dredging footprint is shown in **Figure 3-25**. Refer to Table 3-6 for dredge volume quantities associated with discharge activities.

To perform the prescribed modifications to the intake and discharge facilities, up to approximately 8 acres of seafloor would need to be temporarily disturbed.

Dredge Disposal Options

Sediment samples would be taken in the area of seafloor disturbance to determine if any contaminants are present in the material to be displaced. If the material is clean, temporary stockpiling of the dredge material on-site (on the bottom of the ocean floor) as described above is the preferred option. A second option is to take the clean material to the LA-2 Ocean Dredged Material Disposal Site adjacent to the POLA/POLB, if the material is determined to be compatible. For off-site disposal, assuming there would be a total of ~~35,254~~ 35,097 CY of dredged material, a dump scow with a capacity of 800 CY of dredge material would produce ~~45~~ approximately 44 barge round-trips, whereas using a larger 2,000 CY dump scow would produce approximately 18 barge round-trips from the site.[8]

Pile Driving

A single or double row of piles would be installed to help ~~guide into place and~~ support the intake pipe ~~header~~ manifold underneath the intake screens and diffuser ports. It is anticipated that a total of 10 to 20 ~~6 to 12~~ steel or fiberglass ~~pipe~~ piles (12- to 16-inch-diameter, ~~for a total for~~ and up to 60 ~~40~~ feet long) would be installed in the seafloor using barge mounted pile driving equipment. The total duration of actual pile installation is anticipated to ~~would~~ be approximately ~~3 to 5~~ 10 working days (or 15 calendar days) depending on weather and/or construction sequencing by the contractor. It is anticipated that each ~~pipe~~ pile would require ~~approximately 4~~ about 1 to 2 hours of ~~for high resistance~~ driving on average per pile~~with a hammer for the full 35-foot embedment~~, and approximately 1 to 2 hours for rigging and pile pickup from an adjacent barge, and initial placement of the pile in the correct location.

[8] Since the proposed offshore dredging location has not been identified as a hot-spot for contaminants, it is assumed offshore sediment disposal will be appropriate for the majority of the sediment. As such, land-based disposal of dredged material is not analyzed in this EIR. If portions of the dredged material do not meet agency criteria, the material could be offloaded at the POLA/POLB for disposal in an appropriate land-based facility. It is assumed that any contaminated material would be minimal compared to the total amount of clean dredged material disposed of offshore.

The proposed method of pile installation for this Project is driving the piles into the seafloor with a vibratory driver/extractor. For this type of driving, vibrations are transferred from the hammer to the pile at a high enough frequency to liquefy unconsolidated sandy soil around it, allowing the pile to sink downward into the sediment as the crane lowers the driver/extractor. Although not anticipated, if difficult driving is encountered at the site and installation of the pile meets refusal, the use of an impact hammer may be warranted to drive the pile the last few feet to final design tip elevation (Time duration <1 hour. Assume 50 blows per piling, 2 piles per day, XLogR = 15, pulse duration = 0.8 seconds, 2.0 weighting factor adjustment).

Installation of the Ocean Intake ~~Screen System~~ and ~~Diffuser Ports~~ Discharge Systems

Ocean Intake System Installation

Construction and installation of the pipe manifold, intake screens and associated infrastructure such as the new HDPE pipe in the existing 12-foot concrete intake tunnel (pipeline) ~~would~~ is anticipated to take approximately 6 months. Work would be conducted from the same derrick barge moored above the intake tower and would be confined to the area directly surrounding the tower. The wedgewire intake screens would be fabricated at an off-site location, shipped to the POLA/POLB, loaded onto a transport barge, and then towed to the site for installation offshore. Onshore support vehicles at the selected port may include pick-up trucks, a forklift, a crane, and a wheel loader. Construction crews and vessels would vary depending on the scope of work occurring each day. The number of crew members present will be the same as that described for the diffuser system unless installation of the diffuser occurs concurrently with the installation of the intake screens. In that case, a separate set of vessels and crew would work at each site.

The existing intake and discharge structures at the end of each of the 12-foot tunnels would be exposed by dredging to provide access. Underwater divers would cut holes in the end of each tunnel terminus structure to allow for the five 42-inch- diameter HDPE pipes to be inserted into the tunnel from the offshore end to the shore. The HDPE pipe would be stockpiled on the barges and positioned to be lowered by the crane to the ocean floor where divers would guide it into the tunnel~~s~~. The HDPE pipe segments would be heat-welded together on the barge as the pipe is inserted into the tunnels. This process would occur for both the intake and discharge tunnels.

The proposed process for installing the ocean intake ~~screen~~ system is described below and shown in Figure 3-16c.

1. The first illustration shows the existing cross-section view of the intake tower velocity cap and riprap ~~are shown in cross-section~~.
2. Riprap surrounding the tower would be removed and temporarily stockpiled on the seafloor. If this is infeasible, the riprap would be stockpiled on barges, which would then likely be towed to the POLA/POLB to store the riprap in harbor during construction.
3. ~~2.~~ Dredging would occur around the intake tower and along the alignment of the new pipe header, to facilitate the installation of the new HDPE piping inside the existing 12-foot-diameter concrete intake pipe.

4. ~~3.~~The exposed face of the intake tower opposite the existing intake pipe would be chipped out by divers using hydraulic/pneumatic drills, chisels, and saws. The removed concrete and rebar would be raised to the surface and placed on the barge for land disposal. The new HDPE piping would be installed inside the existing 12-foot-diameter concrete intake pipe. The new pipes would be pressure-tested using raw seawater to confirm that pipe joints are sealed properly.
5. ~~4.~~New foundation piling would be driven into the seafloor to help guide into place and support the pipe header underneath the intake screens. Supports for the pipe saddle (the supporting foundation upon which the pipe header would be installed) would be set on top of the piles.
6. ~~5.~~A layer of bedding stone would be placed around the saddles to protect against erosion, and the pipe header would be strapped to the top of the saddle supports and connected to the intake structure.
7. ~~6.~~Previously removed and stockpiled sediment would carefully be placed around the intake tower and pipe header with a clamshell bucket.
8. ~~7.~~The existing velocity cap would be demolished; the demolition would be done by divers using pneumatic drills, chisels, and saws to cut and break up the concrete into manageable-sized pieces. The derrick barge crane would be used to lift the demolished concrete and rebar from the top of the intake tower.
9. ~~8.~~The temporarily stockpiled riprap (if any) would be removed from the stockpile/barges and ~~placed on the seafloor~~ put back around the intake tower with a clamshell bucket ~~around the intake tower~~.
10. ~~9.~~Up to four wedgewire intake screens would be secured to the top of the header pipe to meet the local demand flow condition.
11. ~~10~~An additional ~~three~~ eight intake screens would be installed for the Regional Project (should that project proceed), for a total of up to 12 wedgewire screens. (Note: The exact number and diameter of screens is subject to change as design progresses.)

The intake screen ~~and discharge diffuser~~ modifications may occur concurrently or separately from the discharge (diffuser) system depending on the availability of the wedgewire screens and diffuser nozzles, equipment, and contractor means and methods.

Ocean Discharge System Installation

The new diffuser system would be installed from the derrick barge with the crane moored above the discharge tower during construction, similar to the intake system. Offshore work would be confined to the area directly above and surrounding the existing discharge tower~~, and installation of the diffuser system would take approximately 5 months~~. Construction and installation of the pipe manifold, diffusers and associated infrastructure such as the new HDPE pipe in the existing 12-foot concrete intake tunnel is anticipated to take approximately 6 months.

The proposed process for installing the ocean discharge (diffuser) system is described below and shown in Figure 3-18d.

1. The first illustration shows the existing cross-section view of the discharge tower, with a screen on the top of and riprap around the discharge tower.

2. Riprap surrounding the tower would be removed and stockpiled on the seafloor. If this is not feasible, the riprap would be temporarily stockpiled on barges, which would then likely be towed to the POLA/POLB to store the riprap in harbor during the construction.
3. Dredging would occur around the discharge tower and to facilitate the installation of the new HDPE piping inside the existing 12-foot-diameter concrete intake pipe.
4. The exposed face of the discharge tower opposite the existing discharge pipe would be chipped out by divers using hydraulic/pneumatic drills, chisels, and saws. The removed concrete and rebar would be raised to the surface and placed on the barge for land disposal. The new HDPE piping would be installed inside the existing 12-foot-diameter concrete intake pipe. The new pipes would be pressure-tested using raw seawater to confirm that pipe joints are sealed properly.
5. New foundation piling would be driven into the seafloor to help guide into place and support the pipe header underneath the diffuser ports. Supports for the pipe saddle (the supporting foundation upon which the manifold pipe header would be installed) would be set on top of the piles. The chipped outside of the discharge tower would be sealed up and the previously removed and stockpiled sediment would be placed around the discharge tower with a clamshell bucket.
6. The top of the existing tower would then be sawcut and demolished.
7. The precast concrete lid would be constructed off-site, transported to the POLA/POLB, loaded on a transport barge, and towed to the site. The precast lid with access hatch would then be installed on top of the modified tower. The previously stockpiled riprap would also be put back around the diffuser tower at this time.
8. The diffusers would be installed on the new discharge manifold pipe header.

Ocean Intake and Discharge System Offshore Construction Assumptions

Table 3-7 includes the construction activities associated with the different phases of screened ocean intake and concentrate discharge construction, construction equipment required, associated vehicle trips, and duration of activities. See Figure 3-22 for a detailed schedule of construction activities associated with the Local Project.

TABLE 3-7
LOCAL PROJECT OFFSHORE CONSTRUCTION ASSUMPTIONS

Component	Construction Activity	Construction Equipment	Vehicle/Vessel Trips	Schedule/Duration (Pipe-in-Pipe)	Schedule/Duration (No Pipe-in-Pipe)
Offshore Construction					
Mobilization					
	Mobilization	• Derrick Barge w/ Crane • Support Barges (up to 5 total) • Tug Boats (up to 3 at a time) • Crew/Survey Boats (up to 4 at a time) • Bio-monitoring Boat • Cable Winch (onshore) • Excavator (onshore)	• Tow derrick barge and crane offshore from Port of Los Angeles/ Long Beach • Tow support barge(s) offshore from Port of Los Angeles/Long Beach • Set anchors using 2 tugs to assist barge and crane for 4 of 30 days • Barge anchored for 26 of 30 days • Crew vessels performing 2 to 3 trips per day	Month 1 (30 calendar days)	Month 1 (30 calendar days)
Pipeline Inserts (discharge and intake)					
	Pipe welded together onshore then towed to site (Approx. 14,000 feet of 42 inch OD HDPE pipe for intake) (Approx. 11,500 feet of 42 inch OD HDPE pipe for discharge)	• Same as mobilization minus a support barge and add two extra tugs • Shore crew excavating around piping with tracked excavator and setting up winch system to pull pipe in pipe	• Barge anchored for 60 days • Tow ~~support~~ pipe offshore from either a local beach or the Port of Los Angeles/Long Beach for up to 8 trips • 1 support barge at anchor offshore to accommodate final welding of long sections of pipe towed offshore • Crew vessels performing 2 to 3 trips per day	Months 2 and 3 for the intake piping (60 calendar days) Months 8 and 9 for the discharge piping (60 calendar days)	Not applicable

Component	Construction Activity	Construction Equipment	Vehicle/Vessel Trips	Schedule/Duration (Pipe-in-Pipe)	Schedule/Duration (No Pipe-in-Pipe)
	Installation	• Same as mobilization	• Barge anchored for 60 days for intake and 45 days for discharge pipe installation • Tow support barge(s) offshore from the Port of Los Angeles/Long Beach loaded with pipe and appurtenances for up to 20 trips • 2 to 3 support barges at anchor offshore to accommodate welding of pipe • Crew vessels performing 2 to 3 trips per day	Months 4 and 5 for the intake piping (60 calendar days) Months 10 to 11.5 for the discharge piping (45 calendar days)	Not applicable
Ocean Intake Screen ~~Installation~~ System					
Site Preparation					
	Excavation and dredging (Up to ~~18~~21,03~~500~~ CY of sediment for Intake) (Up to 2,000 tons of riprap stone around intake)	• Same as mobilization • Dredging may require use of a bottom dump scow or a submersible dredge pump to spread material around site evenly	• Barge anchored for 45 to 60 days for riprap removal and dredging around intake structure • 4 to 5 support barges and 2 to 3 tugs at anchor offshore at a time to accommodate loading of riprap and dredge support • Tow support barges loaded with riprap to the Port of Los Angeles/Long Beach for up to 5 trips • Crew vessels performing 2 to 3 trips per day	Months 2 and 3 (60 calendar days)	Months 2 to 3.5 (45 calendar days)

Component	Construction Activity	Construction Equipment	Vehicle/Vessel Trips	Schedule/Duration (Pipe-in-Pipe)	Schedule/Duration (No Pipe-in-Pipe)
	Intake tower demolition	• Same as mobilization	• Barge anchored for 15 to 30 days for dredging and riprap removal around intake structure • 1 to 2 support barges and tugs at anchor offshore at a time to accommodate concrete demolition • Tow support barge loaded with demolished concrete to the Port of Los Angeles/Long Beach (1 trip) • Crew vessels performing 2 to 3 trips per day	Month 3 (30 calendar days)	Month 3 to 3.5 (15 calendar days)
Installation					
	Pile driving (Up to ~~6~~ 12 ~~steel or fiberglass H~~ piles x up to 60 feet long each)	• Same as mobilization	• Barge anchored for 15 days for pile driving • 1 support barge at anchor offshore at a time to accommodate pile installation • Crew vessels performing 2 to 3 trips per day	Month 6 to 6.5 (15 calendar days)	Month 3.5 to 4 (15 calendar days)
	Intake tower modification and installation of ~~header~~ manifold and wedgewire screens	• Same as mobilization	• Barge anchored for 15 days for ~~header~~ manifold and screen installation • 1 to 2 support barges and tugs at anchor offshore at a time to accommodate pile installation • Crew vessels performing 2 to 3 trips per day	Month 6.5 to 7 (15 calendar days)	Month 4 to 4.5 (15 calendar days)

Component	Construction Activity	Construction Equipment	Vehicle/Vessel Trips	Schedule/Duration (Pipe-in-Pipe)	Schedule/Duration (No Pipe-in-Pipe)
	Replacement of dredged material and riprap (Up to ~~18~~21,~~000~~ 035 CY of sediment for intake) (Up to 2,000 tons of riprap stone around intake)	• Same as mobilization	• Barge anchored for 15 to 30 days for sediment and riprap replacement around intake structure • 4 to 5 support barges and 2 to 3 tugs at anchor offshore at a time to accommodate offloading of riprap and dredge support • Tow support barges loaded with riprap from the Port of Los Angeles/Long Beach for up to 5 trips • Crew vessels performing 2 to 3 trips per day	Month 7 (30 calendar days)	Month 4.5 to 5 (15 calendar days)
Ocean Discharge System					
Site Preparation					
	Excavation and dredging (Up to ~~18~~14,~~000~~ 062 CY of sediment for discharge) (Up to 2,000 tons of riprap stone around discharge)	• Same as mobilization • Dredging may require use of a bottom dump scow or a submersible dredge pump to spread material around site evenly	• Barge anchored for 15 to 30 days for riprap removal and dredging around discharge structure • 4 to 5 support barges and 2 to 3 tugs at anchor offshore at a time to accommodate loading of riprap and dredge support • Tow support barges loaded with riprap to the Port of Los Angeles/Long Beach for up to 5 trips • Crew vessels performing 2 to 3 trips per day	Months 8 and 9 (~~30~~ 60 calendar days)	Month 5 to 6~~5~~.5 (~~15~~ 45 calendar days)

Component	Construction Activity	Construction Equipment	Vehicle/Vessel Trips	Schedule/Duration (Pipe-in-Pipe)	Schedule/Duration (No Pipe-in-Pipe)
	Discharge tower demolition	• Same as mobilization	• Barge anchored for 15 to 30 days for dredging and riprap removal around discharge structure • 1 to 2 support barges and tugs at anchor offshore at a time to accommodate concrete demolition • Tow support barge loaded with demolished concrete to the Port of Los Angeles/Long Beach (1 trip) • Crew vessels performing 2 to 3 trips per day	Month ~~9~~10 (30 calendar days)	Month ~~5~~6.5 to ~~6~~7 (15 calendar days)
Installation					
	Pile driving (Up to 8 piles x up to 60 feet long each)	• Same as mobilization	• Barge anchored for 15 days for pile driving • 1 support barge at anchor offshore at a time to accommodate pile installation • Crew vessels performing 2 to 3 trips per day	Month 11 to 11.5 (15 calendar days)	Month 7 to 7.5 (15 calendar days)
	Discharge tower modification and installation concrete lid with diffusers	• Same as mobilization	• Barge anchored for 15 days for header and screen installation • 1 to 2 support barges and tugs at anchor offshore at a time to accommodate pile installation • Crew vessels performing 2 to 3 trips per day	Month 11.~~5~~.5 to ~~1~~122 (15 calendar days)	Month ~~6~~ 7.5 to ~~8~~6.5 (15 calendar days)

Component	Construction Activity	Construction Equipment	Vehicle/Vessel Trips	Schedule/Duration (Pipe-in-Pipe)	Schedule/Duration (No Pipe-in-Pipe)
	Replacement of dredged material and riprap (Up to ~~18~~14,~~000~~ 062 CY of sediment for discharge) (Up to 2,000 tons of riprap stone around discharge)	• Same as mobilization	• Barge anchored for 15 to 30 days for sediment and riprap replacement around discharge structure • 4 to 5 support barges and 2 to 3 tugs at anchor offshore at a time to accommodate offloading of riprap and dredge support • Tow support barges loaded with riprap from the Port of Los Angeles/Long Beach for up to 5 trips • Crew vessels performing 2 to 3 trips per day	Month 12 (30 calendar days)	Month ~~6.5~~8 to ~~beginning of Month 7~~8.5 (15 calendar days)

Daily personnel access would be provided via a crew/supply boat meeting USEPA Tier 2 or higher emission standards. Onshore support vehicles at the selected port may include pickup trucks, a forklift, a crane, and a wheel loader. Construction/dive crews and vessels would vary depending on the scope of work occurring each day.

- A day with lower activity levels would likely require approximately 12 crew members/divers: 10 for the derrick barge and support vessels, and 2 for a smaller monitoring boat for marine mammal and turbidity monitoring.
- A day with higher activity levels may require as many as 20 crew members/divers: 15 for a derrick and transport barge, 3 for a tug boat, and 2 for the monitoring boat.

~~The proposed process for installing the diffuser system is described below and shown in Figure 3-18d).~~

~~1. The first illustration shows the existing cross-section view of the discharge tower, with a screen on the top of and riprap around the discharge tower.~~

~~2. Riprap surrounding the tower would be removed and stockpiled on the seafloor. If this is not feasible, the riprap would be temporarily stockpiled on barges, which would then likely be towed to the POLA/POLB to store the riprap in harbor during the construction.~~

~~3. Dredging would occur around the discharge tower and to facilitate the installation of the new HDPE piping inside the existing 12-foot-diameter concrete intake pipe. The new pipes would be pressure-tested using raw seawater to confirm that pipe joints are sealed properly.~~

~~4. The exposed face of the discharge tower opposite the existing discharge pipe would be chipped out by divers using hydraulic/pneumatic drills, chisels, and saws. The removed concrete and rebar would be raised to the surface and placed on the barge for land disposal. The new HDPE piping would be installed inside the existing 12-foot-diameter concrete intake pipe.~~

~~5. The chipped outside of the discharge tower would be sealed up and the previously removed and stockpiled sediment would be placed around the discharge tower with a clamshell bucket.~~

~~6. The top of the existing tower would then be sawcut and demolished. The extent of removal would be established so that the tower height with the new diffuser system in place would be at the same height of deeper than the existing discharge tower height.~~

~~7. The precast concrete diffuser cap would be constructed off-site, transported to the POLA/POLB, loaded on a transport barge, and towed to the site. The precast lid with cast-in ports for the diffusers and an access hatch would then be installed on top of the modified (shortened) tower. The previously stockpiled riprap would also be replaced around the diffuser tower at this time.~~

~~8. The diffusers would be installed on the concrete lid, with flexibility in their number and placement for both the local and regional flow demand.~~

3.5.3 Desalinated Water Conveyance Construction

The Local Project conveyance facility construction activities would last approximately 30 months and would occur 5 days per week from 7 AM to 6 PM. The following construction methods are assumed:

- Up to 9.3 miles of pipeline are proposed under the Local Project.
- Pipelines generally would be installed using open-cut trenching (construction typically proceeds at an average rate of approximately 150 feet per day); however, where this is infeasible, trenchless construction (jack-and-bore) would be used. See **Table 3-8** for estimated quantities of pipeline excavation and repaving.
- Trenchless construction (slant bore) would be required for the segment of the pipeline as it exits the desalination facility to Vista del Mar. Potential trenchless construction locations also include the intersections of El Segundo Boulevard and Sepulveda Boulevard; El Segundo Boulevard and I-405; West 120th Street and I-405; West 120th Street at Hawthorne Municipal Airport; Rosecrans Avenue and Aviation Boulevard; and Manhattan Beach Boulevard and the I-405.
- Construction equipment would include excavators, loaders, haul trucks, compaction equipment, water trucks, cranes, soil sorting and screening equipment, shoring systems, paving equipment, and welding equipment.
- Soils excavated would be reused to the extent possible or hauled for off-site disposal.
- Width of disturbance corridor would be up to 35 feet for open-trench construction. If damaged during construction, up to 35 feet of pavement width would be restored.
- Work area around jacking and receiving pits for the six potential jack-and-bore locations would be approximately 5,000 square feet each (e.g., 100 feet by 50 feet).
- Product water conveyance lines would be pressure-tested prior to their operation and would involve chlorinated potable water, with the resultant end product (as the pipes are flushed out and pressure-tested) being dechlorinated and discharged into the local storm drain system or as otherwise required by the Regional Water Quality Control Board (RWQCB) through its Waste Discharge Requirements permitting process.

TABLE 3-8
LOCAL PROJECT EXCAVATION AND REPAVING FOR PIPELINE CONSTRUCTION

Segment	Construction Method	Total Excavation (CY)	Exported Excavation (CY)	Repaving (Sq Ft)
Desalinated Water Pipeline to Inglewood Avenue, 25,400 LF	Open-Trench	101,000	47,500	750,000
Connection to East End of Existing WB Feeder, 23,500 LF	Open-Trench	65,000	21,000	560,000
Regional Pipeline, 25,800 LF	Open-Trench	97,000	41,000	760,000

NOTES:
These are preliminary estimates for the purposes of CEQA analysis and may be modified during the Project's regulatory permitting, final design, and/or construction process.

Table 3-9 includes the construction activities associated with the different phases of desalinated water conveyance facility construction, construction equipment required, associated vehicle trips, and duration of activities.

TABLE 3-9
LOCAL PROJECT DESALINATED WATER CONVEYANCE CONSTRUCTION ASSUMPTIONS

Component	Construction Activity	Construction Equipment	Vehicle Trips	Local Project Schedule/Duration
Demolition	63,815 tons of roadway demolition to export	• Concrete/Industrial Saws: 1 • Excavators: 3 • Rubber Tires Dozers: 2	• 0 delivery trips per day • 15 worker commute trips per day • 6,310 one-way haul trips for export	(500 working days)
Excavation, Trenching, Jack-and-Boring / Directional Drilling	101,000 CY for Desal Water Pipe to Inglewood Avenue 65,000 CY export for connection to East End of WB Feeder Modeled as 166,000 CY import and 68,500 CY export	• Excavators: 2 • Graders: 1 • Rubber Tires Dozers: 1 • Scrapers: 2 • Tractors/Loaders/Backhoes: 2 • Directional Drill Rig: 1	• 0 delivery trips per day • 20 worker commute trips per day • 29,313 one-way haul trips for export	(500 working days)
Paving		• Pavers: 2 • Paving Equipment: 2 • Rollers: 2	• 0 delivery trips per day • 15 worker commute trips per day • 0 one-way haul trips for export	(450 working days)

3.6 Regional Project Construction

Construction and commissioning of the 60 MGD Regional Project would require approximately 36 months and would depend on the selected site. Commencement of Regional Project construction and precise phasing is unknown and would be determined based upon funding sources, financial partners, and specific end users of the additional water supply beyond 20 MGD. For purposes of the environmental analysis, Regional Project construction is assumed to commence in 2026 and last 36 months.

3.6.1 Ocean Water Desalination Facility Construction

Construction of the Regional Project ocean water desalination facilities would last approximately 36 months. Construction methods would be similar to the Local Project. Construction workers would access the site via the existing ESGS access road. Construction activities could include:

- Excavation:
  - For expansion of a desalination facility from 20 MGD to 60 MGD at the ESGS South Site, excavation and exporting of an additional approximately 65,000 CY of material would be required. The amount of this material to be returned to the site for backfill purposes would be negligible.
  - For expansion of a desalination facility from 20 MGD to 60 MGD at the ESGS North Site, excavation and exporting of an additional approximately 40,000 CY of material would be required, of which approximately 4,000 CY would be brought back to the site for backfilling around completed structures.
- Construction of buildings for the various process and non-process components
- Installation of mechanical and electrical equipment
- Grading and paving of site circulation roads and parking areas
- Landscaping and revegetation

3.6.2 Screened Ocean Intake and Concentrate Discharge

Construction of ~~the Regional Project~~ both the ~~screened~~ ocean intake and ~~concentrate~~ discharge facilities for the Regional Project would last ~~approximately 6~~up to 12 months. To reduce the amount of offshore construction impacts associated with the Project, offshore construction of the intake and discharge facilities for the Local Project would provide the portals necessary for future capacity expansions for the Regional Project. As a result, in addition to the 4 wedgewire screens installed during the Local Project, up to ~~12~~ 8 additional wedgewire screen risers would be installed for the Regional Project, as shown in Figure 3-16b, ~~with up to 4 of the~~ for a total of up to 12 wedgewire screens installed ~~during the Local Project~~. Similarly, ~~eight~~ fourteen diffuser ports would be installed under the Local Project, ~~with four of the eight diffusers installed for operation of the Local Project~~ and 14 larger diameter ports would be installed for the Regional Project, taking the place of the smaller ports used in the Local Project.

The five pipelines within the intake and discharge tunnels would also have been installed under the Local Project. The Regional Project would require the full intake and discharge capacity provided by the five pipe inserts. As a result, offshore construction for the Regional Project would be limited to attaching additional wedgewire screens and resized diffusers onto previously-installed Local Project infrastructure. ~~Construction methods would be similar to the Local Project.~~

3.6.3 Desalinated Water Conveyance Construction

The Regional Project conveyance facility construction activities would last approximately 24 months and are anticipated to occur 5 days per week from 7AM to 6 PM. Regional pump station

pipeline construction at some future date would require an additional 2 to 3 years and would involve similar equipment and procedures.

- Up to 4.9 miles of additional pipeline are proposed under the Regional Project.
- Pipelines would be installed using open-cut trenching; however, if this is infeasible, trenchless construction (jack-and-bore) would be used.
- Construction equipment would include excavators, loaders, haul trucks, compaction equipment, water trucks, cranes, soil sorting and screening equipment, shoring systems, paving equipment, and welding equipment.
- Soils excavated would be reused to the extent possible or hauled for off-site disposal.
- Width of disturbance corridor would be up to 35 feet for open-trench construction.
- If damaged during construction, up to 35 feet of pavement width would be restored.
- Work area around jacking and receiving pits for the six potential jack-and-bore locations would be approximately 5,000 square feet each (e.g., 100 feet by 50 feet).
- Product water conveyance lines would be pressure-tested prior to their operation and would involve chlorinated potable water, with the resultant end product (as the pipes are flushed out and pressure-tested) being dechlorinated and discharged into the local storm drain system or as otherwise required by the Regional Water Quality Control Board through its Waste Discharge Requirements permitting process. Pressure piping in the raw water and brine discharge systems would be pressure-tested using unchlorinated seawater, and the resultant end product would be discharged into the ocean using Project brine discharge facilities.

Table 3-10 includes the construction activities associated with all applicable phases of the Regional Project construction, the construction equipment required, associated vehicle trips, and duration of activities.

TABLE 3-10
REGIONAL PROJECT ONSHORE CONSTRUCTION ASSUMPTIONS

Component	Construction Activity	Construction Equipment	Vehicle Trips	Regional Project Schedule/Duration
Treatment Plant Construction				
Excavation	South Site: 65,000 CY excavation 65,000 CY export N/A North Site 40,000 CY excavation 40,000 CY export 4,000 CY import/fill	Excavators: 2 Graders: 1 Rubber Tires Dozers: 1 Scrapers: 1 Tractors/Loaders/ Backhoes	0 delivery trips per day 20 worker commute trips per day 16,250 one-way haul trips for export	(88 working days)

Component	Construction Activity	Construction Equipment	Vehicle Trips	Regional Project Schedule/Duration
Building Construction		Cranes: 1 Forklifts: 3 Generator Sets: 3 Tractors/Loaders/ Backhoes: 2 Welders: 3		(330 working days)
Desalinated Water Conveyance				
Demolition	33,669 tons of roadway demolition to export	• Concrete/ Industrial Saws: 1 • Excavators: 3 • Rubber Tires Dozers: 2	• 0 delivery trips per day • 15 worker commute trips per day • 3,329 one-way haul trips for export	(500 working days)
Excavation, Trenching, Jack-and-Boring/ Directional Drilling	97,000 CY import 41,000 CY export	• Excavators: 2 • Graders: 1 • Rubber Tires Dozers: 1 • Scrapers: 2 • Tractors/Loaders/ Backhoes: 2 • Directional Drill rig: 1	• 0 delivery trips per day • 20 worker commute trips per day • 17,250 one-way haul trips for export	(500 working days)
Paving		• Pavers: 2 • Paving Equipment: 2 • Rollers: 2	• 0 delivery trips per day • 15 worker commute trips per day • 0 one-way haul trips for export	(450 working days)

3.7 Project Operation and Maintenance

The proposed desalination facility would operate 24 hours a day, 365 days a year, and would be staffed around the clock. Routine deliveries of chemicals to the site, and hauling of residual materials from the site, would be conducted during normal day-shift working hours, during the traditional work week.

3.7.1 Staffing

The ocean water desalination facility would employ an anticipated total staff of roughly 20 full-time West Basin personnel, with the facility being fully staffed 8 hours per day, 5 days per week,

and partially staffed at other times for the Local Project. Staffing levels for the Regional Project would be similar to Local Project, with the Regional Project requiring an additional up to four employees.

3.7.2 Visitors

As described previously, the proposed ocean water desalination facility would include space for facility administration, visitors, and public water education. It would include a reception area (with public education exhibits), administrative offices, conference room, restrooms, an auditorium with capacity for approximately 50 persons, lunchroom/kitchen, operations center, lockers, and a maintenance workshop. Parking for this facility would be a 14,000-square-foot single-level parking lot located adjacent to the administration/operations building.

3.7.3 Security

The proposed Project is located within ESGS boundaries. NRG currently maintains a physical security perimeter around the ESGS, including perimeter fencing, gates, and a guard-manned entry point. An access road to the desalination facility site would be constructed from the existing access road within the ESGS site, and would require all vehicles and visitors to pass through the existing ESGS guarded entry gate; see Figure 3-9, Figure 3-10, Figure 3-19, and Figure 3-20. Entry to desalination facility buildings would be further secured through lockable gates and doorways, and alarms (if necessary). Visitors of the education center would not be allowed outside of the established visitor area, unless escorted by a facility employee.

3.7.4 Offshore Facility Maintenance

Operation of the Local Project screened ocean intake and concentrate discharge facilities would require periodic inspections of the submerged components. During normal plant operations, periodic maintenance trips estimated at less than one per month, would be required for divers to inspect the diffuser and the intake screens, and to ensure that excessive biofouling does not develop. A crew of up to five divers would make up to 11 trips over the course of the year, on a 40-50-foot dive vessel. The 400- 500-hp vessel would travel to the project site from the POLA or POLB and would work a 10-hour day including round-trip travel. Should macro foulants be found, divers would use tools, such as brushes and chisels, to mechanically remove large foulants attached to the screens.

3.8 Permits, Approvals, and Regulatory Requirements

The ocean water desalination facility would require approvals from numerous Responsible Agencies, Trustee Agencies, and local agencies. **Table 3-11** lists the various agencies that will likely be consulted, along with anticipated permits and activities needed for consultation/permit approval.

3.9 Project Phasing

The proposed Project would be implemented through multiple construction phases. As described above, the 60 MGD Regional Project would be implemented through an initial phase of 20 MGD that would serve local water supply needs followed by incremental subsequent phases in 20 MGD increments (Phases 2 and 3) to meet water demands at a regional scale. Refer to Sections 3.5 and 3.6 for an expanded discussion on the construction phasing of the screened ocean intake, concentrate discharge, ocean water desalination facility, and desalinated water conveyance facilities under the 60 MGD Regional Project.

TABLE 3-11
PERMITS, APPROVALS, AND REGULATORY REQUIREMENTS*

Agency/Department	Permit/Approval	Required for
Federal Agencies		
U.S. Fish and Wildlife Service (USFWS)	Section 7 consultation under the Endangered Species Act, Migratory Bird Treaty Act (MBTA) (16 USC §§ 703-711), and Fish and Wildlife Coordination Act (16 USC §§ 661-667c)	Required to address potential effects of Project construction and operation on any federally protected (i.e. endangered and threatened) plant/wildlife species or habitat.
NOAA National Marine Fisheries Service (NMFS)	Consultation in accordance with Section 7 ESA, Section 104 of the Marine Mammal Protection Act of 1972 (16 USC § 1374), and Section 305(b), Magnuson-Stevens Fishery Conservation and Management Act (16 USC § 1855 (b))	Required for interagency cooperation to avoid take of marine mammals and protect essential fish habitat. Required for concentrate discharge and any temporary work, construction, or operation in the marine environment.
U.S. Army Corps of Engineers (USACE)	Section 404 of the Clean Water Act (33 USC § 1344) and Section 10 of the Rivers and Harbors Appropriation Act (33 USC § 403)	Required for discharge of dredged or fill material into navigable waters of the United States (Section 7 Permit), structures in navigable waters (Section 10 Permit), and activities—including the placement of structures—affecting navigable waters (i.e., modifications to intake/discharge tunnels).
U.S. Coast Guard (District 11)	Local Notice to Mariners	Required for screened ocean intake and concentrate discharge facilities. Required for any temporary work, construction or operation in the marine environment that may affect vessels and waterways within Coast Guard District jurisdiction. Notice issued by Coast Guard for channel conditions, obstructions, menaces to navigation danger areas, etc.
State Agencies		
State Water Resources Control Board	Coverage Under National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction Activity (General Permit) Water Quality Order 99-08-DWQ	Required for dischargers that could affect surface, coastal, or groundwaters whose projects disturb one or more acres of soil or whose projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres. Specifically required for Project construction activity, which includes clearing, grading, and ground disturbances.
	California Ocean Plan consistency consultation and coordination with LARWQCB and other State agencies	Required pursuant to the SWRCB's Ocean Plan Amendment process.
California State Lands Commission (CSLC)	General Surface Lease (Right-of-Way Permit) (Pub. Resources Code Section 6000 et seq.; 14 Cal. Code Regs. Section 1900 et seq.)	Required for any construction occurring on CLSC lands, located below the Mean High Tide Line. Required to modify the existing ESGS SLC lease for use of the existing open-ocean intake system and allow the change in use/concentrate discharge.
	Offshore Geophysical Survey Permit	Geophysical surveys in the ocean bottom and marine environment

Agency/Department	Permit/Approval	Required for
California Department of Fish and Wildlife (CDFW)	Lake/Streambed Alteration Agreement (Fish and Game Code § 1602)	Required for any activities that divert, change, or deposit debris, waste, or other materials within the bed, channel, or bank of any river, stream, or lake, including inland waters and within some areas of bays and estuaries (i.e., screened ocean intake and concentrate discharge facilities). Required for any activities that may substantially adversely affect existing fish or wildlife resources.
	California Endangered Species Act Consistency Determination (Fish and Game Code § 2081.1)	Required if the Project involves the potential for impingement/entrainment impacts to CDFW-listed candidate, threatened, or endangered species. Allows an Applicant who has obtained a federal incidental take statement pursuant to Section 7 consultation (or other federal take permit) to request CDFW Consistency Determination for consistency of federal documents with CESA.
California Coastal Commission (CCC)	Coastal Development Permit in accordance with the California Coastal Act (Pub. Res. Code § 30000 et seq.)	Required for marine-related improvements that change the intensity of land use within the Coastal Zone. Required for Project development proposed on tidelands, submerged lands, and public trust lands (i.e., screened ocean intake and concentrate discharge facilities).
California Division of Drinking Water (DDW)	Permit to Operate a Public Water System (Health and Safety Code § 116525)	Required prior to operation for potable use of the desalinated water (public water system).
California Department of Parks and Recreation Office of Historic Preservation	Coordination under Section 106 of the National Historic Preservation Act (16 USC § 470 et seq.)	Required for any Project activities subject to federal approval that may impact historic properties, which meet the criteria in the National Register of Historic Places or criteria for the National Register. Pertains to historic-period ESGS power plant.
California Department of Transportation (Caltrans)	Encroachment Permit (Streets & Highway Code § 660 et seq.)	Required for desalinated water conveyance components that would be installed within State highway right-of-ways under Caltrans jurisdiction.
California Department of Toxic Substances Control	Hazardous Waste Identification Number	Required for the ocean water desalination facility. Pertains to anyone who generates, transports, offers for transport, treats, stores, or disposes of hazardous waste.
	Groundwater Remediation (if required)	May be required for construction dewatering should groundwater require remediation.
California Energy Commission (CEC)	Application for Certification (AFC) Consistency Determination Permit modification as needed	Required to determine if demolition would be consistent with approved 00-AFC-14C for the existing ESGS power plant. Modification of existing energy facility to accommodate Project

Agency/Department	Permit/Approval	Required for
Regional Agencies		
Los Angeles Regional Water Quality Control Board (LARWQCB)	Coverage under NPDES Permit (Order No. R4-2012-0175, NPDES Permit No. CAS004001, *Waste Discharge Requirements for Municipal Separate Storm Sewer System [MS4] Discharges Within the Coastal Watersheds of Los Angeles County, Except Discharges Originating from the City of Long Beach [MS4]*)	Required for all Project facilities that would result in post-construction stormwater discharge.
	NPDES Permit in accordance with Clean Water Act Section 402 (33 USC § 1342)	Required for post-construction brine concentrate discharge and construction dewatering.
	Waste Discharge Requirements (WDR) in accordance with the Porter-Cologne Water Quality Control Act (Water Code § 13000 et seq.)	Required for construction dewatering and for post-construction brine concentrate discharge.
	Water Quality Certification in accordance with Section 401 of the Clean Water Act (33 USC § 1341). Certification based upon finding that discharge will meet water quality standards and that the proposed discharge will comply with water quality standards, defined as numeric and narrative objects in the Basin Plan.	Required for post-construction brine concentrate discharge.
	California Ocean Plan Consistency Determination, including Water Code § 13142.5(b) Determination	Required for the operation of new or expanded desalination facilities using seawater. Determination required by Water Code Section 13142.5, subdivision (b) for evaluation of the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life.
	Groundwater/Site Remediation	Required prior to ocean water desalination facility construction if it is determined that there are contaminated hazardous materials associated with the power plant (soils, electrical generating equipment, etc.) present on the ESGS site.
South Coast Air Quality Management District (SCAQMD)	Permit to Construct	Required for the construction of the ocean water desalination facility and desalinated water conveyance components.
	Permit to Operate	Required for any backup sources of power that could emit air contaminants, such as emergency generators located at the ocean water desalination facility and regional pump station.
Metropolitan Water District of Southern California (MWD)	Encroachment Permit for work within MWD right-of-way and Wheeling Agreement	~~Required if MWD becomes a Project partner under the Regional Project.~~ West Basin would enter into a Wheeling Agreement for use of MWDs conveyance route to transport the potable water produced from the desalination process to the West Basin service area. This would likely involve an encroachment permit for work within MWD right-of-way.

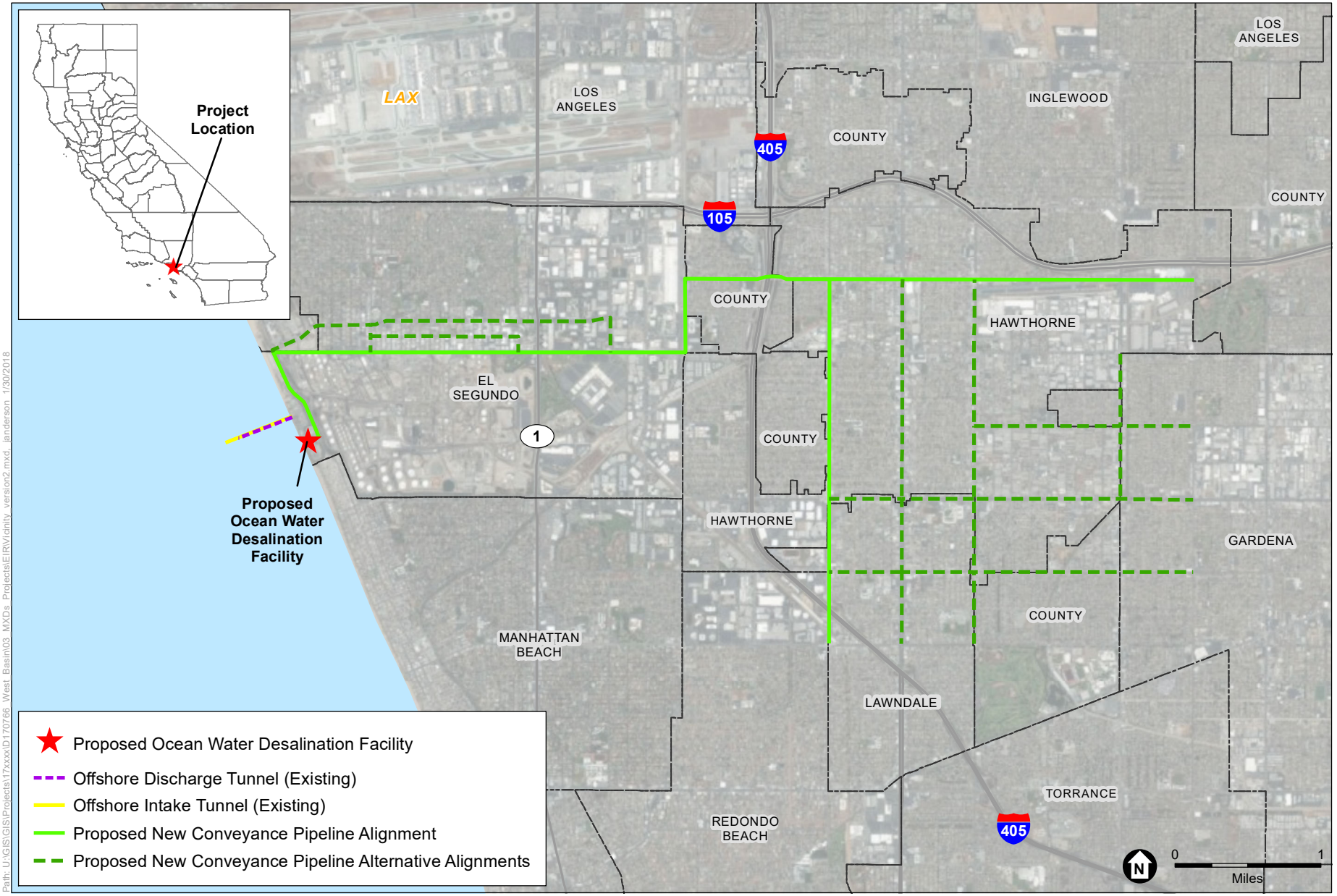
Agency/Department	Permit/Approval	Required for
Local Agencies		
CEQA Lead Agency (West Basin Municipal Water District Board of Directors)	Certification of Final Environmental Impact Report (CEQA Compliance)	Required for Project implementation.
City of El Segundo[1]	Local Coastal Plan (LCP) amendment and Coastal Development Permit (CDP), in accordance with City of El Segundo Local Coastal Plan. A LCP amendment would require approval from the CCC.	Required for onshore construction of the ocean water desalination facility, which is located within the coastal zone and is under the City of El Segundo LCP jurisdiction. Evaluation of Project consistency with Local Coastal Plan. May be administered by the California Coastal Commission with the City's consent for consolidated permit review.
	Encroachment Permit	Required for desalinated water conveyance components installation
City of El Segundo Fire Department (Certified Unified Program Agency (CUPA))	Hazard Waste Generator Permit (Small Quantity)	Required for the ocean water desalination facility. Pertains to all businesses that generate, handle, treat, or store any amount of hazardous waste.
City of Los Angeles	Encroachment Permit	Required for conveyance line segment in Vista del Mar within the City limits
	Coastal Act compliance	May be required should final design traverse the City's Coastal Zone at the intersection of Vista del Mar and Grand Avenue.
	Connection Agreement	May be required for sanitary sewer system connection depending on the final design solution.
City of Manhattan Beach	Encroachment Permit	May be required for sanitary sewer system connection depending on final design solution.
City of Redondo Beach	Encroachment Permit	Required for desalinated water conveyance components installation.
City of Lawndale	Encroachment Permit	Required for desalinated water conveyance components installation.
City of Hawthorne	Encroachment Permit	Required for desalinated water conveyance components installation.
City of Gardena	Encroachment Permit	Required for desalinated water conveyance components installation.
City of Torrance	Encroachment Permit	Required for desalinated water conveyance components installation.
LA County Department of Public Works	Encroachment Permit	Required for desalinated water conveyance components installation.
L.A. County Sanitation District	Connection Agreement	May be required for sanitary sewer system connection depending on the final design solution.
~~L.A. County Parks~~ Los Angeles County Department of Public Works	Encroachment Permit	May be required for temporary ESGS seawall work along Marvin Braude Bike Trail.
L.A. County Parks	Encroachment Permit	May be required for siting, construction and operation of the Regional Project pump station

Agency/Department	Permit/Approval	Required for
County of Los Angeles (Del Aire or El Camino Village)	Encroachment Permit	Required for desalinated water conveyance components installation.
Other		
Golden State Water Company	Utility Right-of-Way Access	Installation of pipelines and pump station within service areas
Southern California Edison (SCE)	Grid Connection	Required for ocean water desalination facility utility connections.
NRG Energy, Inc.	Real Estate Lease/Purchase	Project would require approvals to access the site for environmental and engineering investigations (e.g. access for general reconnaissance, geotechnical investigation, hazardous materials reconnaissance, etc.) Lease agreement required for desalination facility construction and operation on ESGS property.

NOTES:

[1] Note that California Government Code Section 53091(d) states that "[b]uilding ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency." Furthermore, Section 53091(e) states that "[z]oning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water . . ." However, West Basin intends to make every effort to comply with all applicable building and zoning ordinances stipulated under the City of El Segundo Municipal Code in the construction and operation of the Ocean Water Desalination Project.

* Permits, approvals, and regulatory requirements identified herein are partially based upon Malcolm Pirnie/Arcadis, Ocean Water Desalination Program Master Plan Volume I, Table 2-8 (Anticipated Permits, Timeline, and Estimated Cost), January 2013.

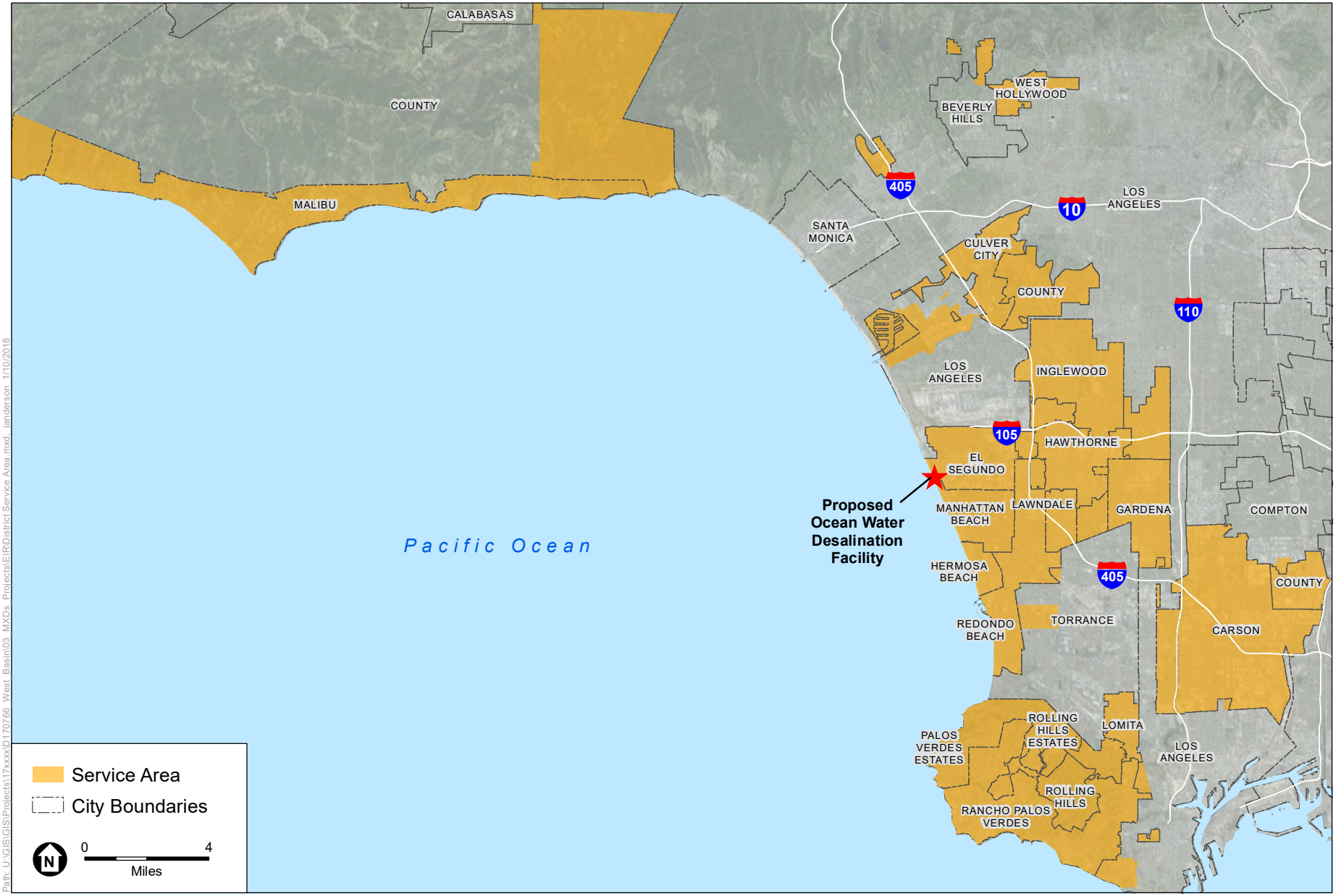


SOURCE: ESRI

West Basin Ocean Water Desalination Project

Figure 3-1
Vicinity Map

ESA



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SOURCE:ESRI; Los Angeles County

West Basin Ocean Water Desalination Project

Figure 3-2

District Service Area

ESA

SOURCE: Michael Baker International, 2016

West Basin Ocean Water Desalination Project

Figure 3-3
Existing ESGS Site

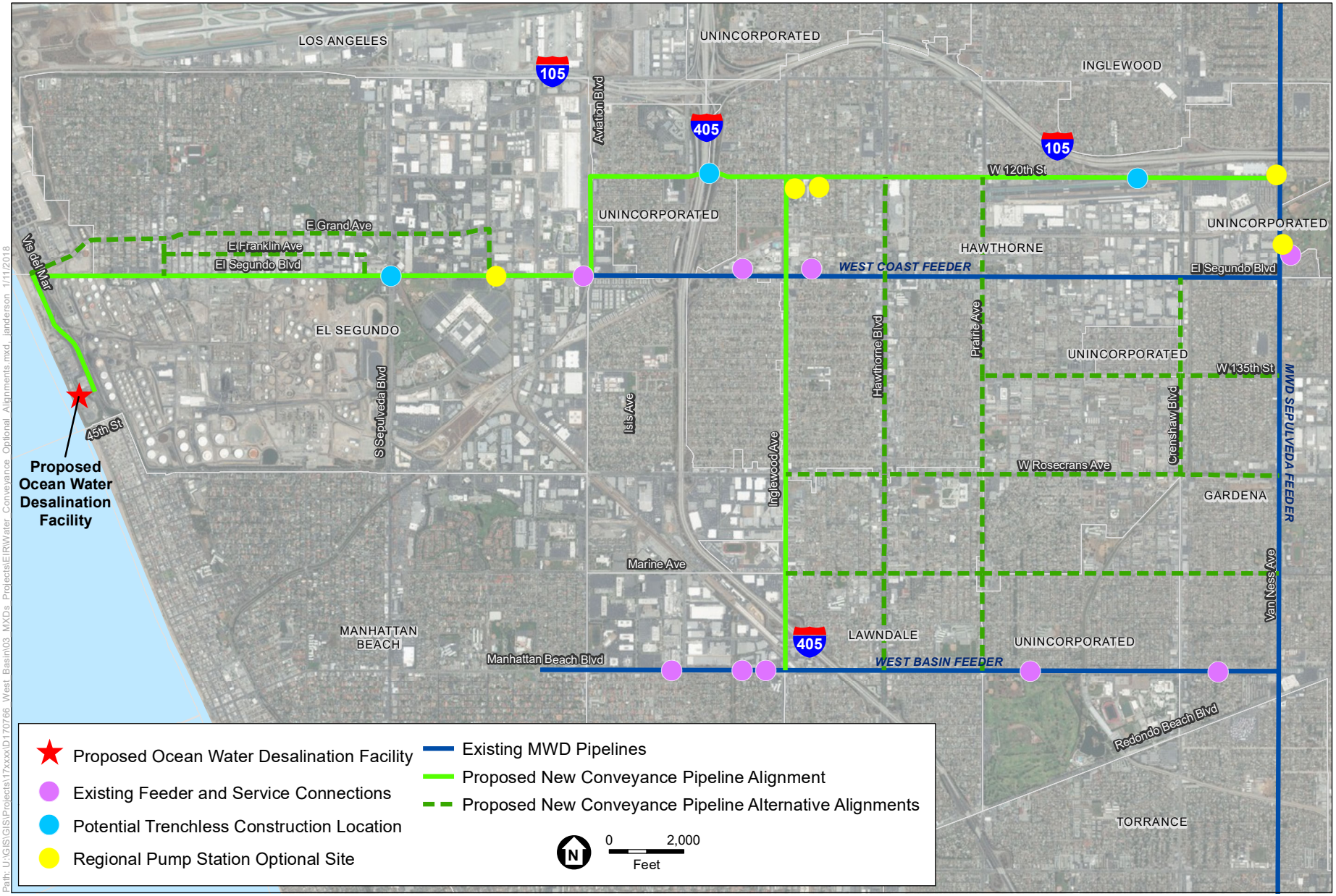
ESA

SOURCE: ESRI

Chevron Marine Terminal 2010 EIR West Basin Ocean Water Desalination Project

Figure 3-4
Existing 12-foot Diameter Intake and Discharge Tunnels

ESA



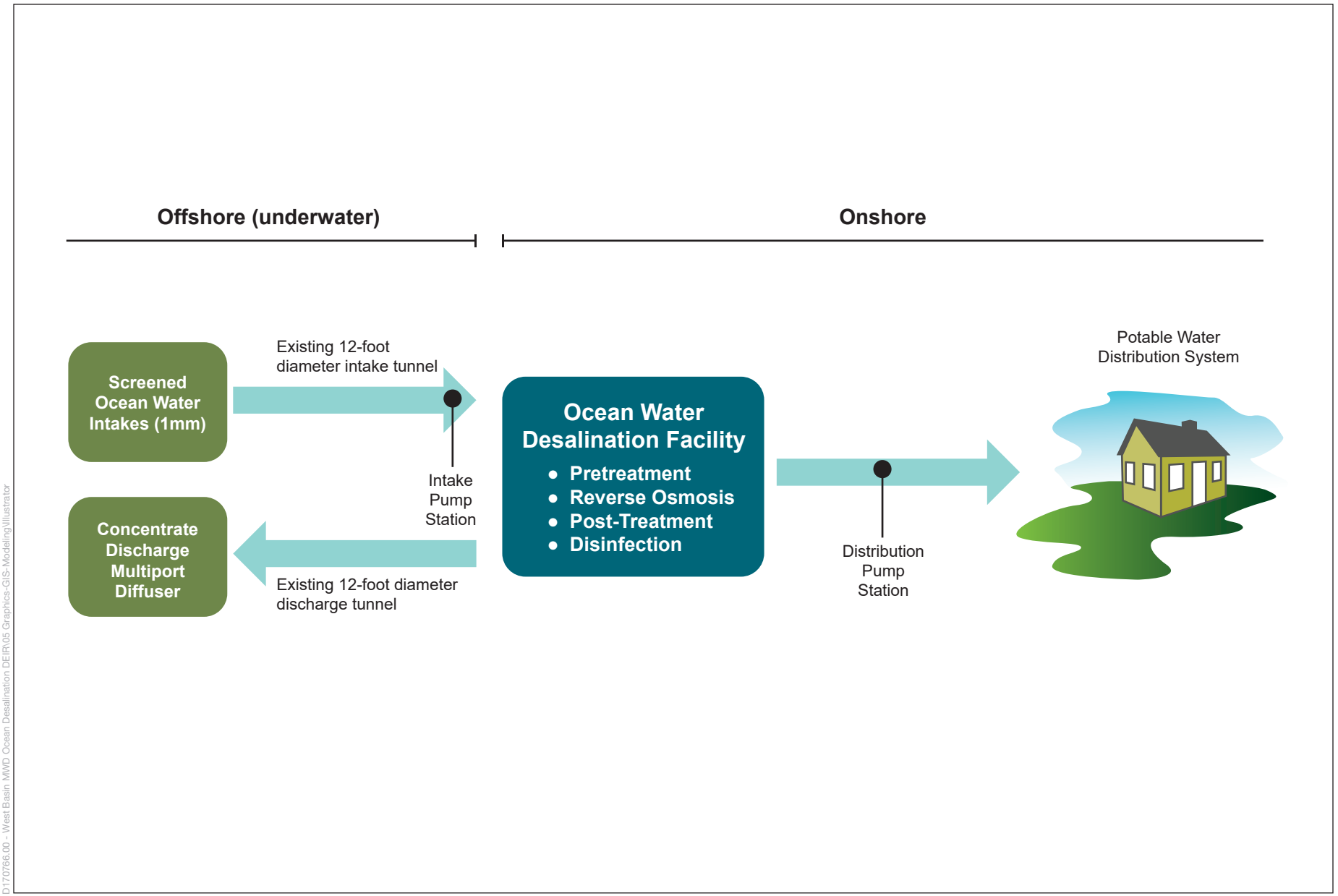
SOURCE: ESRI

West Basin Ocean Water Desalination Project

Figure 3-5

Desalinated Water Conveyance Optional Alignments

ESA



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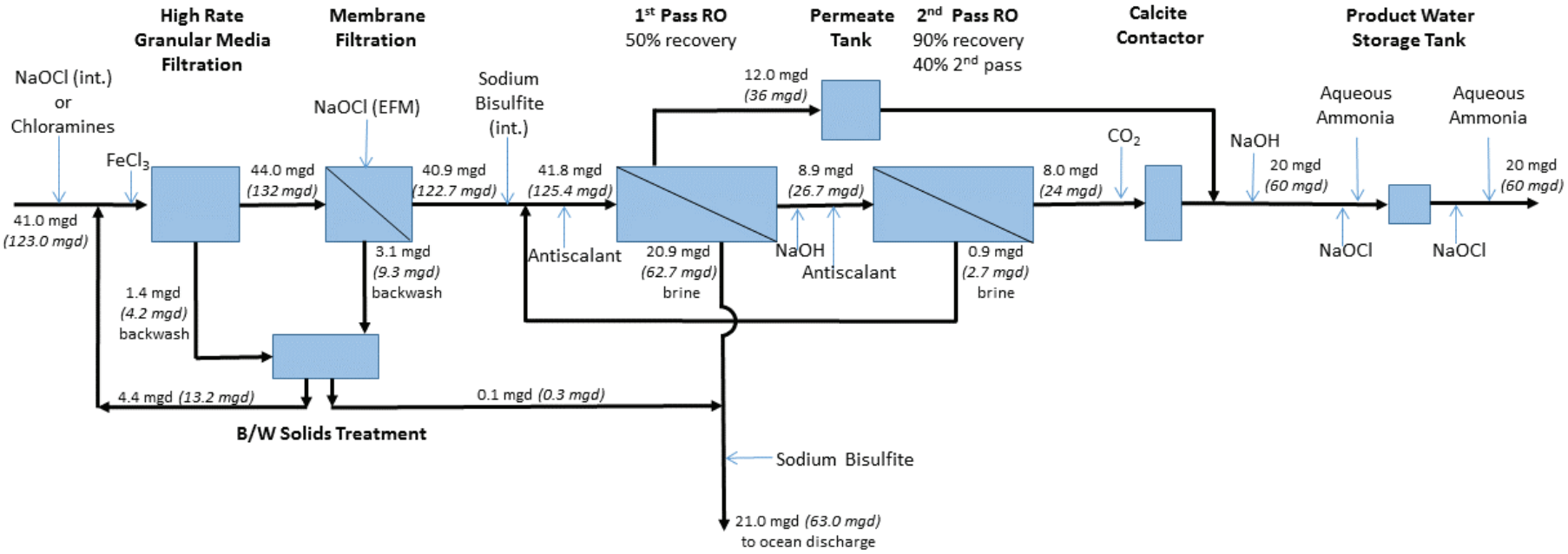
SOURCE: ESA, 2017

West Basin Ocean Water Desalination Project

Figure 3-6
Proposed Project Schematic

ESA



Volumes
1 mgd = Local Project
(1 mgd) = Regional Project

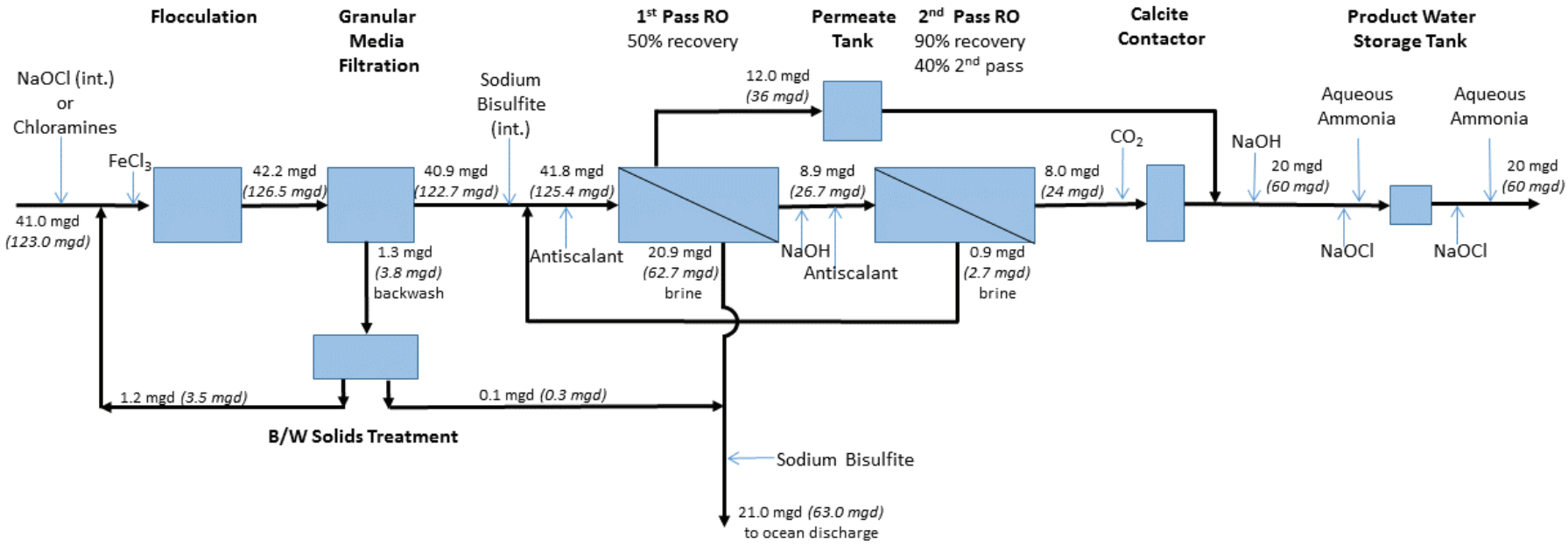
D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Michael Baker International, 2016

West Basin Ocean Water Desalination Project

Figure 3-7
Flow Diagram including High Rate Granular Media Filtration Pretreatment

ESA



Volumes
1 mgd = Local Project
(1 mgd) = Regional Project

D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Michael Baker International, 2016

West Basin Ocean Water Desalination Project

Figure 3-8

Flow Diagram including GMF Pretreatment

ESA

VISTA DEL MAR BLVD

SECTION U2

25' WIDE PRODUCT WATER PIPELINE EASEMENT

PROPOSED SITE BOUNDARY

PERMEATE STORAGE

NRG FACILITIES

SURGE TANKS

DESAL WTR. PS

NRG WATER TANKS

NRG FACITITY 2,000 SF

EMPLOYEE/DELIVERY GATE

EXISTING ACCESS ROAD

PROPOSED SITE BOUNDARY

POTENTIAL CONSTRUCTION STAGING / LAYDOWN AREA AT TANK SITE

FIRST PASS RO

SECOND PASS RO

HR GMF

MEMBRANE FILTRATION (MF)

MF FILTRATE STORAGE

HRGMF FILTRATE STORAGE

IPS

DPS

CHEM/POST TREATMENT/SOLIDS HANDLING

ELEC SUB STA

NRG NATURAL GAS COMPRESSOR BLDG

JOINT ADMIN/OPS BLDG

CALCITE CONTACTORS

SECTION U1

45'

INTAKE TUNNEL

DISCHARGE TUNNEL

PROPOSED SITE BOUNDARY

EXISTING BIKE/PEDESTRIAN PATH

PACIFIC OCEAN

FILTRATE STORAGE (BURIED)

PRODUCT WATER STORAGE WELL BELOW RO BUILDING

RETAINING WALL

CONVEYANCE PIPELINE

0 100'

D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

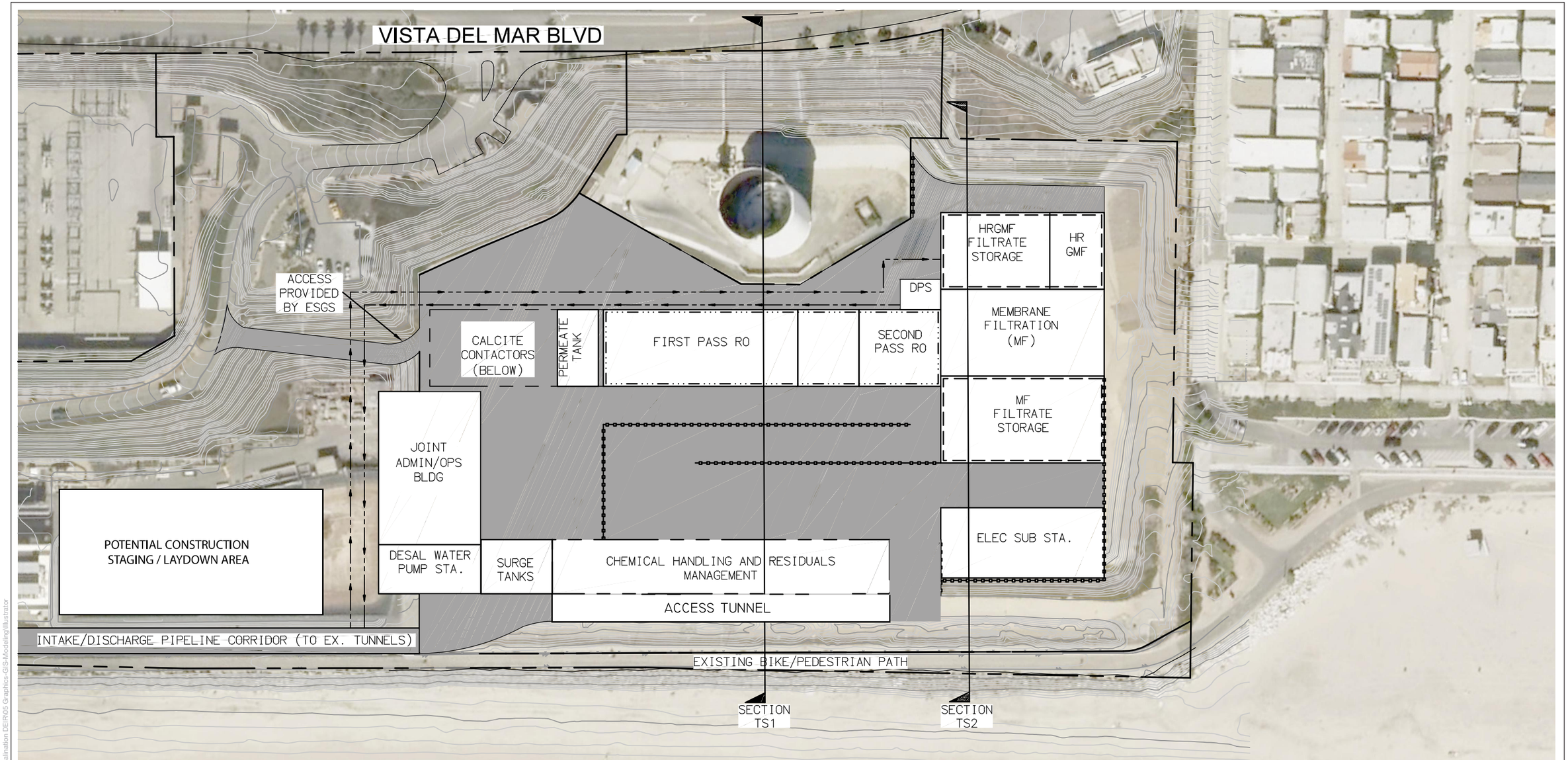
SOURCE: Michael Baker International, 2016

West Basin Ocean Water Desalination Project

Figure 3-9

20 MGD Ocean Water Desalination Facility Layout - ESGS North Site

ESA



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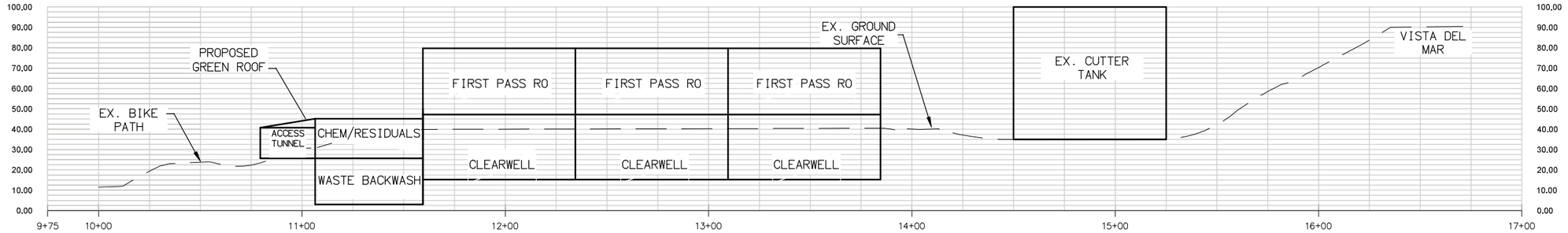
SOURCE: Michael Baker International, 2016

West Basin Ocean Water Desalination Project

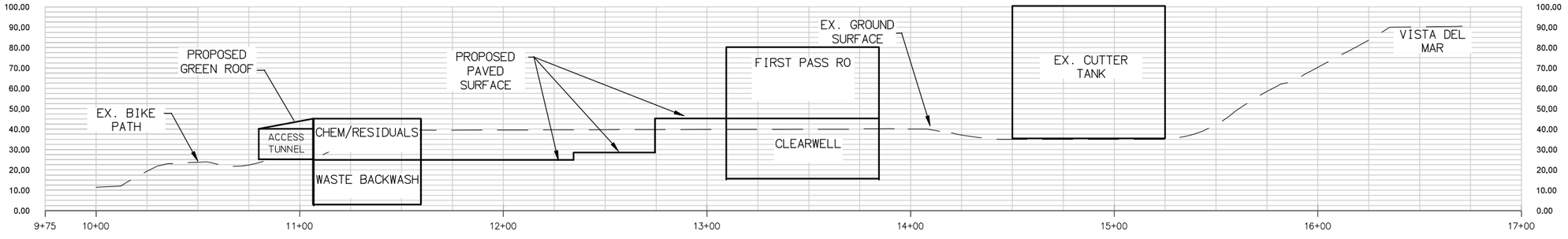
Figure 3-10

20 MGD Ocean Water Desalination Facility Layout - ESGS South Site

ESA



60 MGD REGIONAL PROJECT



20 MGD LOCAL PROJECT

SOURCE: Michael Baker International, 2016

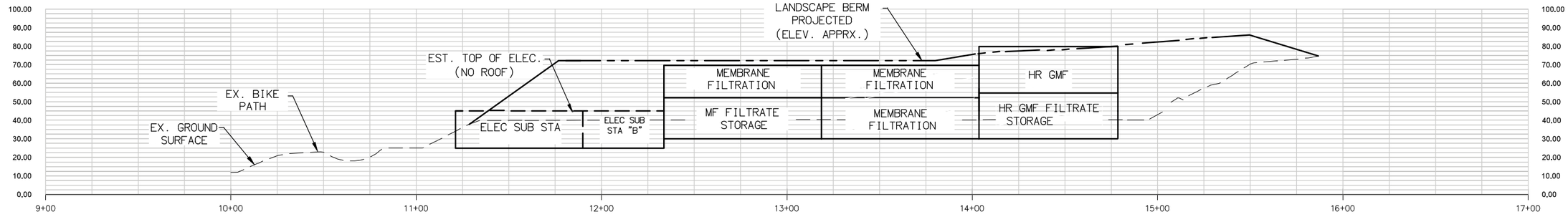
West Basin Ocean Water Desalination Project

Figure 3-11

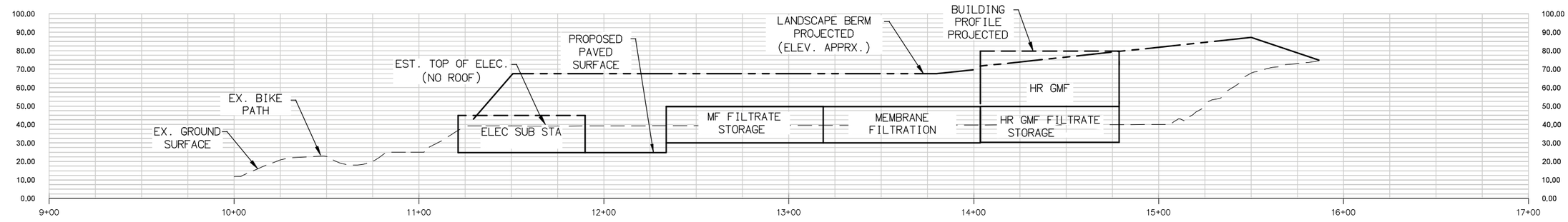
Section TS1 - ESGS South Site

ESA

Not to scale



60 MGD REGIONAL PROJECT



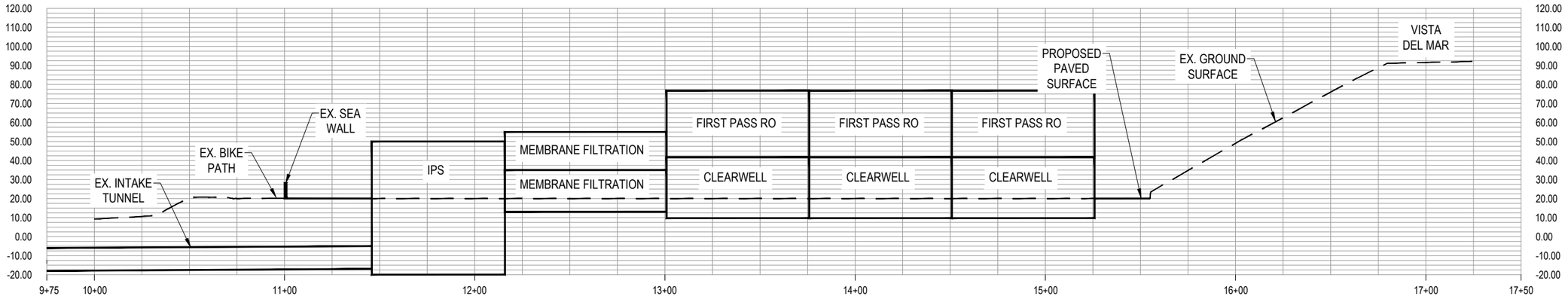
20 MGD LOCAL PROJECT

SOURCE: Michael Baker International, 2016

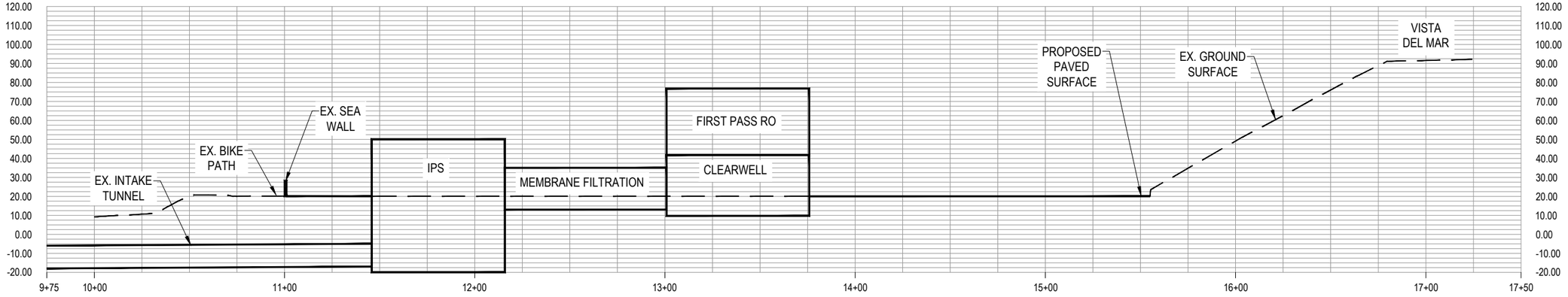
West Basin Ocean Water Desalination Project

Figure 3-12
Section TS2 - ESGS South Site

ESA



60 MGD REGIONAL PROJECT



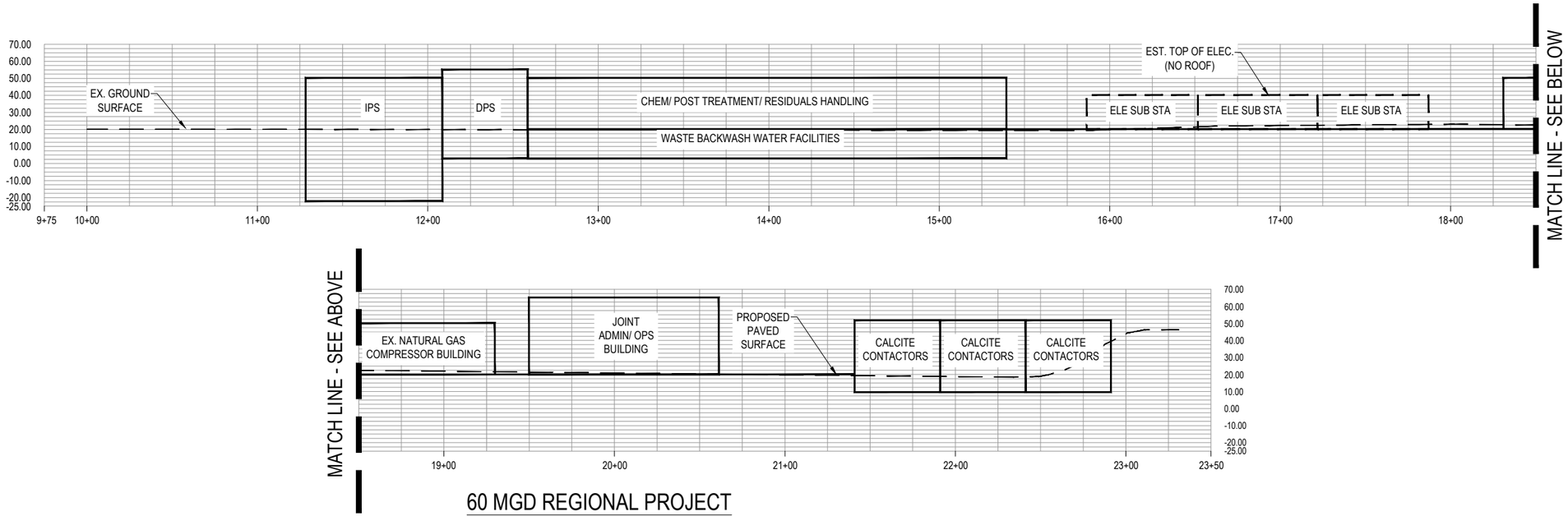
20 MGD REGIONAL PROJECT

SOURCE: GHD 2017

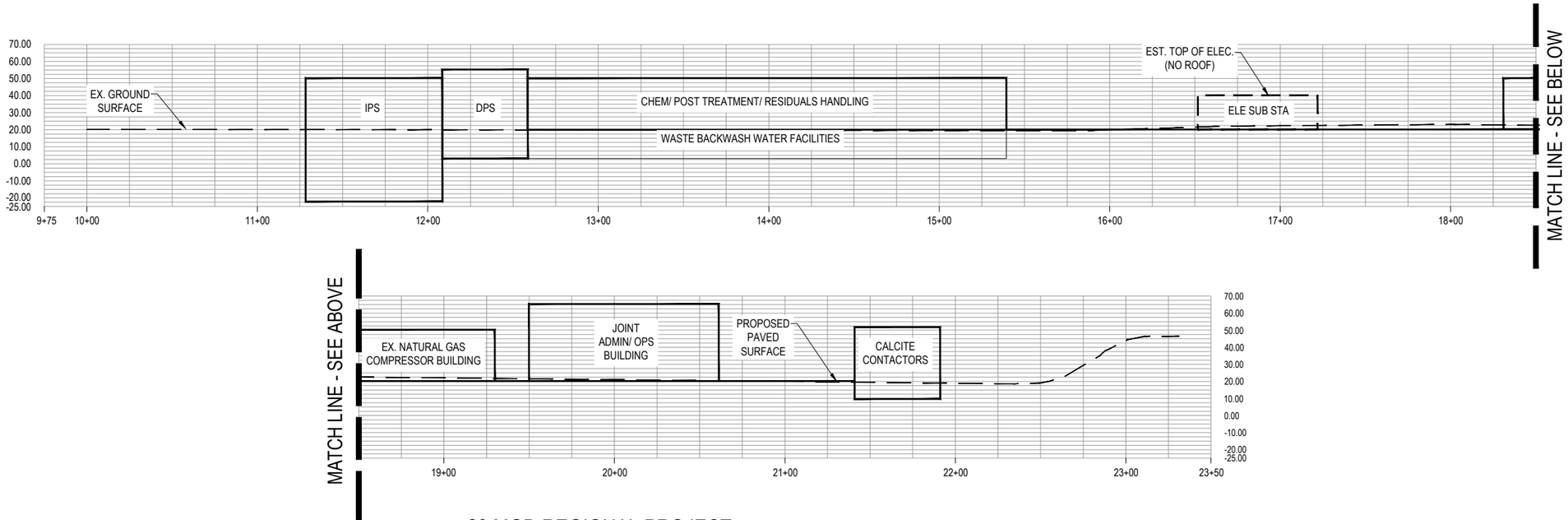
West Basin Ocean Water Desalination Project

Figure 3-13
Section U1 - ESGS North Site

ESA



60 MGD REGIONAL PROJECT



20 MGD REGIONAL PROJECT

SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

Figure 3-14
Section U2 - ESGS North Site

ESA

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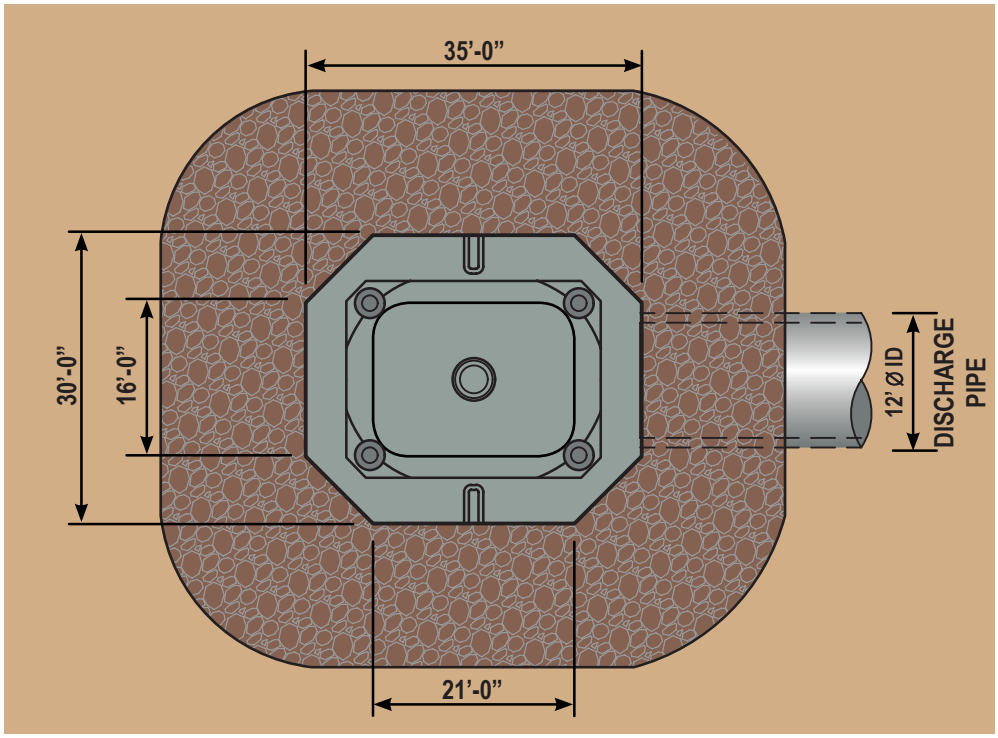
SOURCE: ESRI

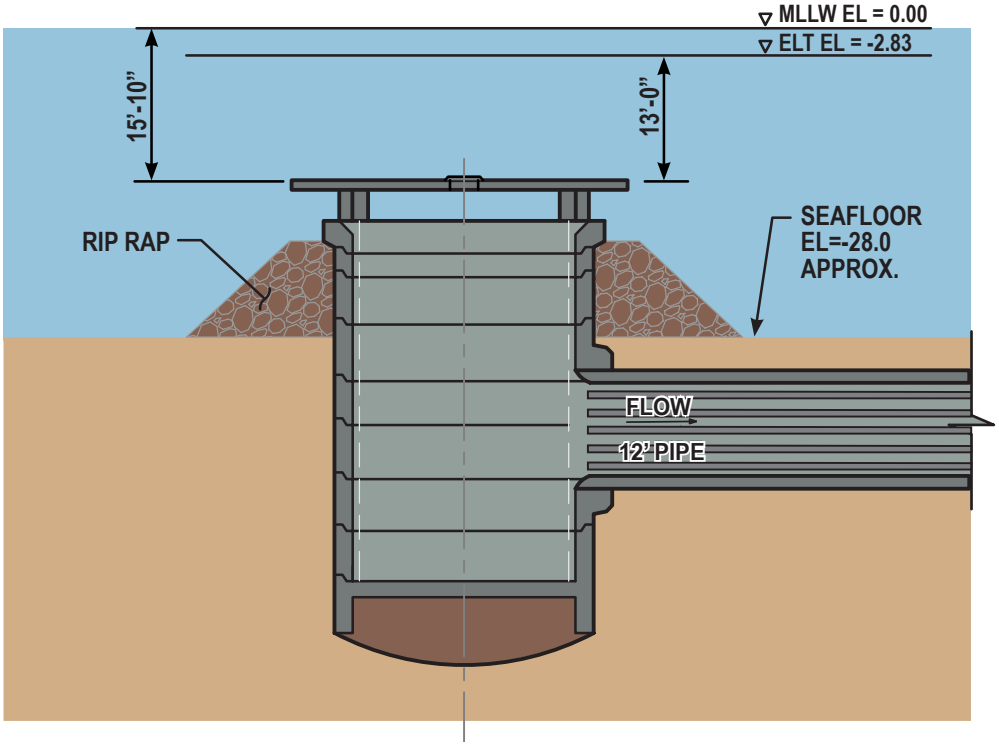
West Basin Ocean Water Desalination Project

Figure 3-15

Intake and Discharge Facilities

ESA

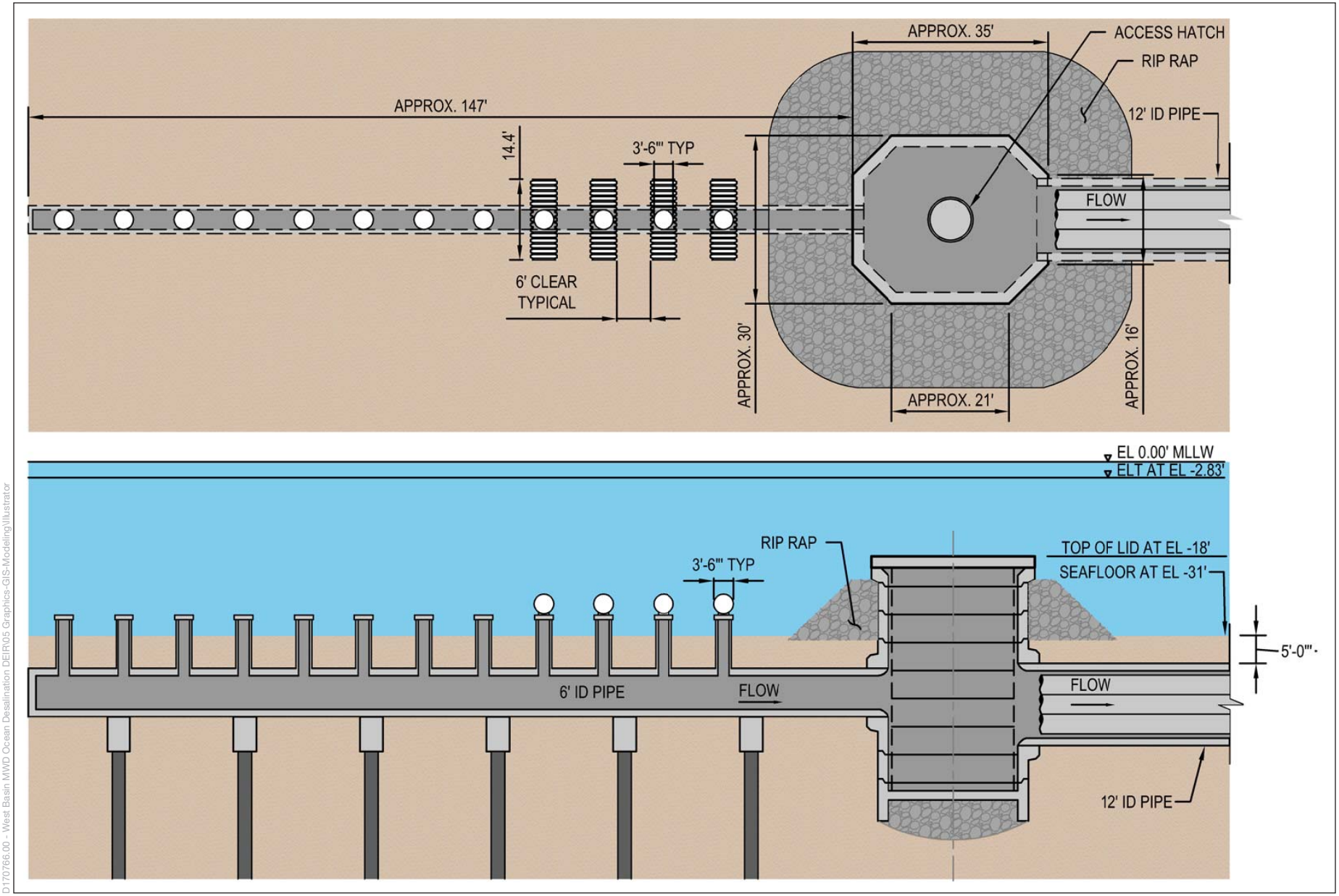




SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

Figure 3-16a
Existing Intake Structure



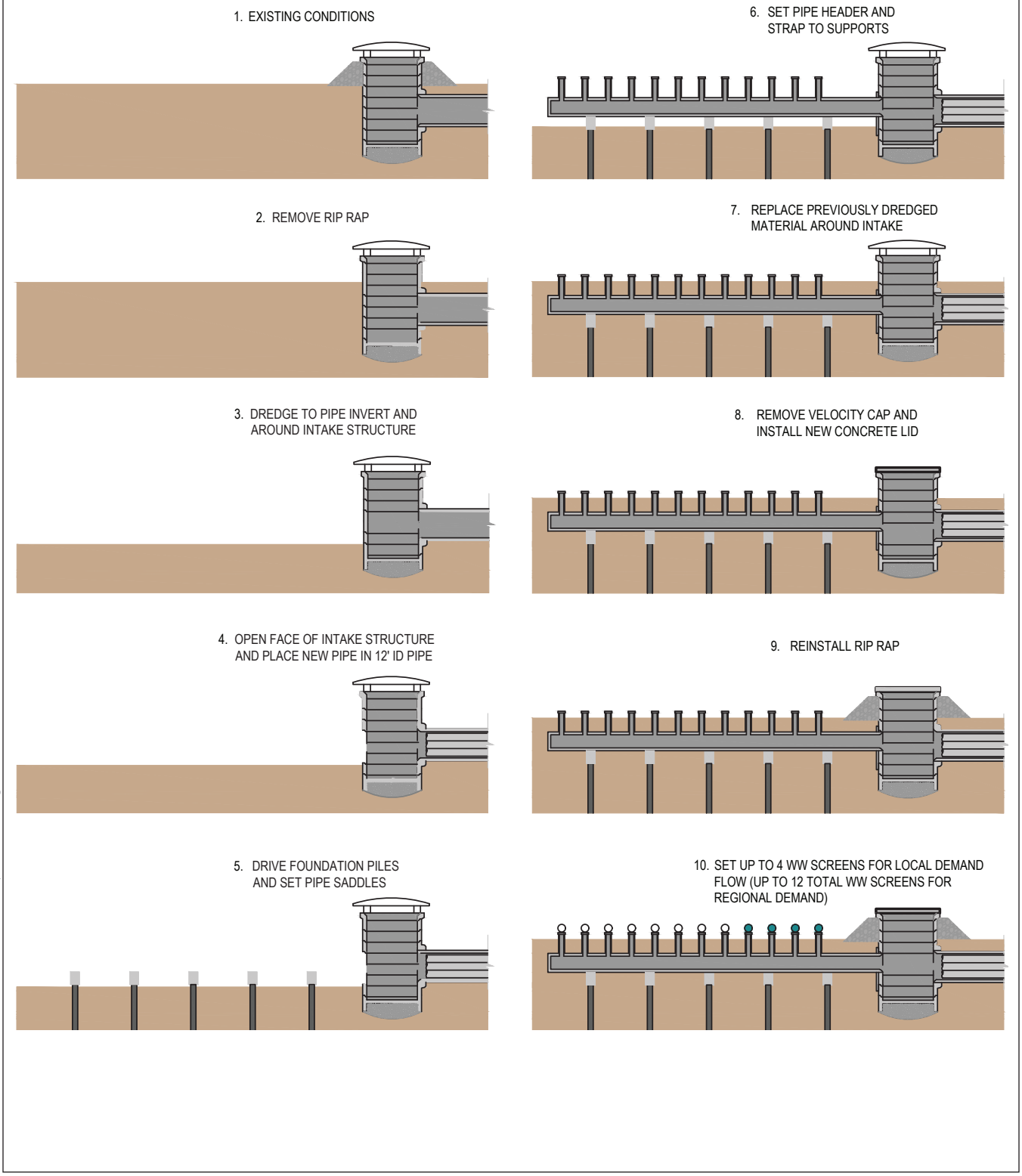
D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

Figure 3-16b
Proposed Intake Structure
(Local Project)

ESA



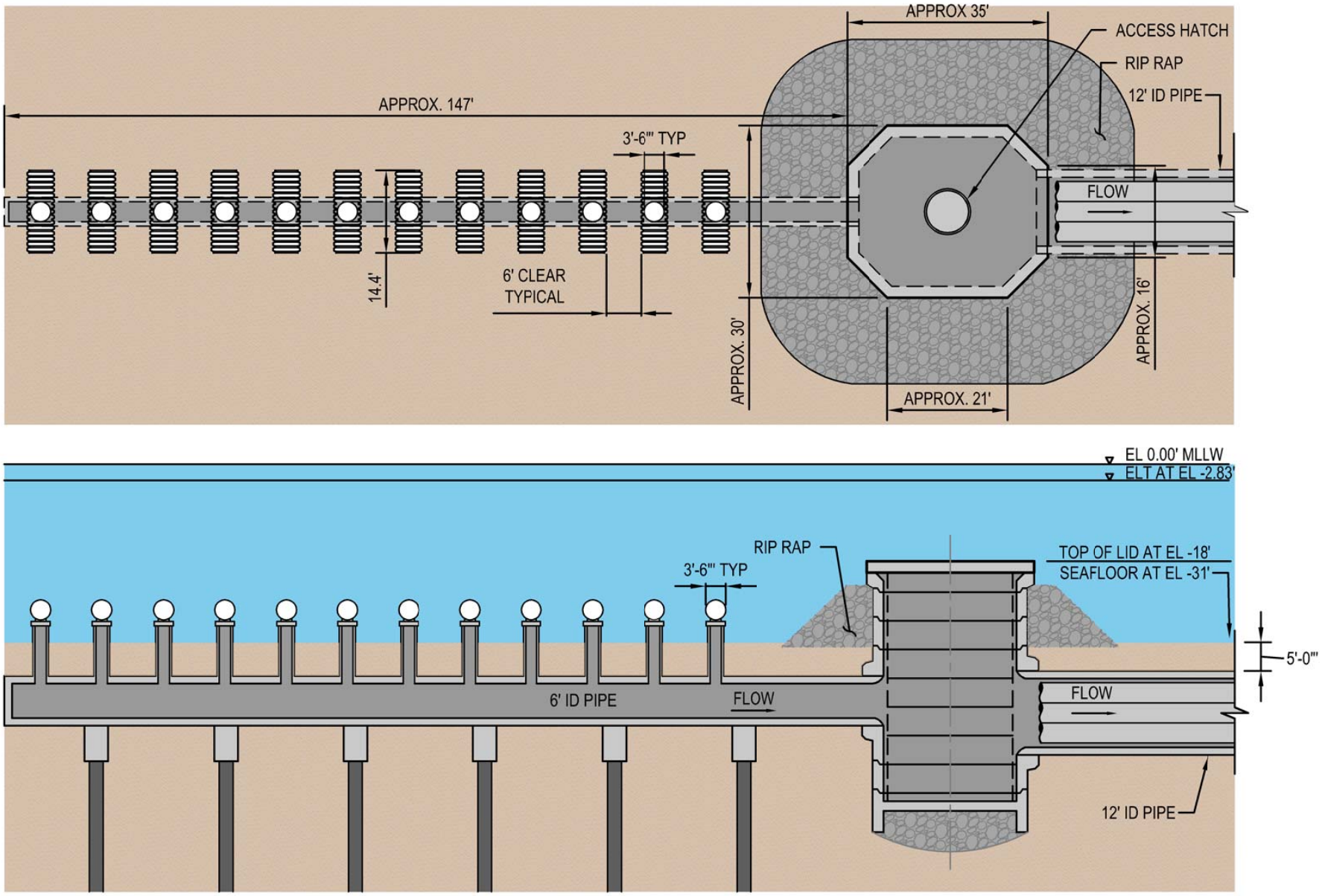
D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

SOURCE: GHD 2019

West Basin Ocean Water Desalination Project

Figure 3-16c
Intake Structure Installation

ESA



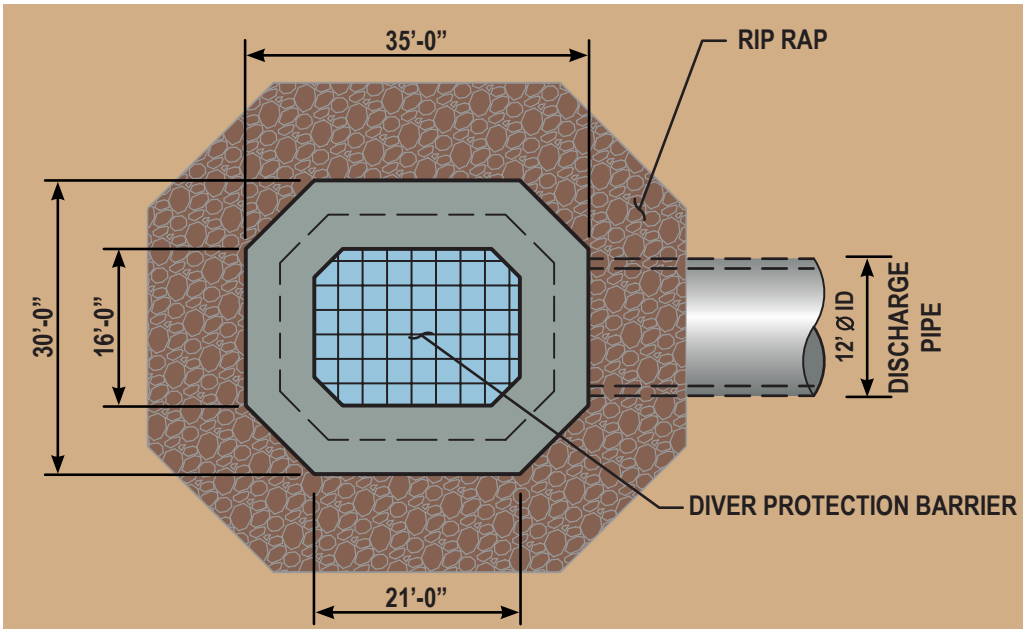
D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

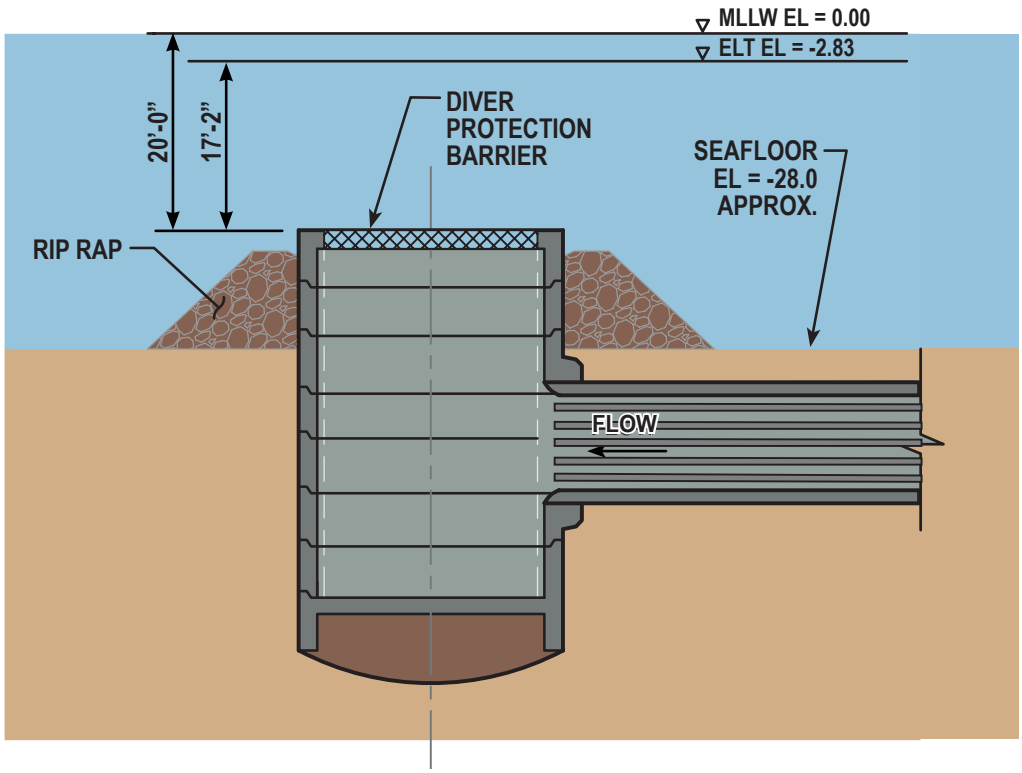
SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

Figure 3-16d
Proposed Intake Structure
(Regional Project)

ESA

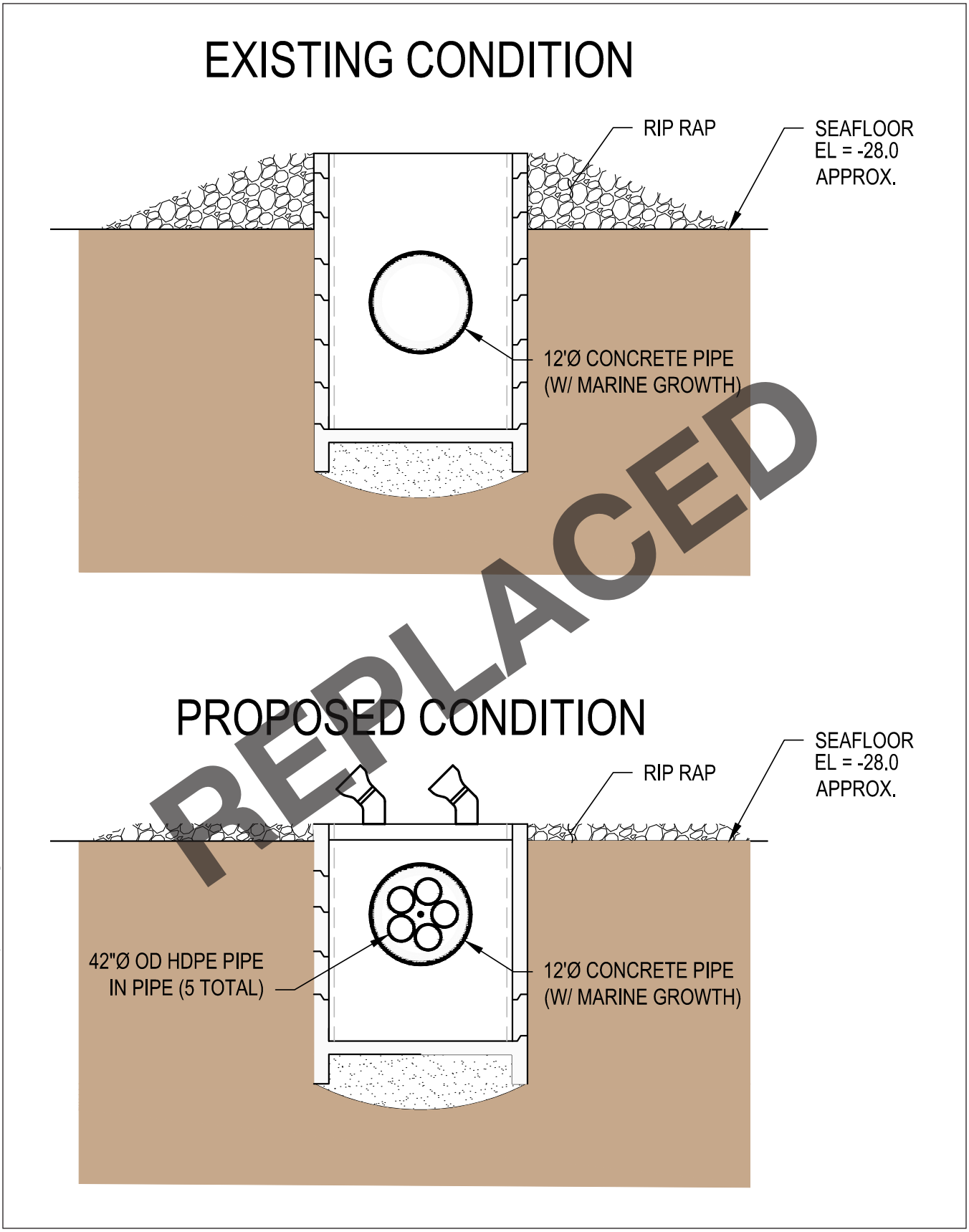




SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

Figure 3-18a
Existing Discharge Structure



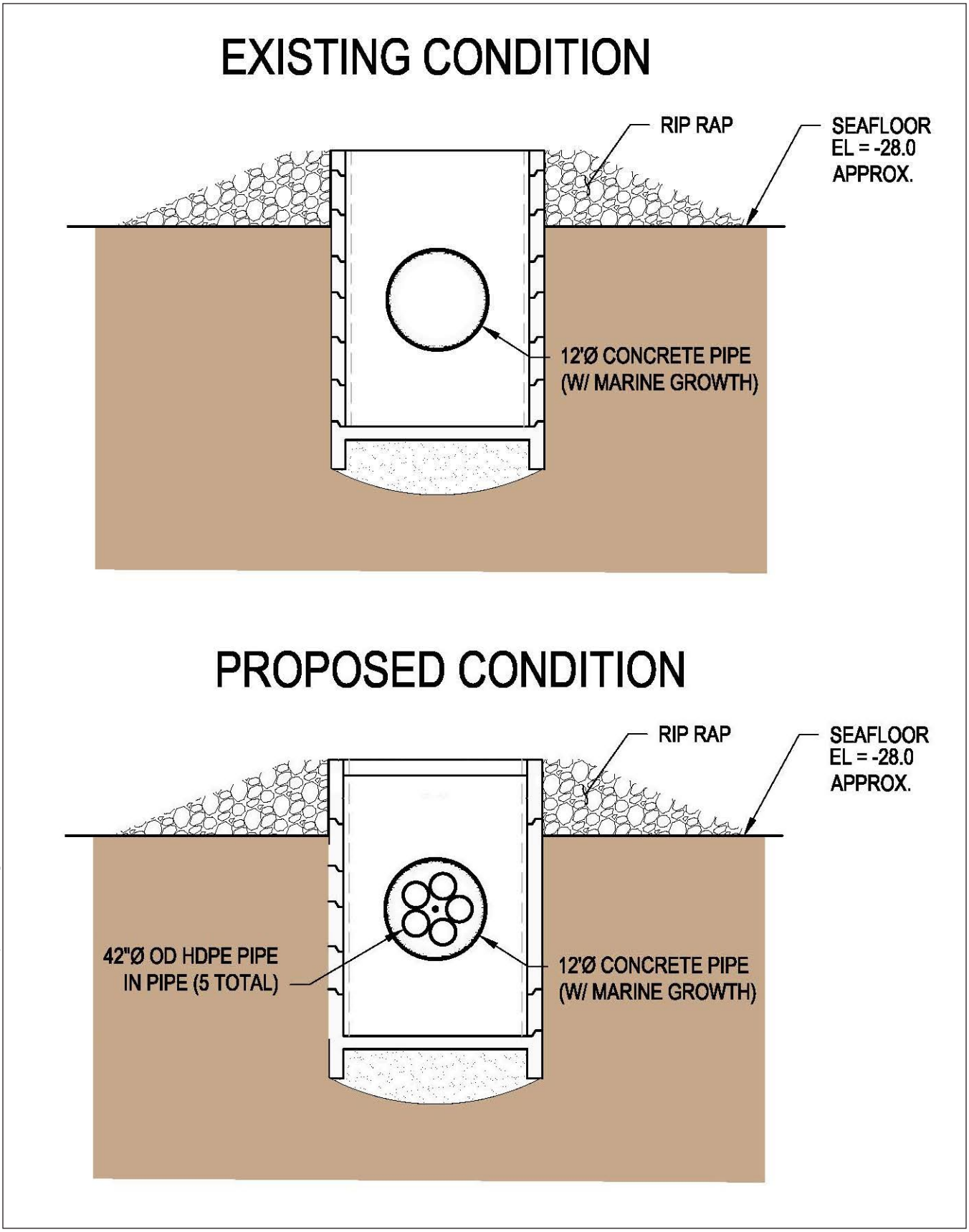
D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

Figure 3-18b
Discharge Cross Section

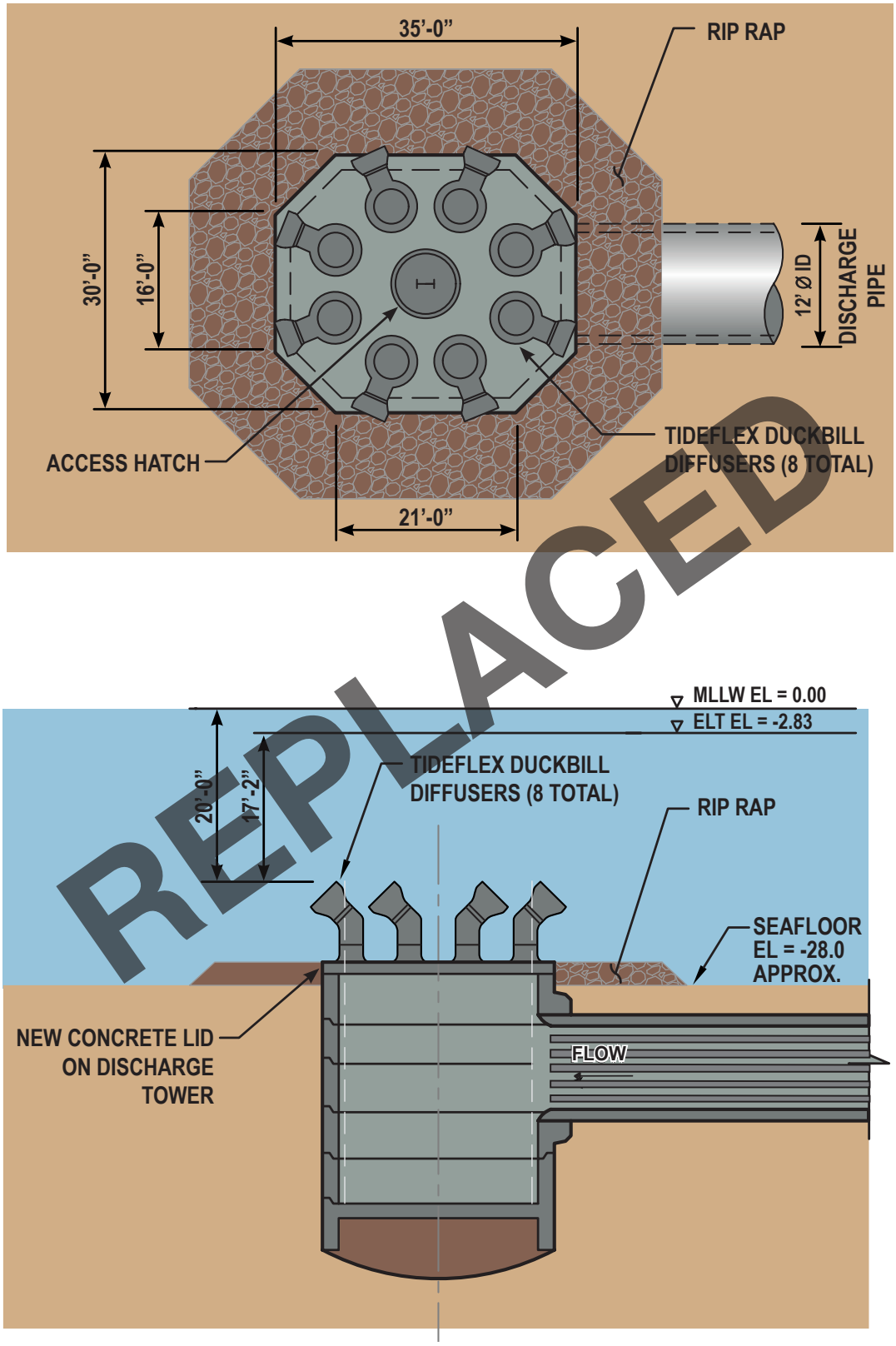
ESA



SOURCE: GHD 2019

West Basin Ocean Water Desalination Project

Figure 3-18b
Discharge Cross Section



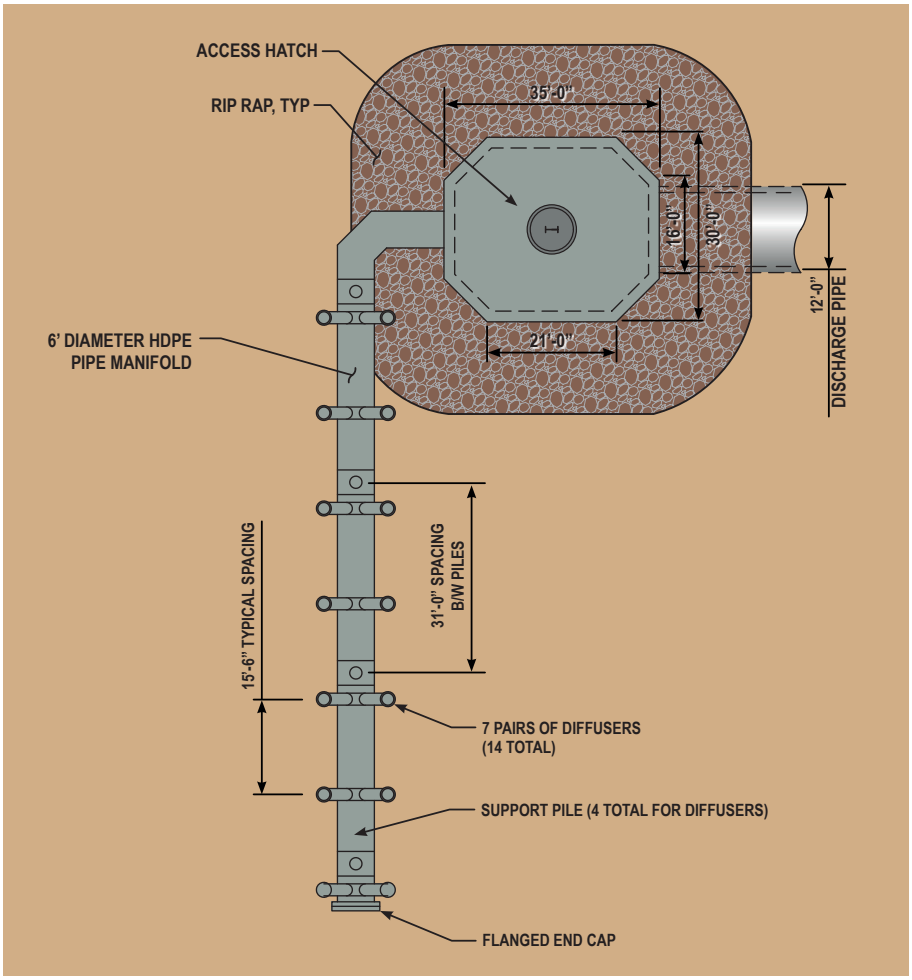
D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

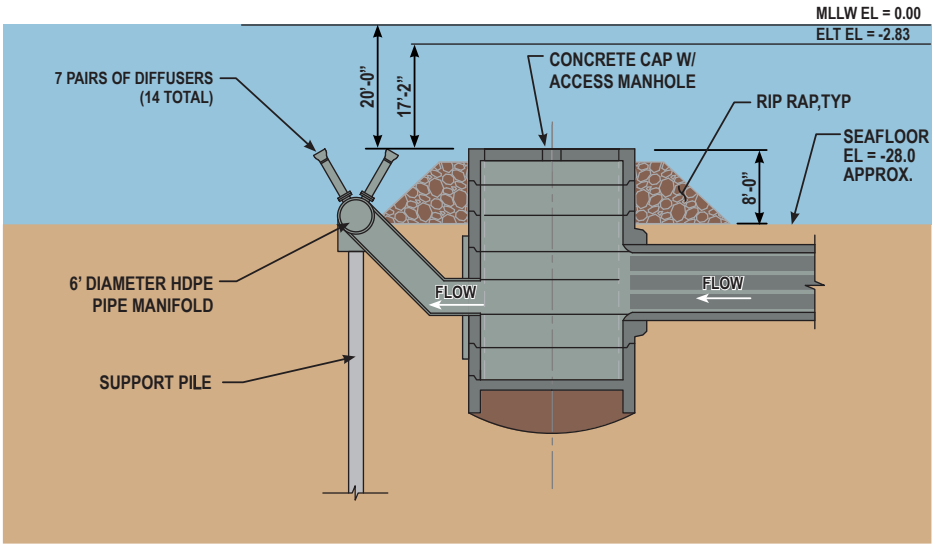
SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

Figure 3-18c
Proposed Discharge Structure
(Local Project)

ESA

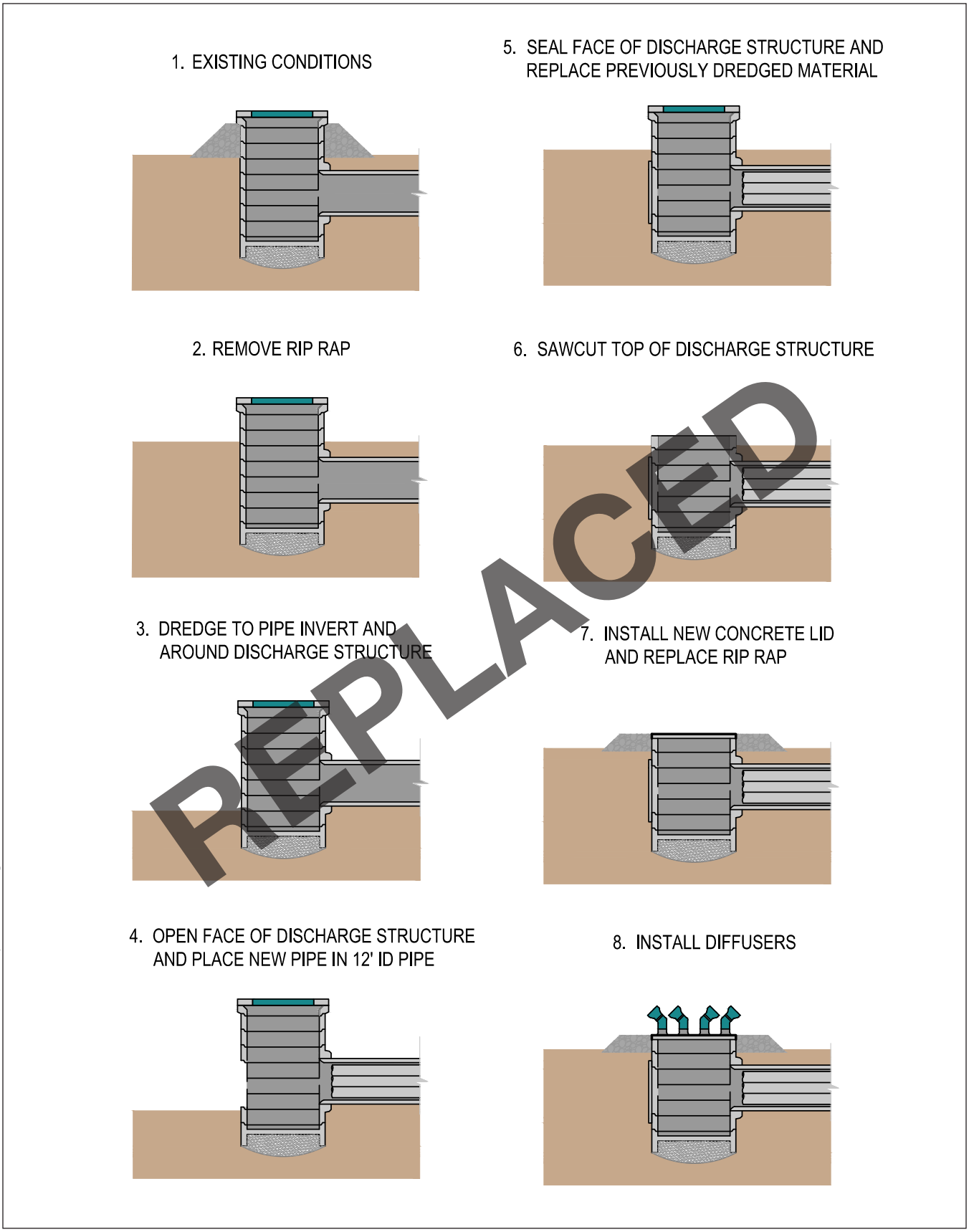




SOURCE: GHD 2019

West Basin Ocean Water Desalination Project

Figure 3-18c
Proposed Discharge Structure
(Local Project)



D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

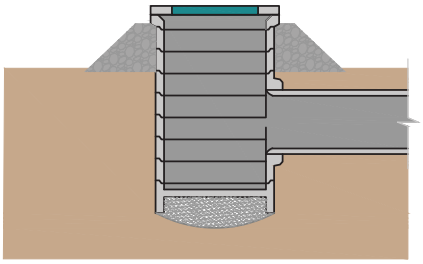
SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

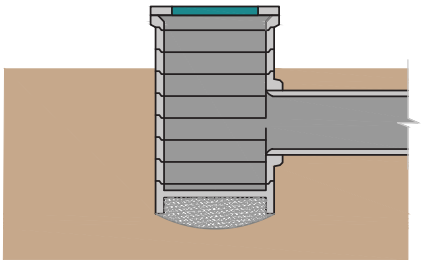
Figure 3-18d
Discharge Structure Installation

ESA

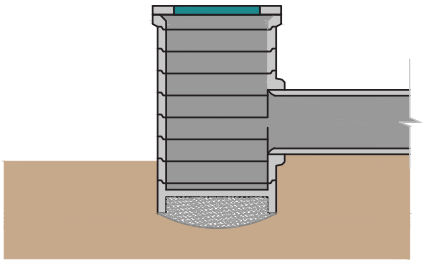
1. EXISTING CONDITIONS



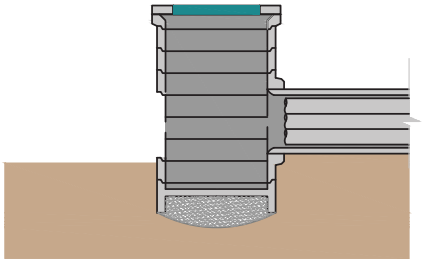
2. REMOVE RIP RAP



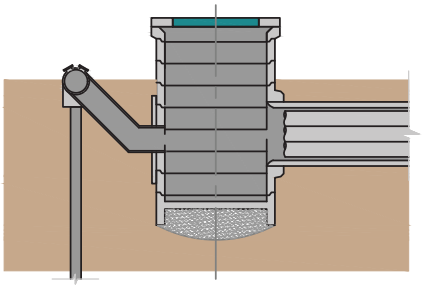
3. DREDGE TO PIPE INVERT AND AROUND DISCHARGE STRUCTURE



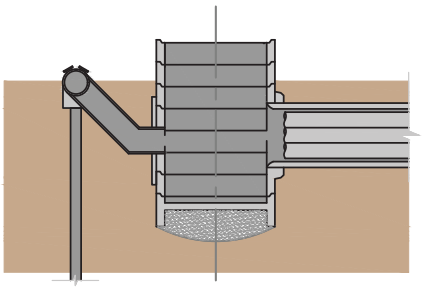
4. OPEN FACE OF DISCHARGE STRUCTURE AND PLACE NEW PIPE IN 12' ID PIPE



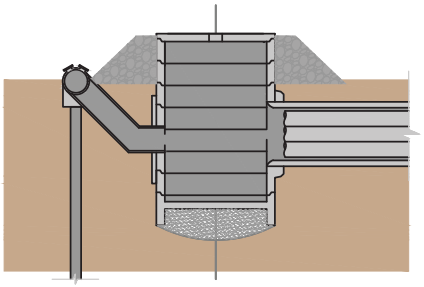
5. INSTALL DISCHARGE PIPE MANIFOLD, SEAL FACE OF DISCHARGE STRUCTURE AND REPLACE PREVIOUSLY DREDGED MATERIAL



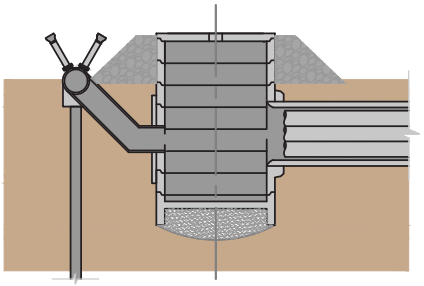
6. SAWCUT TOP OF DISCHARGE STRUCTURE



7. INSTALL NEW CONCRETE LID AND REINSTALL EXISTING RIP RAP



8. INSTALL DIFFUSERS



SOURCE: GHD 2019

West Basin Ocean Water Desalination Project

Figure 3-18d
Discharge Structure Installation

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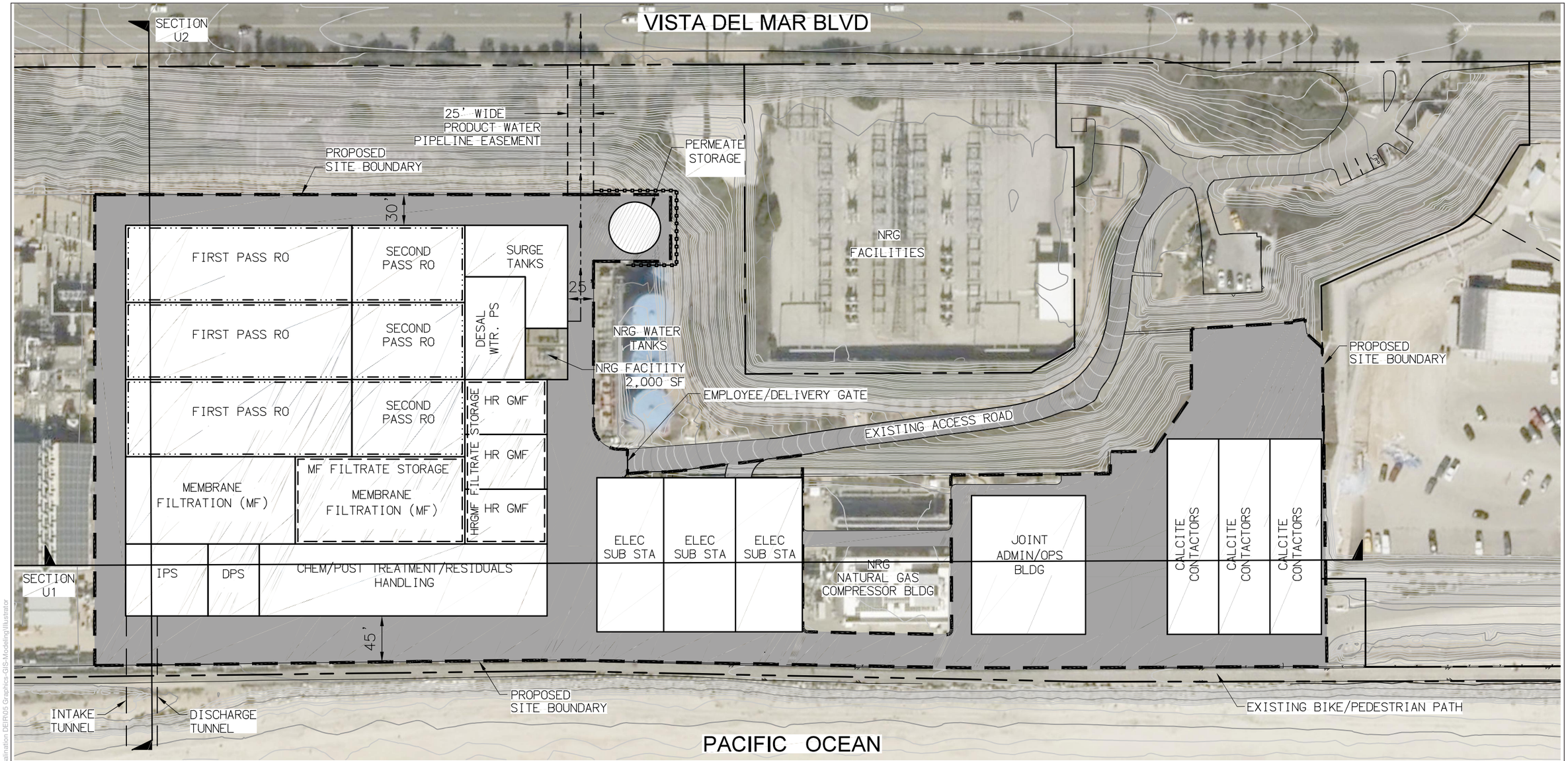


D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

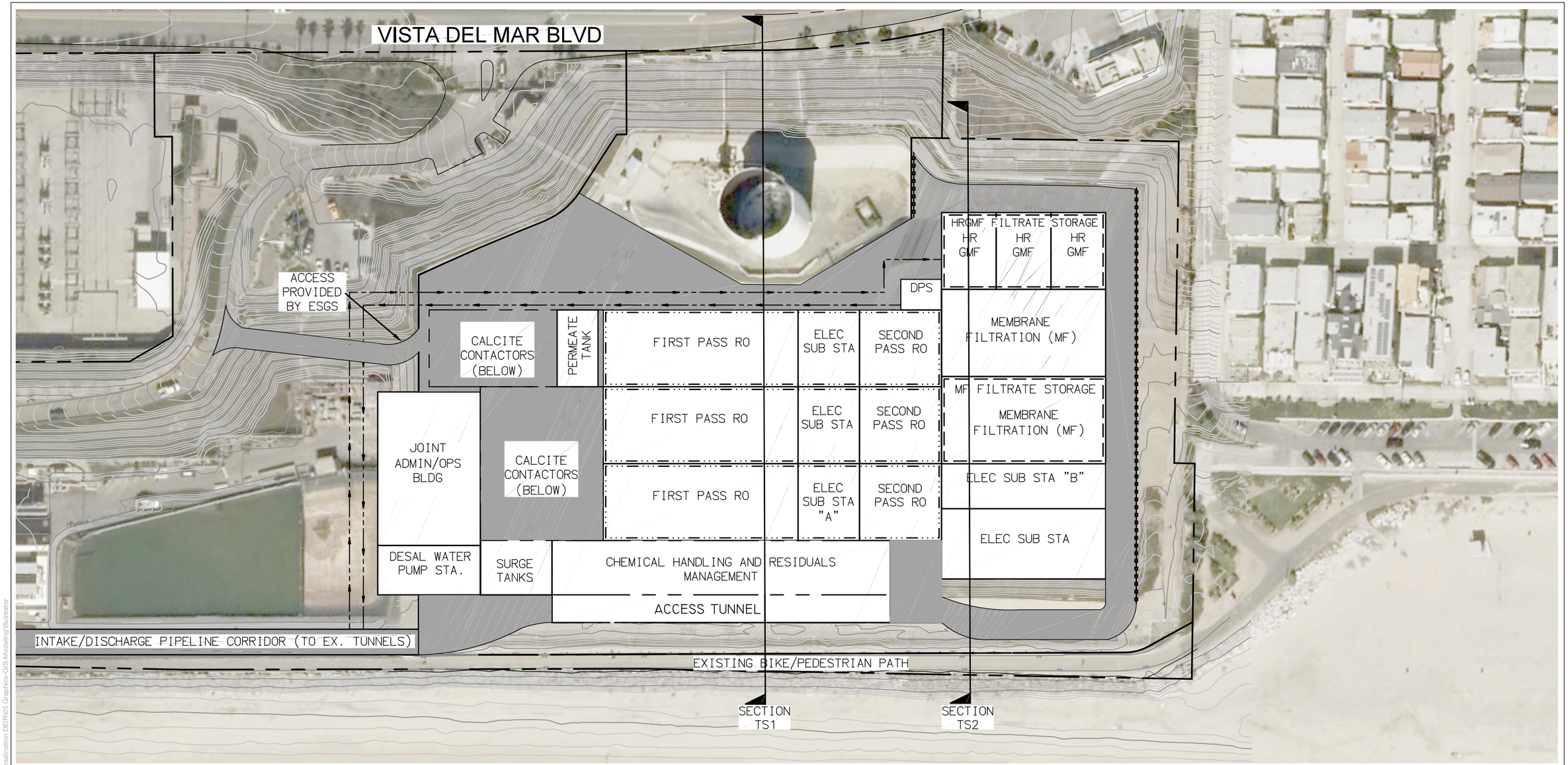
SOURCE: Michael Baker International, 2016

West Basin Ocean Water Desalination Project

Figure 3-19

60 MGD Ocean Water Desalination Facility Layout - ESGS North Site

ESA



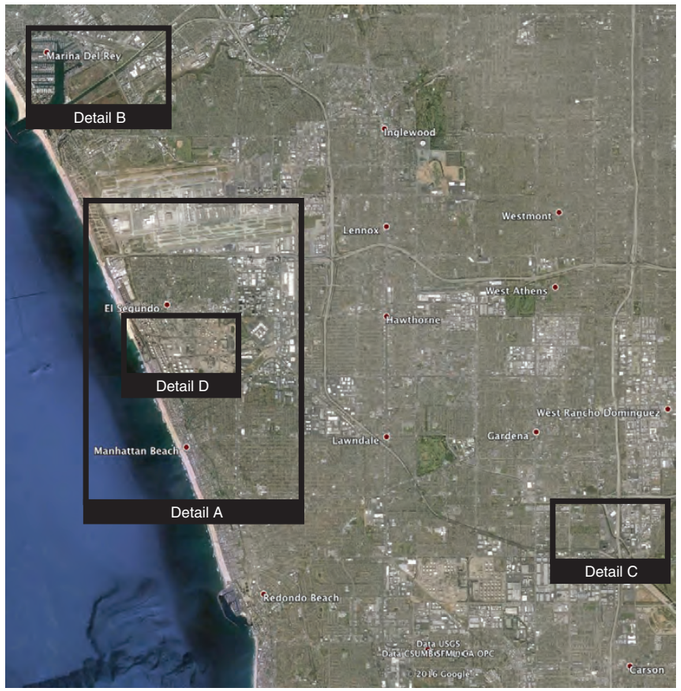
D:\170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Michael Baker International, 2016

West Basin Ocean Water Desalination Project

Figure3-20
60 MGD Ocean Water Desalination Facility Layout - ESGS South Site

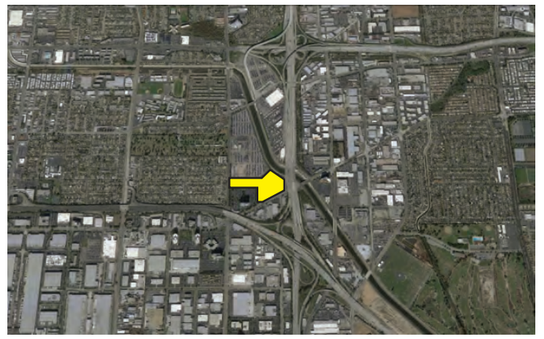
ESA



Off-Site Laydown and Parking Areas Location Map

Detail A - Areas 1 through 9 (excluding 4); Refer to Exhibit 3-4, Desalinated Water Conveyance Optional Alignments

Detail B - Area 4



Detail C - Area 11

Detail D - Area 10

Potential Laydown and Parking Areas

1. Kramer
2. Fedex
3. LAX-Pershing
4. Marina del Rey Boat Launch
5. Scattergood Generating Station
6. Hyperion
7. Grand Avenue
8. Chevron Marine Terminal
9. Power Plant Site
10. Chevron
11. 190th Street

El Segundo Power Facility Modification Laydown / Parking Area

Ocean Water Desalination Project Additional Laydown / Parking Area

Note: Offsite staging areas are preliminary, subject to change during final design and construction.
Source: California Energy Commission, Final Staff Assessment Combined Parts A & B - El Segundo Power Facility Modification to the El Segundo Energy Center, August 27, 2015.
Aerial photo source: Google

N Not to scale

D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Michael Baker International, 2016

West Basin Ocean Water Desalination Project

Figure 3-21

Offsite Staging Areas

ESA

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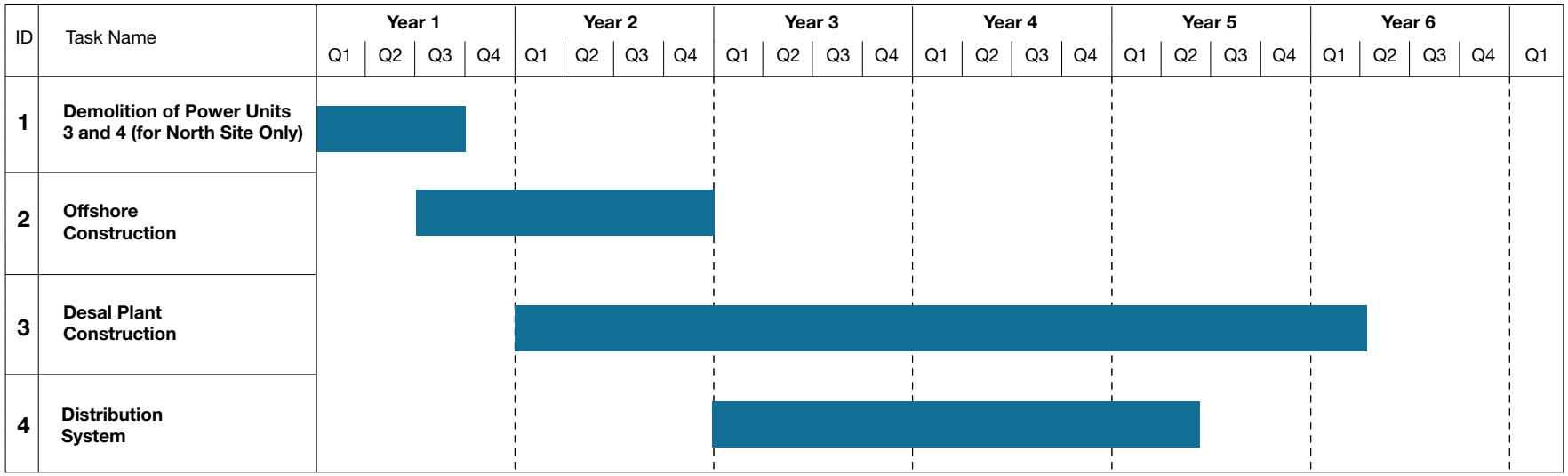
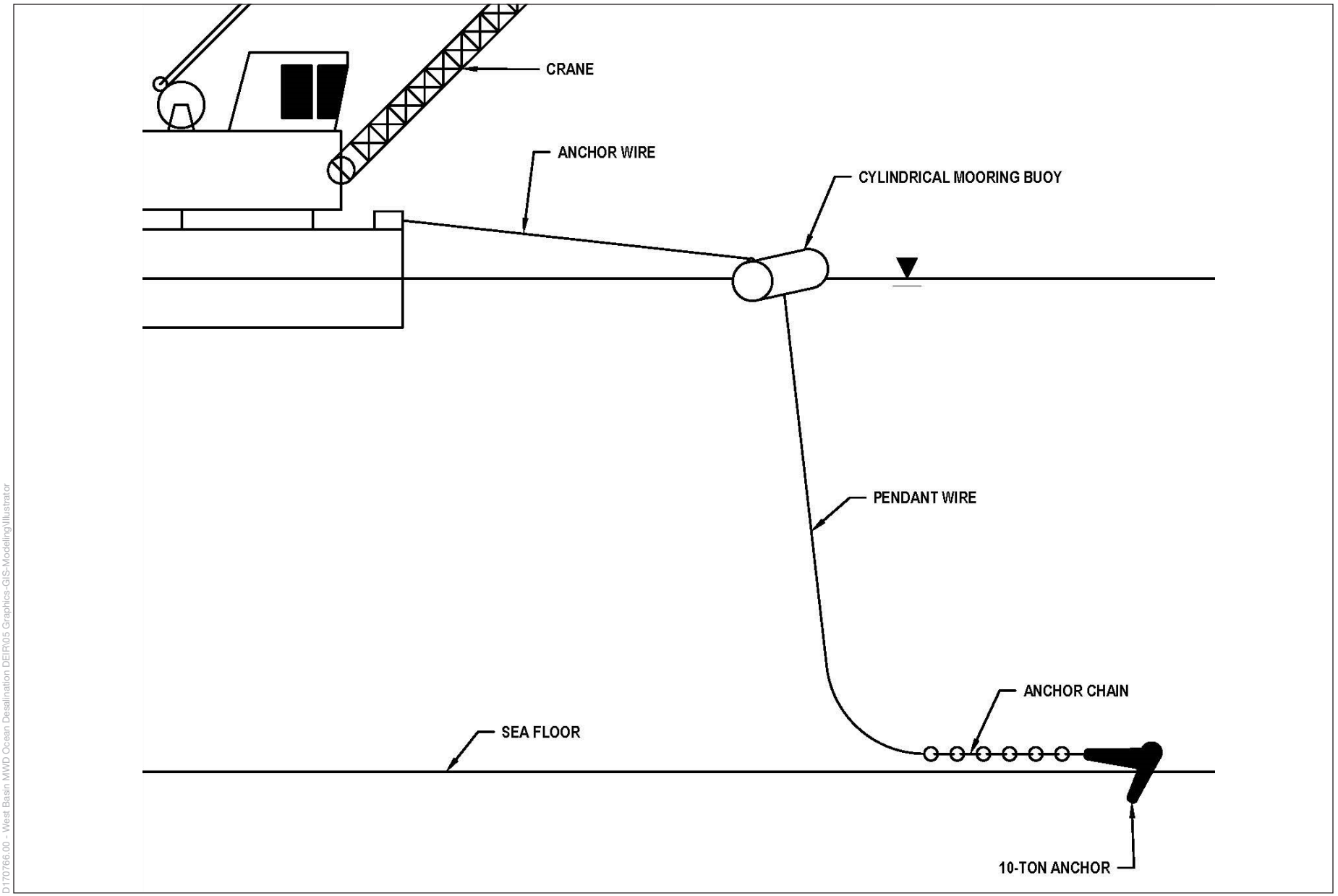


SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

Figure 3-22
Conceptual Local Project Construction Schedule

ESA



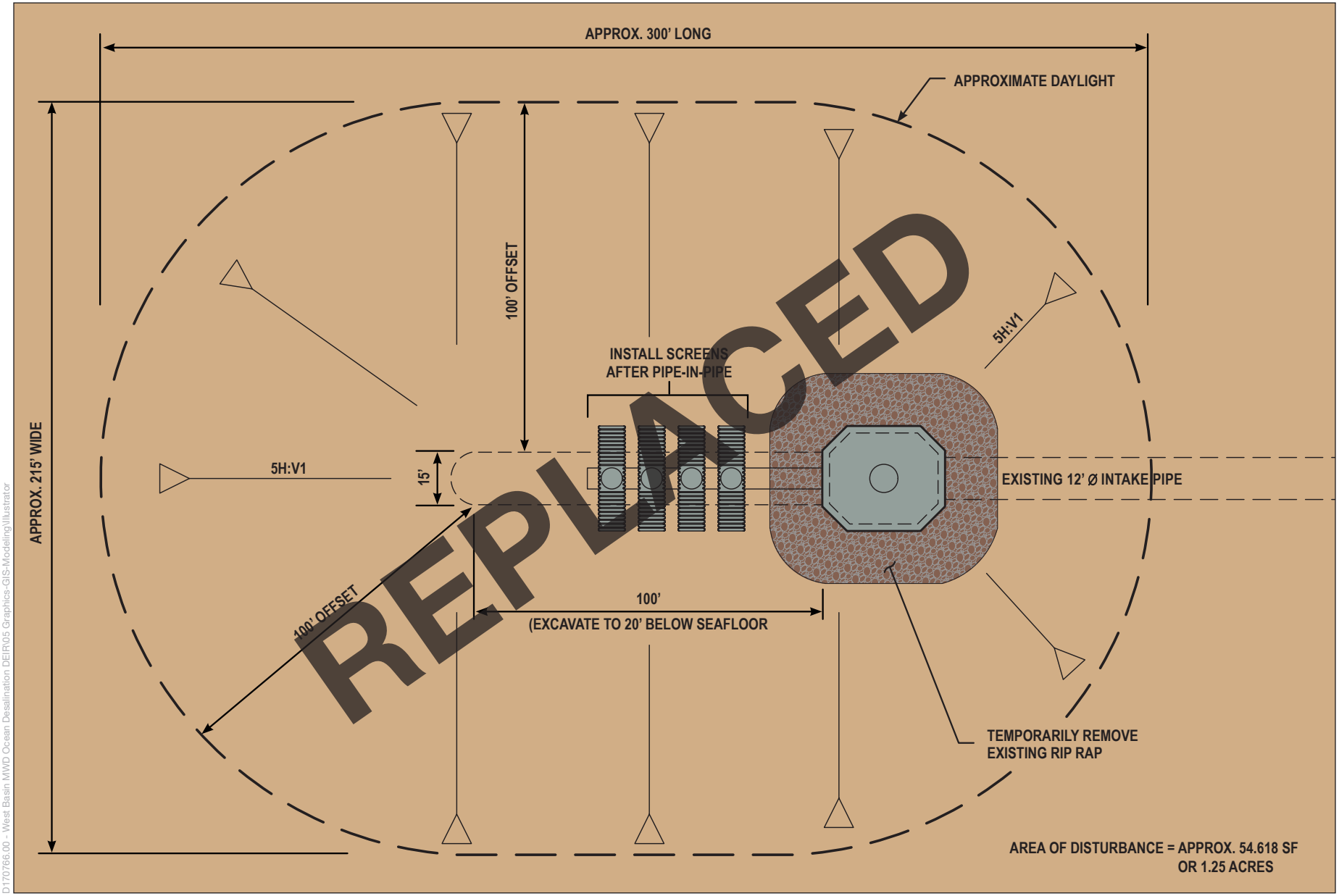
SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

Figure 3-23

Typical Derrick Barge Temporary Mooring Buoy

ESA



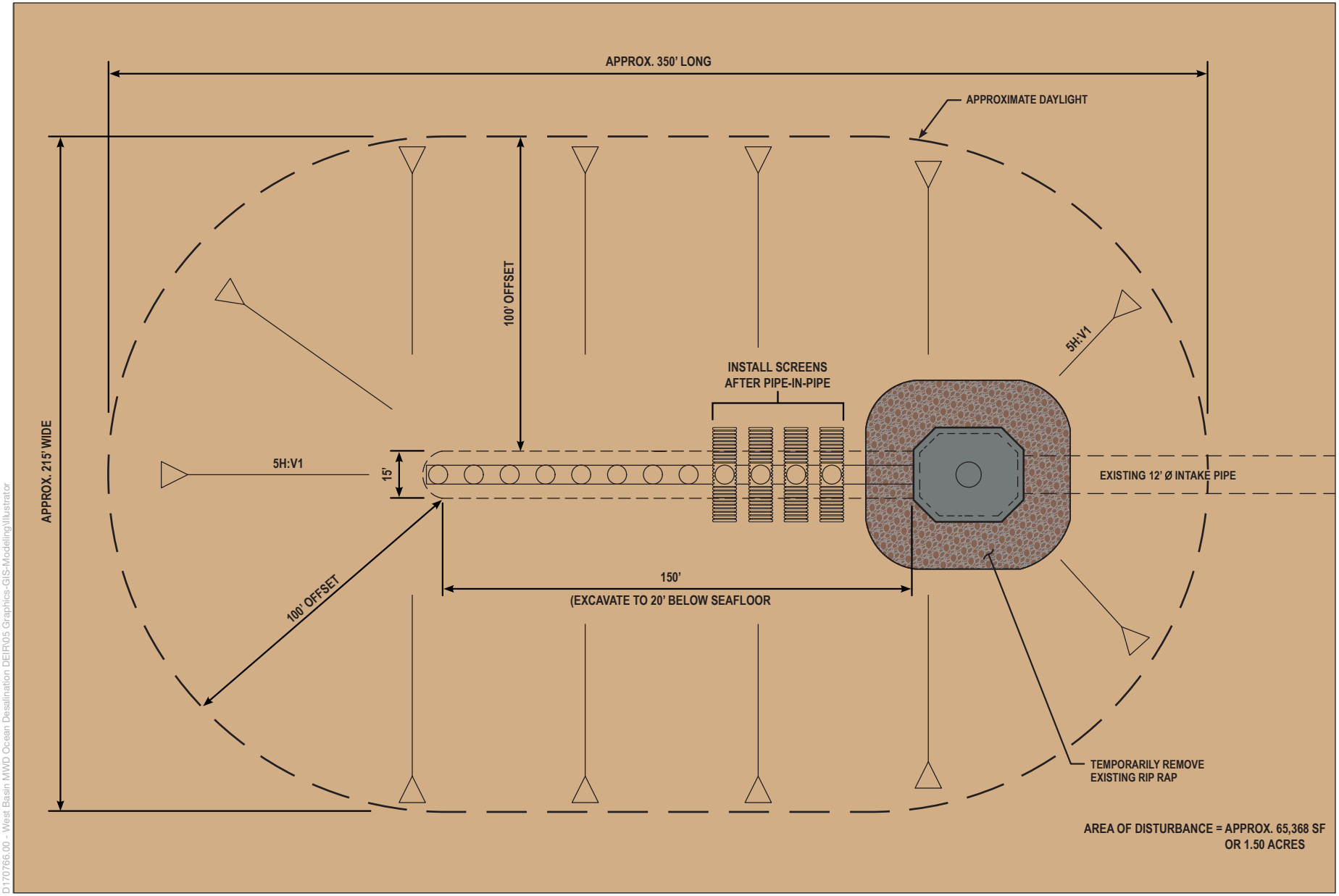
D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

Figure 3-24
Intake Dregde Footprint

ESA



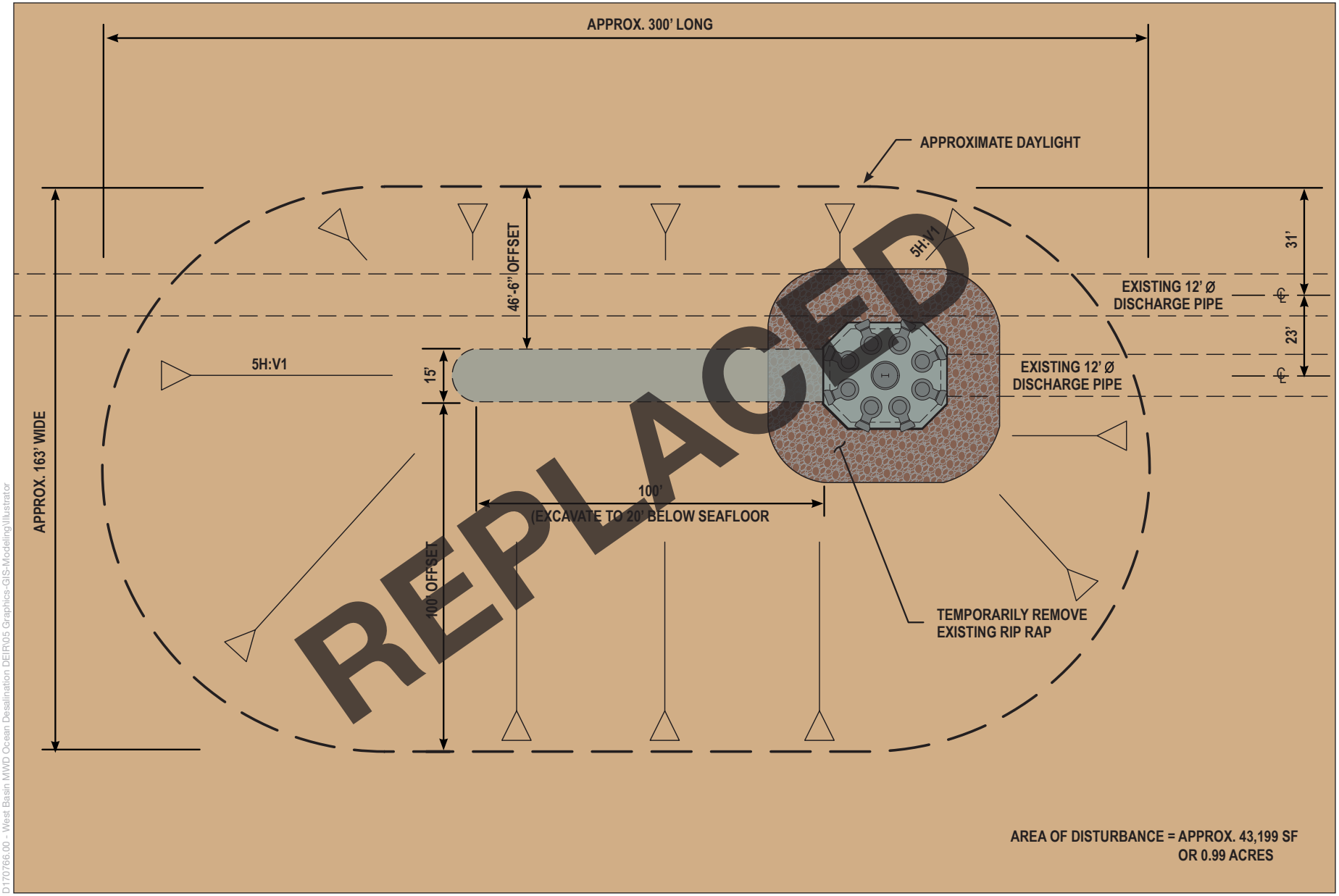
D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

SOURCE: GHD 2019

West Basin Ocean Water Desalination Project

Figure 3-24
Intake Dregde Footprint

ESA



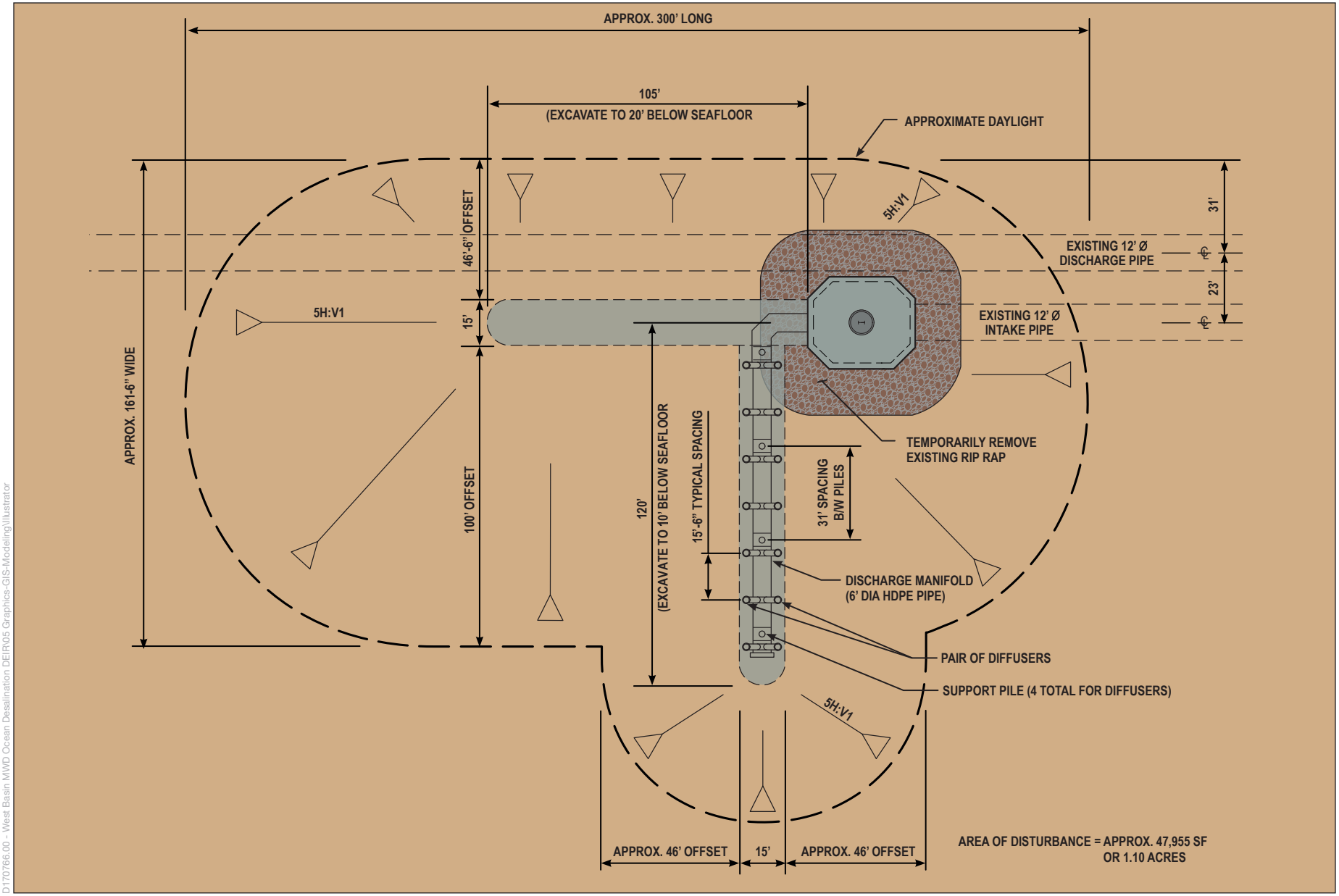
D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

SOURCE: GHD 2017

West Basin Ocean Water Desalination Project

Figure 3-25
Discharge Dredge Footprint

ESA



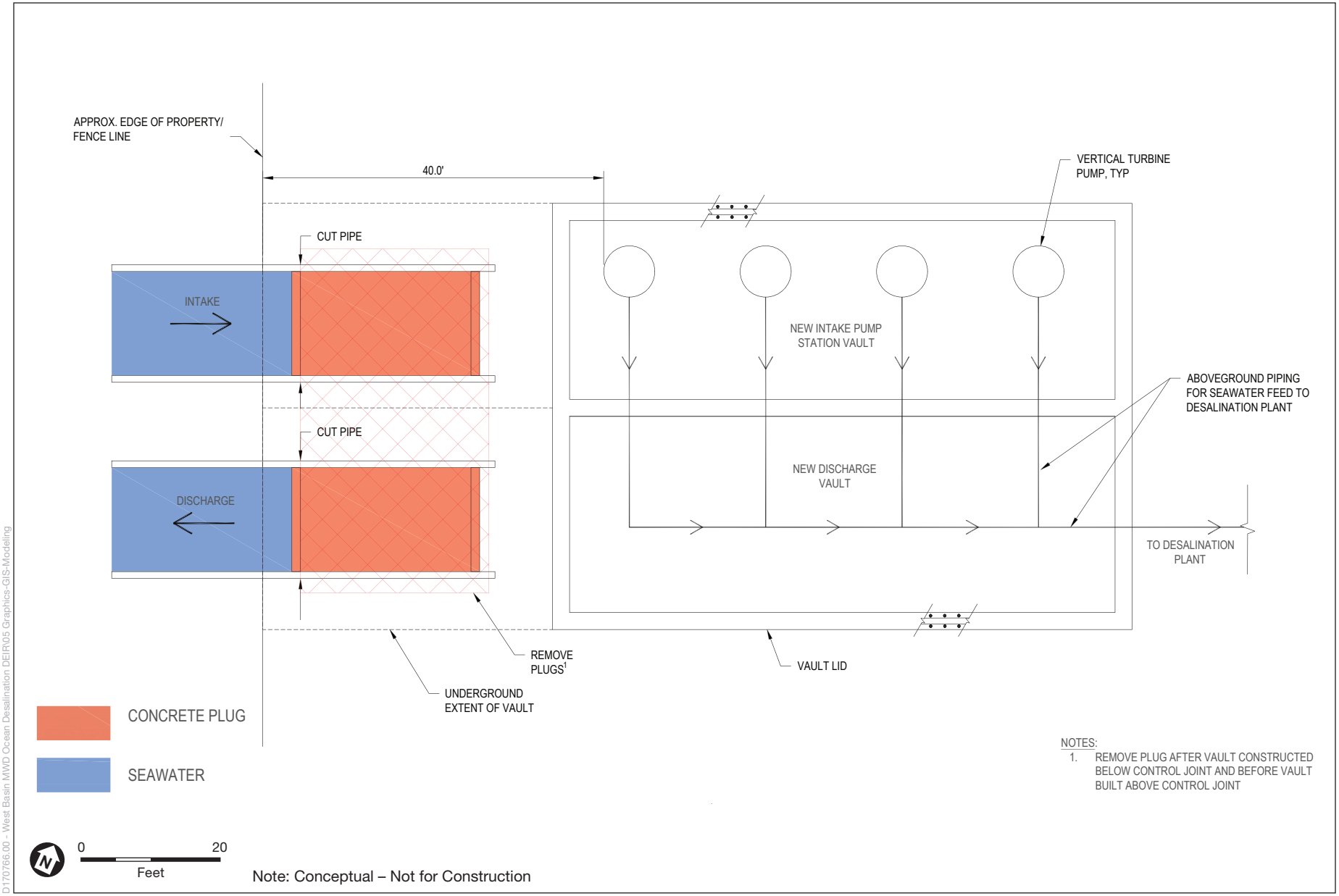
D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling\Illustrator

SOURCE: GHD 2019

West Basin Ocean Water Desalination Project

Figure 3-25
Discharge Dredge Footprint

ESA



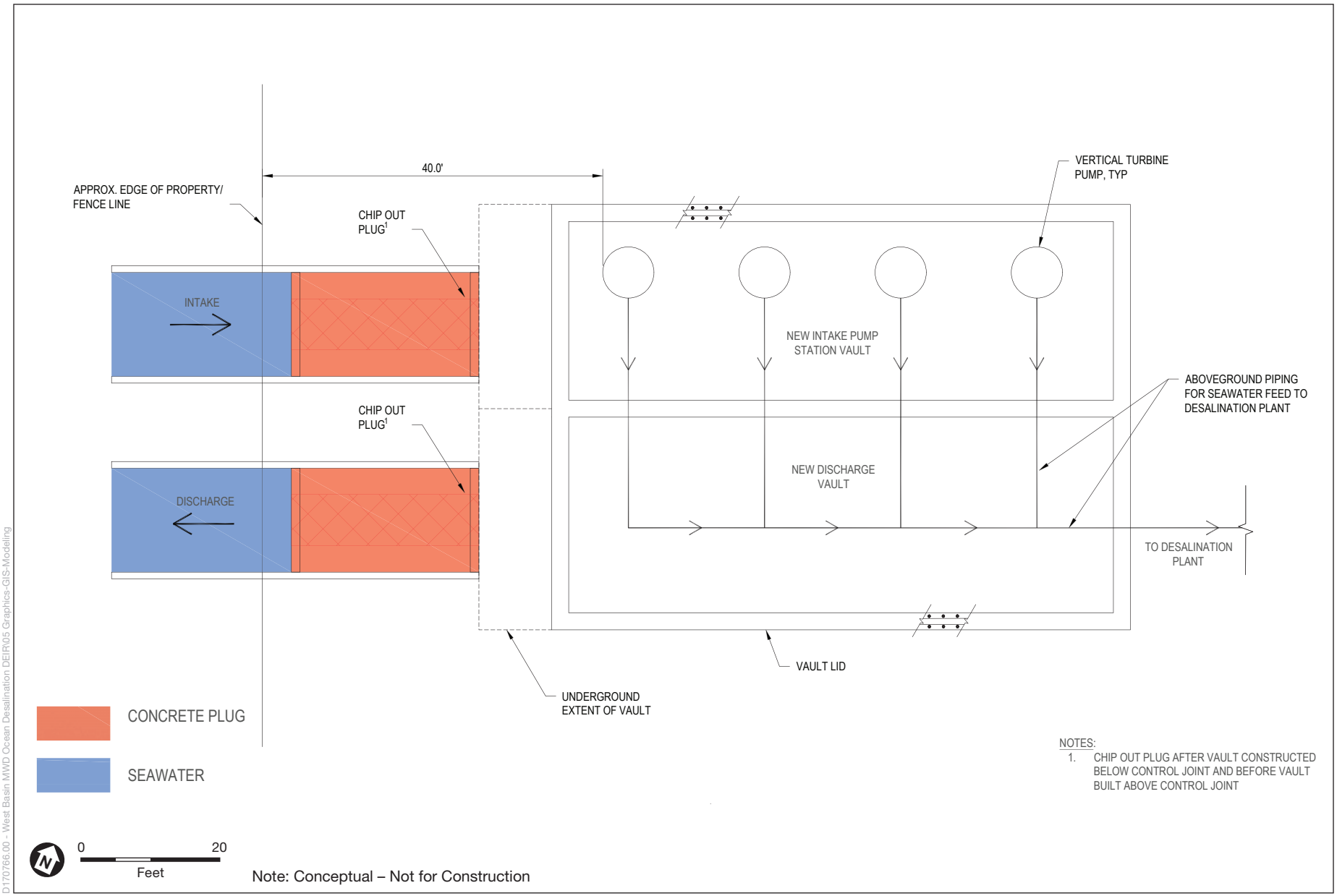
D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling

SOURCE: GHD, 2019

West Basin Ocean Water Desalination Project

Figure 3-26
Intake Pump Station Modification – Vault Around Plugs

ESA



D170766.00 - West Basin MWD Ocean Desalination DEIR\05 Graphics-GIS-Modeling

SOURCE: GHD, 2019

West Basin Ocean Water Desalination Project

Figure 3-27
Intake Pump Station Modification – Chipping Out Plugs

ESA

SECTION 12
Master Responses

This section provides comprehensive discussions on a set of reoccurring themes identified by comments on the Draft Environmental Impact Report (Draft EIR). The master responses are organized alphabetically.

12.1 CEQA and Ocean Plan Compliance

Several comments have stated that because the California Ocean Plan Amendments (OPA) adopted in May 2015 provide the regulatory framework specifically adopted to address impacts from ocean desalination facilities, the Draft EIR should include all the information required to comply with its regulatory requirements. This Master Response explains that West Basin Municipal Water District (West Basin) as the California Environmental Quality Act (CEQA) lead agency considers the conclusions in the EIR to be adequately substantiated by the technical detail provided in the EIR, and that any additional studies required by the permitting agencies will serve to support the permitting process and confirm that environmental protections imposed by those agencies are adequate and consistent with the conclusions of the EIR. The permitting agencies will then consider the EIR and the specific additional data they require when issuing permits under their independent authority.

Purpose of the EIR

The purpose of the EIR is to document West Basin's evaluation of the potential environmental impacts of the proposed Project and to inform its determination of whether or not to approve the Project and pursue permitting for it. The principal CEQA Guidelines sections governing the content of this EIR include Article 9 (Contents of Environmental Impact Reports) Sections 15120 through 15132, Article 11 (Types of EIRs) Sections 15161 (Project EIR) and 15168 (Program EIR), and Appendix G. Each potentially significant environmental issue area is addressed in a separate EIR section (Sections 5.1 through 5.16), and each section provides the thresholds for conclusions of significance, which are primarily the criteria in CEQA Guidelines Appendix G.

As the lead agency under CEQA, the West Basin Board of Directors must exercise its independent judgment (discretion) when deciding whether to certify the EIR and approve or disapprove the proposed Project. CEQA Guidelines Section 15091(b) states that an EIR must be supported by "substantial evidence in the record." The agency must consider this evidence when certifying an EIR and approving a project, and it has the authority and discretion to independently determine if the evidence is sufficient to make well-reasoned and substantially supported conclusions.

The EIR identifies and assesses potential environmental impacts through the compilation and analysis of "substantial evidence." The EIR compiles measures to avoid, minimize, or compensate for the identified impacts, and assesses whether feasible alternatives could lessen impacts while meeting most of the Project objectives. As the CEQA lead agency, West Basin has the authority to certify that the evidence is sufficient to determine the environmental impacts of the proposed Project, recognizing that permits and approvals from regulatory agencies will be required prior to constructing the proposed Project.

The EIR includes available information on the potential impacts of implementing the proposed Project. Based on the evidence in the record, the EIR determines impact significance and commits West Basin to mitigation measures that will avoid, minimize, and/or mitigate significant impacts. As a planning document, the EIR complies with CEQA and sufficiently analyzes potential impacts of the proposed Project as designed.

Regulatory Approvals and Permitting

Subsequent oversight, approvals, or permits from other public agencies, including Responsible Agencies and Trustee Agencies, will necessitate separate discretionary actions by those agencies when issuing permits. Each permit-issuing agency has independent discretion and technical information requirements. Table 3-11 of the Draft EIR provides a complete list of permits, approvals and regulatory requirements.

Some of approvals and permits require substantial application processes. For example, the Los Angeles Regional Water Quality Control Board (LARWQCB) in consultation with the State Water Resources Control Board (SWRCB) is responsible for ensuring that ocean water desalination projects comply with the California Ocean Plan as Amended in 2015. The OPA was adopted specifically to address the unique issues and environmental concerns presented by ocean water desalination, including protections for coastal land use, water quality, and marine ecology. As noted in Table 3-11 of the Draft EIR, the LARWQCB is required to complete a Water Code Section 13142.5(b) determination ("Water Code determination") (as discussed in more detail below) that documents the proposed Project's consistency and compliance with the OPA.

The California Coastal Commission (CCC) will require that the proposed Project prepare and submit a Coastal Development Permit application for the installation and operation of facilities within the coastal zone. The CCC will also rely on the Water Code determination to ensure the Project is compliant with the OPA. The LARWQCB has the responsibility to issue discharge permits that are consistent with the federal and state Clean Water Acts. Applications for National Pollution Discharge Elimination System (NPDES) permits pursuant to Section 402 of the federal Clean Water Act require the submittal of substantial information related to discharge quality. West Basin will submit this information if the Board of Directors approves the Project, and once the detailed design of the Project is prepared. This information is required to meet water quality objectives through compliance with limitations imposed through the NPDES permit. West Basin will also be required to obtain local approvals, including amending the Local Coastal Plan and complying with local cities' encroachment permit requirements. Information for these permits would also be submitted once final design is completed.

Each of these permitting agencies will make a determination pursuant to its authority as a Responsible or Trustee Agency that either the CEQA compliance documentation is sufficient to analyze the potential impacts within its jurisdiction, or an additional environmental review is required.

OPA Requirements for Best Site, Design, Technology, and Mitigation

The CCC commented that prior to obtaining a Coastal Development Permit, West Basin will be required to obtain a Water Code determination from the LARWQCB. The Water Code determination is required by the OPA to demonstrate that an ocean desalination facility is using the "best available site, design, technology and mitigation." The OPA requires that pursuant to Ocean Plan Chapter III.M.2.a.(2), the LARWQCB must independently analyze a range of feasible alternatives for the best available site, best available design, best available technology[1], and best available mitigation measures, and then must consider all four factors collectively to determine the best combination of feasible alternatives to minimize intake and discharge mortality of all forms of marine life. The CCC commented that the Draft EIR should provide conclusive documentation that the proposed Project will "minimize intake and mortality to all forms of marine life" as required by the Ocean Plan Chapter III.M.2.a.

The Draft EIR recognizes the OPA requirements and discusses the regulatory requirements in detail in Section 5.9, *Hydrology and Water Quality*, page 5.9-12. The Draft EIR then analyzes the potential impacts of the proposed screened open water intake on ocean water quality and marine life in Subsections 5.9.4 and 5.11.4, and concludes that mitigation is required to ensure impacts are less than significant. As described in Subsection 5.11.4 of the Draft EIR, the proposed Project would use wedgewire screens to minimize the potential for marine life intake mortality in compliance with the OPA. However, at the time the Draft EIR was published, the SWRCB had not yet published recommended scientific methods for quantifying impacts to marine life that could result from wedgewire-screened ocean water intakes, beyond the 1 percent reduction in the estimated entrainment without the use of screens.

Since the publication of the Draft EIR, the SWRCB has published recommended methods to determine the Area of Production Foregone[2] (APF) for the use of diffusers for brine discharge. The SWRCB developed a modeling approach (Roberts 2018[3]) to represent the best available methodology given the current state of research and understanding, but there are several simplifying assumptions in the approach that likely result in an overestimation of mortality due to the use of diffusers. The SWRCB and LARWQCB are still discussing how to apply this modeling methodology. Nevertheless, the Final EIR accounts for this regulatory uncertainty by requiring (as with Mitigation Measure BIO-M2) that the eventual calculated loss be conducted using agency-recommended methods, and that this loss be compensated for by either direct or indirect

1 The intake can be either subsurface or open water, and the discharge can be either co-mingled with wastewater or discharged through a multi-port diffuser.

2 Area Production Foregone, or APF, is an estimate of the area that is required to produce/replace the organisms entrained as a result of open ocean intakes and brine discharge.

3 Philip J. W. Roberts, PhD, PE, Consulting Engineer. Brine Diffusers and Shear Mortality. Final Report. Prepared for Eastern Research Group.

habitat restoration consistent with California Ocean Plan Chapter III.M.2.e.(3) or by providing monetary payments to an appropriate state-approved fee-based mitigation program consistent with the Ocean Plan Chapter III.M.2.e.(4), or a combination of the two.

Furthermore, to support the LARWQCB's Water Code determination, West Basin will prepare and provide the LARWQCB with a Marine Life Mortality Report, as described in the Ocean Plan Chapter III.M.2.e.(1)(a), and a Mitigation Plan. These detailed plans will provide additional analysis to meet the LARWQCB's requirements.

Supplemental Studies

To assist the LARWQCB in making a Water Code determination, the Final EIR includes two supplemental studies describing marine biological and the hydrogeological and geological conditions of Santa Monica Bay. One study, included as Final EIR Appendix 12, provides a review and analysis of the existing Clean Water Act Section 316(b) studies completed at the Scattergood Generating Station, the AES Redondo Beach Generating Station, and the El Segundo Generating Station; this study in Final EIR Appendix 12 compares the calculations of scaled proportional entrainment for each of the three facility locations within Santa Monica Bay. This study supplements marine biology information in the Draft EIR to confirm that the proposed Project intake and discharge locations are located in an area that would result in the lowest level of marine life impacts. The second supplemental technical study provides a Subsurface Intake Feasibility Assessment that supplements and summarizes the information already provided in the Draft EIR Appendix 2A and confirms the findings presented in the Draft EIR. This supplemental study is included as Appendix 13 of the Final EIR.

Please see *Master Response: Supplemental Studies* for more detailed information on the content of the new technical studies included in the Final EIR.

CEQA and OPA Summary

In summary, West Basin has included extensive studies to show that it has selected the best intake and discharge site, and technology, for the proposed Project consistent with the OPA site evaluation requirements. These additional studies go above and beyond the requirements of CEQA by substantiating the suitability of the proposed site under the OPA. West Basin is continuing to work with the SWRCB, LARWQCB, and CCC to ensure compliance with all OPA requirements in order to obtain a successful Water Code determination and the issuance of an NPDES and a Coastal Development Permit.

12.2 Cost and Rates

Several comments were received expressing concerns about the proposed Project's cost and impact on customer water rates. This Master Response provides an overview of Project costs and ongoing rate impact assessments.

Economic Impacts

An economic impact analysis is not appropriate under CEQA unless physical changes to the environment attributable to the project could occur as a result of an economic impact. Section 21082.2(c) of the Public Resources Code states that lead agencies cannot consider: "evidence of social or ***economic*** impacts which do not contribute to, or are not caused by, physical impacts on the environment…" (emphasis added). An example of when CEQA would require an economic assessment would be if a project reduced economic activity that ultimately could result in blight to a community or increase worker commutes from a community that may result in significant traffic and air quality impacts within a region. CEQA Guidelines Section 15064(e) states: "[w]here a physical change is caused by economic or social effects of a project, the physical change may be regarded as a significant effect in the same manner as any other physical change resulting from the project." CEQA Guidelines Section 15064(f)(6) further states: "[e]vidence of economic and social impacts that do not contribute to or are not caused by physical changes in the environment is not substantial evidence that the project may have a significant effect on the environment." Neither the implementation nor the cost of the proposed Project would result in an economic impact felt by the local community that could result in physical changes in the environment. In fact, the Draft EIR concludes that the proposed Project would enhance the local economy rather than harm it.

Project Costs

The CEQA Guidelines do not consider the cost of a project to be an environmental impact. However, prohibitive costs can be used to determine that a project alternative is infeasible. As part of the Project planning efforts, West Basin prepared preliminary cost estimates for the proposed Project that are included in the Ocean Water Desalination Program Master Plan prepared in 2013. This cost estimate is available on West Basin's website:

> http://westbasindesal.com/assets/Documents%20and%20Files/Research%20Documents/Ocean%20Water%20Desalination%20Program%20Master%20Plan_PMP%20Vol%20I%20(2013).pdf

These preliminary cost estimates provide a planning-level range of total Project costs that include costs for constructing the treatment facility (including the offshore intake and discharge modifications) and the product water distribution system as well as annual operations and maintenance costs. These preliminary estimates provide a sense for the ultimate scale of the costs, but present a wide range to account for uncertainty. As the Project design is refined, including permitting and mitigation commitments, actual Project costs will also become more refined. West Basin has initiated a more refined cost estimate and rate study for the proposed Project that is expected to be completed in 2020. West Basin has not finalized its funding portfolio for the

Project, but numerous financing methods are available that may include any combination of public-private partnerships (P3), low-interest loans, grant funding, and traditional financing through bonds or capital loans. West Basin anticipates developing the most cost-effective approach available.

Impacts to Customer Water Rates

As discussed above, the cost of a project is not considered an environmental impact under CEQA unless it results in physical changes to the environment. Because the cost of the proposed Project will not in itself result in physical changes, the Project's effect on customer rates is not considered an environmental impact.

However, West Basin recognizes the importance of having a thorough understanding of the costs and benefits of implementing ocean water desalination as a drinking water supply; hence, a study focused on the costs and benefits of Project implementation was initiated in 2019. One of the objectives of this study is to evaluate the potential wholesale water rate increases within West Basin's service area resulting from Project implementation. The study will analyze how affordability may be addressed through the rate-making processes for drinking water wholesalers and retailers. The study is expected to be completed in 2020. Impacts on rates will depend in part on the financing approach as discussed above.

West Basin's core mission is to ensure a reliable water supply in an economically responsible manner. As explained in the Draft EIR, Section 2.10, West Basin purchases water from the Metropolitan Water District of Southern California as one of its 26 member agencies, and then sells water to its customer agencies, the local retailers, who in turn sell water to their customers through local distribution systems. The proposed Project would provide an alternative source of water to sell to customer agencies, enhancing long-term water security and long-term rate stability.

Although the proposed desalination project may increase wholesale water rates supplied to local retailers in the short term, the ultimate goal of the Project is to stabilize water prices to minimize risks of substantially higher water costs that could occur with a less reliable water supply, which is subject to drought and risk of upset within California's vast water importation systems. As a component of responsible water management planning, any increase in rates caused by the Project would serve to protect against future cost spikes associated with potential imported water system supply shortages, inefficiencies, or failures. The effect to customer rates would represent the cost of a water shortage contingency.

12.3 Environmental Impacts to the El Porto Community

Many comments were received from residents of the city of Manhattan Beach neighborhood south of the El Segundo Generating Station (ESGS) site known as El Porto, expressing concerns that the proposed Project could adversely affect their community during construction and operation. This Master Response addresses those concerns, identifying potential impacts and summarizing how the issues are analyzed in the Draft EIR.

The Draft EIR identifies two location options to build the ocean water desalination facility in the city of El Segundo, the North Site and the South Site at the ESGS site (see Draft EIR Figure 3-3). Both options would be located on a coastal parcel historically occupied by heavy industrial uses. The North Site would be located in the middle of existing heavy industrial land uses, while the South Site would be located on the southern edge of the property near residences along 45th Street in Manhattan Beach. The proposed Project site is bordered by the beach and county-maintained bike path on the west and Vista Del Mar Avenue on the east. The heavy industrial Chevron storage and jet fuel manufacturing site is located across Vista Del Mar Avenue adjacent to the proposed site. Further north along the coast, land uses remain industrial, including the City of Los Angeles Scattergood Power Plant, the Hyperion Water Reclamation Plant, and the Los Angeles Airport. In the context of this heavily-industrialized zone of the Santa Monica Bay coastline, the proposed Project's light industrial structures and public utility functions actually present a reduced industrial land use effect, more compatible with the residential El Porto community than current conditions.

The coastal property has been used as a power plant site for decades, pulling in ocean water to cool the gas-fired power generators. The City of El Segundo zoning code identifies the site as located in an "M-2" (Heavy Industrial) zone with a building height restriction of 200 feet. The parcel north of the North Site is still used for power generation, with two new air-cooled generator units installed and licensed in recent years.

Several comments suggested a preference for the North Site, separating the proposed facility from the adjacent El Porto neighborhood. The Draft EIR evaluates both locations and finds that both sites would result in similar impacts. Mitigation measures identified in the analysis would apply to either location. As the houses along 45th Street adjacent to the parcel would be closest to the proposed Project, selection of the North Site would soften effects to these closest properties. Nonetheless, the Draft EIR concludes that impacts overall to the community would be similar for both the North Site and South Site.

Traffic

Comments expressed concern that during construction the proposed Project would substantially increase congestion on Vista Del Mar Avenue, an already congested traffic artery connecting the residential neighborhood to the regional freeway system. The Draft EIR provides an analysis of traffic impacts in Section 5.15. Installation of the desalinated water conveyance pipeline would occur within this street, temporarily reducing traffic to one lane each way. In addition, construction would add 314 daily truck trips to this street for worker commutes (184 construction

worker trips, 110 material import/export trips, and 20 delivery trips; Draft EIR Table 5.15-5). As noted on page 5.15-20 of the Draft EIR, truck traffic would be confined to designated truck routes prescribed in the El Segundo General Plan. The Draft EIR acknowledges on page 5.15-22 that the additional truck trips and lane closures resulting from construction would increase congestion, slowing down traffic during peak hours for commuters. Mitigation Measure TRA-1 and TRA-2 are identified in the Draft EIR as measures that ensure impacts to traffic during construction would be minimized. TRA-1 requires that a traffic control plan be developed to facilitate traffic movement during construction activities, particularly during installation of pipelines in streets that temporarily reduces traffic lanes. The traffic control plan provides the most effective impact minimization opportunity. TRA-2 requires that the contractor use off-site parking areas for workers, and shuttles to the site to reduce worker commute traffic on local roads during peak hours.

The Draft EIR further identifies on page 5.15-22 that, during normal operations, the proposed facility would generate an average of 120 trips per day with 40 peak hour trips (20 in the morning peak [AM] and 20 in the evening peak [PM]). The Draft EIR conducts a congestion impact analysis and concludes that although these additional trips would contribute to the traffic along Vista Del Mar, the additional 120 trips per day would not significantly increase the congestion on Vista Del Mar. In terms of peak hour trips, the intersection of Vista Del Mar/Grand Avenue currently experiences 2,400 trips per hour in the morning peak period. The additional 20 trips during this morning peak period from the proposed Project represents an increase of less than 1 percent.

Air Emissions

Comments were received expressing concerns that the proposed Project would generate significant amounts of air emissions during construction and operations. The Draft EIR provides an analysis of air emissions in Subsection 5.2.4. Construction activities, including excavation, soil hauling, and building erection, require diesel-powered equipment operating for periods of months at a time. Tables 5.2-10 and 5.2-14 in the Draft EIR summarize the results of an air emissions model conducted for the Local Project and Regional Project, respectively, following methods recommended by the South Coast Air Quality Management District. The model estimates that temporary construction emissions would generate nitrogen oxides in excess of significance thresholds. The Draft EIR finds this temporary impact analysis to be significant and unavoidable. However, as described on page 5.2-25 through 5.2-29, these emissions would not rise to the level of being out of conformity with the federal Clean Air Act.

To address concerns about the potential health effects to the local community that could result from these emissions, West Basin conducted a health risk assessment using the methodology recommended by the California Office of Environmental Health and Hazard Assessment (OEHHA). As described on page 5.2-48, a risk analysis was conducted on diesel particulate matter (DPM) to determine whether construction activities would increase health risk to the surrounding neighborhood. Implementation of Mitigation Measures AQ-1 through AQ-3 would minimize potential health impacts to below the OEHHA-recognized significance threshold of 10 in 1 million. Once operational, the emissions from the facility would be very low because energy for the proposed Project would be supplied by the electric grid and would not increase health risk to local communities.

Aesthetics

Comments were received expressing concern that the proposed Project would negatively impact local neighborhood aesthetics, including blocking views of the ocean. The Draft EIR provides an analysis of visual impacts in Section 5.1. As noted on page 5.1-14, building heights for the site would be 65 feet aboveground but would not block views from Vista Del Mar Avenue because the street is at a higher elevation. Draft EIR Figures 3-11 through 3-13 provide cross sections of the Local and Regional Projects showing that the profiles would not rise to levels that would block views along Vista Del Mar. As noted on page 5.1-13, the proposed Project would be consistent with the El Segundo Municipal Code and the California Coastal Act.

Note that, as discussed in Section 5.1, the analysis addresses public views and not private views, because obstruction of private views is not generally regarded as a significant environmental impact (see *Citizens for Responsible and Open Government v. City of Grand Terrace* (2008) 160 Cal.App.4th 1323, 1337-38; *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 492-93). CEQA case law has established that protection of public views is the appropriate EIR analysis.

The property has been used as a heavy industrial power plant site for decades. Large fuel tanks that dominated the local character and were visible for miles around were recently removed from the property. New power generating facilities have been installed north of the site that are also highly visible features of the coastline. A large power substation owned by Southern California Edison takes up a large area east of the site next to an old aboveground fuel storage tank. Within this context of heavy industrial visual character, the Draft EIR describes the construction of a low-profile light industrial facility that would resemble warehouses. Although visible to the local community, this proposed new land use would improve visual conditions at the site and would not block public or private views from the El Porto community.

Noise

Comments were received expressing concerns that the proposed Project would generate noise that could adversely affect the closest residences on 45th Street in the El Porto community of Manhattan Beach. The Draft EIR analyzes construction and operational noise impacts in Section 5.12. The Draft EIR concludes that normal construction activities would be audible at the closest neighborhood residences. Mitigation Measures NOI-1 through NOI-3 would minimize construction noise impacts. The Draft EIR concludes that construction activities, including pile-driving, would create an unavoidable temporary nuisance noise to the local community. Although construction activities are exempt from the Manhattan Beach noise ordinance, West Basin recognizes that the temporary noise is considered significant to local residents. Mitigation measures have been identified to avoid and minimize these effects, including placing barriers between the construction work and 45th Street.

Once the facility is constructed, operation of the facility would not be audible at neighboring residences. All of the pumps and noise-generating machinery would be located within acoustically designed structures. Fence-line noise standards would be enforced to ensure that daytime or nighttime noise is eliminated beyond the fence line, avoiding a nuisance to local residences. Mitigation Measure NOI-4 requires that West Basin monitor noise levels after construction to confirm compliance.

12.4 Environmental Justice

Several comments expressed concern that the proposed Project would increase water rates, which would disproportionately affect low-income populations in West Basin's service area relative to more affluent populations. Comments also expressed concern that the need for the Project is based on flawed claims of hardened demand, and that the increases in rates would result in subsidies to affluent communities from low-income and minority communities. Comments also state that the Draft EIR uses inappropriate reference populations for determining the relative minority and low-income status of affected census tracts, and state that the reference population should include all of West Basin's service area. Further, comments state that the Draft EIR only includes analysis of aboveground structures, and omits analysis of environmental justice impacts related to construction of the Project.

CEQA-Plus, CEQA, and Environmental Justice

As described in the Draft EIR Section 2.9, this EIR is intended to satisfy the "CEQA-Plus" requirements for the State Revolving Fund (SRF) program for low-interest loans to public agencies. The SRF program is partially funded through a capitalization grant from the U.S. Environmental Protection Agency (USEPA) on an annual basis, and, due to the federal nexus with the USEPA, federal laws and regulations (i.e., "federal cross-cutters") apply to all projects pursuing SRF financing. Environmental justice is one of these "federal cross-cutters" and must be addressed in a CEQA-Plus document in a way that satisfies the requirements of Executive Order (EO) No. 12898. Specifically, the document must address whether the proposed Project could:

a. Create new disproportionate impacts on minority, low-income, or indigenous populations.
b. Exacerbate existing disproportionate impacts on minority, low-income, or indigenous populations.
c. Present opportunities to address existing disproportionate impacts on minority, low-income, or indigenous populations that are addressable through the project (SWRCB 2015).

Thus, the evaluation of environmental justice in the Draft EIR is provided as a "federal cross-cutter" and not a CEQA impact analysis. The State Water Resources Control Board (SWRCB) will review this and other CEQA-Plus portions of this document as part of the review process for the SRF application.

Based on the demographic data provided by the U.S. Census Bureau, the percentage of people identifying as "American Indian and Alaska Native" in affected area census tracts ranges from 0 to 16 percent. No issues have been identified that would affect these indigenous populations in a manner different from effects on other minority populations, therefore, environmental effects on indigenous populations are addressed in combination with effects on minority populations in the analysis below.

A CEQA lead agency may use information about the economic or social impacts of a project to determine the significance of physical changes caused by the project, but the economic or social effects of a project are not to be treated as significant effects on the environment. For more information, see *Master Response: Non-CEQA Issues*. Additionally, CEQA does not use the term

"environmental justice" or require the evaluation of impacts on minority or low-income communities in the way required by EO 12898. The Office of the California Attorney General (OAG) has clarified that environmental justice concerns are relevant to the analysis of a project under CEQA, but has recommended that lead agencies address environmental justice by evaluating whether a project's impacts would affect a community whose residents are particularly sensitive to the impact (i.e., sensitive receptors) and whether a project would have significant effects on communities when considered together with any environmental burdens those communities already are bearing, or may bear from probable future projects (i.e., cumulative impacts) (OAG 2012).

The impacts of the proposed Project on sensitive receptors are analyzed in the Draft EIR where appropriate (e.g., Section 5.2, *Air Quality*, Section 5.8, *Hazards and Hazardous Materials*, and Section 5.12, *Noise*). The proposed Project's impacts considered together with existing or foreseeable environmental burdens on nearby communities are analyzed throughout Section 5 in the Cumulative Effects subsection of each resource section. Further, the OAG indicates that a lead agency must be clear and transparent in its Statement of Overriding Considerations about the balances it has struck in approving a project, such as whether the benefits of the project will be enjoyed widely but the environmental burdens of a project will be felt particularly by the neighboring communities (OAG 2012). The information presented in this Final EIR will inform such a statement if and when the proposed Project is considered for approval and in the event that a significant and unavoidable impact is identified under CEQA.

Again, the analysis related to environmental justice presented in the revised Section 6.3 is not required by CEQA. Rather, this analysis is relevant only to the CEQA-Plus federal cross-cutter analysis of the proposed Project. No "significant new information" as defined in CEQA Guidelines Section 15088.5 has been added in response to comments regarding environmental justice. No new significant impacts would result from the Project, no new mitigation measures are proposed to be implemented, and no substantial increase in the severity of an environmental impact has been identified.

Water Rates and Demand

The lead agency acknowledges concerns raised in comments about increased water rates and their theoretical potential to disproportionately burden low-income populations in the service area, and the perception that increases in rates as a result of this particular Project would represent an unfair economic impact on low-income ratepayers who consume less water, on average, than higher-income ratepayers elsewhere in the service area. However, the water produced by the proposed Project will be wholesale and distributed to retail member agencies within West Basin's service area and will not go to one particular location. The wholesale rate structure will be implemented uniformly throughout the service area and retailers will set their rates based on their individual adopted rate structures and their cost of service for their water portfolios. The proposed Project would enhance water security and assist in stabilizing water costs that may arise with future price increases as a result of emergency situations or long-term cost increases associated with imported water systems. Each of the disparate geographic subareas within the West Basin service area would benefit equally from the security of a drought-proof local water supply. Water retailers in

West Basin's service area have similar, if not exactly the same, rate structures that charge customers a monthly service charge based on meter size and a tiered or inclining block rate structure based on the quantity of water used by the customer.[4] These tiered rates are structured to charge the lowest cost in the first tier of water use and then incrementally increase the cost per unit (within a tier of use) as more water is used.

As discussed in Section 7, *Alternatives Analysis*, in reference to the All Conservation Alternative, there are several wholesale water agency customers of West Basin with substantial resident populations below the federal poverty line. Two of those communities, Hawthorne and Inglewood, also have very low residential consumptive use as expressed in gallons per capita day (gpcd).[5] In July 2018, the peak summer water use period, the City of Hawthorne and the City of Inglewood reported to the SWRCB a residential use for that month of 65 and 76 gpcd, respectively (SWRCB 2018). Other wholesale customers of West Basin with significant low-income populations reported low water use, such as Golden State Water Southwest Division, serving the cities of Lawndale, Gardena, and the unincorporated area of Del Aire, which reported water use for that same month of 69 gpcd. This low level of water use can be contrasted with the use reported for Palos Verdes for that same period of 196 gpcd.

In respect to tiered water rates, recent case law confirms the requirement of a direct nexus between the cost of a tier of water use and the cost of service to provide that water. In *Capistrano Taxpayers Association v. City of San Juan Capistrano*, the court ruled that, in order to comply with Proposition 218, tiered water rates must be correlated with the actual cost of providing water at those tiered levels.[6] Although West Basin has no control or influence on the setting of retail water rates, California law ensures that low-gpcd customers will pay no more than the proportional cost of the water service attributable to their parcels.

The mechanics of the rate structure are not part of the environmental analysis that is the scope of the Draft EIR. Further, in accordance with CEQA and the CEQA-Plus federal cross-cutting requirements, economic impacts are not considered significant impacts on the health or environmental conditions of minority or low-income populations. See also *Master Response: Cost and Rates* and *Master Response: Non-CEQA Issues*. Nevertheless, as discussed above, there is no indication that the proposed Project would cause a disproportionate economic impact on minority, low-income, or indigenous populations.

Water Affordability Legislation

Environmental justice and water affordability issues are currently being addressed at the statewide level which will further augment local programs that are currently in place.

4 Illustrative examples of West Basin retail customer rate structures are California Water Service Company serving Ranch Dominguez, Hermosa-Redondo, Palos Verdes https://www.calwater.com/rates/rates-and-tariffs/rd/ and City of Manhattan Beach https://www.citymb.info/departments/public-works/utilities-division/water-and-sewer-rates

5 As noted in Section 7, household income is cited as the key driver of residential water use. Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use, California Department of Water Resources Division of Statewide Integrated Water Management Water Use and Efficiency Branch February 2011

6 Capistrano Taxpayers Assn., Inc. v. City of San Juan Capistrano, 235 Cal. App. 4th 1493 (2015)

In 2012, with the enactment of Assembly Bill (AB) 685 (Eng, Chapter 524, Statutes of 2012), California became the first state to declare that every human being in our state has a right to clean, safe, affordable, and accessible water adequate for human consumption and sanitary purposes. The legislation instructed all relevant state agencies, including the State Water Resources Control Board (State Water Board, or Board), to consider the human right to water when revising, adopting, or establishing policies, regulations, and grant criteria pertinent to water uses.

In 2015, the Legislature enacted AB 401 (Dodd, Chapter 662, Statutes of 2015) which requires the State Water Resources Control Board, in collaboration with the State Board of Equalization, to develop a plan for the funding and implementation of the Low-Income Water Rate Assistance Program.[7] On or about January 3, 2019, the State Board issued a draft plan entitled, "Options for Implementation of a Statewide Low-Income Water Rate Assistance Program," which is currently under public review.[8]

In 2016, the Board adopted a Human Right to Water Resolution making the human right to water, as defined in AB 685, a primary consideration and priority across all of the state and regional boards' programs (State Water Resources Control Board Resolution No. 2016-0010 (2016)). As part of its efforts to achieve the human right to water, the Board also enlisted the expertise of the Office of Environmental Health Hazard Assessment (OEHHA), to develop a framework for evaluating the quality, accessibility, and affordability of the state's drinking water supply. OEHHA published a public review draft of its report entitled, "Achieving the Human Right to Water in California, An Assessment of the State's Community Water Systems" in August 2019, which "marks a first step toward developing a baseline from which to comprehensively track challenges in water quality, accessibility and affordability that individual California water systems face." [9]

Most recently, on July 24, 2019, the Governor Gavin Newsom signed Senate Bill (SB) 200 (Monning, Chapter 120, Statutes of 2019), which directs the state to "bring true environmental justice" to its residents, and to "begin to address the continuing disproportionate environmental burdens in the state by creating a fund to provide safe drinking water in every California community, for every Californian."[10] The Legislature also declared:

- "Climate change is exacerbating the water impacts on disadvantaged and environmentally burdened communities by reducing surface water flows,

7 See *SB 401* (Dodd, Chapter 662, Statutes of 2015) (https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201520160AB401)

8 See SWRCB, *Options for Implementation of a Statewide Low-Income Water Rate Assistance Program* (https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/assistance/docs/2019/draft_report_ab401.pdf)

9 See OEHHA, *Achieving the Human Right to Water in California, An Assessment of the State's Community Water Systems,* August 2019 (https://oehha.ca.gov/media/downloads/water/report/achievinghr2w08192019.pdf at p.2); *see also* https://www.waterboards.ca.gov/press_room/press_releases/2019/pr08202019_sadw.pdf

10 See *SB 200* (Monning, Chapter 120, Statutes of 2019) (https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201920200SB200)

accelerating declining groundwater basins, and contributing to increasing concentrations of environmental contamination."

- "Enhancing the long-term sustainability of drinking water systems in disadvantaged and environmentally burdened communities increases those communities' resilience to climate change."[11]

The funding programs described above are intended to address the affordability of water for disadvantaged communities. As discussed above, because West Basin is a water wholesaler, it has no control over how its member agencies sets their rates. However, the rates and rate assistance programs must be established within the regulatory framework set forth above which should ensure that disadvantaged communities have access to high quality water. Note that most water retailers in West Basin's service area already have rate programs for lower income households. For example, the City of El Segundo has a Lifeline Rate program,[12] California American Water has the Assistance for Low-Income Customers Program,[13] and California Water Service Program has the Low-Income Rate Assistance (LIRA),[14] Golden State Water Company has the California Alternate Rates for Water program.[15] These programs and other similar programs would be supported and/or augmented by the State programs.

Environmental Justice Demographics and Reference Populations

In response to comments received on the potential for the Project to disproportionately affect low-income or disadvantaged communities, additional information has been compiled from existing data on local communities. The additional information provides more census tracks than were included in the Draft EIR analysis, providing a more comprehensive accounting of the local neighborhoods. The discussion of demographics of the affected populations and reference populations in Draft EIR Subsection 6.3.2 is replaced with new text that can be found in Final EIR Section 18. The updated data and expanded assessment of the diverse demographics within the West Basin service area augment and refine the analysis of the Draft EIR but do not alter the impact assessment method or conclusions of the Draft EIR as summarized in this Master Response.

Environmental Justice Impact Analysis

This Master Response incorporates consideration of construction impacts that would result from implementation of the proposed Project, which were identified in resource-specific sections of the Draft EIR, to analyze whether those impacts would result in disproportionately high and adverse human health or environmental effects on minority and/or low-income populations. Construction-related environmental impacts of aboveground and belowground facilities would be concentrated

11 Id.

12 See https://www.elsegundo.org/civicax/filebank/blobdload.aspx?BlobID=9795

13 See https://amwater.com/caaw/customer-service-billing/low-income-program

14 See https://www.calwater.com/community/lira/

15 See https://www.gswater.com/carw/

within portions of El Segundo, Lawndale, Hawthorne, and Gardena, as well as several unincorporated neighborhoods within Los Angeles County. Many of the census tracts within the construction impact area are home to meaningfully greater minority and low-income populations compared with the service area as a whole (see Tables 6-2 and 6-3).

Modifications have been made to the Draft EIR Subsection 6.3.3 starting on page 6-12, to clarify impacts related to construction and operation. The revised text is presented in Final EIR Section 18. As previously mentioned, the additional information was included to clarify the potential impacts related to construction and operation of the proposed Project on minority and/or low-income populations. No new significant impacts are identified related to environmental justice that have not already been identified in Sections 5.1 through 5.16 of the Draft EIR.

Operational Electricity, Greenhouse Gas Emissions, and Climate Change Impacts on Minority and Low-Income Populations

With respect to electricity used during Project operation, indirect emissions from electricity consumption are not included in the analysis of air quality impacts, including impacts on minority and low-income populations, for several reasons. First, it cannot be known what power source will provide the electricity consumed by the proposed Project, due to the nature of the regional power grid. Therefore, to attribute all operational electricity-related emissions to a local power plant would be speculative. Additionally, criteria pollutant emissions from any specific power plant have already been addressed in the Air Quality Management Plan for that plant's capacity, and therefore would be considered existing conditions for the location of that plant. The analysis addresses the ongoing effects of existing pollutant sources in its baseline characterization.

As described in Draft EIR Subsection 5.7.3, the proposed Project would cause no net increase in operational greenhouse gas (GHG) emissions over the emissions associated with an equivalent volume of water supplied by Metropolitan Water District of Southern California (MWD). This would be achieved through a combination of Project design features and mitigation measures offsetting GHG emissions associated with continued use of imported water supplied by MWD, resulting in a net carbon neutral GHG emissions project. Further, while the comments cite a report that relies on Southern California Edison's (SCE's) 2014 power mix and 2008 California Energy Commission reporting on out-of-state power sources, as explained on Draft EIR page 5.7-26, the Draft EIR relied on information from SCE's 2016 power mix, which includes a higher percentage of carbon-free sources. SCE emissions factors used are provided in Draft EIR Appendix 3. Please see *Master Response: Greenhouse Gas Emissions and Energy Use* for additional information about the proposed Project's GHG emissions. The proposed Project would not increase GHG emissions over the no project scenario (i.e., imported water supply). Therefore, the proposed Project would not contribute to GHG concentrations causing climate change, the effects of which may disproportionately adversely affect some minority or low-income populations.

12.5 Greenhouse Gas Emissions and Energy Use

Several comments expressed concern that the Draft EIR uses the "net carbon neutral" (i.e., net zero) threshold rather than a total zero carbon emissions threshold.[16] The net carbon neutral approach compares the proposed Project's new emissions with the existing baseline condition, which includes imported water supplied by the Metropolitan Water District of Southern California (MWD). Comments expressed the opinion that West Basin should offset total Project emissions, not just the proposed Project's increase when compared to emissions from importing water. Comments also opined that the Draft EIR should have found significant and unavoidable impacts from greenhouse gas (GHG) emissions. Comments also questioned the Draft EIR's approach to offset the increased energy and emissions impacts by using renewable energy.

"Net Carbon Neutral" Threshold of Significance

As discussed in Section 5.7, *Greenhouse Gas Emissions*, of the Draft EIR, the California Environmental Quality Act (CEQA) leaves the determination of thresholds of significance to the reasonable discretion of the lead agency. In this case, West Basin applied the CEQA Guidelines Appendix G, Environmental Checklist Form questions as the significance thresholds for GHG emissions. The proposed Project would have a significant adverse environmental impact if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment (refer to Impact GHG 5.7-1).
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions (refer to Impact GHG 5.7-2).

With respect to the first potential impact, West Basin has determined that the proposed Project would have a significant impact on GHG emissions if it were to increase emissions above net carbon neutral as compared to emissions associated with continuing to import water. The Draft EIR references the 2017 Scoping Plan, which does not specify the GHG reductions needed from the water sector to meet the goals of Assembly Bill (AB) 32 and Senate Bill (SB) 32. The Scoping Plan also recognizes AB 685, the "human right to water" bill[17], and the fact that the GHG emissions associated with water will be reduced as the energy sector is decarbonized through the use of renewable energy (Draft EIR page 5.7-19 to -20). In addition, the Draft EIR cites to the California Air Resources Board's (CARB's) 2010 letter to the California Coastal Commission regarding the Carlsbad Desalination Plant, in which CARB opines that "we believe

[16] Net neutral carbon emissions or net zero carbon emissions both mean that the total amount of carbon dioxide and other GHG emissions released into the atmosphere in the process of delivering water to West Basin customers would not increase compared to the baseline condition. This can be achieved by offsetting the Project's emissions in excess of baseline conditions with GHG mitigation strategies sufficient to offset the Project's incremental GHG emissions over the net zero threshold of significance. Because the Project replaces existing water supplies, achieving net carbon neutral entails offsetting new emissions from the Project to reach the baseline condition (which includes the emissions associated with the existing water supply). Total zero carbon emissions, in contrast, means that the entire emissions inventory of the Project would be offset, not accounting for the credits achieved through replacement of existing West Basin customer water sources.

[17] See also Executive Order N-10-19 (signed by Governor Gavin Newsom on April 29, 2019) which confirms that "water is a human right, and is central to California's strength and vitality . . ." and requires the California Natural Resources Agency, the California Environmental Protection Agency and the California Department of Food and Agriculture to prepare a water resilience portfolio.

the amount of emissions reduction that should be required need not exceed the net impact, that is, the direct emissions from the Project, less emissions that would be associated with providing an equivalent amount of existing supplies" (Draft EIR page 5.7-20). This is consistent with West Basin's net carbon neutral threshold.

The Draft EIR (Table 5.7-3) includes an estimate of GHG emissions attributable to the construction and lifetime operation of the proposed Project. The Draft EIR explains in Subsection 5.7.4 that the proposed Project would reduce West Basin's use of water imported from the Colorado River Aqueduct (CRA) and the State Water Project (SWP) (from the Sacramento-San Joaquin River Delta) and delivered by MWD by 21,500 acre-feet per year, equivalent to the volume of potable water produced by the proposed Project. Thus, the Draft EIR concludes that the proposed Project's GHG emissions would be partially offset by the reduction of the existing GHG emissions associated with West Basin's reduction in use of imported water supplied by MWD. However, because the proposed Project is more energy-intensive than imported water, the proposed Local Project would increase GHG emissions by 10,959 metric tons of CO_2 equivalents ($MTCO_2e$) compared to the existing GHG emissions associated with importing the same amount of water (Draft EIR Table 5.7-3). Mitigation Measures GHG-1 and GHG-2 require West Basin to offset GHG emissions by this net increase to achieve net carbon neutral GHG emissions. This means that the proposed Project's net increase in GHG emissions over the emissions associated with an equivalent volume of water that would have been supplied by MWD (but for the Project) would be offset through a combination of Project design features and mitigation measures. It is anticipated that emissions (both from imported water and emissions associated with Project operation) will change over time as California transitions to cleaner energy in accordance with SB 350 and other regulations.

Several comments received on this approach suggest that West Basin should not take credit for replacing any GHG emissions associated with the MWD water that it would no longer import. The net carbon neutral GHG threshold used in the Draft EIR reflects West Basin's responsibility for the emissions associated with the water it supplies to its service area. West Basin is not responsible for the water supplied by MWD to other agencies nor for the GHG emissions associated with that water, and West Basin is not taking credit for reductions of GHG emissions associated with the actions of MWD or any other agencies. While MWD is a valued partner to West Basin in support of desalination as evidenced in the Seawater Desalination Program Agreement (MWD 2006), MWD makes independent decisions about the sourcing of its water. As an entity that relies on MWD-supplied water, West Basin is faced with the reality that imported water has become increasingly vulnerable in periods of extended drought, like that which Southern California has experienced in recent years (West Basin 2016; Section 5.1).

As discussed above, MWD currently imports water from the CRA and the SWP. MWD has recently stated that "given current shortage conditions" in Southern California it expects "to take its full SWP and Colorado River rights and entitlements for the foreseeable future. However, MWD supplements its SWP Table A entitlement by pursuing transfers, exchanges, and other marginal supplies also transported through the SWP delivery system" (CCC 2010).

West Basin is committed to reducing its dependence on imported water by increasing the reliability of its local water supplies through a mix of conservation, recycling, and desalination. As described in its 2015 Urban Water Management Plan (UWMP), these local supplies are expected to reduce the imported-water component of West Basin's overall portfolio from about 57 percent in 2015 to 43 percent by 2025 (West Basin, 2016).

The analysis in the Draft EIR assumes that the water supplied by the proposed Project will replace, on a gallon-for-gallon basis, water that is currently supplied to West Basin by MWD. The Draft EIR discloses the total GHG emissions impact for the proposed Project and includes mitigation measures to ensure that West Basin reduces and/or offsets the proposed Project's emissions to a significance threshold of net carbon neutral as discussed above. As the lead agency under CEQA, West Basin determined the net carbon neutral threshold is appropriate and adequately supported in the Draft EIR. West Basin will comply with all permitting requirements of agencies with permitting authority over the Project.

Less Energy-Intensive Alternatives

Several comments expressed concern that the Draft EIR should analyze the proposed Project's energy and GHG impacts in comparison to a range of other water supply alternatives that are less energy intensive. The water supply alternatives discussed in the Alternatives analysis include increased conservation, increased recycling, stormwater capture, increased non-potable reuse, and direct potable reuse. As explained in the Draft EIR, Section 7, *Alternatives*, these supply alternatives are currently and would continue to be implemented in addition to the proposed Project to establish a balanced water supply portfolio that maximizes the production of local water supplies, thereby enhancing water security. As described in detail in West Basin's 2015 UWMP, the demand for potable water in the West Basin service area in a multi-dry-year event requires a balanced portfolio approach. Rather, a portfolio approach is needed to maximize local sources and minimize the need for imported water. However, even the reasonably achievable maximum production from all local supplies does not totally eliminate demands that are met with imported water. The 2015 UWMP concludes that even with the proposed ocean desalination project providing 10 percent of West Basin's water supply, 39 percent of the total demand would still be met with imported water. Ocean desalination is one component of a balanced local water supply approach that enhances water security.

West Basin, as the lead agency, is required to conduct an environmental analysis of alternatives that are determined feasible, and that may contribute to lessening a project's environmental impacts (CEQA Guidelines 15126.6(f)). As such, in addition to the No Project Alternative, which CEQA requires be analyzed, the Draft EIR analyzes three additional alternatives: the AES Redondo Beach Generating Station Alternative, the Reduced Capacity Alternative, and the Reduced Elevation – ESGS South Site Plan Alternative. Analyses of the environmental impacts for all resource topics of each of those alternatives are included in the Draft EIR. As such, the GHG and therefore energy impacts of each alternative are compared against those of the proposed Project (see Draft EIR pages 7-47, 7-52, and 7-56). As stated on page 7-59 of the Draft EIR, the Reduced Capacity Alternative is the only feasible alternative that would further reduce the proposed Project's already less-than-significant impacts related to GHG emissions (and energy

consumption) due to decreased product water production. It should be noted that none of the feasible alternatives considered in the Draft EIR would avoid any of the proposed Project's significant and unavoidable impacts related to air emissions and temporary construction-related noise.

The Pacific Institute Study referenced by several comments compares energy and GHG impacts of various water supply sources. West Basin recognizes the energy requirements of different local water supply alternatives, and that ocean water desalination is more energy-intensive than other local water supplies. However, as stated above, the demand for potable water in the West Basin service area in a multi-dry-year event requires a balanced portfolio approach. West Basin is committed to advancing these local alternatives in parallel with the proposed Project; Ocean water desalination is just one component of a balanced local water supply approach that enhances water security, with the Local Project providing approximately 10 percent of West Basin's total water supply portfolio. This type of water supply diversification balances the benefits and risks associated with each supply type. The benefits of its drought-proof reliability, combined with providing an alternative source in the event of potential interruptions of supply from MWD (as a result of a variety of potential causes), strengthens West Basin's water supply portfolio and supports fiscally and environmentally responsible water supply planning to enhance water security. For more information of the selection and feasibility of alternatives, see *Master Response: Water Supply Alternatives.*

12.6 Marine Biological Resources Study Area

Comments[18] expressed concern that the Draft EIR analysis of impacts on Marine Biological Resources is too limited in geographic scope, and that the Draft EIR fails to present an adequate scientific basis for limiting the marine study area to a portion of the Santa Monica Bay (SMB). The comments suggest that the marine study area may not consider potentially significant environmental impacts of the proposed Project on marine biological resources and water quality within the entire SMB. In particular, comments claim the Draft EIR fails to analyze the significant impacts to the Mugu Lagoon to Latigo Point Area of Special Biological Significance (ASBS), the Point Dume State Marine Conservation Area (SMCA) and State Marine Reserve (SMR), the Point Vicente SMCA, the Abalone Cove SMCA, and Ballona Creek and Wetlands. The comments contend that the entire SMB or potentially the entire Southern California Bight (SCB) should have been the area evaluated for impacts imposed by the proposed Project, rather than the Draft EIR's limited marine study area.

As described in Draft EIR Subsection 5.11.4, the principal impacts on marine biological resources from this proposed Project will be in the form of: (1) disturbance from construction, (2) potential entrainment of larvae from the seawater intake and shear stress mortality from the discharge of brine, and (3) disturbance to the water chemistry from discharge of brine.

With respect to the impact of brine discharge, the Final EIR explains and provides modeling results showing that the brine concentration from proposed Project operations would be less than 2 parts per thousand above ambient between 13.5 and 19.0 meters (45 to 63 feet) of the diffuser

[18] Commenters include but are not limited to LA Waterkeepers, City of Hermosa Beach, City of Manhattan Beach, City of Malibu, and Environmental Organizations and Green Businesses.

for the Local Project, and between 21.2 and 29.6 meters (70 to 98 feet) for the Regional Project (see Final EIR Appendix 14; Roberts 2019) for all scenarios modeled, well within the 100 meters (328 feet) prescribed in the 2015 Ocean Plan. As such, the 2,500-acre, rectangular marine study area — extending approximately one nautical mile (1.15 miles) up-coast and down-coast of the terminus points of the El Segundo Generating Station (ESGS) intake and outfall pipelines, and 1.5 nautical miles (1.7 miles) offshore,[19] reaching a depth of approximately 90 feet — is several orders of magnitude greater than the area impacted by brine discharge (approximately 0.3 to 0.5 acre). The marine study area is also several orders of magnitude greater than the construction area (8 acres) associated with the installation of the submarine infrastructure proposed by the Project, which would be temporary and localized (see Draft EIR Subsection 5.11.4). Therefore, because direct and indirect effects on marine habitats and biological resources would be confined to a relatively small area, and would not have the potential to generate impacts to habitats or marine species at greater distances, the study area is more than adequate to address the potential impacts of the Project; indeed, it is so broad and over-inclusive as to reflect a conservative approach going well beyond what is required.

The Draft EIR uses empirical transport modeling to estimate potential mortality from entrainment of larval plankton at the intakes, calculates shear stress mortality resulting from the discharge of brine, and includes the calculation of the potential area of production foregone (APF). The APF is an estimate of the area that is required to produce (replace) the same amount of larvae lost to intake entrainment and shear stress mortality at the discharge. The Draft EIR concludes that impacts associated with the proposed Project would be less than significant with mitigation. Mitigation Measure BIO-M2 requires that West Basin refine the APF calculation using state guidelines and mitigate for losses to larval plankton through conservation of productive shoreline habitat areas. Both the entrainment mortality and APF estimates use a large "source water area"[20] for each fish taxon based on the individual fish taxon's natural history. These source water areas include most of SMB. In this respect, the Draft EIR necessarily considers impacts to a larger region than the defined marine study area even though, as noted above, that area itself already embodies a precautionary approach.

Moreover, Draft EIR Subsection 5.11.2 describes the environmental setting as well as the marine biological resources of SMB in general, and conditions which occur within the marine study area specifically. The section presents bathymetry in SMB, climate and oceanography in Southern California, existing marine habitats and communities in SMB, special-status marine species in the SMB and the SCB (see Draft EIR Table 5.11-3), non-native invasive aquatic species in SMB and the SCB, and significant ecological areas for SMB as a whole (and for the study area specifically). The Draft EIR also describes the coastline in northern SMB from Point Dume to Latigo as being included in the Mugu Lagoon to Latigo Point ASBS (see Draft EIR page 5.11-34) and explains this area is located over 18 miles to the northwest of the proposed Project area. No other designated ASBS occurs in Santa Monica Bay.

19 The termini of the two existing ESGS tunnels are approximately 2,080 feet (discharge, 0.39 miles) and 2,580 feet (intake, 0.49 miles) offshore.

20 Source Water Area is the geographic area that contains the organisms that are at risk of entrainment at a desalination intake facility as determined by factors that may include, but are not limited to, biological, hydrodynamic, and oceanographic data.

The Draft EIR also explains on page 5.11-34 that the proposed Project area is not designated as a park, sanctuary, or Significant Ecological Area (SEA) by any county or city agency. Further, the beach inshore of the proposed intake is not a State Beach or State Seashore. The Draft EIR explains on the same page that the Malibu coastline, the Ballona Lagoon (adjacent to Marina del Rey), the El Segundo Dunes, and the Palos Verdes Peninsula have been designated as SEAs and Coastal Resource Areas by the County of Los Angeles. An SMCA and an SMR are located over 22 miles to the northwest of the proposed Project area at Point Dume in the Malibu region, and an SMR and an SMCA are located over 7 miles south of the proposed Project area at the Palos Verdes Peninsula, all established in 2012 (see Draft EIR Figure 5.11-2). The Draft EIR adequately characterizes the regional marine setting and the potential for direct and indirect construction and operational effects to be experienced throughout SMB.

As described in Draft EIR Subsection 5.11-4, the proposed Project would not result in a significant impact on any special-status species (see Draft EIR Table 5.11-5), would not threaten to eliminate a marine plant or wildlife community (see Draft EIR Table 5.11-13), and would not interfere substantially with the movement of any resident or migratory fish or marine wildlife species (see Draft EIR Table 5.11-14), including those special-status species resident in any of the Marine Protected Areas (MPAs), such as black abalone and giant seabass. The Draft EIR provides substantial evidence that proposed Project direct and indirect effects on marine habitats and biological resources would be confined to a relatively small area, and would not have the potential to generate impacts to habitats or marine species at greater distances, as demonstrated through the empirical transport modeling and characterization of the environmental setting.

12.7 Non-CEQA Issues

A number of comments raised issues that relate neither to potential environmental impacts nor to the adequacy of the Draft EIR. Such comments, including general statements supporting or opposing the proposed Project, expressions of opinion, and questions about the need for the proposed Project, are not within the purview of CEQA.

CEQA Framework

CEQA's framework sets forth a series of analytical steps intended to promote the fundamental goals and purposes of environmental review—information, participation, mitigation, and accountability. "The purpose of an [EIR] is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project" (Public Resources Code Section 21061.) Thus, the primary purpose of an EIR is to identify a project's potential impacts on the environment. Concerns about the non-environmental aspects or impacts of a project are not analyzed in an EIR.

Need for Project

An EIR is not intended or required to provide justification or demonstrate the need for a particular project. In accordance with the requirements of CEQA, the EIR identifies Project objectives and the proposed Project's anticipated physical environmental impacts. Alternatives to the Project are compared with the Project objectives to evaluate whether a less environmentally impactful

alternative could achieve similar goals. Project objectives are meant to capture the high-level goals and purposes of the Project without being so narrowly defined as to exclude meaningful analysis of alternatives. The Project objectives of West Basin's proposed Ocean Water Desalination Project (see Section 3.3 of the Draft EIR) are to:

- Diversify West Basin's water source portfolio to increase reliability in the near and intermediate term (5–15 years) and the long term (15–30 years) while reducing reliance on imported water.
- Improve water security through West Basin's increased local control of water supplies and infrastructure.
- Improve West Basin's local control of future water costs and long-term price stability.
- Improve West Basin's climate resiliency by developing a water source that is less susceptible to hydrologic variability.
- Develop for West Basin a potable water supply that is economically viable and environmentally responsible.

West Basin is responsible for sustaining a water supply portfolio that supports the needs of its service area customers, and it has developed this proposed Project to meet this responsibility. Comments received on the appropriateness of the objectives do not pertain to the physical environmental impacts of the Project and, as such, they are not relevant to the adequacy of the EIR. Nevertheless, these comments are included within the Administrative Record and will contribute to the information that will be considered by the decision-makers in the context of the entire record.

Opinions Regarding Support or Opposition to the Project

Comments expressed opinion in support of, or in opposition to, the proposed Project. West Basin welcomes all comments; however, opinions and expressions of support or opposition unrelated to physical environmental impacts do not pertain to whether impacts were appropriately analyzed in the Draft EIR or to the adequacy of the environmental analysis contained in the Draft EIR. The opinions expressed are included within the Administrative Record, contributing to the information that provides the basis for decision and, as such, these opinions are considered by the decision-makers in the context of the entire record. However, the purpose of an EIR is to present objective information as to a project's potential environmental impacts. The purpose of allowing the public and agencies to comment on an EIR is to allow any errors or omissions to be identified and corrected. Opinions concerning issues not within the purview of CEQA (such as socio-economic issues), as well as expressions of opposition or support for a project, are made a part of the Administrative Record and forwarded to the decision-makers for their consideration in taking action on the proposed Project, but they are not responded to in a CEQA document.

Property Values

Several comments expressed concern that the proposed Project could reduce property values in neighboring areas. CEQA requires lead agencies to consider environmental effects associated with project approvals. But it does not require any financial impact analysis regarding either the cost of the project itself or potential impacts to property values for any parcels or communities

adjacent to the project site (see *Master Response: Cost and Rates*). Nonetheless, West Basin understands the natural concern that local property owners have for property values. The proposed location for the light industrial facility is a historically industrial area surrounded on two sides by much heavier industrial uses including fuel oil storage, power generation, electric substation, wastewater treatment, and the airport. The site is designated for use as a power plant. Replacing the existing heavy industrial uses with new light industrial facilities supporting a vital public coastal-dependent utility would not be expected to adversely affect Manhattan Beach home values in any way. Views would not be adversely affected, potential hazards would be reduced compared to existing conditions, and operational noise and traffic would not be significantly changed compared to existing conditions.

12.8 Supplemental Studies

The Final EIR includes four supplemental studies, which were conducted in response to comments received on the Draft EIR from State agencies and other interested parties. The results of the studies provide additional data that confirm the conclusions in the Draft EIR and support future regulatory decisions such as the Water Code Section 13142.5(b) determination ("Water Code determination") by the State Water Resources Control Board/Los Angeles Regional Water Quality Control Board (LARWQCB) and the issuance of a Coastal Development Permit by the California Coastal Commission (CCC). See also *Master Response: CEQA and Ocean Plan Compliance*.

These supplemental studies confirm, amplify, or clarify the data and conclusions in the Draft EIR. None of the studies reveal new or substantially more severe significant environmental impacts or feasible alternatives or mitigation measures which West Basin declines to embrace that would lessen significant impacts of the proposed Project. Thus, none of the supplemental studies described below triggers recirculation of the Draft EIR.

Comparison of 316(b) Data from Santa Monica Bay, CA

The existing intake and discharge structures at the El Segundo Generating Station (ESGS) facility were built in the 1960s, well before potential effects on marine life were known and understood. West Basin proposes to use the existing structures to minimize offshore construction impacts to marine life. Nevertheless, the LARWQCB and the CCC both commented that the ESGS site may not be the "best available" to minimize the intake and mortality of marine life. The comments assert that while the Draft EIR focuses on the ESGS site, which is appropriate pursuant to the California Environmental Quality Act (CEQA), the analysis does not adequately address the Ocean Plan's requirement to evaluate a reasonable range of nearby sites, and does not provide enough information to support a finding that the ESGS site is the best available site for minimizing intake and mortality of all forms of marine life from a surface intake.

As explained in *Master Response: CEQA and Ocean Plan Compliance*, the Ocean Plan requirements will be specifically addressed through the Water Code determination process. However, to address concerns raised in comments about the intake structure at the ESGS facility, West Basin has reviewed publicly available data for other similar intake facilities within the Santa Monica Bay. This data analysis focuses on a comparison of the existing 316(b) data from the

ESGS, the Scattergood Generating Station (SGS), and the Redondo Beach Generating Station (RBGS) to evaluate the differences in planktonic species' variation and densities, and to draw conclusions about the potential levels of entrainment that could result from a desalination plant at each location. This review of the data confirms the impact analysis in the Draft EIR and also provides additional information that may be used by regulatory agencies during the permitting phase of the Project. Results of the review indicate that the preferable location for a project's ocean water intake in coastal California must be as distant as possible from rocky reef/hard substrate habitat, coastal lagoons and estuaries, and marine protected areas in order to minimize the entrainment of larval fish, including special-status and managed fish and invertebrate taxa. Therefore, the data supports the conclusion that the ESGS is the "best available" site in Santa Monica Bay to minimize the intake and mortality of marine life.

See the Final EIR, Appendix 12.

Subsurface Intake Feasibility Study

The LARWQCB noted in its comments on the Draft EIR that the subsurface intake feasibility studies (Draft EIR Appendix 2A) seem to be limited to evaluating conditions at the ESGS, followed by inferring from a comparison of the physical setting that the findings for the ESGS site apply to the RBGS site. The comment asserts that the Draft EIR does not provide enough information for LARWQCB's staff to determine whether subsurface intakes may be technically feasible at nearby sites, does not appear to provide sufficient information about a reasonable range of nearby sites that would support subsurface intakes, and necessitates further technical evaluation of subsurface intakes at the proposed site for the Water Code determination. Furthermore, the LARWQCB opines in its comments that horizontal directional drilling (HDD) installation of a Neodren well within the 20- to 25-foot permeable thick coarse-grained sediment interval beneath the seafloor may be feasible, and that extraction from this interval would yield very high percentages of filtered seawater without potential interference with the inland contaminated aquifer or Basin Injection Barrier.

To address these concerns, a supplemental study was conducted that expands upon the Subsurface Intake study provided as Draft EIR Appendix 2A, further explores the feasibility of Neodren-type subsurface wells within the 20- to 25-foot permeable sediment beneath the seafloor, and responds to the concerns expressed by the LARWQCB. The findings of the supplemental study present further evidence that confirms West Basin's conclusions in the Draft EIR that subsurface intakes are not feasible for this Project given the physical conditions within Santa Monica Bay, and that HDD above the coarse-grained sediment layer specifically is not feasible for the proposed Project.

See the Final EIR, Appendix 13.

Modeling of Linear Diffusers for Brine Disposal from the West Basin Ocean Water Desalination Project

The LARWQCB commented that the Draft EIR should include a linear diffuser design for the proposed Project and should use the methodology for determining the best available diffuser to

minimize the mortality of all forms of marine life that is described in a report prepared by Dr. Phil Roberts (dated April 18, 2018) evaluating Poseidon's proposed Huntington Beach desalination project.

In response to this comment, a supplemental study was prepared by Dr. Roberts, applying the methodology described in Dr. Roberts' 2018 report, to determine an appropriate linear diffuser design for the proposed Project. The study evaluates a linear array that includes 14 nozzles set at a 60-degree angle to enhance dilution and minimize shear stress mortality from entrainment, installed 15.5 feet apart (7 nozzles per side) along a 120-foot pipe that extends south from the existing discharge tower. The linear diffuser design has been incorporated into the Final EIR (see Final EIR Section 11, *Refinements to the Project Description*) and the impacts have been addressed in the relevant topical sections. No additional or increased physical impacts would result from implementation of the linear design. In fact, dilution modeling indicates that the revised configuration would result in a reduced-size Brine Mixing Zone and a nearly 50 percent reduction in ocean water volume that is entrained into the discharge plume by the linear diffuser system. Hence, the linear diffuser design would result in a reduction in the impact on planktonic organisms identified in the Draft EIR.

See the Final EIR, Appendix 14.

Coastal Hazards

The CCC comments that the Draft EIR Project Description and analysis discuss the need for some unspecified type of coastal hazards shoreline protection. According to the CCC, the Draft EIR does not describe fully what would be needed and it might be underestimating the severity of sea-level rise, increased storm energy, and coastal erosion. The CCC recommends that the Draft EIR be revised and noted that this type of proposed "critical infrastructure" facility is to be evaluated using high-risk sea-level rise projections and the "extreme risk aversion" scenario known as the "H++" scenario. Heal the Bay, Environmental Organizations and Green Businesses submitted similar comments.

Because rising sea levels will increase the potential of coastal flooding and flood hazards, West Basin conducted a site-specific Coastal Hazards Analysis for the proposed desalination facility at the ESGS North and South Sites, provided as Draft EIR Appendix 5. The results of that analysis are presented in Draft EIR Subsection 5.9.4, in the discussion of coastal flooding and tsunami impacts, and concluded that portions of the ESGS Site would be vulnerable to flooding from future unmitigated coastal flood hazards, including from strong wave surge and tsunami inundation under future sea-level flood hazard conditions. Therefore, Mitigation Measure HYDRO-1, described in Draft EIR Subsection 5.9.4, requires West Basin to complete a project-specific coastal engineering study for the final Project design, and would require the final Project engineering design to minimize conflicts with the applicable Coastal Act Section 30235 (construction altering natural shoreline) and Section 30253 (safety, stability, pollution, energy conservation, visitors).

However, in the interest of providing as much information as possible and to respond to the CCC's and others' comments on the Draft EIR, West Basin prepared a supplemental Coastal

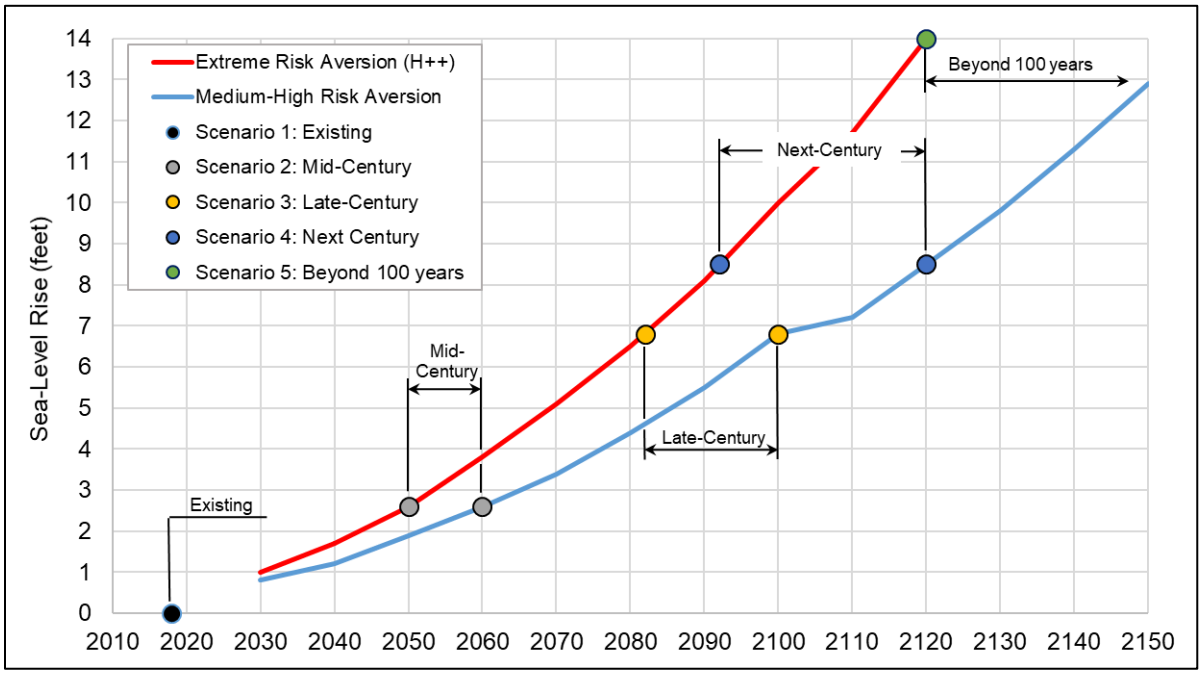
Hazards study (see Final EIR Appendix 15) that considered the high-risk sea-level rise projection and the "H++" scenario, based on the Ocean Protection Council's April 2017 *Rising Seas in California: An Update of Sea-Level Rise Science* (Griggs et al. 2017)[21] and the CCC's 2018 *State Sea Level Rise Guidance*. Much of the analytical methodology used is described in the Federal Emergency Management Agency (FEMA) Coastal Flood Hazard Analysis and Mapping for the Pacific Coast of the United States (FEMA 2005).

To guide the understanding of time horizons that can be related to site improvements and expected design life of the proposed desalination structures, the supplemental study looked at four (4) time frames representing a range of sea-level rise values associated with mid-century, late-century, next-century, and beyond 2130, as follows:

- Mid-Century (2050–2060): 2.6 feet sea-level rise
- Late-Century (2082–2100): 6.8 feet sea-level rise
- Next-Century (2092–2120): 8.5 feet sea-level rise
- Beyond 100 years (2130+): 14 feet sea-level rise

Final EIR **Figure 12-1** presents the sea-level rise scenarios used in the planning and analysis of the Supplemental Coastal Hazards Study, which are based on the sea-level rise projections of the Ocean Protection Council (2018) for the extreme (H++) and medium-high risk aversion scenarios. The red curve represents the extreme risk aversion projection of sea-level rise, which the state has required for analyzing critical infrastructure, while the blue line represents sea-level rise projections for a medium-high risk aversion. The analysis in the supplemental study assumes the beach erodes with sea-level rise, but the rock revetment and Marvin Braude Bike Trail are maintained in place by others (e.g., Los Angeles County). The overall trend is that the beach elevation decreases over time, exposing the site to larger waves in the future. While this area is currently not mapped by FEMA in a 100-year flood hazard zone, the results of the supplemental study indicate that wave overtopping onto the ESGS property during extreme events may occur, and confirms the inland extent of the potential flooding of the ESGS project sites that is presented in the Draft EIR. It also provides a profile of the wave run-up, which will inform and support future potential strategies to minimize and mitigate exposure to these hazards.

[21] The Ocean Protection Council's April 2017 publication was prepared by its Science Advisory Team Working Group (Gary Griggs et.al.). The April 2017 publication was used to prepare its State of California Sea-Level Rise Guidance: 2018 Update, referenced as Ocean Protection Council 2018.

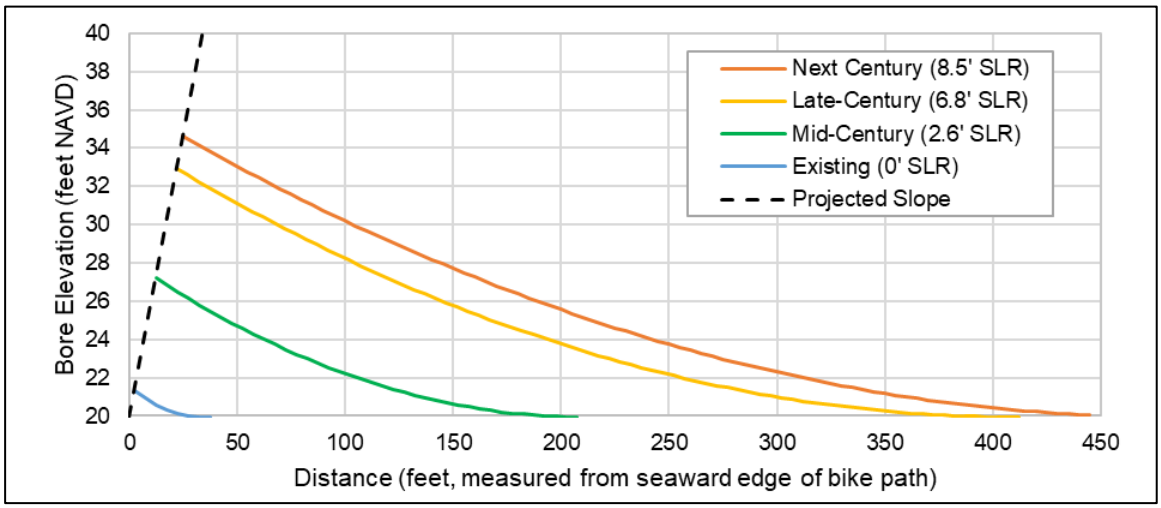


SOURCE: Final EIR Appendix 15A; OPC 2018

Figure 12-1
Sea-Level Rise Scenarios for the Project

Final EIR **Figure 12-2** presents the bore elevations with a 100-year recurrence interval, or a 1 percent annual exceedance probability, relative to the distance from the seaward edge of the bike path (at the top of the existing rock revetment). Positive distance represents landward direction, and the four time intervals (mid-century, late-century, next-century, and beyond) represent different amounts of sea-level rise. Over time (and increased amounts of sea-level rise), the run-up elevation as well as its landward limits or extents, is expected to increase. Note that the existing ground elevation of the bike path at this profile location (the center of the North Site) is approximately 20 feet NAVD, and is assumed to be flush with the site grades landward of the bike path.

The study confirms the flooding and coastal erosion conclusions in the Draft EIR, including extreme risk sea-level rise assumptions, to inform and support future potential strategies to minimize and mitigate exposure to these hazards, which may include modification to the desalination facility site layout. Final EIR Appendix 15B presents examples of feasible Site Layouts that would minimize conflicts with the applicable Coastal Act requirements until the years 2032 to 2075 — sometime past mid-century but prior to late-century.



SOURCE: Final EIR Appendix 15A

Figure 12-2
Surface Elevation Profiles of 100-Year Wave Overtopping Bore at Transect 3 for Existing and Future Conditions with Sea-Level Rise

Summary

This Final EIR includes four supplemental studies prepared in response to comments received on the Draft EIR:

- Comparison of 316(b) Data from Santa Monica Bay (see Final EIR Appendix 12)
- Supplemental Feasibility Assessment of Subsurface Intakes Along the Santa Monica Bay Coast and Supplemental Evaluation of Horizontal Directionally Drilled Subsurface Intakes (see Final EIR Appendix 13)
- Modeling of Linear Diffusers for Brine Disposal (see Final EIR Appendix 14)
- Coastal Hazards (see Final EIR Appendix 15)

These studies confirm our understanding of the proposed Project impacts and will be used to refine the Project's design moving forward. The studies will also support subsequent permit requirements, and as such provide a head start in the permitting process. To the extent that any of these supplemental studies resulted in minor refinements to the Project Description, these amendments are shown in Final EIR Chapter 11, *Refinements to the Project Description*.

12.9 Water Supply Alternatives

Master Response: Water Supply Alternatives

Comments on the Draft EIR postulate that the Project objectives: (1) are not supported by a demonstrated need for water, (2) could be met by a broader range of feasible water supply alternatives, and (3) that the only alternatives considered in Draft EIR Section 7 involve the operation and construction of a desalination plant, ruling out more cost-effective and efficient alternatives such as increased conservation measures, increased capacity and reliance on West Basin's existing recycled water programs, stormwater capture, brackish water desalination, and other water use efficiency programs. Comments claim these other alternatives would also avoid or lessen many of the proposed Project's adverse impacts on energy use, greenhouse gas (GHG) emissions, water quality, and marine life, among other resource areas. Comments also claim the Draft EIR alternatives analysis is inadequate for not analyzing a hybrid alternative that includes a combination of such alternatives.

As explained in the Project objectives in Draft EIR Sections 1.2, *Executive Summary*, and 3.3, *Project Description*, West Basin's goal, as a public water agency, is to guarantee future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan[22] (UWMP).

The 2015 UWMP was prepared in compliance with Water Code Section 10608.36 and California's Urban Water Management Planning Act (Act) (Water Code Sections 10610 through 10657). Those provisions require that every urban water supplier that provides municipal and industrial water to more than 3,000 customers (or supplies more than 3,000 acre-feet per year) prepare and adopt a UWMP every 5 years. The Act requires urban water suppliers to describe and evaluate sources of water supply, efficient uses of water, demand management measures, implementation strategy and schedule, and other relevant information and programs. In addition, the Act requires reporting agencies to describe their water reliability under single-dry-year, multiple-dry-year, and average-year conditions, with projected information in 5-year increments for 20 years. The water reliability analysis requires urban water suppliers to identify projected supplies to meet these demands. As with West Basin's previous Plans (1995, 2000, 2005, and 2010), the 2015 UWMP builds upon the goals and progress made in the preceding UWMP. The 2015 UWMP provides the most current planning projections of supply capability and demand developed through a collaborative process with Metropolitan Water District of Southern California (MWD), and it continues to serve as West Basin's master plan for reliable water supply and resources management.

The Draft EIR Subsection 2.3.2, on page 2-14, discusses the 2015 UWMP, which details how West Basin proposes to manage its water supplies and demands under all hydrologic conditions and demonstrates how West Basin proposes to meet its service area's retail demands and provide long-term water reliability and security over the next 25 years. As described in the Draft EIR on

[22] The 2015 UWMP and other West Basin research and planning documents continue to be publicly available online at: http://westbasindesal.com/research-and-planning.html

page 2-15, West Basin's future potable and raw water demands are projected to be generally similar to existing demands, which are further illustrated in the 2015 UWMP Table 3-6.

The UWMP assesses the ability of existing and projected water supplies to meet projected demands during normal conditions, in a single-dry-year event, and in a multiple-dry-year event[23] through 2040. The analysis concluded that in a multiple-dry-year event (similar to the 2012–2015 drought conditions) West Basin's service area could experience a shortage of 20,342 acre-feet (AF) by 2020, which is the difference between total supplies and total demands, as shown in UWMP Table 5-5. As noted on page 10-2 of the UWMP, "West Basin's multiple dry year analysis indicates that an appropriate sized 20 million gallons per day (MGD) [(approximately 21,500 AF per year)] ocean desalination facility will provide the quantity of water necessary to make up the expected shortfall in imported water supplies under future drought conditions."

The 20,342 AF multi-dry year event shortfall assumes West Basin continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. West Basin's 2010 and 2015 UWMP Tables ES-3 display the expected increases in these supplies for 2010–2035 and 2015–2040, respectively. Draft EIR Table 2-1 also displays the 2015–2040 information. As noted in Section 4.5 of the 2015 (and the 2010) UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015 and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section 9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its water reliability and security initiative.

Even with the maximum practicable conservation savings, increases in recycled water production, and expansion of groundwater supplies by retail agencies, projections show that West Basin's service area could experience a shortage of 20,342 AF by 2020 and 21,500 AF by 2025 and beyond. In other words, the proposed Local Project is sized at 20 MGD (or approximately 21,500 acre-feet per year [AFY]) to directly respond to the multi-dry-year event shortfall. Thus, the proposed Project would provide the quantity of water necessary to make up the expected shortfall in imported water supplies for what are expected to be more frequent and more severe future droughts.

Desalination as a component of West Basin's future water supply portfolio would offset up to 22,500 AFY[24] of imported water in order to "diversify West Basin's water source portfolio" and would allow West Basin to "increase reliability . . . while reducing reliance on imported water" (Draft EIR page 1-2). The volume of water provided by ocean desalination would, therefore, directly reduce the need for imported water, enhance water reliability and security, and

[23] Multiple-dry-years are defined as three or more years with minimal rainfall within a period of average precipitation based on MWD's Regional UWMP analysis.

[24] Including 1,000 AFY of brackish groundwater desalination that could come from West Basin's existing C. Marvin Brewer Desalter facility.

complement West Basin's diverse water supply portfolio that continues to include, and increase as appropriate, the other supply opportunities.

The California Environmental Quality Act (CEQA) Guidelines Section 15126.6 explains that the lead agency, in this case West Basin, is responsible for selecting a range of Project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. Draft EIR Subsection 7.1.4 explains that the alternatives selection process involved the following components: developing Project objectives, identifying and developing the proposed Project description, identifying potentially significant impacts of the proposed Project, developing and evaluating CEQA alternatives, and explaining why alternatives were rejected and determined infeasible. "An EIR need not consider every conceivable alternative to a project," rather, it must consider a range of reasonable alternatives governed by a "rule of reason" (see CEQA Guidelines Section 15126.6(a); see also *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553 and *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376.

CEQA Guidelines Section 15126.6 also requires that the alternatives be limited to ones that would avoid or substantially lessen any of the significant impacts of a project. The alternatives in Draft EIR Section 7 (excluding the No Project Alternative) are evaluated based on their ability to accomplish most of the Project objectives (see Subsection 7.1.2) while avoiding or minimizing one or more of the Project's potentially significant impacts identified in Draft EIR Sections 5.1 through 5.16. Draft EIR Subsection 7.1.3 explains the proposed Project would result in two (2) significant and unavoidable impacts, and identifies those impacts as air quality and noise during construction. The Draft EIR found that other impacts, such as those involving energy, GHG emissions, water quality, and the marine environment, would be less than significant, or less than significant with mitigation (see Draft EIR Sections 5.5, 5.7, 5.9, and 5.11, respectively).

Draft EIR Section 7.2 presents the Initial Screening of Alternatives and explains that not all the alternatives are new, since some of them are already part of West Basin's ongoing commitment to conservation, recycling, and a diversified portfolio. Draft EIR Subsection 7.2.1 considered 11 alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See Draft EIR Table 7-1.

The initial screening process used nine criteria to determine which alternatives would be carried forward into the CEQA alternatives analysis. Table 7-2 presents the results of the initial screening. As explained in Draft EIR Section 7.2, if an alternative failed one or more of the screening criteria, then further evaluation was not pursued; none of the alternatives was eliminated because of cost. Note that although no further analysis was necessary—because of the interest expressed by the public—West Basin included further discussion of the ability of each screening alternative to meet the screening criteria and Project objectives as well as the potential impacts of each screening alternative to provide as much information as possible, as noted below:

- **Conservation**: West Basin's demand forecast contained in its 2015 UWMP is based on both Metropolitan Water District's (MWD) 2015 Integrated Resources Plan (IRP) and 2015 UWMP projections of potable water demand and conservation. MWD's projections contain the Southern California Association of Governments (SCAG) forecast of demographic projections and estimates for future water conservation based on a number of factors but not derived from estimates provided by their member agencies (SCAG 2016). MWD's estimates on conservation are based on three components: (1) active conservation, which includes the many programs noted above that West Basin and its retail agencies participate in; (2) passive or code-based conservation that uses water efficiency standards in water using devices; and (3) the effect of pricing water to send a signal to consumers to conserve and use less. The combination of these strategies has provided the means to realize significant reductions in water use especially over the last 10 years.

  West Basin's service area's success in achieving significant savings over the last 25 years has resulted in a hardening of demand, making it increasingly more difficult to capture additional savings (American Water Works Association 2007). There is no evidence to indicate that such additional savings can be reasonably anticipated without significant rationing, imposed consumer lifestyle changes, and economic impacts. Yet West Basin continues to include conservation as an integral component of its water supply portfolio throughout its diverse customer base; however, increased conservation over and above what is currently forecast in West Basin's 2015 UWMP cannot reasonably and foreseeably offset the water that would be produced by the proposed Project. Furthermore, the increased levels of water use efficiency affect the availability of secondary treated water supplies (for recycling) and its water quality. Nothing about the proposed Project reduces the need for and commitment to increasing local water conservation.

- **Stormwater Capture**: For stormwater capture to be considered as a new local water supply for West Basin, stormwater runoff would not only have to be captured, treated, and stored within the West Coast Groundwater Basin (Basin) when available, but it would also have to be extracted as groundwater by the West Basin's customer water agencies with groundwater rights. However, surface recharge is not practical due to impermeable geologic layers overlying the productive aquifers of the Basin; therefore, stormwater capture and storage could only occur in relatively small volumes and would require the use of injection wells to penetrate the impermeable layers. In addition, because West Basin does not possess storage or production rights within the Basin, extraction of any storage would only occur at the discretion of West Basin's groundwater-rights-holding retail customer agencies, and consistent with the West Coast Groundwater Basin Master Plan.

  The City of Los Angeles is developing a stormwater capture program throughout its service area that would augment stormwater recharge into the groundwater basins in the Central Groundwater Basin area. The initial component of this effort is to develop stormwater detention facilities in areas where retained water can percolate into the potable aquifer. This is not possible within the West Coast Groundwater Basin, as previously noted. Nonetheless, recognizing the importance of capturing rainwater for distributed non-potable reuse, West Basin currently offers free rain barrel distribution events using MWD funding. In 2015 and 2016, West Basin distributed over 4,000 rain barrels to the public. Other incentives for rain barrel water capture include MWD rebates for cisterns holding 200 or more gallons of water.

  Using rain barrels and cisterns to capture rainwater for direct non-potable uses is not feasible in the volumes required to replace the potable water supply reliability that the Project could provide. Furthermore, captured water cannot be used for potable purposes under current regulations (Los Angeles County of Public Health 2018). In August 2015, the City of Los

Angeles published the *Los Angeles Department of Water and Power Stormwater Capture Master Plan* (Stormwater Plan) to analyze the cost-effectiveness of stormwater capture (Geosyntec Consultants 2015). The Stormwater Plan estimates that the potential offset of imported water in the city of Los Angeles through stormwater capture is 1,000 AFY by 2020 and 7,000 AFY by 2035 based on the City's area of 503 square miles. Given that West Basin's service area is approximately 185 square miles, 63 percent smaller than the City, the stormwater capture potential is expected to be significantly lower than what the City believes possible, which would amount to an even smaller fraction of the 21,500 AFY amount necessary for an alternative to the Project.

West Basin is committed to supporting regional stormwater capture programs that support local water supply development. However, the alternative would not be available during a multi-dry year event and would, therefore, neither provide drought-proof water supplies to West Basin nor obviate the need for water supply portfolio diversity provided by the proposed Project.

- **Non-potable Reuse**: Recycled water is a proven, reliable, non-potable water resource, and an important component of West Basin's water supply portfolio. However, the cost-effective expansion of the remaining non-potable recycled water to the customer base within West Basin's service area is limited. Based on the existing customer obligations both within and outside its service area, and the commitment for 16 MGD to be delivered to Los Angeles Department of Water and Power's (LADWP's) LA Harbor customers, West Basin only anticipates an additional 7.6 MGD of non-potable recycled water expansion within its service area. Furthermore, maintaining continued levels of non-potable reuse and expansion beyond industrial users will require major improvements to the treatment of wastewater at the City of Los Angeles Hyperion Water Reclamation Plant as discussed in Section 7.2. West Basin has entered into a Memorandum of Agreement (MOA) with the City of Los Angeles to investigate the feasibility of improving the quality to increase usability of recycled water through the use of a potential 70 MGD membrane bioreactor (MBR) system at Hyperion Water Reclamation Plant (City of Los Angeles 2018). With improved water quality, West Basin's recycled water sales within the service area would be anticipated to increase to a maximum of 54 MGD in the future. While additional recycled water may be available in the future, even if West Basin has access to 21,500 AFY of non-potable recycled water, there is not a consistent demand for this non-potable water within the West Basin service area. Furthermore, water conservation, particularly during drought conditions, negatively impacts the volume of water available for recycling and lowers water quality that may result in increased treatment and costs.
- **Indirect Potable Reuse**: The Indirect Potable Reuse (IPR) Alternative is a long-range goal that would treat wastewater from local wastewater treatment plants such as the Hyperion Water Reclamation Plant for injection into the West Coast Groundwater Basin. Once injected, overlying pumpers with storage and extraction rights would benefit from the new water supply resulting in greater conjunctive management of the Basin. Currently the City of Los Angeles is evaluating opportunities to develop an IPR project including developing an appropriate treatment technology, identifying an advanced water treatment plant location, and assessing storage and extraction well field opportunities. IPR continues to represent a drought-resistant source of groundwater replenishment that will replace and reduce imported water demands in the region as groundwater production from the Basin increases. However, West Basin is not the sole provider of IPR in the region, does not have access to adequate source water for the production of IPR in sufficient quantities, does not own groundwater rights that could augment the District's water supplies through IPR, and would require agreements with overlying pumpers and changes in basin operations that are well beyond

West Basin's ability to implement on its own. As such, the alternative would not augment West Basin water supplies or obviate the need for water supply portfolio diversity provided by the proposed Project.

- **Direct Potable Reuse**: Direct Potable Reuse (DPR) is the concept of introducing highly treated wastewater directly into one or more potable water distribution systems, which is currently not permitted by law. However, even if DPR is permitted in the future, West Basin is not positioned to be able to implement DPR. West Basin does not own or control the potable water infrastructure necessary to distribute DPR, nor does West Basin have access to sufficient source water to produce recycled water for DPR purposes. Again, currently, regulations do not exist that would allow for DPR within the West Basin service area.

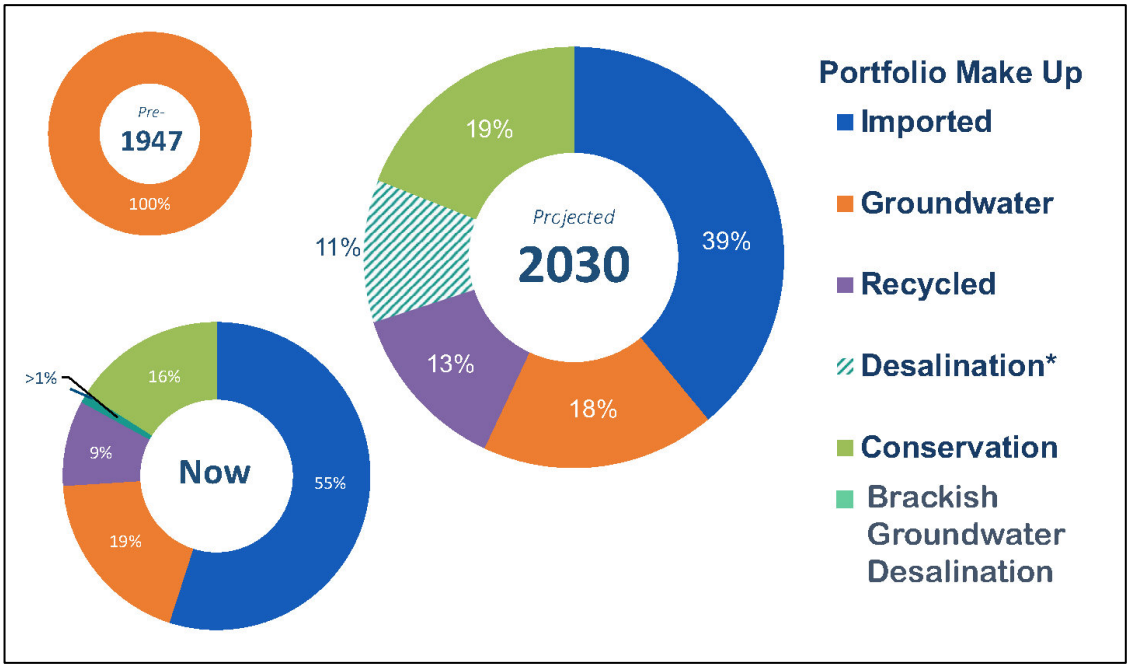
  However, as currently envisioned, future DPR regulations may specify a blending requirement, where highly treated wastewater would be blended with potable water for treatment prior to distribution. Significantly, the implementation of the proposed Project may position West Basin to support future implementation of DPR through use of the desalinated ocean water as a raw water source for blending when such regulations are in place. West Basin has supported development of DPR for decades as a part of a diversified water supply portfolio for the region. Development of ocean water desalination within close proximity to Hyperion Water Reclamation Plant and West Basin's existing/potential future advanced treatments facilities would strengthen West Basin's ability to implement DPR in the future via raw water augmentation/blending. Such implementation would require participation from other regional partners so that West Basin could have access to additional recycled water for DPR purposes. As mentioned above, the current MOA between West Basin and the City of Los Angeles would allow West Basin to receive up to 54 MGD of effluent in the future. However, implementation of DPR, when a clear regulatory pathway is in place, would not obviate the need for water supply portfolio diversity provided by the proposed Project because of the continued need to reduce dependence on imported water and, thereby, enhance water security.

As discussed in the Draft EIR on page 7-37, the No Project Alternative evaluates water supply sources to be implemented if West Basin does not pursue ocean water desalination. The No Project Alternative includes the continuation of conservation programs and existing supply sources, which primarily include recycled water and imported water (see Table 7-4) in addition to groundwater that is available to West Basin's customers. West Basin currently maximizes all feasible water supply alternatives, and will continue to do so whether or not the proposed Project is approved. However, the collective water supply alternatives identified above and under the No Project Alternative would not meet the objectives of the Project (Draft EIR page 7-40), which are to diversify West Basin's water supply portfolio, increase local control of water supplies, and develop a water supply source that is less susceptible to drought conditions – all enhancing water security. Maximizing the use of existing sources will reduce some of the need for imported water in the future, but current water supply sources do not alleviate the susceptibility of imported water availability during drought conditions and eliminate the need for imported water – as is necessary to enhance water security. Final EIR **Figure 12-3** shows West Basin's future water supply diversification as a reduction in imported water, which allows for an increase in conservation programs and recycled water, and ocean water desalination should it be approved as a supply source. As noted in the conclusion to the March 2019 Coordinated Strategic Plan to Advance Desalination for Enhanced Water Security, "Desalination is an important part of a comprehensive

approach to improve water availability, resiliency, and security in the U.S." (National Science and technology Council 2019).

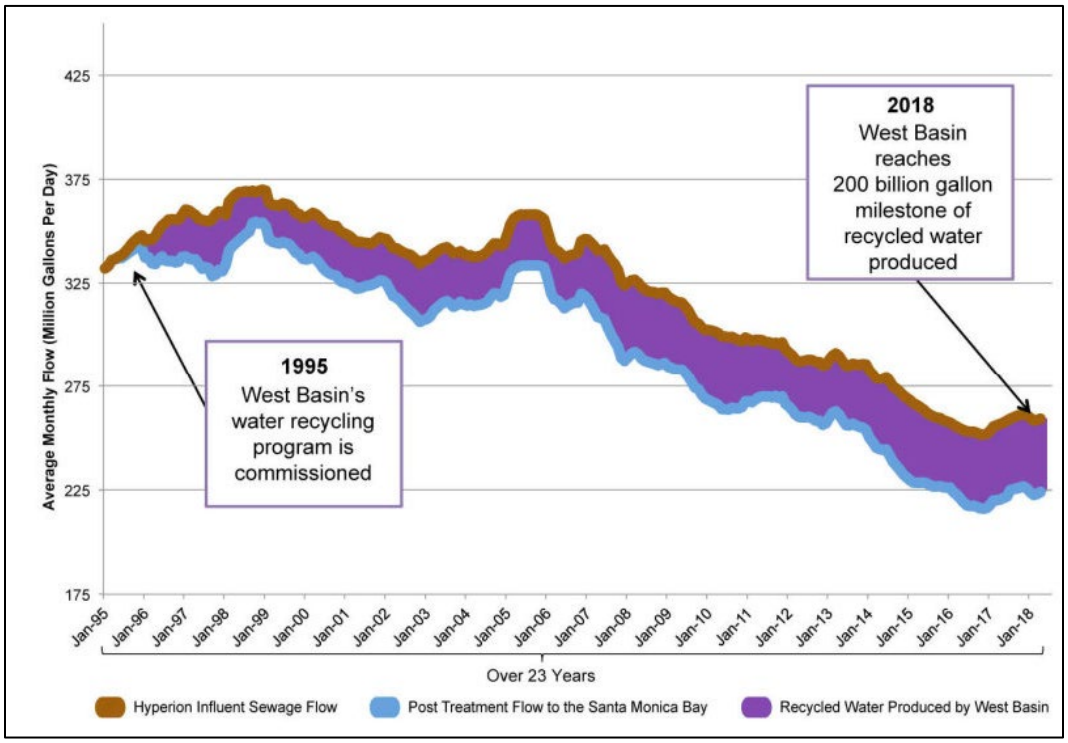
In summary, the water supply alternatives that were discussed in the Draft EIR (including increased conservation, stormwater capture, and IPR and DPR) contribute to the goal of ensuring future water supply reliability, consistent with goals identified in West Basin's 2015 UWMP. West Basin's vision statement from the 2017 to 2022 Strategic Business Plan states that West Basin's goal is "sustainable and drought-proof water services enhancing the quality of life and economy of our communities." As noted throughout the Draft EIR, West Basin continues to develop water supply alternatives in addition to ocean water desalination, representing a responsible, diverse, and balanced water supply portfolio. This includes maintaining and increasing conservation as an integral component of its water supply portfolio. It also includes continuing to provide non-potable recycled water. Therefore, the water supply portfolio inclusive of ocean water desalination (and as analyzed in the Draft EIR) is in fact a hybrid solution.

West Basin is a public agency with elected board members responsible for implementing the core mission of ensuring a reliable water supply in an economically responsible manner. The ultimate goal of the proposed Project is to enhance water supply security compared to the current supply, which is subject to drought and risk of upset within California's vast water importation systems; the Draft EIR discusses the risk to the State Water Project supplies in Subsection 2.3.1. West Basin is committed to partnering with regional agencies to maximize other local water supplies in addition to ocean water desalination. As demonstrated in Final EIR **Figure 12-4**, recycled water has been and will continue to be an important supply offset for West Basin, with a total of over 200 billion gallons of recycled water produced from 1995 to 2018; however, the demand for (and the supply of) recycled water is limited. Ocean water desalination is just one component of a balanced local water supply approach, with the Local Project supplying approximately 10 percent of West Basin's total water demand. This type of water supply diversification balances benefits and risks associated with each supply type, providing a portion of water supply that would maximize the benefits of drought-proof reliability. Thus, enhancing water security is fiscally and environmentally responsible water supply planning.



SOURCE: West Basin
* Desalination Includes 1,000 AFY of brackish groundwater desalination that could come from West Basin's existing C. Marvin Brewer Desalter facility.

Figure 12-3
West Basin Water Supply Diversification



SOURCE: West Basin

Figure 12-4
West Basin Water Recycling Program

SECTION 13
State Agency Comments and Responses

13.1 State Agency

The following comment letters were received from state agencies on the West Basin Municipal Water District (West Basin) Ocean Water Desalination Project (Project) Draft Environmental Impact Report (Draft EIR). The comment letters are grouped together and are followed by all responses as indicated in **Table 13-1**.

TABLE 13-1
LIST OF DRAFT EIR COMMENT LETTERS: STATE AGENCY

Letter Code	Commenting Party	Letter Page Number	Response Page Number
CALT	California Department of Transportation	13-3	13-59
CCC	California Coastal Commission	13-4	13-60
CDFW	California Department of Fish and Wildlife	13-19	13-91
CEC	California Energy Commission	13-29	13-102
DTSC	California Department of Toxic Substances Control	13-34	13-106
LARWQCB	Los Angeles Regional Water Quality Control Board	13-35	13-107
NAHC	Native American Heritage Commission	13-46	13-137
SLC	California State Lands Commission	13-51	13-138

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DEPARTMENT OF TRANSPORTATION
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Serious Drought.
Making Conservation
a California Way of Life.

May 24, 2018

Dr. Zita Yu
West Basin Municipal Water District
17140 South Avalon Blvd
Carson, Ca 90746

RE: Ocean Water Desalination Project
SCH#2015081087
GTS#07-LA-2018-01397ME-DEIR

Dear Dr. Yu:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed project would provide approximately 11 percent of West Basin's water demand, relieving pressure on the heavily constrained supply of imported water available to West Basin.

After reviewing the Draft Environmental Impact Report, Caltrans does not expect project approval to result in a direct adverse impact to the existing State transportation facilities.

We concur that an encroachment permit would be required for the desalinated water conveyance components that would be installed within State highway right of way. In addition, the transporting of heavy construction equipment and/or materials which require the use of oversized-transport vehicles on State highways will also require an encroachment permit.

If you have any questions regarding these comments, please contact project coordinator Ms. Miya Edmonson, at (213) 897-6536 and refer to GTS# LA-2018-01397ME

CALT-1

Sincerely,

FRANCE LEE
IGR/CEQA Acting Branch Chief

cc: Scott Morgan, State Clearinghouse

STATE OF CALIFORNIA—NATURAL RESOURCES AGENCY EDMUND G. BROWN, JR., *GOVERNOR*

CALIFORNIA COASTAL COMMISSION

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June 22, 2018

Zita Yu, PhD, PE
Ocean Water Desalination Program Manager
West Basin Municipal Water District
17140 South Avalon Blvd., Suite 210
Carson, CA 90746

VIA EMAIL: desaleir@westbasin.org

RE: Comments on Draft Environmental Impact Report ("DEIR") for proposed West Basin desalination facility – SCH #2015081087

Dear Dr. Yu:

Thank you for the opportunity to comment on the above-referenced DEIR. The document evaluates a potential seawater desalination facility that the West Basin Municipal Water District ("West Basin") proposes to build at the El Segundo Generating Station ("ESGS") in the City of El Segundo. It is meant to provide "project-level" CEQA analyses for a proposed local project that would produce about 20 million gallons per day ("MGD") of drinking water, as well as "programmatic-level" CEQA analyses for a possible regional project that might be built later and would provide about 60 MGD. It evaluates two potential locations within the ESGS site for the facilities that are referred to as the preferred North Site and the alternative South Site. The DEIR notes that the regional project, if built, would be an expansion of the local project and would occupy the same site as selected for the local project. CCC-1

We have provided some general comments below, followed by comments on specific sections of the DEIR. Overall, we recommend the DEIR be revised to incorporate our comments and several modified analyses and then re-circulated for additional public review and comment.

GENERAL COMMENTS

1) **The DEIR should fully address the proposed project's non-conformity with the City of El Segundo's Local Coastal Program:** The DEIR notes in several places that the project would not conform to provisions of the City of El Segundo Local Coastal Program ("LCP"), but also asserts that West Basin is exempt from these LCP requirements, per Government Code Section 53091,[1] which exempts water projects proposed by local agencies from local building ordinances. Please note that the Section 53091 exemption does not apply to certified Local Coastal Programs ("LCPs"), as these are not local ordinances, but are a CCC-2

[1] See, for example, Section 3.8 – Permits, Approvals, and Regulatory Requirements (at Table 3-11), Section 5.0 – Environmental Analysis (at page 5-3), Section 5.3 (page 5.3-7), Section 5.9 (page 5.9-24), Section 5.10 – Land Use and Planning (at pages 5.10-29 and 5.10-34), Section 5.12 – Noise (at page 5.12-3), and Section 5.16 – Utilities and Service Systems (at page 5.16-4).

delegated state authority. Therefore, project construction and operation cannot occur until and unless the City amends its LCP in a manner that allows the project to conform to the LCP and also approves a local coastal development permit ("CDP") for the proposed project. Please note, too, that the City must obtain Coastal Commission certification of any proposed LCP amendment before such amendment is effective to approve a CDP. Additionally, a CDP issued by a local government must include a finding that the approved development is consistent with the LCP as certified by the Coastal Commission. For this proposed project, any City action on that CDP application may be appealed to the Coastal Commission, pursuant to Coastal Act Section 30603(a).[2]

We recommend the DEIR be revised to fully evaluate the several areas of LCP non-conformity. Until the City amends its LCP, and pursuant to the document's cited CEQA significance thresholds and criteria, we also recommend the revised DEIR identify these areas of non-conformity as "significant adverse environmental impacts."[3]

CCC-2

2) **The DEIR should clarify the proposed project's expected operating life and revise the analyses to encompass the expected operating life:** The DEIR does not consistently identify the project's expected operating life and its analyses appear to be based on different expected operating periods. For example, the document's Section 3.3 – Project Objectives states that the facility is meant to increase water reliability over the next 30 years and its analyses of greenhouse gas emissions appear to be based on a 30-year operating life, but its analyses of coastal hazards (in Section 5.9 and Appendix 5A) refers to project operations for about 80 years – until the year 2100. It is also not clear whether the various described operating periods apply to the proposed local project or the regional project. We recommend the document be revised to clarify the expected operating periods of both projects and that these operating periods be consistently applied throughout the relevant analyses. Additionally, because the proposed facility would be considered a major public works project and is described in the DEIR as a critical infrastructure project, we recommend the coastal hazards analyses extend out 100 years, pursuant to the latest state and Coastal Commission guidance.[4]

CCC-3

3) **The DEIR should base its site selection criteria on factors other than the presence of existing intakes:** The state's 2015 Ocean Plan Amendment ("OPA"), which is applicable to new desalination facilities such as this proposed project, requires the use of subsurface intakes where feasible. The DEIR describes West Basin's analyses of potential subsurface intake locations that led to a conclusion that these intake designs were infeasible at or near

CCC-4

[2] Section 30603(a) states, in relevant part: "After certification of its local coastal program, an action taken by a local government on a coastal development permit application may be appealed to the commission for only the following types of developments: ...(5) Any development which constitutes a major public works project or a major energy facility."

[3] The DEIR's Section 5.10.3's significance thresholds and criteria state that the proposed project would have a significant adverse environmental impact if it would "conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the Project (including but not limited to the General Plan, Specific Plan, LCP, or zoning ordinance) adopted for the purpose of avoiding or mitigating the environmental effect."

[4] The current primary guidance documents are the California Ocean Protection Council's April 2017 *Rising Seas in California: An Update on Sea-Level Rise Science* and the 2018 *State Sea-Level Rise Guidance.*

the proposed project site.[5] In alternatively proposing the use of a screened open intake, the document's analyses rely heavily on the presence of existing power plant intakes at both ESGS and the Redondo Beach Generating Station.[6] Because these intakes were built several decades ago, well before we had our current level of understanding about their substantial adverse effects on marine life, it is not likely that they are located at the "best available" site feasible to minimize the intake and mortality of marine life, as required by the state's OPA. CCC-4

Importantly, it is not clear that the existing intake and discharge structures at ESGS will be available as described for the proposed project. As detailed in the City of El Segundo's May 22, 2018 Proposed Negative Determination for Project No. EA-196 (CEQA Clearinghouse No. 2018051046), the power plant owner plans to block and decommission the intake and discharge structures that West Basin is proposing to use. This proposed decommissioning involves placing 20-foot thick concrete plugs at the landward end of these pipes, which would prevent ocean water from reaching the forebay from where West Basin plans to pump seawater to its proposed facility and would prevent the desalination facility's effluent from discharging to the ocean (see also our comments on Sections 3.4 and 3.5 below). Additionally, the presence of these concrete plugs would presumably alter the DEIR's feasibility and alternatives analyses, so we recommend those sections of the document be revised to reflect the presence of these plugs. CCC-5

As stated in our October 2015 comment letter on West Basin's Notice of Preparation for this DEIR, we again recommend that the DEIR modify its siting criteria so as not to be based on the presence or absence of existing intake structures, but to instead be based on identifying the "best available site for minimizing the intake and mortality of marine life." Along with a more comprehensive assessment of potential subsurface intake locations and designs, this analysis may include consideration of other open intake alternatives, such as extending the existing power plant intakes to deeper water locations where entrainment rates could be lower than the current intake locations. CCC-6

4) **The DEIR should fully describe the project's need for shoreline protection and the effects of that shoreline protection on coastal resources, including public access and recreation:** The Coastal Act and the City's LCP limit the construction of new shoreline protection devices meant to protect newly-proposed development. The DEIR's project description and several of its analyses note that the facility will need some unspecified type of shoreline protection; however, it does not fully describe what would be needed and it does not adequately evaluate the severity of sea level rise, increased storm energy, and coastal erosion that the facility is expected to be subject to over its operating life. We recommend these aspects of the DEIR be fully revised to comprehensively assess these issues (see also our comments below on Section 5.9 regarding coastal flooding, sea level rise, and other coastal hazards). CCC-7

[5] However, these analyses do not appear adequate to determine whether the proposed project would conform to the OPA – see comments below on Section 5.11 – Marine Biological Resources.

[6] See, for example, the analyses in Section 7.0 – Alternatives Analysis.

COMMENTS ON SPECIFIC SECTIONS OF THE DEIR

SECTION 2 – INTRODUCTION AND PROJECT BACKGROUND

Section 2.10, Project Development Background

This section describes a number of studies West Basin has conducted over the past decade, including a 2014 impingement/entrainment study at its demonstration facility, a 2013 high-salinity sensitivity study, a 2013 brine diffuser impact study, 2007 and 2011 subsurface intake evaluations, etc. Please note that the above-referenced 2015 OPA applicable to proposed desalination facilities, which the document states in Section 2.8 is incorporated by reference, may result in some of these studies needing to be updated or modified. For example, the DEIR states that the West Basin's recent entrainment report showed that a screened open intake at a full-scale facility would have very minor impacts to fish and invertebrate populations and would significantly reduce or eliminate entrainment impacts. This description is not consistent with the OPA's provision that establishes a one percent reduction in entrainment for screened intakes as compared to unscreened intakes. Additionally, the OPA and its accompanying documentation evaluates entrainment effects as productivity losses, not as population changes, and identifies the extent of those losses by calculating an "Area of Production Foregone" ("APF"), which West Basin's report did not include. We recommend this section of the DEIR be revised to be modified to be consistent with the findings and requirements of the OPA (also see our comments on Section 5.11 – Marine Biological Resources). CCC-8

SECTION 3 – PROJECT DESCRIPTION

Section 3.4 Project Components

The document states that the seawater would be pumped from an intake vault at the landward end of the seawater intake formerly used by ESGS Units 3 & 4 and that the project's effluent would be pumped to the discharge pipeline formerly used by those units. As noted in our General Comments above, we understand that the power plant owner plans to block and decommission these intake and discharge structures by placing concrete plugs at the landward end of these pipes.[7] We recommend the revised DEIR include a description of any additional components West Basin will need to include as part of the project to remove these concrete structures, re-route flows around them, or implement other measures necessary to allow the use of these structures. CCC-9

This section of the document also does not provide any description or details of the "coastal hazard protection" structure that is later mentioned in Section 5.9 – Hydrology and Water Quality. We recommend a revised version of this section of the document include a full description of this project component. CCC-10

[7] ESGS originally had two sets of intakes and outfalls, one that previously served the power plant's Units 1 and 2 and another that previously served Units 3 and 4. The Units 1 and 2 intake and outfall were decommissioned several years ago and plugged with concrete at the landward end. The power plant owner recently proposed a similar decommissioning and plugging project for the Units 3 and 4 structures. See City of El Segundo Environmental Assessment No. EA-1196 and Local Coastal Development Permit No. CDP 17-01.

Section 3.5 – Project Construction
The project description does not fully describe West Basin's proposed construction activities or the known and potential adverse effects of those activities. As noted above, we understand that the ESGS owner plans to plug and decommission the intake and outfall structures that West Basin plans to use. It is not clear how much additional work will be needed for West Basin to remove the concrete plugs or to clear the intake and discharge structures of any sand that may accumulate within. It is also not clear whether the offshore risers on the Units 3 and 4 structures will remain, will need to be modified, or will be removed as part of the proposed project. We recommend the DEIR be revised to identify what additional construction-related activities will occur with these project components and what potential adverse impacts may result. CCC-11

Laydown/Staging Area: The document also does not adequately describe the offsite laydown/staging area mentioned on pages 3-19 & 20. It states that construction at the ESGS South Site would require an offsite laydown/staging location of at least three acres, but does not identify what known or potential sites might serve as this offsite laydown/staging area. We recommend the DEIR be revised to identify the sites being considered for this laydown/staging area and that it evaluate the known and potential impacts associated with using these sites – e.g., additional traffic, noise, dust, etc., potential habitat-related issues, etc. CCC-12

Groundwater: Finally, the DEIR states that demolition and construction will require groundwater control, though it does not identify the anticipated hourly, daily, and total volumes of groundwater that will need to be pumped, what toxic or hazardous substances may be mobilized through that pumping, or what mitigation measures West Basin will implement to minimize any adverse effects resulting from this pumping (these are also not included in the dewatering discussion in Section 5.9 – Hydrology and Water Quality). We recommend these descriptions be added to a revised DEIR. CCC-13

Effects of Construction on Public Access: Both the proposed North and South sites are adjacent to an existing public bikeway that provides access to the shoreline. We recommend a revised DEIR include a description of what measures West Basin will implement to ensure continued maximum access is provided during construction, including a description of the expected length of any closures and any alternative accessways that would be provided during the closure periods. CCC-14

Section 3.8, Table 3-11 – Permits, Approvals, and Regulatory Requirements
This table lists the permits West Basin will need to construct and operate the proposed facility. The list includes a Local Coastal Program ("LCP") amendment by the City of El Segundo, though the accompanying footnote asserts that West Basin is exempt from such a requirement, per Government Code Section 53091. As stated above in our General Comment #1 above, the Section 53091 exemption does not apply to LCP requirements; therefore, project construction and operation will require both an amendment of the City's LCP and a CDP from the City. CCC-15

SECTION 5.0 – ENVIRONMENTAL ANALYSIS

Section 5.1 – Aesthetics, Light & Glare
The DEIR notes (at pages 5.1-11 and 5.1-15) that offshore construction from vessels and barges at times would take place during evening and night hours; however, it does not provide an evaluation of the effects of night construction lighting on marine resources and does not propose any mitigation measures that would avoid or reduce adverse effects on marine life. We CCC-16

recommend a revised DEIR include an evaluation of these effects along with a description of feasible mitigation measures to minimize these effects. Please note, too, that the offshore components of the project are in the Commission's retained permit jurisdiction and will therefore require a CDP issued by the Commission. CCC-16

Section 5.3 – Biological Resources, Terrestrial (and Appendix 6 – West Basin Terrestrial Habitat Analysis)

- **Section 5.3.2, Environmental Setting – Plant Communities and Non-Vegetative Habitat Types:** The document describes (on page 5.3-13) the presence of restored coastal scrub habitat on the southwest corner of the proposed South site and later states (on pages 5.3-29 & 30) that this approximately 2.3-acre area may provide suitable habitat for the federally endangered El Segundo Blue Butterfly. It also contends (on page 5.3-33) that although project construction at the South site would destroy this habitat and would adversely affect any butterfly larvae, pupae, or adults that are present, the project would not result in adverse impacts to the butterfly because this habitat area was restored as part of a previous project.

  The DEIR does not make it clear why destruction of habitat used by an endangered species would not result in an adverse effect on that species. Regardless of how it came to be on the site – as extant habitat or as restored habitat – its destruction would likely cause an adverse effect, either directly if individuals are present, or indirectly in the form of a loss of foraging and nursery habitat. This is especially the case for this habitat area because the restoration was meant to specifically benefit this species.[8] Additionally, and as noted elsewhere in the document (on page 5.3-30), the Coastal Act's definition of environmentally sensitive habitat areas ("ESHAs") includes "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could easily be disturbed or degraded by human activities and developments." Therefore, and regardless of how this restored coastal scrub habitat area was created, it may include characteristics that would result in it being considered ESHA.[9] CCC-17

  In addition to proposed mitigation measure BIO-9 (which would result in a butterfly survey one year prior to ground disturbing activities), we recommend West Basin describe in a revised DEIR the measures it could implement to avoid adverse effects to this habitat area – e.g., modifying the project footprint to avoid the restored coastal scrub. We also recommend that West Basin conduct surveys during this summer's emergence period to determine whether the site might be currently occupied by the butterfly, and to include those survey results in a revised DEIR. We also recommend that you request a site visit by a Coastal Commission ecologist to assist in an ESHA determination.

Section 5.7 – Greenhouse Gas Emissions

The DEIR states that West Basin is committing to operate its facility as "net zero" or "net carbon neutral," which it describes as having no net increase in GHG emissions above those that are generated by an equal amount of imported water. Those terms, however, appear to be CCC-18

[8] See California Energy Commission proceedings for Application for Certification 00-AFC-14 – El Segundo Redevelopment Project: http://www.energy.ca.gov/sitingcases/elsegundo/index.html

[9] As a related comment, we also note that Section 2.3 of the DEIR's *Appendix 6 – Terrestrial Habitat Assessment* states that there are "no ESHAs in the El Segundo Coastal Zone." We recommend this be changed to state that there are "no currently mapped ESHAs in the El Segundo Coastal Zone."

misnomers, as the proposed facility would still result in an overall increase in GHG emissions.[10] For example, as shown in Table 5.7-3, West Basin's proposed Local Project would currently be expected to result in about 26,023 metric tonnes of CO_2 equivalents when producing 20 million gallons per day of water during a year of operations, and importing an equal amount of water during that year would produce about 15,064 metric tonnes of CO_2 equivalents. West Basin proposes to obtain offsets or credits for the difference – i.e., 26,023 – 15,064 = 10,959. However, because the imported water would continue to be imported to Southern California and continue to result in those emissions, the lack of offsets or credits for those imports in West Basin's proposed "net zero" plan would represent an increase of 15,064 metric tonnes in the overall regional water portfolio.[11]

To ensure that West Basin's project operates as a "net carbon neutral" facility, the currently accepted approach would be for West Basin to mitigate for all the GHG emissions that result from the facility's electricity use that aren't mitigated by the energy provider. For example, if West Basin's electricity provider generates 500 pounds of emissions for each megawatt produced, meeting West Basin's "net carbon neutral" standard would require West Basin to offset those emissions or obtain acceptable credits based on the number of megawatts its project used each year. As the electricity provider reduces its emissions per megawatt – e.g., by selecting renewable energy sources or those with lower GHG emissions – West Basin would be responsible for acquiring fewer credits each year. With offsets or credits costing $10 per tonne, dividing the above-referenced remaining 15,064 metric tonnes among the expected production of 22,500 acre-feet per year would represent a cost increase of less just $7.00 per acre-foot, or much less than 1% of West Basin's expected costs to produce the water. Even doubling the cost per tonne of offsets or credits would represent less than 1% of the expected water cost. It therefore appears that it would be economically feasible for West Basin to become fully "carbon neutral" by entirely offsetting its emissions rather than partially offsetting them, and we recommend you consider evaluating this method in a revised DEIR.

CCC-18

Section 5.9 – Hydrology and Water Quality

- **Section 5.9.1, Regulatory Framework:** While this section of the DEIR cites a number of relevant documents and requirements, it does not adequately evaluate project-related effects consistent with guidance provided in least two of those documents – the Coastal Commission's sea level rise guidance and the City of El Segundo *Multi-Hazard Mitigation Plan*. Regarding sea level rise, the DEIR (on page 5.9-23) cites the Coastal Commission's 2015 *Sea-Level Rise Policy Guidance*, but does not cite the Commission's (and California's) current guidance, which is provided in two reports – the Ocean Protection Council's April 2017 *Rising Seas in California: An Update of Sea-Level Rise Science* and its 2018 *State Sea-*

CCC-19

[10] The DEIR also states that West Basin's proposed approach is similar to that first proposed in 2007 by Poseidon Resources for its Carlsbad desalination facility. It cites a 2008 letter from the California Energy Commission and a 2010 letter from the California Air Resources Control Board as supportive of Poseidon's proposed approach. Since that time, though, the Coastal Commission has determined that this approach does not meet a "net carbon neutral" standard as defined by the Commission. In recognition of this, please note that Poseidon's annual GHG calculations have not included any of the credits that Poseidon initially proposed it be awarded for imported water reductions.

[11] Note: Additionally, the expected 26,023 metric tonne total for West Basin's project includes construction emissions as amortized over 30 years. Amortizing these emissions instead of providing offsets and credits concurrently with construction also prevents the project from being fully carbon neutral. To meet a "net zero" standard, we recommend West Basin obtain all the necessary offsets and credits for construction-related emissions during the project's construction phase.

Level Rise Guidance. As a result, the DEIR's relevant analyses likely underestimate adverse effects related to sea level rise and climate change (see also our comments below on Section 5.9.2 – Sea Level Rise, Coastal Flooding, and Tsunamis). We recommend the DEIR be revised with modified analyses based on the state's most recent sea level rise guidance. Regarding the City's hazard plan, which it prepared pursuant to federal requirements, we note that the adjacent ESGS and several West Basin-owned facilities within El Segundo are considered "critical facilities."[12] Hazard planning for critical facilities generally requires that the analyses of risk from hazards with probabilistic "return periods," such as flooding and tsunamis, be based on the 500-year return period (i.e., 0.02%) instead of a 100-year return period (i.e., 1.0%). It is likely that the proposed desalination facility would similarly be categorized as a "critical facility;" however, the DEIR's analyses are based on just the 100-year return period. We recommend that the document's flooding and tsunami hazard analyses be revised to include the 500-year return period, and that those results also be combined with the higher expected sea level rise elevations described in the state guidance documents noted above.

CCC-19

CCC-20

- **Section 5.9.2, Environmental Setting – Sea Level Rise, Coastal Flooding, and Tsunamis** (starting at p. 5.9-36, and also in Appendix 5A – Coastal Hazards Analysis): As noted above, the DEIR appears to understate likely adverse effects related to the hazards and risks associated with sea level rise, flooding, and tsunamis. As "critical infrastructure," the proposed facility would have little or no adaptive capacity and would have significant implications if it was destroyed or damaged. This type of proposed facility is to be evaluated using high-risk sea level rise projections and the "extreme risk aversion" scenario known as the "H++" scenario.[13] The high-risk projection shows an expected 3.4-foot increase in sea level over a 50-year operating life and an 8.5-foot increase over a hundred years. The H++ scenario anticipates a sea level rise increase of 5.1 feet and 14 feet for the 50- and 100-year periods, respectively. By comparison, the DEIR, using calculation methods not consistent with those used in the state guidance documents, cites a somewhat lower expected increase (see page 5.9-37).[14]

  Even at this lower rate of increase, though, the DEIR acknowledges that both the ESGS North and South sites would be at risk of coastal flooding by 2100. We recommend the revised DEIR use the current state guidance to calculate expected projections for the high-risk and extreme-risk scenarios and evaluate the hazards associated with the facility being subject to those higher sea level increases. We also recommend these revised analyses identify any more near-term hazards and risks resulting from the higher projections.

CCC-21

[12] See 2015 *City of El Segundo Hazard Mitigation Plan*, Table 3-16, prepared pursuant to requirements and guidance of the Federal Emergency Management Agency.

[13] The 2018 guidance recommends the extreme risk aversion (H++) projection be applied to projects "with little or no adaptive capacity that would be irreversibly destroyed or significantly costly to repair, and/or would have considerable public health, public safety, or environmental impacts should that level of sea level rise occur. In CCC work this could include new wastewater treatment plants, power stations, highways, or other critical infrastructure."

[14] The DEIR provides just an estimate (on page 5.9-37) of a 55-inch (4.6 feet) increase in sea level by 2100, which is generally aligned with the state's projection of between low- and medium-risk increases. The DEIR's Appendix 5A – *Coastal Hazards Analysis* does not provide projections consistent with those used in the state's guidance.

Regarding flooding, the DEIR acknowledges that the proposed ESGS North and South sites would become increasingly vulnerable after 2050 to flooding from a 100-year flood event. As noted above, because the project would be a major public works project and would represent critical infrastructure, we recommend the DEIR evaluate these hazards in connection with a 500-year flood event, which is the common standard for such facilities. CCC-22

The document (at page 5.9-75) also describes likely flooding (and possible damage) to the shoreline bike trail adjacent to the proposed facility. It appears that the presence of the facility would prevent "managed retreat" of this public accessway and would result in a reduction of public access to the shoreline. This would likely result in nonconformity to the public access and recreation provisions of both the Coastal Act and the LCP. We recommend the DEIR be modified to include an evaluation of the lost public access and recreation opportunities that would result from the presence of the facility and that it identify feasible mitigation measures to maintain that accessway if the facility is built. CCC-23

Regarding tsunami risks, the DEIR cites the state's tsunami inundation zone maps prepared by the California Emergency Management Agency, which show a tsunami runup zone along the El Segundo shoreline, but not within the ESGS site boundary. The DEIR's Appendix 5A provides analyses based on an "extreme" tsunami of two meters high with an accompanying runup of between about 23 and 28 feet above mean lower low water. These projections are substantially lower than those described in the above-referenced City of El Segundo hazard planning document, which identifies a predicted tsunami runup elevation of 50 feet. We recommend the revised DEIR include analyses that include this higher potential runup and that those analyses include expected increases in sea level. CCC-24

The DEIR also notes (at page 5.9-72) that sea level rise and tsunamis are considered existing environmental conditions under CEQA and that CEQA does not consider them to result in significant impacts unless the proposed project would somehow exacerbate those conditions. It states that "West Basin will implement design measures to protect the Project from potential effects of sea level rise and tsunamis." However, it does not describe what those measures might be and what effect those measures may have on nearby existing development – for example, whether those features could route floodwater or tsunami surges away from the facility site and increase flooding risks at the power plant, bike path, or other nearby development, or whether those measures might exacerbate coastal erosion along the shoreline. Permit review under the Coastal Act will include evaluation of these types of effects, and we recommend they first be assessed in a revised DEIR. CCC-25

The DEIR also briefly describes (at pages 5.9-75 & 76) the need for new "coastal hazard protection similar to that provided by the existing ESGS seawall," though it does not provide a specific description or proposed design or location for this new structure. Please note that both the Coastal Act and the LCP limit the construction of new shoreline protection structures for protecting new development.[15] We recommend the facility plans be modified to not rely on shoreline protection devices over the expected project life. CCC-26

[15] For example, the LCP currently allows shoreline protective devices only "where necessary to provide protection for existing energy facilities and the bike path," and when such structures do "not obstruct or interfere with the passage of the public along the beach" (See LCP Section VI. E).

The DEIR also includes a more detailed Coastal Hazards Analysis (Appendix 5A) that quantifies some of the expected hazards, though that analysis overall does not take an adequately conservative approach in its calculations and assessments. We have several comments on that Analysis:

- ***Methods used:*** The Coastal Hazards Analysis appears to use methods other than those prescribed in the above-referenced state guidance, and uses lower projections of sea level rise than those identified in the state's guidance. We recommend the analyses be revised to use the methods and projections provided in that guidance. CCC-27

- ***Data selection:*** The Analysis largely evaluated potential future wave runup scenarios based on records of nearby historical wave heights. By conducting the evaluations based on historic wave heights, the Analysis does not take into account the higher storm and wave energy expected to accompany climate change and sea level rise along Southern California shorelines. We recommend the Analysis be revised to include evaluations provided in the most recent Coastal Storm Modeling System ("CoSMoS 3.0") assessments done by the U.S. Geological Survey. The CoSMoS 3.0 work appears to identify much higher site risks, wave heights, and erosion rates than were included in this Analysis – for example, it shows that the entire proposed North Site has the potential to flood with about 30 inches of sea level rise (i.e., by about 2055 or sooner) during a 100-year storm. CCC-28

- ***Proposed shoreline protection device:*** Similar to Section 5.9's inadequately brief description of a new shoreline protective device, this Analysis states only that a "perimeter wall is a new site feature proposed for the West Basin Desalination Project to prevent the bike trail overpour flows from freely flowing around the southern flank of the NRG sea wall; thereby preventing flooding of the pad on which the desalination facility is proposed to be built…" Again, we recommend the facility plan be modified to avoid the need of new shoreline protection. CCC-29

- **Section 5.9.4 – Impacts and Mitigation Measures, Groundwater:** As noted above in our comments on Section 3.5, the document does not describe the anticipated volumes of groundwater that will need to be pumped from the site during construction or operations. Additionally, although the DEIR acknowledges the presence of known and potential groundwater contaminants at and near the site, it does not describe whether or to what extent those contaminants would be mobilized by any needed groundwater pumping. We recommend this be analyzed in a revised version of this section of the document. CCC-30

Section 5.10 – Land Use and Planning

The DEIR acknowledges that the project as proposed is not consistent with several provisions of the City's LCP. It notes, for example (on page 5.10-8), that the LCP currently limits development at the proposed site to "onsite expansion or intensification of energy developments…", and that the City's Coastal Zone Specific Plan (described on pages 5-10-8 & 9) similarly limits site uses to power plant-related developments. Pursuant to the significance thresholds and criteria listed in the DEIR's Section 5.10.3, these inconsistencies would therefore represent significant adverse environmental impacts.[16] CCC-31

[16] Section 5.10.3 states that the project would involve a significant adverse environmental impact if it conflicted with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project, including the City's LCP.

It appears that the City's LCP will need to be comprehensively amended prior to project permitting. LCP provisions to be amended may include, but not be limited to, the following (from the LCP's Section VI):

- A: *Shoreline Access* – acknowledges the need for long-term maintenance of the existing shoreline bike path.
- B: *Recreational and Visitor Serving Facilities* – similarly acknowledges the importance of the existing shoreline bike path.
- E: *Diking, Dredging, Filling, Shoreline Structures* – allows shoreline structures and beachfront protective devices only "where necessary to provide protection for existing energy facilities and the bike path," and when such structures do "not obstruct or interfere with the passage of the public along the beach."
- K: *Locating and Planning New Development* – states that the "only new developments expected to occur within the El Segundo portion of the coastal zone are minor modifications of existing energy facilities, minor public works projects, or possibly construction of shoreline protective structures."
- M: *Public Works* – states that "[a]ll public works necessary to serve the coastal zone in El Segundo are existing."
- N: *Industrial and Energy Development, Existing Conditions and Plan Proposals* – states that the El Segundo Coastal Zone Specific Plan "explicitly designates most of the coastal zone as either (MT) Marine Terminal or (PP) Power Plant," and acknowledges that the Coastal Act has designated the power plant site as appropriate for power plant siting and expansion.

We recommend this Land Use section and other relevant sections of the DEIR be modified to identify the proposed project's current non-conformity to the LCP and to describe the needed LCP amendments.

CCC-32

Similarly, and as noted above, this section of the DEIR (at pages 5.10-3 & 4) cites an earlier version of the Coastal Commission's sea level rise guidance, which has since been replaced by newer state guidance. We recommend the revised DEIR include an assessment of the proposed project's conformity to the most recent state guidance documents and that this new assessment be evaluated in a revised analysis in this section of the DEIR.

CCC-33

This section of the document also describes the proposed project as being "coastal dependent" for purposes of Coastal Act conformity; however, it is not clear that it is, in fact, coastal-dependent. The DEIR's project objectives (listed in Sections 3.3 and 7.1.3) identify West Basin's interest in developing a more diversified water portfolio, improved water security, etc.; however, it appears that those objectives could be met by water projects other than seawater desalination (see additional comments below on Section 7 – Alternatives). Additionally, the Commission may find that some, but not all, of the proposed project components are "coastal dependent," so we recommend the DEIR be modified to assess whether the project would conform to LCP and Coastal Act requirements if all or part of it is determined to not be coastal dependent.

CCC-34

- **Section 5.10, Construction-Related Impacts (p. 5.10-21):** The DEIR (at page 5.10-21) states that the project would "comply with the sea-level rise principle of maximizing natural shoreline values and processes." As detailed in our comments above, the project appears to need new shoreline protective devices and does not include measures that would allow the beach and public accessways to migrate inland in response to increasing sea levels and expected higher rates of erosion. We recommend this section be revised either to reflect a new proposed project design that will not require shoreline protection or to fully assess the impacts resulting from proposed new shoreline protection. CCC-35

Section 5.11 – Marine Biological Resources

- **Section 5.11.1, Regulatory Framework:** The DEIR (on pages 5.11-8 & 9) describes California's 2015 Ocean Plan Amendment ("OPA"), which is applicable to proposed new seawater desalination facilities such as this proposed project. The OPA requires that new facilities use subsurface intakes unless evidence shows them to be infeasible, in which case screened open water intakes may be allowed. If open intakes are allowed, they are to be located in the best available site feasible to minimize the intake and mortality of marine life. Given that the ESGS intake was sited and constructed in 1965, well before we had our current level of knowledge about the adverse effects these types of intakes can have on marine life, it is highly unlikely that its existing location is the best available site for minimizing marine life impacts. We recommend that the DEIR be revised to more fully evaluate the potential feasibility of alternative intakes and a wider range of possible locations for the proposed facility, as required by the OPA. CCC-36

  Additionally, while the DEIR later (in Section 5.11.2 – Environmental Setting) cites the role of the Santa Monica Bay Restoration Commission ("SMBRC") in protecting and restoring Santa Monica Bay, it does not cite one of the objectives of the SMBRC's Restoration Plan, which is to "eliminate biological impacts of water intake and discharge from coastal power and desalination plants."[17] The project as proposed would not be consistent with this Plan objective, which, according to the significance thresholds and criteria provided in the DEIR's Section 5.10.3, would result in a significant adverse impact.[18] We recommend the DEIR be modified to include the Restoration Plan in this Regulatory Framework section and address the proposed facility's conformity to this and other relevant goals and objectives of the Restoration Plan. CCC-37

- **Section 5.11.2, Environmental Setting:** The DEIR describes (on page 5.11-35) of this section the Coastal Act's definition of "environmentally sensitive habitat areas" ("ESHAs"). Please note that the Coastal Act's ESHA definition and related requirements apply to upland areas, not marine waters. We recommend removing this discussion from this section of the DEIR. CCC-38

[17] See Objective 1.3 of the SMBRC's 2013 *Santa Monica Bay Restoration Plan.*

[18] As noted previously, the DEIR Section 5.10.3's significance thresholds and criteria state that the proposed project would have a significant adverse environmental impact if it would "conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the Project (including but not limited to the General Plan, Specific Plan, LCP, or zoning ordinance) adopted for the purpose of avoiding or mitigating the environmental effect."

- **Section 5.11.3, Significant Thresholds and Criteria:** The DEIR lists several guidance documents used to establish thresholds and criteria for determining the significance of adverse marine life impacts. Although the list includes the 2015 OPA, it does not cite conformity to the OPA as one of the thresholds or criteria used to evaluate the proposed project. We recommend the DEIR be modified to include OPA conformity as a relevant threshold and that the proposed project's impacts be evaluated for conformity to the OPA. CCC-39

- **Section 5.11.4, Impacts and Mitigation Measures – Operational Impacts (starting at page 5.11.-49) and the DEIR's entrainment assessments** (including Appendices 4A and 4D)**:** The DEIR states that project operations "could" result in impacts to marine biota and "could" have a high salinity discharge affecting marine taxa. The project as proposed will unavoidably result in adverse effects to marine life in the form of entrainment caused by the intake and the diffuser, and we recommend the DEIR be modified to acknowledge these adverse effects. CCC-40

  The document also states in several places that using an intake with a 1 mm passive wedgewire screen instead of an unscreened, open intake will "greatly reduce" entrainment. We recommend the DEIR be modified to delete this assertion and instead rely on the environmental documentation that accompanied the adoption of the 2015 OPA, which found that this type of screened intake would reduce entrainment by no more than about 1%. CCC-41

  The DEIR's proposed Mitigation Measure BIO-M2 would have West Basin conduct a new entrainment assessment based on the OPA requirements. We understand, however, that West Basin intends to conduct this assessment only after the facility is operating and to use it to test some of the findings of the OPA, including whether the 1% entrainment reduction is accurate. However, this post-construction proposal would not provide the pre-construction information necessary to determine whether the project will conform to the OPA. We therefore recommend that the DEIR be modified to include new ETM/APF calculations that have been conducted consistent with OPA provisions (see ETM/APF comments below), or that West Basin conduct a new entrainment study consistent with OPA provisions to replace the existing entrainment data that was collected in 2006. West Basin may then choose to conduct a post-construction follow-up study as described in the DEIR. CCC-42

- **Empirical Transport Model ("ETM") / Areas of Production Foregone ("APFs"):** Appendices 4A and 4D provide a discussion of the proposed project's likely entrainment effects, including calculations of expected Areas of Production Foregone ("APFs").[19] However, we were unable to replicate the APFs presented in the DEIR using the cited source document.[20] Additionally, that source document used several methods that are different than those now prescribed through the state's 2015 OPA applicable to desalination facilities – for example, it used a different method for determining the length of time larvae are subject to entrainment.[21] CCC-43

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[19] An APF represents the loss of ecosystem productivity caused by the withdrawal of seawater expressed as the area of habitat needed to make up for that loss.

[20] Tenera Environmental, Inc. and MBC Applied Environmental Sciences, *El Segundo Generating Station, Clean Water Act Section 316(b) Impingement Mortality and Entrainment Characterization Study*, prepared for El Segundo Power, LLC, 2008.

[21] The 2008 study based this period of time on "dividing the difference between the size at hatching and the size at the 95th percentile by a larval growth rate obtained from the literature. The duration of the egg stage was added to this value for species with planktonic eggs. The 95th percentile value was used to eliminate outliers from the

The DEIR also describes expected entrainment reductions due to the use of wedgewire screens that are not consistent with the conclusions and requirements of the 2015 OPA. It also bases its assessment on mean intake water volumes of the proposed Local and Regional project (see, for example, Table 5.11-8), rather than the actual maximum expected intake water volumes that will serve as the basis for permit review. To more accurately identify expected adverse marine life impacts and to describe expected mitigation measures, we recommend that the revised DEIR provide modified ETM/APF calculations that are conducted in a manner consistent with the OPA. CCC-44

Section 5.14 – Recreation

- **Section 5.14.1, Regulatory Framework, Local:** The DEIR cites relevant provisions of the El Segundo General Plan, but does not cite applicable provisions of the City's LCP. The LCP includes several Coastal Act policies related to public access and recreation, such as providing for the continued existence of the public bike path along the shoreline. We recommend the DEIR be revised to include these relevant LCP provisions and to evaluate the proposed project's conformity to these provisions, or alternatively, to describe the need for an LCP amendment to allow the project to conform to the LCP. CCC-45

- **Section 5.14.4, Impacts and Mitigation Measures:** The DEIR states that project construction would result in temporary impacts to the bike path, but that West Basin would mitigate any closures by creating a detour and by repairing any construction-related impacts to the bike path. We recommend the DEIR be revised to identify the approximate period of time the bike path may be closed due to project construction and that it identify proposed detour routes that West Basin would make available during those closures. Please also identify any project construction impacts that would result in temporary or permanent impacts to public parking areas that provide coastal access. CCC-46

Section 5.16 – Utilities and Service Systems

The DEIR cites relevant sections of the City's Municipal Code, but not its LCP. As noted above in our comments on Section 5.10 – Land Use, Section M of the LCP states that "[a]ll public works necessary to serve the coastal zone in El Segundo are existing." We recommend the DEIR be revised to address this potential LCP nonconformity and the need for an LCP amendment. CCC-47

SECTION 7 – ALTERNATIVES

The DEIR evaluates several variations of the project as proposed and a "no project" alternative. However, and as noted above, it appears that the DEIR's project objectives could be met by a wider range of feasible water supply alternatives that would avoid or lessen many of the proposed project's adverse impacts.[22] These other alternatives include increased conservation CCC-48

calculations. The size at hatching estimated as follows: *Hatch Length = (Median Length + 1st Percentile Length)/2.*" The study additionally states that it instead used the 10th percentile length for several species.

The OPA prescribes using a different method. As stated in Appendix E of the OPA's Substitute Environmental Documentation (at page 44), the number of days of larval exposure to entrainment is based on "calculating the difference between the values of the 1st and upper 99th percentiles of the length measurements for each entrained larval taxon and dividing this range by an estimate of the larval growth rate for that taxon that was obtained from the scientific literature."

[22] The DEIR's Sections 3.3 and 7.1.2 list the project objectives as:

measures, increased capacity and reliance on West Basin's existing recycled water programs, brackish water desalination, and others. Each of these alternatives is likely to have fewer adverse impacts on marine life and on public access to the shoreline, and would have reduced energy use and greenhouse gas emissions and reduced risks from coastal hazards. CCC-48

Effects of concrete plugs in intake and discharge structures on alternatives analysis: As noted above, the power plant owner plans to plug the structures West Basin plans to use for seawater intake and brine discharge. We recommend this section of the DEIR be revised to describe the effects these plugs would have on the feasibility of using these structures, what additional measures West Basin would need to implement to make these structures useable, and what alternatives may result in fewer impacts and require fewer measures to be included as part of the proposed project. CCC-49

Extending existing intakes: This section of the DEIR also describes several siting variations for the proposed facility – e.g., using the Chevron Marine Terminal pipeline or the existing intake and discharge at the Redondo Beach Generating Station. As a reason to reject some of these alternatives, the document acknowledges that using these facilities would likely involve more construction-related impacts to the seafloor. However, in some instances, extending existing intakes further offshore or to deeper water may substantially reduce entrainment compared to what would occur at the existing intake location. Additionally, the Ocean Plan Amendment recognizes the difference between long-term operational impacts and relatively short-term construction impacts through its emphasis on minimizing entrainment and its requirement to fully mitigate for that impact versus its allowance that construction-related impacts may not necessarily require mitigation. This may be especially true in areas of extensive sandy seafloor such as those offshore of the proposed project sites, where construction impacts would have relatively little impact. We recommend the revised DEIR evaluate whether extending these existing intakes further offshore or to deeper water would result in lower entrainment rates and a reduced compensatory mitigation requirement. CCC-50

Blended discharge: We recommend the revised DEIR fully evaluate the feasibility of West Basin routing its desalination effluent for discharge through the nearby Hyperion wastewater treatment facility outfall. The OPA favors this approach, as it would eliminate the adverse discharge entrainment effects associated with the proposed project's use of diffusers and would likely reduce the amount of compensatory mitigation West Basin would need to provide. The DEIR notes that the using this outfall may be infeasible because Hyperion discharge flows are likely to be reduced at some future date; however, the document does not provide a timeline for when those flows might be reduced and does not evaluate whether West Basin could feasibly use the Hyperion system until then. Additionally, even under those future conditions, a blended discharge could have reduced adverse effects compared to West Basin's currently proposed stand-alone facility discharge. We recommend the document be revised to include these assessments. CCC-51

- "Diversify West Basin's water source portfolio to increase reliability in the near and intermediate term (5-15 years) and the long term (15-30 years) while reducing reliance on imported water.
- Improve water security through West Basin's increased local control of water supplies and infrastructure.
- Improve West Basin's local control of future water costs and long-term price stability.
- Improve climate resiliency by developing a water source that is less susceptible to hydrologic variability.
- Develop a potable water supply that is economically viable and environmentally responsible."

- **Section 7.1.3, Significant Unavoidable Adverse Impacts of the Proposed Project:** The DEIR identifies just two significant unavoidable adverse impacts of the local and regional projects – i.e., construction-related air emissions and construction-related noise. We recommend the document be revised to include the additional significant adverse impacts described above, including non-conformity to land use requirements. CCC-52

CLOSING

Thank you for your attention to these comments. Please feel free to contact me at 415-904-5248 or tluster@coastal.ca.gov if you have any questions or would like additional information about our review. CCC-53

Sincerely,

Tom Luster

Tom Luster
Energy, Ocean Resources, and Federal Consistency Division

cc: California Department of Fish and Wildlife – Eric Wilkins
State Lands Commission – Alexandra Borak
State Water Resources Control Board – Kim Tenggardjaja, Daniel Ellis
Los Angeles Regional Water Quality Control Board – Cassandra Owens
Coastal Commission – Chuck Posner

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June 25, 2018

Zita Yu, Ph.D., P.E., Project Manager
West Basin Municipal Water District
17140 S Avalon Blvd
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desalEIR@westbasin.org

Subject: West Basin Municipal Water District (West Basin) proposed Ocean Water Desalination Project.

Dear Ms. Zita Yu:

The California Department of Fish and Wildlife (Department) has reviewed the Draft Environmental Impact Report (DEIR) for the West Basin proposed Ocean Water Desalination Project (Project). West Basin, serving as the Lead Agency for this Project, prepared the DEIR. The proposed Project would include the construction of a new ocean water desalination facility to produce 20 million gallons per day (MGD) of potable drinking water for the Local Project with the potential for future expansion of the facility to produce up to 60 MGD for the Regional Project. The Local Project would be used to serve communities within West Basin's service area. The Regional Project would be initiated by West Basin in partnership with other local and regional partners to meet demands and increase water supply reliability for a larger portion of the Southern California community. The desalination facility would be located at the existing El Segundo Generating Station (ESGS) on the Pacific coast within the city of El Segundo.

The Project as proposed would consist of three main components: 1) a shore-based, ocean-water desalination facility consisting of a pretreatment and reverse osmosis system; 2) a screened ocean-water intake and brine concentrate discharge system consisting of repurposing and upgrading existing offshore intake and discharge tunnels located offshore of the ESGS; and 3) a desalinated water conveyance system to be constructed inland of the ESGS to deliver potable water produced at the desalination facility to the local and regional water supply systems. CDFW-1

As a trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, and habitat necessary for biologically sustainable populations of those species. In this capacity, the Department administers the California Endangered Species Act, the Native Plant Protection Act, and other provisions of the California Fish and Game Code that afford protection to the State's fish and wildlife trust resources. The Department is the State's fish and wildlife "Trustee Agency" under the California Environmental Quality Act (CEQA guidelines §15386). The Department is also responsible for marine biodiversity protection under the Marine Life Protection Act (MLPA) in coastal marine waters of California. Pursuant to our jurisdiction, the Department has the following comments and recommendations regarding the Project.

Biological Significance

The marine habitats of Santa Monica Bay are rich and productive ranging from nearshore-dominated sandy habitats, rocky intertidal, wetlands, and offshore pelagic. Key features within the bay include the Redondo Canyon and the Santa Monica Canyon. These habitats are home to numerous State and Federal-listed species as well as numerous California Species of Special Concern (SSC). This marine environment is a vital California economic resource for commercial and recreational fishing as well as a wide variety of other recreational and commercial activities. CDFW-2

Marine Environmental Concerns

Desalination Intake

The Department is concerned about the potential effects to marine resources from impingement (organisms trapped on the intake screens) and entrainment (organisms entering the plant through intake or being trapped in the turbulent discharge) by the Project. The Department prefers the desalination intake method of drawing salt water from wells to avoid entrainment and impingement detailed in the California State Water Resources Control Board (SWRCB) Ocean Plan Desalination Amendment (Ocean Plan). While the Department recognizes that this Project has performed extensive studies to determine that wells are infeasible due to geological and space constraints at site specific locations, the Department continues to question whether wells farther from the ESGS and Redondo Beach Generating Station locations could be used. CDFW-3

Additionally, the Project proposes to repurpose and upgrade existing offshore intake structures from the ESGS facility. The Department questions whether this is the optimal location for an open water intake as no other sites were analyzed. The Department recommends the Final EIR include an analysis of open-water-intake locations that would include an analysis of different depths and alternate locations. CDFW-4

The Department appreciates the proposed use of 1 mm wedgewire screens for the Project and agrees that the low intake velocity (0.5 feet per second) coupled with the wedgewire screens will greatly reduce impingement and entrainment for this Project. However, the Department remains concerned with the wedgewire screen technology, as it is relatively new on the California Coast. The Department recommends the Final EIR include a plan for monitoring and testing of the wedgewire screen after deployment to address the following concerns the Department has regarding fish screens: CDFW-5

- Biofouling of the proposed wedgewire screens
- Impingement and entrainment of organisms smaller than 1 mm
- Maintenance of the screens

The Department anticipates the need for mitigation for the entrainment of fish, invertebrates, and other marine organisms that are smaller than the screen size. Mitigation measure BIO-M2: Entrainment Mitigation does address the need for entrainment assessment and monitoring. BIO-M2 also addresses the potential need for mitigation following assessment and monitoring per the Ocean Plan. The proposed mitigation measure describes an assessment period of at least 12 consecutive months that will be designed to account for variation in oceanographic or hydrologic conditions and larval abundance. The Department recommends a longer assessment period of at least 24 months to account for differences in El Nino and La Nina ocean conditions. Per the Ocean Plan, the Department should be included in discussions regarding any mitigation project or fee-based mitigation program. CDFW-6

Discharge Brine and Water Quality

The proposed desalination plant will be initially designed to create 20 MGD of desalinated water by taking in roughly 42 to 45 MGD of seawater and create roughly 20.9 MGD of brine waste and 4.5 MGD of treated backwash water per day. A multiport diffuser system consisting of multiple duckbill diffuser ports would be installed into the existing ESGS discharge tower. The diffuser ports would be designed at different angles for lower-velocity discharge to reduce turbulence mortality. The Department remains concerned about potential impacts of entrainment to larval organisms in the Zone of Initial Dilution (ZID) due to sheer stress and concerns related to mixing of the brine in the ZID. CDFW-7

The Project proposes to repurpose and upgrade existing offshore discharge structures from the ESGS facility. Upon review of the Appendix_4C-Modeling Brine Disposal from the West Basin Ocean Water Desalination Project, the Department identified two concerns. First, the modeling was based on possible diffuser configurations because the design of the diffuser system has not been finalized. Hence, the Appendix_4C states, "a procedure for predicting dilution due to a riser with an arbitrary number of jets at an arbitrary angle to the horizontal was devised and is described. Because the receiving water is relatively shallow, the diffuser nozzles must be oriented at less than the usually accepted optimum angle of 60°". The Department is concerned with the shallow water depth that requires the diffuser nozzles be angled at less than the accepted optimum angle. Because there is no final diffuser system design, the Department recommends that a modeling analysis on the finalized design of the proposed diffuser system be included in the Final EIR. It is difficult for the Department to assess potential impacts on a design that is not finalized. CDFW-8

Second, the Department recommends the Final FEIR include an analysis of different discharge options; including increased depth, co-mingling discharge from another location to bring down the brine salinity, and alternate locations. CDFW-9

Construction Impacts to the Marine Environment

The Department is concerned about the following construction related Project impacts to the marine environment:

Riprap Reconfiguration: The Department appreciates the reuse of existing riprap and recognizes the need to relocate an estimated 2,000 tons of riprap around the intake structure and 2,000 tons of riprap around the discharge structure temporarily. The DEIR states that the riprap would be removed and temporarily stockpiled on seafloor or if infeasible stored at the Port of Los Angeles (POLA)/Port of Long Beach (POLB). The Department recognizes that impacts to the benthic habitat may be temporary but prefers the option of storing the riprap material at POLA/POLB to minimize impacts to important benthic habitat species. CDFW-10

The Department recommends adding additional mitigation measures to the Final EIR: 1) survey the existing riprap prior to removal and construction activities and prior to replacement at the intake and discharge structures, for sensitive species such as abalone. This additional mitigation measure should also include a description of how the survey will be developed and which species will be included in a pre-riprap removal survey. Species should include both State and Federal listed, species of special concern, and recreationally and commercially important species. Should sensitive species be seen during the survey, the Department should be consulted prior to removal and relocation of the riprap; 2) survey the existing riprap prior to removal and construction activities and prior to replacement at the intake and discharge structures, for invasive species such as Caulerpa. If Caulerpa or other invasive species are detected, the Department should be consulted prior to removal and relocation of the riprap. CDFW-11

Dredging: The Department is concerned about the short-term impacts from dredging activities. The Department recommends using all appropriate best management practices for dredging, including but not limited to the use of the clamshell bucket dredge, silt curtains, and turbidity monitoring. Details of all best management practices planned for the Project should be included in the Final EIR. The Department also recommends coordinating with the Dredged Material Management Team prior to commencing dredging activities. CDFW-12

Pile Driving: The Department is concerned about the sound levels generated by underwater construction activities, in particular pile driving activities for six to twelve piles. The DEIR states that the Project proposes using a vibratory hammer, which is the Department's preferred method. However, the Department is concerned that the DEIR states that an impact hammer may be required without any analysis as to why it may be required. The Department is a signatory agency to the Agreement in Principle for Interim Criteria for Injury to Fish from Pile Driving Activities, June 12, 2008. The agreed upon sound pressure levels are 206 decibels (dB) peak and 187 dB accumulated sound exposure level (SEL). The DEIR does not foresee the SEL levels exceeding the agreed upon criteria and the Department appreciates Mitigation Measure BIO-M 5.11-1 for Pile Driving Noise Reduction for Protection of Fish and Marine Mammals. The mitigation measure recommends that sound levels for fish be less than 183 dB. The Department recommends in water sound level monitoring for fish during pile driving activities and that the Final EIR include a modeled calculation of underwater noise and specific details regarding the pile size, diameter, numbers, and materials. The Department cannot fully analyze potential marine related construction impacts without the modeled SELs or exact number of proposed piles and materials. CDFW-13

Marine Protected Areas
The Marine Life Protection Act (MLPA) required the state to redesign its pre-existing system of marine protected areas (MPAs) to function as a statewide network in order to protect the abundance integrity and diversity of marine life, habitats and ecosystems. The MPAs are regulated through Fish and Game Code Section 2850 and Title 14, Section 632, CCR. As stated in the DEIR, MPAs in the vicinity of the Project include Point Dume State Marine Conservation Area (SMCA), Point Dume State Marine Reserve (SMR), Point Vicente SMCA, and Abalone Cove SMCA. Key to the management of the network of MPAs is the connectivity of each MPA. Connectivity of the MPAs includes recruitment and dispersal of larval organisms and adult organisms within the MPAs and to and from areas outside of the MPAs. Since the project lies in between these two MPA clusters, connectivity could be disrupted between these MPAs. The Department recommends further analysis in the Final EIR of potential impacts to the connectivity of MPAs in the Project area from impacts to the Project source water. CDFW-14

Terrestrial Environmental Concerns

Brown Pelican
The brown pelican (*Pelecanus occidentalis*) is listed as a fully protected species by the Department (Fish and Game Code § 3511). Brown pelican is common along the southern California coast year round. Breeding is only known to occur on the Channel Islands, but brown pelican utilizes the southern California coast for roosting habitat. This species does not roost overnight on water. Suitable roosting habitat includes mudflats, sandy beaches, wharfs, rocky areas, and jetties. CDFW-15

The Department is concerned the Project may have the potential to affect brown pelican if construction-related activities, including lighting or noise impacts roosting sites. The DEIR did not adequately analyze potential impacts to roosting brown pelican from construction-related impacts on land. The Department recommends the DEIR include an assessment as to whether or not the Project will impact brown pelican roosting habitat. This could be accomplished by conducting roosting surveys at the appropriate time of year outside of the breeding season (March through August). If brown pelican roosting habitat is found on or adjacent to the Project site, the Department recommends: 1) construction stop at least one hour prior to the observed daily arrival time of brown pelican to their roosting habitat, and 2) sound and visual barriers be erected to minimize sound disturbances to birds roosting farther away but still possibly impacted by construction noise. CDFW-15

The Department recommends a biological monitor be on site for the duration of the project to check for brown pelican individuals daily, prior to commencing construction for the day. If sick or distressed individuals are found, the Department and the California Marine Mammal Stranding Network hotline at 866-767-6114 should be notified to determine the appropriate course of action.

Western Snowy Plover

The Project shares a boundary with western snowy plover (*Charadrius nivosus ssp. nivosus*) Critical Habitat Subunit 45C. The DIER Biological Impact section includes several mitigation measures proposed to reduce impacts to western snowy plover. Mitigation Measure Bio-1 which appears to only apply to actively nesting birds and vegetation removal, BIO-2 requiring a pre-construction survey clearance for western snowy plover and establishing a minimum buffer of 500 feet for nesting plover, and BIO-5 which calls for a biological monitor to be present only during vegetation removal and all construction immediately adjacent to the open beach.

The Department is concerned the Project may still impact western snowy plover both during the breeding season (February 15 to August 31), wintering snowy plover (September 1 to February 14) in adjacent habitat, as well as in critical habitat beyond the 500 foot study area identified in the DEIR even with the implementation of the above mentioned minimization measures. CDFW-16

Noise, vibration, and visual disturbance associated with the use of heavy equipment during Project construction activities has the potential to disrupt western snowy plover behaviors in adjacent habitat by masking intraspecific communication and startling birds (e.g., see Dooling and Popper 2007). The DEIR analyzed noise and vibration impacts as they related to human and building safety standards, and did not include detailed information on how these potential affects were analyzed for western snowy plover. The DEIR evaluated vibrations as they would exceed structural damage potential criteria of 0.12 inches per second at 130 feet, where pile driving can generate between 0.014 and 0.128 inches per second. Shorebirds appear to have a sensitivity to vibration, as observed in nesting colonies near railroad tracks in San Diego County.

The DEIR states Project construction is estimated to take 52 to 60 months with the greatest noise expected during the first 15 months of Project. The proposed pile driving would occur for 3 months with noise levels estimated at 93 dB at 130 feet.

The Department recommends pile driving not be used during construction of the Project. Alternative methods to construct Project features, that produce less noise and vibration, such as

press-in method of pile installation, should be utilized if technically possible. At a minimum, the use of noise shrouds or curtains may reduce noise levels by as much as 30 dB(A) (Marr 2001). The Department also recommends monitoring noise and vibration during construction and setting allowable limits for protection of wildlife.

The Department recommends the following mitigation measure be incorporated into the DEIR: If western snowy plover are observed within Critical Habitat Subunit 45C, and no breeding behavior activity is observed, the project biologist will establish appropriate buffers and monitor the western snowy plovers at least once per day during the first 15 months of construction activities until the snowy plover are no longer observed using these areas. The DIER indicates this 15-month period will be the noisiest period of construction. The project biologist will have the ability to halt Project construction activities, if necessary, to avoid unanticipated impacts, including significant disturbance, to the snowy plover foraging, roosting or breeding behavior. Surveys and monitoring should be conducted by individuals that are familiar with western snowy plover biology and ecology and have field experience surveying for nests and conducting monitoring activities for western snowy plover. CDFW-16

Increased ambient lighting levels can increase predation risks and disorientation and disrupt normal behaviors of western snowy plovers in adjacent feeding, breeding, and roosting habitat (Longcore and Rich 2004). The Department recommends constructing the project to avoid the need for nighttime work and lighting.

Vegetation Classification

The DEIR uses a vegetation classification system that does not align with the State's vegetation mapping standard. The DEIR states *Ambrosia chamissonis* and *Achillea millefolium* are present in the survey area. These species are found in a rare (S3) vegetation alliance (*Abronia latifolia-Ambrosia chamissonis* Herbaceous Alliance).The Department recommends that floristic, alliance- and/or association-based mapping and vegetation impact assessments be conducted at the Project site and neighboring vicinity. The Manual of California Vegetation (MCV), second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2008). Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

Please note, in 2007, the State Legislature required the Department to develop and maintain a vegetation mapping standard for the state (Fish and Game Code § 1940). This standard complies with the National Vegetation Classification System which utilizes alliance and association based classification of unique vegetation stands. The Department utilizes vegetation descriptions found in the MCV, found online at http://vegetation.cnps.org/. In order for the DEIR to determine the rarity ranking of vegetation communities potentially affected by the Project, the MCV alliance/association community names should be provided as the Department only tracks rare natural communities using this classification system. CDFW-17

The Department considers natural communities with ranks of S1-S3 to be sensitive natural communities that should be addressed in CEQA (CEQA Guidelines § 15125[c]). An S3 ranking indicates there are 21-80 occurrences of this community in existence in California, S2 has 6-20 occurrences and S1 has less than 6 occurrences.

The Department recommends avoiding any sensitive natural communities found on or adjacent to the Project. If avoidance is not feasible, the Department recommends mitigating at a ratio of no less than 5:1 for impacts to S3 ranked communities and 7:1 for S2 communities. This ratio is for the acreage and the individual plants that comprise each unique community. CDFW-17

Rare Plants

Appendix 6, page 41 of the DEIR states "All vegetated areas within the survey area are manmade ornamental areas or areas that have been revegetated...it was determined that the project site does not provide suitable habitat that would support any special-status plant species known to occur in the general vicinity of the project." The Department questions this conclusion, as the beach is included in the survey area and has natural vegetation typical of beach environments. The Department recommends surveys be conducted following Department protocol found at http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959 for any species found in sandy coastal environments. Absent this information, the Department is not able to assess Project impacts to rare plants or provide meaningful avoidance, minimization or mitigation measures. CDFW-18

El Segundo Blue Butterfly

The DEIR addresses the possibility of El Segundo Blue Butterfly occurring on restored coast buckwheat scrub and requires pre-construction surveys as a mitigation measure. The DEIR references a previous negative survey, but does not state if this was a focused survey done during the appropriate time of year referenced against known population observances. The Department does not consider conducting pre-construction surveys as mitigation for potential impacts to a sensitive species. CEQA Guidelines Sections15070 and 15071 require the document to analyze if the Project may have a significant effect on the environment as well as review if the Project will "avoid the effect or mitigate to a point where clearly no significant effects would occur". Relying on future surveys, the preparation of future management plans, or mitigating by obtaining permits from the Department are considered deferred mitigation under CEQA. In order to analyze if a project may have a significant effect on the environment, the Project-related impacts, including survey results for species that occur in the entire Project footprint need to be disclosed during the public comment period. This information is necessary to allow the Department to comment on alternatives to avoid impacts, as well as to assess the significance of the specific impact relative to the species (e.g., current range, distribution, population trends, and connectivity). CDFW-19

The DEIR concludes that because the slopes were planted or restored with coast buckwheat habitat, they are not valuable and no mitigation would be needed. The DEIR should determine if the coast buckwheat scrub was planted as mitigation for previous impacts to El Segundo Blue Butterfly or its habitat, or required by any entity as part of the development of the area. The Department recommends including specific mitigation measures for any impacts to the El Segundo Blue Butterfly host vegetation community, as well as provide specific minimization and avoidance measures for the butterfly should it be found on the Project site.

Bats

Potential impacts to bats due to the implementation of the Project are not fully disclosed in the DEIR. The Project contains abandoned structures as well as palm and other trees that have the potential to provide habitat for bats. CDFW-20

Bats are considered non-game mammals and are protected by state law from take and/or harassment (Fish and Game Code § 4150, CCR § 251.1). Several bat species are also considered SSC, which meet the CEQA definition of rare, threatened, or endangered species (CEQA Guidelines §15065). The Department considers adverse impacts to a SSC, for the purposes of CEQA, to be significant without mitigation. Mitigation is not just avoiding maternity roosts, wintering sites, night roosts, mating roosts and foraging sites, but providing similarly functioning habitat to what is impacted.

The Department recommends bat surveys be conducted by a qualified bat specialist to determine baseline conditions within the Project and within a 500-foot buffer, and analyze the potential significant effects of the proposed Project on the species (CEQA Guidelines §15125). The Department recommends the DEIR include the use of acoustic recognition technology to maximize detection of bat species to minimize impacts to sensitive bat species. The DEIR should document the presence of any bats and include species-specific mitigation measures to reduce impacts to below a level of significance.

To avoid the direct loss of bats that could result from removal of trees, rock crevices, and structures that may provide roosting habitat (winter hibernacula, summer, and maternity), the Department recommends the following steps are implemented:

1. Identify the species of bats present on the site;
2. Determine how and when these species utilize the site and what specific habitat requirements are necessary [thermal gradients throughout the year, size of crevices, tree types, location of hibernacula/roost (e.g., height, aspect, etc.);
3. Avoid the areas being utilized by bats for hibernacula/roosting; if avoidance is not feasible, a bat specialist should design alternative habitat that is specific to the species of bat being displaced and develop a relocation plan in coordination with the Department;
4. The bat specialist should document all demolition monitoring activities, and prepare a summary report to the Lead Agency upon completion of tree/rock disturbance and/or building demolition activities. The Department requests copies of any reports prepared related to bat surveys (e.g., monitoring, demolition);
5. If confirmed occupied or formerly occupied bat roosting/hibernacula and foraging habitat is destroyed, habitat of comparable size, function and quality should be created or preserved and maintained at a nearby suitable undisturbed area. The bat habitat (not bat houses) mitigation shall be determined by the bat specialist in consultation with the Department;
6. A monitoring plan should be prepared and submitted to the Lead Agency. The monitoring plan should describe proposed mitigation habitat, and include performance standards for the use of replacement roosts/hibernacula by the displaced species, as well as provisions to prevent harassment, predation, and disease of relocated bats; and,
7. Annual reports detailing the success of roost replacement and bat relocation should be prepared and submitted to Lead Agency and the Department for five years following relocation or until performance standards are met, whichever period is longer.

Absent the above requested information, the DEIR does not analyze impacts to bats, and the DEIR does not provide any alternatives discussion or any avoidance strategies to mitigate the loss of occupied bat habitat.

CDFW-20

General Construction Recommendations

Parking, driving, lay-down, stockpiling, and vehicle and equipment storage should be limited to previously compacted and developed areas and the designated staging area. No off-road vehicle use should be permitted beyond the project site and designated access routes. Disturbances to the adjacent native vegetation should be minimized. Nonnative plants, including noxious weeds (as listed by the California Invasive Plant Council), should be prevented from establishing in temporarily disturbed areas, either by hand-weeding or selective application of herbicide.

CDFW-21

Conclusion

The Department appreciates the opportunity to provide comments on the DEIR for the West Basin proposed Ocean Water Desalination Project. If you require additional information regarding marine related issues, please contact Mr. Eric Wilkins, Senior Environmental Scientist Specialist, at (805) 594-6172 or via e-mail at Eric.Wilkins@Wildlife.ca.gov. If you require additional information regarding terrestrial related issues, please contact Ms. Kelly Schmoker-Stanphill, Senior Environmental Scientist Specialist, at (949) 581-1015 or via e-mail at Kelly.Schmoker@Wildlife.ca.gov.

CDFW-22

Sincerely,

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References:

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June 25, 2018

West Basin Municipal Water District
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Re: Comments on the Draft Environmental Impact Report for the Ocean Water Desalination Project (SCH # 2015081087)

Dear Ms. Yu:

California Energy Commission staff appreciates the opportunity to provide comments on the Draft Environmental Impact Report (DEIR) for the Ocean Water Desalination Project. We previously provided comments on the Notice of Preparation (NOP) in a letter dated October 15, 2015. Upon reviewing the DEIR, staff concludes that most our comments on the NOP have been addressed adequately. Our remaining comments cover the issue areas of Biology and Cultural Resources. CEC-1

Biology

1. Page 2-37, states that the local project's anticipated intake capacity is 42 million gallons per day (MGD), elsewhere, it is stated as 40 MGD (Page 2-41). CEC-2

2. The Draft EIR contains a number of mitigation measures, and Energy Commission staff generally supports these measures. Additional language is offered to strengthen certain measures. This language is based on staff's experience, and has yielded positive results in power plant projects, particularly during the construction phase. The additional language enhances the Worker Environmental Awareness Program (WEAP), aids in the selection of a proper qualified biologist, clarifies nesting bird measures, and overall, promotes routine and scientifically sound communications between the project owner and the permitting agency. Select measures should be augmented as follows (additions are shown in **<u>underlined boldface</u>**, deletions are shown in ~~strikeout~~): CEC-3

> **BIO-1:** Prior to commencement of ground-disturbing activities, West Basin shall ~~implement~~ **<u>develop</u>** a WEAP to educate all construction personnel on the area's sensitive biological resources, environmental concerns, and mitigation. The WEAP must discuss the locations and types of sensitive biological resources on the Project site and adjacent areas, identify monitoring methods, **<u>provide pictures</u>**, and identify habitat **<u>and wildlife</u>** protection measures. **<u>The WEAP shall be repeated as necessary during</u>**

construction, mobilization, and demolition activities for new employees, and a copy of the training logs available for inspection upon request by the Responsible agency. The WEAP shall be administered by the Authorized Biologist.

BIO-2: During site mobilization, demolition, and construction, West Basin shall monitor the on-shore construction site sufficiently to ensure that sensitive species are avoided. The extent of monitoring shall be determined by a qualified biologist. The qualified biologist shall prepare monthly reports identifying monitoring results for the duration of the construction period. **The qualified biologist shall have a bachelor's degree in Biology or related subject, and at least a year of work experience with habitat and species expected or potentially expected to occur on or adjacent the project site.**

BIO-4: West Basin shall implement the following measures during construction and operation to prevent the spread and propagation of nonnative, invasive weeds: Only **certified** weed-free straw, hay bales, and seed shall be used for erosion control and sediment barrier installations.

BIO-5: Construction activities involving vegetation removal shall be conducted between September 1 and December 31. For construction occurs inside the nesting season between January 15 and August 31, ~~West Basin~~ **an Authorized Biologist** shall conduct a pre-construction nesting avian species clearance survey in accordance with the following guidelines: a) At least one pre-construction survey shall be conducted within 72 hours preceding initiation of vegetation removal and construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed 3 weeks in any given area, an interval during which birds may establish a nesting territory and initiate egg laying and incubation b) The survey shall cover all potential nesting habitat and substrate on the Project site and within 500 feet of its perimeter. c) If no active nests are identified, the construction work shall be allowed to proceed. The results of the clearance survey **and any ongoing monitoring or buffer implementation** shall be documented in ~~a~~ **monthly** reports. d) If the qualified biologist finds an active nest during the survey and determines that the nest may be impacted, a no-disturbance buffer zone shall be established (protected areas around the nest**, typically established using pin flags or construction netting)**. The size of the buffer shall be determined by the qualified biologist in consultation **with** CDFW and USFWS, based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. These buffers are typically 300 feet from the nests of non-listed passerine species and 500 feet from the nests of raptors and listed species. e) Any active nests observed during the survey shall be mapped on an aerial photograph using GPS**, and provided in the monthly report**. f) If active nests are detected during the survey, the qualified biologist shall monitor all nests at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified biologist, disturb nesting activities (e.g., excessive noise, exposure to exhaust), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified biologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed, or placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, placing noisy stationary

CEC-3

construction equipment in acoustically engineered enclosures and/or relocating them away from noise-sensitive receptors, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.

BIO-9: One year prior to commencement of ground-disturbing activities, an El Segundo blue butterfly focused survey shall be conducted by a qualified biologist within areas of the Project site containing suitable habitat supporting coast buckwheat during the adult flight season (mid-June to early September). The adult flight stage of this species can last as little as 4 days to as much as 2 weeks per individual. If this species is found, ground- disturbing activities shall not occur within these areas until West Basin consults with the USFWS and determines if avoidance measures are possible or if an incidental take permit is required prior to Project construction. **The qualified biologist will provide the focused survey report within the applicable monthly compliance report, and, if El Segundo blue butterflies are found, shall also report monthly the progress on implementation of any mitigation, monitoring, and compliance efforts, including the submittal of maps, photographs, and shall file with the CNDDB reports of occurrences.**

CEC-3

3. The following references appear to be missing: Sawyer, Keeler-Wolf, and Evens (2009), CDFW 2003, and Sibley, 2014.

CEC-4

4. Wildlife surveys conducted were insufficient to reveal the presence of burrowing owl. California Department of Fish and Wildlife's (CDFW) October 30, 2015 comment letter on the NOP (Available in the Draft EIR, Appendix 1B) states that owls may be present, and that preconstruction survey recommendations are available to be implemented on the site; yet these were not followed. The analysis should discuss the suitability of the surveys to detect owls, and a rationale for why burrowing owls were dismissed from further analysis within the DEIR (e.g. burrowing owl appears in Table 5.3-2, and is dismissed as having no potential to occur).

CEC-5

Cultural Resources

West Basin concludes that the proposed desalination facility, eastern portions of the proposed conveyance pipeline and alternative pipeline alignments, and offshore screened intake facility have the potential to contain buried archaeological deposits (WBMWD 2018:5.4-24). Appendix 7A to the DEIR goes on to identify some of the kinds of archaeological materials that could be found buried in the proposed project:

- historic artifacts such as glass bottles and fragments, cans, nails, ceramic and pottery fragments, and other metal objects;
- historic structural or building foundations, walkways, cisterns, pipes, privies, and other structural elements;
- prehistoric flaked-stone artifacts and debitage (waste material), consisting of obsidian, basalt, and or cryptocrystalline silicates;
- groundstone artifacts, including mortars, pestles, and grinding slabs;
- dark, greasy soil that may be associated with charcoal, ash, bone, shell, flaked stone, groundstone, and fire affected rocks (Brunzell 2016:9.)

CEC-6

Energy Commission staff agrees with West Basin's assessment of the types of expectable archaeological materials below the proposed project's surface. A four-year construction monitoring program at the El Segundo Generating Station resulted in the identification of 16 historic archaeological finds across the energy facility (White et al. 2014), supporting West Basin's conclusions regarding archaeological sensitivity in the proposed project area. West Basin's proposed mitigation measures CUL-1 through CUL-5 are similar to the effective mitigation and monitoring program that the Energy Commission employed during construction at the El Segundo Generating Station (CEC 2010:42–49; White et al. 2008).

CEC-6

Conclusion

Thank you for the opportunity to participate in the review of the Ocean Water Desalination Project DEIR. If you have any questions about our comments, please contact Chris Davis, Siting Office Manager, at 916-654-4842, or by email at chris.davis@energy.ca.gov.

CEC-7

Sincerely,

/s/

CHRIS DAVIS
Siting Office Manager
Siting, Transmission & Environmental Protection Division

Attachment: References

References

Brunzell 2016—David Brunzell. *Cultural Resources Assessment, West Basin Ocean Water Desalination Project, City of El Segundo, Los Angeles County, California*. March 18. BCR Consulting, Claremont, CA. Project No. MBI1502. Prepared for Michael Baker International, Irvine, CA. Appendix 7A to *Ocean Water Desalination Project, Draft Environmental Impact Report*, by West Basin Municipal Water District. March 27. Electronic document, http://westbasindesal.org/draft-eir.html, accessed June 11, 2018.

CEC 2010—California Energy Commission. *El Segundo Power Redevelopment Project, Commission Decision to the Amendment*. June. Sacramento, CA. CEC-800-2010-015.

WBMWD 2018—West Basin Municipal Water District. *Ocean Water Desalination Project, Draft Environmental Impact Report*. March 27. Electronic document, http://westbasindesal.org/draft-eir.html, accessed June 11, 2018.

White et al. 2008—Laura S. White, Robert S. White, and David M. Van Horn. *El Segundo Power Redevelopment Project, Cultural Resources Monitoring and Mitigation Plan (CRMMP)*. September. John Minch and Associates, Mission Viejo, CA. Prepared for California Energy Commission, Sacramento.

White et al. 2014—Robert S. White, Laura S. White, David M. Van Horn, Jessica F. Colston, and Richard Guttenberg. *Confidential Cultural Resource Monitoring Report for the El Segundo Energy Center Project, El Segundo, California*. February 28. John Minch and Associates, Mission Viejo, CA. Prepared for El Segundo Energy Center, El Segundo, CA. On file, Cultural Resources Unit, California Energy Commission, Sacramento.

From:	Rounds, Steven@DTSC
To:	West Basin Desal EIR
Subject:	RE: Ocean Water Desalination - Comment Period Ending June 25, 2018
Date:	Wednesday, June 20, 2018 5:15:48 PM

At this moment, the Department of Toxic Substances Control has no comments.

DTSC-1

Steve Rounds, P.E.
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Brownfields and Environmental Restoration Program
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June 25, 2018

West Basin Municipal Water District
Attn: Zita Yu, Ph.D., P.E., Project Manager
17140 South Avalon Boulevard
Carson, CA90746
desalEIR@westbasin.org

Dear Dr. Yu:

COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE WEST BASIN MUNICIPAL WATER DISTRICT OCEAN WATER DESALINATION PROJECT (SCH # 2015081087)

On March 27, 2018, West Basin Municipal Water District (WBMWD) distributed the Draft Environmental Impact Report (DEIR) for the proposed Ocean Water Desalination Project (Project). The DEIR provides information about the environmental effects anticipated during the construction and operation of the Project at two potential sites within the existing El Segundo Generating Station (ESGS). The DEIR includes a project-level analysis of the currently proposed 20 MGD Local Project. Additionally, there is a potential future expansion of the facility to a Regional Project, which would produce up to 60 MGD. The DEIR includes a project-level analysis of some components of the Regional Project, while other aspects are only analyzed at a programmatic level since design and operational characteristics have not been determined yet. LARWQCB-1

The Los Angeles Regional Water Quality Control Board (Los Angeles Water Board) is the agency responsible for issuing the National Pollutant Discharge Elimination System (NPDES) permit for the discharge of brine and other wastes from the Project to the Pacific Ocean and for making a determination regarding the factors set forth in California Water Code (CWC) section 13142.5, subdivision (b) (CWC section 13142.5(b)). The NPDES permit will implement the provisions of the *Water Quality Control Plan for Ocean Waters of California* (Ocean Plan), including the *Amendment to the Water Quality Control Plan for Ocean Waters of California Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Non-substantive Changes* (Desalination Amendment). Los Angeles Water Board and State Water Resources Control Board (State Water Board) (collectively, Water Boards) staff has reviewed the DEIR and offers the following comments. LARWQCB-2

In addition to evaluating potential environmental impacts under the California Environmental Quality Act (CEQA), the DEIR is intended to support the Los Angeles Water Board's NPDES permit and CWC section 13142.5(b) determination for the Project. DEIR claims to fulfill CEQA requirements as well as provide information for the Ocean Plan determination. The DEIR states that WBMWD will pursue regulatory permits if WBMWD approves the Local Project. As such, WBMWD has not submitted a Report of Waste Discharge or a request for a CWC section 13142.5(b) determination for the Project to the Los Angeles Water Board. Water Boards staff LARWQCB-3

acknowledges that the analysis required by the Ocean Plan, in determining consistency with CWC section 13142.5(b), is separate and distinct from WBMWD's analyses for the DEIR. However, a CWC section 13142.5(b) determination is subject to CEQA, and the requirements in the Ocean Plan are related to environmental impacts that would be considered under CEQA. Accordingly, Water Boards staff offers the following comments on the DEIR. LARWQCB-3

General Comments

1. The DEIR describes how some of the proposed construction will accommodate the 60 MGD capacity of the Regional Project. For instance, WBMWD is proposing to build five pipes within the existing ESGS intake tunnel, when only two pipes are needed for the 20 MGD Local Project. Similarly, the proposed diffuser is designed for the Regional Project capacity of 60 MGD. Therefore, Water Boards staff highlights that the construction proposed in the DEIR would have more impacts than necessary for the currently proposed Local Project. To the extent that the WBMWD seeks approval of the larger 60 MGD capacity as part of the Local Project, all environmental impacts must be assessed. LARWQCB-4
2. The DEIR describes the Local Project at a project level and analyzes some of the Regional Project components at a project level as well. Water Boards staff notes that, if WBMWD receives an NPDES permit and CWC section 13142.5(b) determination for the Local Project, expanding production to 60 MGD would trigger the requirement for a new 13142.5(b) determination for the Regional Project because it would qualify as an expanded facility under the Ocean Plan. Chapter III.M.2.(a)(3) of the Ocean Plan states that the CWC section 13142.5(b) analysis for expanded facilities may be limited to those expansions or other changes that result in the increased intake or mortality of all forms of marine life, unless the regional water board determines that additional measures that minimize intake and mortality of all forms of marine life are feasible for the existing portions of the facility. LARWQCB-5
3. Based on Water Boards staff's preliminary review, the DEIR does not appear to adequately address the factors outlined in the Ocean Plan. A complete analysis of the factors is required for Water Boards staff to complete the CWC section 13142.5(b) determination. The DEIR focuses almost entirely on the proposed facility siting at the location of ESGS with a brief mention of the Redondo Beach Generating Station (RBGS) as a possible alternative facility location. The two sites selected for evaluation, both the RBGS and the ESGS, were chosen because of the presence of already existing surface water intake and discharge structures. The focus on the ESGS site, though it may be appropriate for the requirements of the CEQA analysis, does not adequately address the Ocean Plan's requirement to evaluate a reasonable range of nearby sites, including sites that would likely support subsurface intakes (Ocean Plan chapter III.M.2.b). LARWQCB-6
4. Chapter III.M.2.d.(1)(a) of the Ocean Plan states that the regional water board, in consultation with State Water Board staff, shall require subsurface intakes unless it determines that subsurface intakes are not feasible. Also, chapter III.M.2.d.(1)(a)ii of the Ocean Plan requires that if the regional water board determines that subsurface intakes are not feasible for the proposed intake design capacity, it shall determine whether subsurface intakes are feasible for a reasonable range of alternative intake design LARWQCB-7

capacities. The subsurface intake feasibility studies in the DEIR seem to be limited to evaluating conditions at the ESGS and RBGS sites, so the DEIR does not provide enough information for Water Boards staff to determine that subsurface intakes may be technically feasible at nearby sites. The DEIR concludes that none of the eight subsurface intake technologies evaluated were identified as feasible for the design intake rate of 40 MGD at the ESGS site. It concludes that the fatal flaws for the ESGS site were also present at the RBGS site. Those fatal flaws included construction of the subsurface intakes beyond the extent of the facility, complications associated with residential beach front properties, and the protected snowy plover habitat. However, no information was provided evaluating other potential sites for the feasibility of subsurface intakes or considering a reasonable range of alternative subsurface intake design capacities. (Please see Water Board staff's specific comments about subsurface intakes under Appendix 2A.) Furthermore, chapter III.M.2.d.(1)(a)i of the Ocean Plan states that subsurface intakes shall not be determined to be economically infeasible solely because subsurface intakes may be more expensive than surface intakes. Subsurface intakes may be determined to be economically infeasible if the additional costs or lost profitability associated with subsurface intakes, as compared to surface intakes, would render the desalination facility not economically viable. As part of the evaluation of economic feasibility, the regional water board will consider project life cycle cost, which is determined by evaluating the total cost of planning, design, land acquisition, construction, operations, maintenance, mitigation, equipment replacement and disposal over the lifetime of the facility, in addition to the cost of decommissioning the facility.

LARWQCB-7

LARWQCB-8

5. The DEIR also seems to be limited to evaluating surface intakes at the ESGS and RBGS sites. It does not present marine biological or oceanographic data to characterize marine communities present or oceanographic conditions at other nearby sites. Therefore, the DEIR does not provide enough information to support a finding that the ESGS and RBGS sites are the best available sites for minimizing intake and mortality of all forms of marine life from a surface intake.

LARWQCB-9

6. Regarding the proposed technology for a surface intake, the DEIR states that the Project would use copper-nickel alloy wedgewire screens. The DEIR should be revised to include an evaluation of self-cleaning stainless steel wedgewire screens, since these would eliminate the potential for impacts to water quality resulting from copper leaching from copper-based intake screens.

LARWQCB-10

7. The Project would discharge continuous flows of brine from the reverse osmosis process and treated wash water from process washing operations to the ocean. Diffusers would be used to dilute the brine in the receiving water. The modeling discussion included in Appendix 4C of the DEIR focuses on salinity. Elevated concentrations of other pollutants of concern, some of which may bioaccumulate or cause mortality in resident aquatic life, may also be present in the discharge. Project-specific modeling and field studies must be designed and completed to demonstrate that the discharge does not result in elevated salinity or concentrations of pollutants that bioaccumulate in resident species or cause adverse acute or chronic impacts, including mortality.

LARWQCB-11

8. Water Boards staff acknowledges that mitigation under CEQA is separate and distinct from the mitigation requirements in chapter III.M.2.e of the Ocean Plan. The DEIR does not provide a detailed discussion of the mitigation that WBMWD is considering in order to fulfill the Ocean Plan's mitigation requirements. The DEIR mentions that WBMWD may choose to comply with these requirements through the fee-based mitigation program option presented in chapter III.M.2.e.(4) of the Ocean Plan. Please note that Water Boards staff is not aware of any fee-based mitigation programs that would meet all of the mitigation requirements contained in chapter III.M.2.e.(3)-(4) and therefore encourages WBMWD to develop a mitigation project consistent with chapter III.M.2.e.(3) of the Ocean Plan. The DEIR mentions the Ballona Wetland Restoration Project as a possible mitigation project for the Project but does not provide any details about proposed mitigation activities there. Water Boards staff will require submission of a Mitigation Plan, as described in chapter III.M.e.(3) of the Ocean Plan, to evaluate whether WBMWD's proposed mitigation project constitutes the best available mitigation measures feasible for the Project. Additionally, the DEIR presumes that the Los Angeles Water Board will accept out-of-kind mitigation and a mitigation ratio of one acre of mitigation habitat for every ten acres of impacted open water or soft-bottom habitat for the purposes of a CWC section 13142.5(b) determination. Water Boards staff will evaluate compliance with the Ocean Plan's mitigation requirements when WBMWD submits a request for a CWC section 13142.5(b) determination to the Los Angeles Water Board. The DEIR should be revised to more accurately discuss the current situation with regard to mitigation. LARWQCB-12 LARWQCB-13

Specific Comments

Section 2

1. Page 2-22, paragraph 4. The Ocean Plan requires the regional water board, not the project applicant, to conduct a CWC section 13142.5(b) analysis to determine the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life. As stated in chapter III.M.2.(a)(2) of the Ocean Plan, the Los Angeles Water Board shall first analyze separately as independent considerations a range of feasible alternatives for the best available site, best available design, best available technology, and best available mitigation measures to minimize intake and mortality of all forms of marine life. Then, the Los Angeles Water Board, not the project applicant, shall consider all four factors collectively to determine the best combination of feasible alternatives to minimize intake and mortality of all forms of marine life. The DEIR should be revised to reflect these Ocean Plan requirements. LARWQCB-14
2. Page 2-23, paragraph 2. The DEIR states, "If a listed species may be adversely affected by a project, [State Water Board] staff will confer with the [U.S. Fish and Wildlife Service], and/or [National Marine Fisheries Service] to inform these agencies of project impacts to any federally listed species or critical habitat." While Water Boards staff consults with other agencies when conducting the CWC section 13142.5(b) analyses, Water Boards staff is not responsible for making a determination as to whether threatened or endangered species are being adversely affected by a proposed project or for raising this concern to the attention of U.S. Fish and Wildlife Service and National Marine Fisheries Service. WBMWD is responsible for consulting with U.S. Fish and Wildlife Service and National Marine Fisheries Service to determine whether the Project may adversely affect threatened or endangered species. LARWQCB-15

3. Section 2.10.9. As described in general comment 6, the DEIR should be revised to evaluate stainless steel, self-cleaning wedgewire screens. Unlike copper-based screens, stainless steel screens would not leach copper into the environment, and self-cleaning screens would help minimize greenhouse gas emissions that would result from boat operations during manual cleaning of the screens. Water Boards staff will evaluate both stainless steel and copper-based screens as part of the CWC section 13142.5(b) determination. LARWQCB-16
4. Page 2-37, footnote 7. Chapter III.M.2.d.(1)(a) of the Ocean Plan requires that the Los Angeles Water Board, in consultation with State Water Board staff, shall require subsurface intakes unless it determines that subsurface intakes are not feasible. Water Boards staff highlights that the Los Angeles Water Board, not the project applicant, is responsible for determining whether subsurface intakes are feasible for the Project. LARWQCB-17
5. Page 2-37, paragraph 2. This paragraph discusses the 2007 MWH memo that examined the capability of different technologies to reduce impingement and entrainment. The DEIR should be revised to reflect that subsurface intakes collect water through sand sediment, which acts as a natural barrier to organisms and thus eliminates impingement and entrainment. LARWQCB-18
6. Page 2-40, paragraph 2. Water Boards staff's preliminary review of the DEIR indicates that further technical evaluation of subsurface intakes at the proposed site would be necessary for the CWC section 13142.5(b) determination. Please see detailed comments for Appendix 2A. LARWQCB-19

Section 3

1. Page 3-12. Water Boards staff highlights that internally recycling treated backwash water would lower intake and discharge flows, thereby minimizing intake and mortality of marine life. LARWQCB-20
2. Page 3-11, paragraph 3. This paragraph states that 12 wedgewire screens would be installed during the Local Project, but section 3.6.2 states that only four would be installed during the Local Project and 8 more installed during the Regional Project. The DEIR should be revised to address these inconsistencies. LARWQCB-21
3. Pages 3-13 and 3-17. The DEIR should be revised to describe the salinity (in parts per thousand [ppt]) of the brine that will be discharged under the different project scenarios. LARWQCB-22

Section 4

1. Page 4-12, Table 4-2 and page 4-16. The capacity of the Camp Pendleton Seawater Desalination Project is incorrectly listed as 100-150 MGD. Currently, San Diego County Water Authority is seeking agency approvals to build a pilot facility with an intake flow of 20 gallons per minute to test water quality and different intake technologies. The DEIR should be revised accordingly. LARWQCB-23

Section 5

1. Page 5.9-8, paragraph 1. Water Boards staff clarifies that the State Water Board adopted the Ocean Plan in 1972. In 2015, the State Water Board adopted the Desalination Amendment. The Desalination Amendment has been in effect since 2016. LARWQCB-24
2. Page 5.9-11. The DEIR should be revised to include the Ocean Plan's full definition of initial dilution:

   "*Initial Dilution: is the process which results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the* LARWQCB-25

discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally. For shallow water submerged discharges, surface discharges, and nonbuoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Regional Board, whichever results in the lower estimate for initial dilution.*"

LARWQCB-25

3. Page 5.9-11, paragraph 2. Line 9 of this paragraph states that "if the effluent density is greater than that ambient salinity..." This line should be revised to state "if the effluent density is greater than that ambient density." LARWQCB-26
4. Page 5.9-11, paragraph 2. The final sentence should be revised to be consistent with the prior comment regarding the definition of the zone of initial dilution (ZID). While there may be circumstances where the ZID extends to the point where the discharge plume contacts the seafloor, that is not always the case. LARWQCB-27
5. Page 5.9-55. The DEIR discusses how the Project will be discharging into waters that are on the 303(d) list (e.g., Santa Monica Bay). The DEIR should be revised to clarify how the monitoring and reporting program for the Project will be implemented, given that the ZID is within an impaired water body. LARWQCB-28
6. Page 5.9-56. Please see general comment 6 on self-cleaning, stainless steel wedgewire screens. LARWQCB-29
7. Page 5.9-58, last paragraph. Water Boards staff recommends that, for the evaluation of diffuser design for the Regional Project, WBMWD use the methodology for determining the best available diffuser to minimize intake and mortality of all forms of marine life that is described in section 5 of a report that Dr. Phil Roberts recently completed for the Santa Ana Regional Water Board (see report posted here: https://www.waterboards.ca.gov/santaana/water_issues/programs/Wastewater/Poseidon/2018/4-18-18_Diffuser_Analysis_Method.pdf). LARWQCB-30
8. Page 5.9-58, last paragraph. The DEIR should be revised to say that, if the Project's discharge results in salinity concentrations greater than 2 ppt above ambient salinity at the edge of the brine mixing zone, then the Project would be out of compliance with the receiving water salinity limitation in chapter III.M.3 of the Ocean Plan. LARWQCB-31
9. Page 5.11-40, paragraph 2. The DEIR describes that eight acres of seafloor will be disturbed by dredging for construction for the Project. Water Boards staff highlights that Ocean Plan chapter III.M.2.e.(3)(b)iv. requires that the Project fully mitigate for construction-related marine life mortality. LARWQCB-32
10. Page 5.11-51, table 5.11-8. Please clarify which data in the table are from Tenera and MBC (2008) and which are from Tenera (2014). It should be clear in the DEIR which data were used and why. LARWQCB-33
11. Page 5.11-52, paragraphs 4 and 5; page 5.11-54, table 5.11-9; and page 5.11-59, paragraph 1. The DEIR states that calculating an Area of Production Foregone (APF) under the assumption of an unscreened surface intake leads to an overestimate of intake-related operational mortality for screened surface intakes and describes how the APF could be reduced to account for less entrainment through screened intakes. In 2013, the Final Report by the Expert Panel III on Intake Impacts and Mitigation concluded that, while screens on surface intakes can be effective for reducing entrainment of larger larvae, when all life stages are considered, screens reduce entrainment mortality by less than one percent. Chapter III.M.2.e.(1)(a) of the Ocean Plan allows for the regional water board to LARWQCB-34

apply a one percent reduction to the APF acreage calculated for seawater desalination projects to account for the reduction in entrainment of all forms of marine life when using a 1.0 mm slot size screen on a surface intake. The DEIR should be revised to state that the Ocean Plan does not allow for additional reductions in APF acreage to credit for use of a 1.0 mm slot size screen. Changing this amount of credit would require amending the Ocean Plan. For additional explanation of the one percent credit provided by the Ocean Plan, please see pages H-423-426 in Appendix H of the Final Staff Report to the Desalination Amendment to the Ocean Plan. LARWQCB-34

12. Page 5.11-53, paragraph 2. This paragraph mentions that Mitigation Measure BIO-M2 would reduce Project-related entrainment impacts of non-special-status taxa. Please note that, regardless of this mitigation measure, the entrainment impacts to all forms of marine life must be evaluated in a Marine Life Mortality Report for purposes of a CWC section 13142.5(b) determination, as required by chapter III.M.2.e.(1)(a) of the Ocean Plan. LARWQCB-35
13. Page 5.11-59, paragraph 2 and page 5.11-60, Table 5.11-12. This paragraph suggests that smaller organisms (<1mm in size) may not be affected by shear stress from a diffuser and that the APF associated with shearing-related mortality should be reduced to account for this. This proposed reduction is not consistent with currently available information. Roberts (2018) (https://www.waterboards.ca.gov/santaana/water_issues/programs/Wastewater/Poseidon/2018/4-18-18_Diffuser_Analysis_Method.pdf), which describes a method for assessing shearing-related mortality from diffusers, states that there is not enough species-specific data to justify this conclusion or to adjust correspondingly the shearing-related mortality for a project. Furthermore, Water Boards staff notes that chapter III.M.2.e.(1)(b) of the Ocean Plan requires that the regional water board approve of the approach for evaluating mortality that occurs due to shearing stress resulting from a facility's discharge. LARWQCB-36
14. Page 5.11-63. In Mitigation Measure BIO-M2, WBMWD proposes to perform an entrainment assessment that will include evaluation of entrainment through 1.0 mm wedgewire screens and of shearing-related mortality after the Project is constructed and operating. Based on the level of detail provided in the DEIR, it is unclear to Water Boards staff how the proposed assessment would be designed to quantify any difference in marine life mortality from what WBMWD estimates in the Marine Life Mortality Report for the Project, which must be submitted as part of the CWC 13142.5(b) determination request for the Project. Mitigation Measure BIO-M2 also states that the recalculated APF will incorporate mitigation ratios. Water Boards staff notes that chapter III.M.2.e.(3)(b)vi. of the Ocean Plan gives the regional water board, not the project applicant, discretion to apply a mitigation ratio based on relative biological productivity of impacted open water or soft-bottom habitat and mitigation habitat. The Los Angeles Water Board will consider application of mitigation ratios as part of its CWC section 13142.5(b) determination for the Project. LARWQCB-37
15. Page 5.11-60, table 5.11-12. Please see comment 13 above in this section. LARWQCB-38
16. Page 5.11-63, last paragraph. The DEIR mentions the Ballona Wetland Restoration Project as a possible mitigation project for the Project but does not provide any details about proposed mitigation activities there. Chapter III.M.2.e. of the Ocean Plan describes the information that WBMWD must submit to the Los Angeles Water Board as part of its CWC section 13142.5(b) determination of the best available mitigation measures feasible for the Project. Chapter III.M.2.e.(3)(b)v gives the regional board discretion to permit out-of-kind mitigation for mitigation of open water or soft-bottom species. LARWQCB-39
17. Page 5.11-63, paragraph 5. Please see comment 14 above in this section. Additionally, chapter III.M.2.e.(3)(b)vi. of the Ocean Plan gives the regional water board, not the project applicant, discretion to apply a mitigation ratio based on the relative biological productivity LARWQCB-40

of the impacted open water or soft-bottom habitat and the mitigation habitat and states that the mitigation ratio shall not be less than one acre of mitigation habitat for every ten acres of impacted open water or soft-bottom habitat. LARWQCB-40

18. Page 5.11-63, paragraph 5. To mitigate for impacts from the Project, the DEIR mentions that WBMWD may perform habitat restoration or provide funding to a State-approved fee-based mitigation program. At this time, Water Boards staff is not aware of any fee-based mitigation programs that would meet all of the mitigation requirements in chapter III.M.3.e of the Ocean Plan (see also general comment #8). LARWQCB-41

Section 7

1. Page 7-31, last paragraph. The DEIR indicates that WBMWD is unsure if the Chevron outfall has enough capacity to support commingling with the Project's brine discharge. Since commingling brine discharge with wastewater is the Ocean Plan's preferred brine discharge technology, WBMWD should evaluate further the option of commingling with the Chevron outfall. LARWQCB-42
2. Page 7-32, last paragraph. The DEIR discusses how siting the Project at the Chevron Marine Terminal likely would increase impacts to the marine environment, compared to the proposed site at ESGS. However, the DEIR does not quantify the construction-related or operational impacts of siting the Project at this location. Assessing these impacts would be part of the evaluation of a reasonable range of nearby sites for surface intakes. LARWQCB-43
3. Page 7-35 – 7-36, section 7.2.3. As noted in our general comments, the Ocean Plan requires the Los Angeles Water Board to determine the best available site, design, technology, and mitigation measures feasible for the Project, consistent with CWC section 13142.5(b). The Los Angeles Water Board has not yet received an NPDES permit application or a request for a CWC section 13142.5(b) determination for the Project yet and therefore has not issued a determination regarding best available site, design, technology, and mitigation measures feasible for the Project. However, preliminary review of the DEIR by Water Boards staff indicates that there does not appear to be sufficient information about a reasonable range of nearby sites that would support subsurface or surface intakes. LARWQCB-44

Appendix 2A

1. The data provided in the feasibility report does not sufficiently support the conclusion that shallow (less than approximately 20 feet below the sea floor) horizontal directional drilled (HDD) wells are not a potentially viable option. This option was rejected partly because groundwater flow modeling indicated that HDD wells constructed within the Gage Sand aquifer would intercept contaminated water and Injection Barrier wells. Groundwater flow modelling of extraction from an HDD well above 20 feet was not simulated. However, potential impacts to water supply aquifers and the West Coast Basin injection barrier were rated as "unlikely." Construction and maintenance concerns (e.g., clogging), complexity of construction, and performance risk were all rated as high for this option, but these ratings do not appear to be sufficiently justified in the feasibility study. LARWQCB-45
2. As described in the "Coastal Processes and Seafloor Stability Analysis of Shallow Sub-Seabed Intake Systems for the West Basin Municipal Water District Sea Water Desalination Project" (Appendix K), it appears feasible to install HDD wells within 20- to 25-foot thick coarse-grained sediment interval described above. Results of a stability analysis included in Appendix K indicates that this sediment interval provides "...at least LARWQCB-46

four-fold margin of safety against exposure by extreme event waves". The author of this analysis refers to the Neodren ™ HDD well system in this analysis. It appears that installation of this type of well within the 20- to 25-foot permeable interval is feasible, and extraction from this interval would yield very high percentages of filtered sea water without potential interference with the inland contaminated aquifer or Basin Injection Barrier. Therefore, the DEIR should be revised to include additional analysis of the use of HDD wells and of a combined intake system of HDD wells and surface intakes for a reasonable range of alternative intake design capacities. Water Boards staff recommends including a comparison of geological conditions at the proposed site with those at sites where HDD wells have been installed and successfully operated. LARWQCB-46

Appendix 4A

1. Appendix 4A presents a wedgewire screen efficiency study. As aforementioned in comment 11 in section 5, chapter III.M.2.e.(1)(a) of the Ocean Plan allows for the regional water board to apply a one percent reduction to the APF acreage calculated for seawater desalination projects to account for the reduction in entrainment of all forms of marine life when using a 1.0 mm slot size screen on a surface intake. The DEIR should be revised to state that the Ocean Plan does not allow for additional reductions in APF acreage to credit for use of a 1.0 mm slot size screen. Changing this amount of credit would require amending the Ocean Plan. LARWQCB-47
2. It appears that the analyses presented in this appendix are based on data collected from the demonstration facility at the RBGS location. If this is correct, it may be inappropriate to use data from this report to inform analyses of potential impacts at the ESGS location. Also please see comment 11 in section 5. LARWQCB-48
3. The table of contents for Appendix 4A lists several appendices, but those appendices do not appear to be included. The DEIR should be updated to include the missing appendices. LARWQCB-49
4. Pages ES-6 and 3-91 state, "Although the [Empirical Transport Model] ETM results may indicate a large percentage loss to the source water population of larvae, the actual impacts due to entrainment may be negligible since the actual number of larvae entrained is very small relative to the reproductive capacity." ETM/APF analyses do not rely on reproductive capacity to assess entrainment. ETM/APF analyses are used to assess mortality and compensatory mitigation. Even though the entrained larvae represent a small fraction of a species' reproductive capacity, those larvae still represent a loss to the system that should be accounted for in compensatory mitigation. For this reason, the calculation of an APF is required in addition to the ETM. LARWQCB-50
5. Page 3-9. The hatch length equation may be missing a variable. Also, Appendix E of the Final Staff Report to the Desalination Amendment to the Ocean Plan uses the 1st and 99th percentiles to calculate larval length for ETM analyses. This method should be used in this and all other reports. LARWQCB-51

Appendix 4C

1. Water Boards staff recommends that this appendix follow the procedure described in section of 5 of the analysis on how to determine the best available diffuser design included in Roberts (2018) (https://www.waterboards.ca.gov/santaana/water_issues/programs/Wastewater/Poseidon/2018/4-18-18_Diffuser_Analysis_Method.pdf). Additionally, Appendix 4C should LARWQCB-52

include a linear diffuser design as part of WBMWD's evaluation of the best diffuser design for the Project. LARWQCB-52

2. An additional table, similar to Table 4, should be included that provides the same information but for a diffuser that is designed to meet the salinity requirements at the end of the nearfield instead of at the impact point. This information appears to be contained in Table A2 but would be beneficial in the body of the report. As mentioned above, this analysis should also include a linear diffuser that meets the salinity requirements at the impact point and nearfield. LARWQCB-53
3. Since 60 degrees is the optimal angle for most efficient dilution, Water Boards staff recommends that the report analyze how far offshore the diffuser would need to be built such that the ports could be oriented at 60 degrees in order to have the most efficient dilution. This analysis should also be performed for different diffuser designs (e.g., linear). LARWQCB-54

Appendix 4D

1. Please see comments 14, 16, and 17 in section 5. LARWQCB-55
2. Chapter III.M.2.e.(1)(a) of the Ocean Plan requires the submittal of a detailed entrainment study to the Los Angeles Water Board, to estimate intake-related operational mortality, and this report shall include an ETM/APF analysis. For the CWC section 13142.5(b) determination, Water Boards staff will request the raw datasets used for the analysis in Appendix 4D and recommends including the calculations of the different variables in the ETM, including but not limited to, f_i, P_e, P_s, sample source water body, total source water bodies, etc. LARWQCB-56 LARWQCB-57
3. Pages 6-7. Please see comment 11 in section 5. LARWQCB-58

Appendix 10

1. Please see general comments. LARWQCB-59
2. It appears that the feasibility assessment of subsurface intakes only evaluated ~40 MGD intake flow and a combined intake of surface intake and seawater infiltration gallery. The Ocean Plan requires the regional water board to consider a combined intake of surface and subsurface intakes, which would include evaluating other subsurface intake technologies (e.g., HDD wells, slant wells, etc.) at different design capacities. LARWQCB-60
3. Please see general comments 3-5. As noted throughout this comment letter, evaluation of one alternative site (RBGS) is not sufficient to constitute a reasonable range of alternative sites. LARWQCB-61

Appendix 11

1. Appendix 11 indicates that it is technically feasible to commingle brine from the Project with wastewater through the Hyperion outfalls, except under a predicted future scenario where only 10 MGD of wastewater flow may be available. The report does not state when this future scenario may be likely to occur. Chapter III.M.2.b.(6) of the Ocean Plan requires that WBMWD analyze the presence of existing discharge infrastructure and the availability of wastewater to dilute the Project's brine discharge. Additionally, chapter III.M.2.d.(2)(a) of the Ocean Plan states that the preferred brine discharge technology for minimizing intake and mortality of all forms of marine life is to commingle brine with wastewater that would otherwise be discharged to the ocean. The DEIR should be revised to further evaluate the option of commingling the Project's brine with wastewater through the Hyperion outfalls while there is adequate dilution to ensure salinity of the commingled discharge meets the Ocean Plan's receiving water limitation for salinity. The evaluation should consider commingling a partial volume, not just the full volume, of the Project's brine with wastewater through the Hyperion outfalls. Water Boards staff also recommends LARWQCB-62

evaluating potentially modifying Hyperion's outfall for circumstances when sufficient wastewater is unavailable to provide adequate dilution of the Project's brine.

Thank you for the opportunity to comment on the DEIR. Please note that, regardless of the conclusions set forth in the Final EIR, the Los Angeles Water Board may reach different conclusions as part of its analysis of feasible measures to minimize intake and mortality of all forms of marine life in its permitting process, in compliance with CWC section 13142.5(b). If you have any questions or would like to discuss our comments further, please contact Cris Morris, Chief of the Watershed Regulatory Section, at Cris.Morris@waterboards.ca.gov or (213) 620-2083.

LARWQCB-62
LARWQCB-62
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LARWQCB-63

Sincerely,

Deborah J. Smith
Executive Officer
Los Angeles Regional Water Quality Control Board

Karen Mogus, Deputy Director
Division of Water Quality
State Water Resources Control Board

cc: (Via Email Only)

Daniel Ellis, State Water Board, Daniel.Ellis@Waterboards.ca.gov
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May 23, 2018

Dr. Zita Yu
West Basin Municipal Water District
17140 South Avalon Blvd.
Carson, CA 90746

Re: SCH# 2015081087, Ocean Water Desalination Project, Cities of Los Angeles, El Segundo, and Manhattan Beach; Los Angeles County, California

Dear Dr. Yu:

The Native American Heritage Commission (NAHC) has reviewed the Draft Environmental Impact Report prepared for the project referenced above. The review included the Executive Summary; the Introduction and Project Description; the Environmental Impact Analysis, section 5.4 Cultural Resources; and Appendix 7-C prepared by the BCR Consulting for the West Basin Municipal Water District. We have the following concerns: NAHC-1

1. There are no mitigation measures specifically addressing Tribal Cultural Resources separately and distinctly from Archaeological Resources. Mitigation measures must take Tribal Cultural Resources into consideration as required under AB-52, **with or without consultation** occurring. Mitigation language for archaeological resources is not always appropriate for or similar to measures specifically for handling Tribal Cultural Resources. Sample mitigation measures for Tribal Cultural Resources can be found in the CEQA guidelines at http://opr.ca.gov/docs/Revised_AB_52_Technical_Advisory_March_2017.pdf NAHC-2

- The Most Likely Descendant timeline in Appendix 7-C is incorrect and mitigation measures in section 5.4, Cultural Resources are not specific on the MLD process. Public Resources Code 5097.98 specifies that an MLD has **48 hours after being allowed access to the site** to make recommendations for disposition of the remains and associated grave goods. NAHC-3

The NAHC recommends lead agencies consult with all California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. NAHC-4

A brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments is also attached.

Please contact me at gayle.totton@nahc.ca.gov or call (916) 373-3714 if you have any questions.

Sincerely,

Gayle Totton

Gayle Totton, B.S., M.A., Ph.D
Associate Governmental Project Analyst

Attachment

cc: State Clearinghouse

ADDITIONAL INFORMATION:

The California Environmental Quality Act (CEQA)[1], specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment.[2] If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared.[3] In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended in 2014 by Assembly Bill 52. (AB 52).[4] **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** AB 52 created a separate category for "tribal cultural resources"[5], that now includes "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment.[6] Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.[7] Your project may also be subject to **Senate Bill 18 (SB 18)** (Burton, Chapter 905, Statutes of 2004), Government Code 65352.3, if it also involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space. **Both SB 18 and AB 52 have tribal consultation requirements**. Additionally, if your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966[8] may also apply.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

Agencies should be aware that AB 52 does not preclude agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52. For that reason, we urge you to continue to request Native American Tribal Consultation Lists and Sacred Lands File searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/. Additional information regarding AB 52 can be found online at http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf, entitled "Tribal Consultation Under AB 52: Requirements and Best Practices".

Pertinent Statutory Information:

Under AB 52:

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a **lead agency** shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice.

A **lead agency** shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.[9] and **prior to the release of a negative declaration, mitigated negative declaration or environmental impact report**. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18).[10]

The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.
b. Recommended mitigation measures.
c. Significant effects.[11]

1. The following topics are discretionary topics of consultation:

a. Type of environmental review necessary.
b. Significance of the tribal cultural resources.
c. Significance of the project's impacts on tribal cultural resources.

If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. [12]

With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process **shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10.** Any information submitted by a California Native

[1] Pub. Resources Code § 21000 et seq.
[2] Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b); CEQA Guidelines Section 15064.5 (b)
[3] Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1); CEQA Guidelines § 15064 (a)(1)
[4] Government Code 65352.3
[5] Pub. Resources Code § 21074
[6] Pub. Resources Code § 21084.2
[7] Pub. Resources Code § 21084.3 (a)
[8] 154 U.S.C. 300101, 36 C.F.R. § 800 et seq.
[9] Pub. Resources Code § 21080.3.1, subds. (d) and (e)
[10] Pub. Resources Code § 21080.3.1 (b)
[11] Pub. Resources Code § 21080.3.2 (a)
[12] Pub. Resources Code § 21080.3.2 (a)

American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.[13]

If a project may have a significant impact on a tribal cultural resource, **the lead agency's environmental document shall discuss** both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource.[14]

Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.[15]

Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 **shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program**, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable.[16]

If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, **the lead agency shall consider feasible mitigation** pursuant to Public Resources Code section 21084.3 (b).[17]

An environmental impact report **may not be certified**, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days.[18]

This process should be documented in the Tribal Cultural Resources section of your environmental document.

Under SB 18:

Government Code § 65352.3 (a) (1) requires consultation with Native Americans on general plan proposals for the purposes of "preserving or mitigating impacts to places, features, and objects described § 5097.9 and § 5091.993 of the Public Resources Code that are located within the city or county's jurisdiction. Government Code § 65560 (a), (b), and (c) provides for consultation with Native American tribes on the open-space element of a county or city general plan for the purposes of protecting places, features, and objects described in Sections 5097.9 and 5097.993 of the Public Resources Code.

- SB 18 applies to **local governments** and requires them to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf
- Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe**.[19]
- There is no Statutory Time Limit on Tribal Consultation under the law.
- Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research,[20] the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction.[21]
- Conclusion Tribal Consultation: Consultation should be concluded at the point in which:
    - The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or

[13] Pub. Resources Code § 21082.3 (c)(1)
[14] Pub. Resources Code § 21082.3 (b)
[15] Pub. Resources Code § 21080.3.2 (b)
[16] Pub. Resources Code § 21082.3 (a)
[17] Pub. Resources Code § 21082.3 (e)
[18] Pub. Resources Code § 21082.3 (d)
[19] (Gov. Code § 65352.3 (a)(2)).
[20] pursuant to Gov. Code section 65040.2,
[21] (Gov. Code § 65352.3 (b)).

- Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation.[22]

NAHC Recommendations for Cultural Resources Assessments:

- Contact the NAHC for:
  - A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
  - A Native American Tribal Contact List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
    - The request form can be found at http://nahc.ca.gov/resources/forms/.
- Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
  - If part or the entire APE has been previously surveyed for cultural resources.
  - If any known cultural resources have been already been recorded on or adjacent to the APE.
  - If the probability is low, moderate, or high that cultural resources are located in the APE.
  - If a survey is required to determine whether previously unrecorded cultural resources are present.
- If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
  - The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
  - The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

Examples of Mitigation Measures That May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

- Avoidance and preservation of the resources in place, including, but not limited to:
  - Planning and construction to avoid the resources and protect the cultural and natural context.
  - Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
- Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
  - Protecting the cultural character and integrity of the resource.
  - Protecting the traditional use of the resource.
  - Protecting the confidentiality of the resource.
- Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
- Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed.[23]
- Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated.[24]

The lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

- Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources.[25] In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
- Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5, subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be

[22] (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).
[23] (Civ. Code § 815.3 (c)).
[24] (Pub. Resources Code § 5097.991).
[25] per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)).

followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

CALIFORNIA STATE LANDS COMMISSION
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Established in 1938

JENNIFER LUCCHESI, *Executive Officer*
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June 25, 2018

File Ref: SCH #2015081087

Zita Yu, Ph.D., P.E., Project Manager
West Basin Municipal Water District
17140 South Avalon Boulevard
Carson, CA 90746

VIA REGULAR & ELECTRONIC MAIL (desalEIR@westbasin.org)

Subject: Draft Environmental Impact Report (EIR) for the Ocean Water Desalination Project, Los Angeles County

Dear Dr. Yu:

The California State Lands Commission (Commission) staff has reviewed the subject Draft EIR for the Ocean Water Desalination Project (Project), which is being prepared by the West Basin Municipal Water District (District). The District, as the public agency proposing to carry out the Project, is the lead agency under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) The Commission is a trustee agency for projects that could directly or indirectly affect sovereign land and their accompanying Public Trust resources or uses. Additionally, because the Project involves work on sovereign land, the Commission will act as a responsible agency.

Commission Jurisdiction and Public Trust Lands

SLC-1

The Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The Commission also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions (Pub. Resources Code, §§ 6009, subd. (c); 6009.1; 6301; 6306). All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust Doctrine.

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. The state holds these lands for the benefit of all people of the state for statewide Public Trust purposes, which include but are not limited

to waterborne commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. On tidal waterways, the State's sovereign fee ownership extends landward to the mean high tide line, except for areas of fill or artificial accretion or where the boundary has been fixed by agreement or a court. On navigable non-tidal waterways, including lakes, the state holds fee ownership of the bed of the waterway landward to the ordinary low-water mark and a Public Trust easement landward to the ordinary high-water mark, except where the boundary has been fixed by agreement or a court. Such boundaries may not be readily apparent from present day site inspections. SLC-1

As noted in the Draft EIR, the Project proposes to use existing intake and outfall pipelines and make associated offshore structural modifications on State-owned sovereign land. A lease from the Commission will be required for the portions of the Project encroaching on State sovereign land.

Project Description

The District proposes to construct a new ocean water desalination facility to produce 20 million gallons per day (MGD) of potable drinking water (the Local Project) with a potential future expansion to produce up to 60 MGD (the Regional Project) to diversify the District's water source portfolio and increase water reliability and security. The following components have potential to affect State sovereign land.

- Ocean Water Intake System. Repurposing and upgrading existing intake tunnel by inserting five 24-inch pipelines and installing wedge wire screens at the current terminus to deliver raw seawater to the onshore facility.
- Ocean Water Brine Discharge System. Repurposing the existing discharge tunnel by inserting five 24-inch pipelines and installing a brine diffuser on top of the tower to discharge concentrated seawater back into the ocean. SLC-2

The Draft EIR identifies the Environmentally Superior Alternative as the proposed Project, with the onshore desalination facility located at the El Segundo Generating Station's (ESGS) North site.

Environmental Review

Commission staff requests that the District consider the following comments on the Project's Draft EIR to ensure that impacts to State sovereign land are adequately analyzed for the Commission's use of the Final EIR to support the Commission's future consideration of a lease for the Project elements encroaching on State sovereign land. Unless specified, all comments apply to the proposed Local and Regional Projects.

General Comments

1. Project Description – Units 3 and 4 Pipelines: Through communications with staff from NRG Energy,[1] Commission staff understands that NRG Energy is proposing to insert a 20-foot-long concrete plug in the portion of the pipelines for Units 3 and 4, landward of the Commission's jurisdiction. The District should clarify how it will SLC-3

[1] Timothy Sisk, NRG Energy, pers. comm., June 20, 2018.

access the offshore components of the existing intake and outfall pipelines along with any associated impacts or provide alternative configurations and impact analyses. Commission staff notes that the District must resolve ownership of the pipelines with NRG Energy prior to submitting a Commission lease application. SLC-3

2. Project Description – Intake and Outfall Maintenance: The Project Description lacks information regarding the monitoring and maintenance trips that will be required to inspect the intake and outfall modifications during Project operation. In addition, the activities associated with offshore maintenance are only briefly mentioned; it is not until page 5.8-21 (Chapter 5.8, Hazards and Hazardous Materials) where diving trips to inspect the screens and diffuser are first discussed. The Project Description should include the information found on pages 5.8-21 and 5.15-39 (Chapter 5.15, Transportation and Traffic) regarding the number of trips per year, the number of divers, and type of vessel used. This will ensure an accurate and consistent Project Description required by State CEQA Guidelines, section 15124, subdivision (c). SLC-4

Commission staff reviewed Appendix 3 (Air Quality, A., Assumptions and Calculations) and notes that page 12 does not include offshore vessel trips. While the diver crew vessels are evaluated for hazard impacts related to marine fuel, oil spills, and marine vessel and diver safety, the additional vessels must also be analyzed in the Final EIR for aesthetics, air quality, and greenhouse gas (GHG) emission impacts. SLC-4a

3. Project Description – Construction Time: The Draft EIR appears to have conflicting information regarding the offshore construction work timetable. For example, page 3-22 notes that construction activities will take 36 months, page 5-11 indicates offshore construction would take place over 24 months with barges in the Project area for "months at a time," and page 5.9-43 states in-water construction activities would extend over a 12-month period. In addition, while the Project Description assumes that all construction would occur during daylight hours, page 5.12-17 notes that marine construction activity could require up to 72 hours of continuous construction work in desirable sea conditions. The Final EIR needs to clarify and describe the construction timetable that would result in the most overlapping impacts and discuss how construction work lasting up to 72 continuous hours would affect impacts to aesthetics, marine biological resources, recreation (e.g., recreational boaters), and marine transportation. SLC-5

4. Project Description – Riprap: The construction activities include temporary placement of 2,000 tons of riprap on the ocean floor, but the Draft EIR does not show the approximate footprint. Please update Figures 3-24 and 3-25 to include the estimated area that will be covered by the relocated material and correct the duplicate discharge pipeline in Figure 3-25. In addition, it is unclear where the riprap will ultimately be placed. Draft EIR page 3-11 and 3-23 both note that the riprap will be placed on the seafloor "unless infeasible," but page 3-23 also states that riprap will be stowed on barges, with possible towing to a nearby port if required (the more conservative scenario). The Final EIR should clearly note the worst-case scenario SLC-6 SLC-7

and clarify if the additional towing trips are included in air quality,[2] GHG emissions, anchoring disturbance impact analyses, recreation (e.g., recreational boaters), and marine transportation. SLC-7

Finally, page 5.11-42 discloses that additional armor rock may be required for the intake and outfall structures. Please include this information in the Project Description and explain under what circumstances it would be necessary, whether the additional rock would increase the permanent riprap footprint and by how much, and whether it would require additional barges and tugboats. SLC-8 If additional marine vessels would be needed, please clarify if they were included in the air quality emissions calculations in Appendix 3. SLC-9

5. Project Description – Tunnel Construction: The Project would require dredging around the existing intake and outfall structures and placement of a new tunnel for the wedgewire screens. Draft EIR page 3-11 states "Once installed, the exposed tunnel would be covered either with the cast-aside dredge material." Please include the other method for covering the tunnel. SLC-10

6. Project Description – Diffuser Design: As noted above, the Local Project will provide 20 MGD of potable drinking water. The Project Description notes on both pages 3-11 and 3-17 that this will require installation of four diffuser nozzles to accommodate the brine discharge. However, page 3-32 then notes that the diffusers would be installed "with flexibility in their number and placement for Local and Regional demand." The Final EIR's Project Description should clearly articulate the anticipated Project, identify any flexibility being considered, and then confirm the design evaluated for environmental impacts. SLC-11

7. Cumulative Projects: Commission staff requests that the Final EIR revise page 4-15 (including the footnote) to include the Commission's certification of a Supplemental EIR for the Poseidon Huntington Beach Desalination Project in October 2017. SLC-12

Cultural and Tribal Cultural Resources

8. Unanticipated Discovery: Commission staff recommends that the Final EIR evaluate all offshore ground disturbing activities that extend more than 3 feet below the ground surface, especially dredging for the intake and outfall modifications and pile driving, as having the potential to cause adverse direct and indirect impacts to presently unidentified cultural resources, including Tribal cultural resources. SLC-13

The Draft EIR also includes development of an anchoring plan in mitigation measure HAZ-3, which will presumably involve geophysical surveys to identify areas of hard and soft substrate. Therefore, Commission staff recommends that mitigation measures CUL-1 and CUL-3 include language requiring that a qualified maritime archaeologist participate in the development and implementation of the geophysical SLC-14

[2] Table 5.2-11 notes that the worst-case scenario for construction impacts is factored into the emissions calculations. It is unclear as to whether this includes towing the riprap away from the Project area.

surveys for offshore activities, identify any cultural resource found, and prepare a summary report to be submitted to West Basin and Commission staff. SLC-14

Please also note that any submerged archaeological site or submerged historic resource that has remained in state waters for more than 50 years is presumed to be significant. Because of this possibility, please add the following language to mitigation measure CUL-4: "In the event cultural resources are discovered during any offshore construction activities, Project personnel shall halt all activities in the immediate area and notify both the California State Lands Commission and a qualified archaeologist to determine the appropriate course of action." Commission staff also recommends that Impact CUL-5.4-5 include both a discussion regarding potential impacts to unanticipated Tribal cultural resources and mitigation measure CUL-4. SLC-15

Finally, the Draft EIR discusses potential paleontological impacts on page 5.4-39 and notes that offshore excavations will not go deeper than 10 feet. However, page 3-24 indicates that excavations for the wedgewire screens and associated pipeline will be at a depth of 20 feet. The Final EIR should clarify the maximum depth for offshore excavations and analyze potential cultural resource impacts accordingly. SLC-16

Regarding offshore geophysical surveys, the EIR should also note that the use of geophysical survey equipment in State waters may require a permit from the Commission under its Offshore Geophysical Survey Permit Program (OGPP) and be conducted by a permitted operator. General information on the OGPP is available at www.slc.ca.gov/Programs/OGPP.html. For more information on the OGPP, please contact Kelly Keen, Environmental Scientist (see contact information below). SLC-17

9. Title to Resources: The Final EIR should mention that the title to all abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the state and under the jurisdiction of the Commission (Pub. Resources Code, § 6313). Commission staff requests that the District consult with Staff Attorney Jamie Garrett (see contact information below) should any cultural resources on state lands be discovered during construction of the proposed Project. In addition, Commission staff requests that the following statement be included in the EIR's Mitigation and Monitoring Plan: "The final disposition of archaeological, historical, and paleontological resources recovered on state lands under the jurisdiction of the California State Lands Commission must be approved by the Commission." SLC-18

Climate Change

10. Greenhouse Gas (GHG): The Draft EIR identifies the indirect GHG emissions associated with operating the Local and Regional Projects and proposes mitigation measures GHG-1 and GHG-2 to reduce the impacts to a less-than-significant level. While GHG-1 notes that West Basin would prepare an Energy Minimization and GHG reduction plan (GHG Plan) "prior to the start of construction," Commission staff recommends that the Final EIR specify the GHG Plan would be made available no later than 60 days before the start of construction, to allow sufficient time for agency review. In addition, while mitigation measure GHG-2 commits West Basin to... SLC-19

implementing the "GHG mitigation strategy for Year 1," this strategy should be identified as part of the GHG Plan in GHG-1. SLC-19

The Final EIR should also clarify whether use of the existing intake and discharge tunnels without the five new pipelines, as described on page 3-11 (footnote 4), would require different pumps and whether those pumps would consume more energy than currently analyzed in the Draft EIR. SLC-20

Hydrology and Water Quality

11. Dredging: The Draft EIR identifies several technologies that could minimize offshore water turbidity and suspended sediment from construction activities. Page 5.9-45 mentions silt curtains and gunderbooms as examples of already-included best management practices (BMPs), but the Project Description does not note any BMPs for dredging. The Final EIR should discuss these BMPs as part of the Project Description (e.g., as "Applicant-proposed measures") if they are incorporated into the Project or add them to relevant mitigation measures if they are not. SLC-21

12. Coastal Hazards: Mitigation measure HYDRO-1 describes the preparation of a Coastal Hazard Resiliency Study for the ESGS site, including sections (a)(i) and (a)(v) that address scour and the potential for infrastructure to become exposed during the Project's lifetime. Commission staff strongly recommends that the intake and discharge tunnels be specifically included in the Study to be analyzed for sand scour effects and associated exposure from increased storm activity and severity. SLC-22

Marine Biological Resources

13. Anchoring: Intake and outfall modification construction and maintenance will require vessel anchoring offshore. The Draft EIR shows the type of anchoring used in Figure 3-23 but does not state whether all vessels will be anchoring in the 8-acre construction area (Figure 3-15). The Final EIR needs to specify whether any vessels would be anchoring outside the Project construction area and provide additional information regarding the temporary seafloor disturbance impacts, if applicable. In addition, please include anchoring as a temporary seafloor disturbance on page 5.11-39. SLC-23

Mitigation measure HAZ-3 requires preparation of an Anchoring Plan. While the Draft EIR includes identification and mapping of areas of kelp, seagrass, and hard substrate, Commission staff recommends the mitigation measure also confirm that those areas shall not be impacted by placement of vessel and buoy anchors, by dragging anchor or buoy lines or cables, by riprap placement, or by dredging spoils. SLC-24

14. Pile Driving: The Draft EIR lacks a description regarding the number of strikes per pile for pile driving, the number of piles per day, and the number of hours per day. Commission staff notes that some of this information may be present in Table 5.11-7, Note 3, and encourage the District to discuss this activity in the Project Description as well as in Chapter 5.11 (Marine Biological Resources). SLC-25

Page 3-25 of the Draft EIR explains that impact pile driving may be necessary. Absent a geotechnical survey to determine the nature of the seafloor, the District appears unable to select a pile driving method (impact versus vibratory). Therefore, the Final EIR must fully analyze impact pile driving as the worst-case scenario. This includes providing the cumulative sound exposure level (SEL) for impact pile driving, which is absent from the Draft EIR and specifically from Table 5.11-7. Cumulative SEL must be analyzed because acoustic thresholds for impulsive sounds are presented as dual metric acoustic thresholds using cumulative SEL and peak SPL, and the National Marine Fisheries Service (NMFS) considers the onset of Level A harassment to have occurred when either of the two metrics is exceeded. The associated distance to the permanent threshold shift must be included in the Final EIR, and the District must determine whether that component of Impact BIO-M 5.11-3 can be feasibly mitigated.[3] SLC-26

In addition, Commission staff was unable to find the calculation worksheets from the California Department of Transportation (Caltrans), National Oceanic and Atmospheric Administration (NOAA), and NMFS that West Basin used to determine Level A and Level B harassment. Please clearly reference the appropriate appendix in the Final EIR, or if not included, please attach as a separate appendix. Without this information, it is unclear how the Draft EIR can determine the harassment levels and threshold distances for marine mammals (page 5.11-47). SLC-27

Mitigation measure BIO-M1 requires a completed underwater acoustic analysis once the type of pile and pile driving method are finalized. This information would then be evaluated to determine whether a sound attenuation reduction and monitoring plan is required. However, the Draft EIR already contains an analysis for impact and vibratory pile driving (absent the cumulative SEL for impact pile driving). Therefore, to avoid deferring analysis and mitigation, the Final EIR should instead calculate the worst-case scenario, include all feasible mitigation in BIO-M1, and determine any residual impact after mitigation. SLC-28

The NMFS-approved plan found in BIO-M1 provides buffer distances of 500 meters in case sound levels are unknown or cannot be accurately quantified. This distance, however, is apparently not found anywhere else in the Draft EIR and is thus not adequately supported. The Caltrans 2015, NOAA 2016, and NMFS 2016 worksheets provide an accurate underwater acoustics analysis, and therefore the buffer should be derived from those calculations. In addition, the plan provides a pile driving work window restriction for grey whale migration. However, pages 5.11-22 and 5.11-24 indicate that humpback whales have been seen in the Santa Monica Bay and are included as a whale species with the highest likelihood in the Project area. Table 5.11-3 also determines humpback whale presence to be low-to-moderate. Therefore, the Final EIR should clarify why humpback whale migration does not require the same mitigation as grey whale migration. SLC-29

[3] Commission staff notes that the Final Supplemental Environmental Impact Report for the Seawater Desalination Project at Huntington Beach (October 2017) concluded the cumulative SEL for impact pile-driving resulted in a distance threshold of 1,520 meters (approximately 5,000 feet) for high-frequency cetaceans. The document concluded that residual impacts, after feasible mitigation, remained significant and unavoidable.

15. Entrainment and Shear Mortality: Table 5.11-9 of the Draft EIR presents several Acres of Production Foregone (APF) for intake mortality, and Table 5.11-12 provides APFs for discharge mortality. Both Tables include a scenario that assumes 100 percent mortality as well as various reductions due to screens and organism size. However, the analysis does not conclude which APF represents the potential impact to require mitigation and should therefore evaluate and mitigate the worst-case scenario. In addition, mitigation measure BIO-M2 does not provide a specific APF to determine whether the Draft EIR contains adequate compensatory mitigation. Instead, the measure defers APF calculation and associated mitigation until after operations begin and a 12-month entrainment study is completed. Commission staff strongly recommends that the Final EIR mitigate the APF for 100 percent mortality, understanding that the acreage would most likely be reduced and mitigation options finalized through the Los Angeles Regional Water Quality Control Board's Water Code Section 13142.5(b) determination process. SLC-30

Thank you for the opportunity to comment on the Draft EIR for the Project. As a responsible and trustee agency, the Commission will need to rely on the Final EIR for the issuance of any new lease as specified above and, therefore, we request that you consider our comments prior to certification of the EIR.

Please send copies of future Project-related documents, including electronic copies of the Final EIR, Mitigation Monitoring and Reporting Program, Notice of Determination, CEQA Findings and, if applicable, Statement of Overriding Considerations when they become available. Please refer questions concerning environmental review to Alexandra Borack, Environmental Scientist, at (916) 574-2399 or via email at Alexandra.Borack@slc.ca.gov. For questions concerning archaeological or historic resources under Commission jurisdiction, please contact Staff Attorney Jamie Garrett, at (916) 574-0398 or via email at Jamie.Garrett@slc.ca.gov. For questions concerning Commission leasing jurisdiction, please contact Cheryl Hudson, Public Land Management Specialist, at (916) 574-0732 or via email at Cheryl.Hudson@slc.ca.gov. For general information on the Commission's OGPP, please contact Kelly Keen, Environmental Scientist, at (916) 574-1938 or via email at Kelly.Keen@slc.ca.gov. SLC-31

Sincerely,

Cy R. Oggins, Chief
Division of Environmental Planning
and Management

cc: Office of Planning and Research
A. Borack, Commission
C. Hudson, Commission
B. Johnson, Commission
K. Keen, Commission
P. Griggs, Commission

Response to Letter CALT: California Department of Transportation

Response CALT-1

West Basin notes the California Department of Transportation's (Caltrans') concurrence with the encroachment permit application of proposed Project facilities that are installed within State highways.

Response to Letter CCC: California Coastal Commission

Response CCC-1

West Basin notes the proposed Project summary provided by the California Coastal Commission (CCC).

Responses to the CCC's comments are provided in response to comment CCC-1 through CCC-53.

The comment states that the Draft EIR should be recirculated. Per CEQA Guidelines Section 15088.5, "New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project's proponents have declined to implement." Furthermore, "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." In response to comments, some changes have been made to the EIR. However, neither the methodologies employed nor the conclusions reached have changed in any way that implicates a significant environmental impact not identified in the Draft EIR, a substantially more severe significant environmental effect than indicated, or a new feasible alternative or mitigation measure. The Draft EIR is comprehensive and robust, compiled by scientists and experts in their respective environmental fields. West Basin as the lead agency under CEQA believes it complies with the requirements of CEQA and is supported with substantial evidence. For these reasons, recirculation of the Draft EIR is not required.

Response CCC-2

The Draft EIR explains in several places that, per Government Code section 53091, the proposed Project would not be subject to local planning and building regulations. While this statement is technically accurate, the commenter also correctly points out the subject Government Code section does not pertain to the Local Coastal Plan (LCP), and cites several sections of the Draft EIR where this nuance could be made clearer. Each of the subject sections referenced by the commenter is addressed below. However, as a general matter, with the exception of those appended to the Coastal Zone Specific Plan (i.e., the Municipal Code M-1 and M-2 zoning regulations [1977]), and those adopted for the purpose of Specific Plan implementation (i.e., Municipal Code Title 15, Chapter 12 [1993]), the majority of El Segundo building and planning regulations would not apply to the proposed Project.

Notwithstanding the above, the Draft EIR does describe and consider the potential for the proposed Project to conflict with plans, policies, and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including those of the El Segundo General Plan, zoning regulations, and LCP. This is because a potential conflict with such regulatory requirements, regardless of exemption status, may be an indication that the issue should be explored further to determine whether the potential conflict would result in a substantial, adverse change in the physical environment (CEQA Guidelines Section 15382). As explained in CEQA Guidelines Section 15358(b), "effects analyzed under CEQA must be related to a physical change in the environment."

The Draft EIR thus evaluates the potential for a conflict with local plans, policies, or regulations, even if the Section 53091 exemption would apply. In no case does the Draft EIR rely upon the prospect of a Section 53091 exemption as the basis for justifying, deferring, or otherwise avoiding a determination of significant impact due to a potential conflict with a local regulatory requirement. The Draft EIR sections identified by the commenter as requiring clarification and associated responses are addressed in the subsections that follow. None of the text revisions provided in response to this comment change the Draft EIR analyses or impact conclusions.

As required under CEQA Guidelines Section 15124(d), the Draft EIR's Section 3, *Project Description*, Table 3-11 (pages 3-38 through 3-42) provides a summary of the various environmental review and consultation requirements that could apply to the proposed Project. Consistent with the commenter's statement, table entry for El Segundo (page 3-41) explains the proposed Project would require a "Local Coastal Plan (LCP) amendment in accordance with City of El Segundo Local Coastal Plan. A LCP amendment would require approval from the CCC." The LCP amendment is necessary to allow for a water treatment plant to be constructed within a parcel with the LCP designation of Power Plant (see Section 5.10, *Land Use and Planning*, pages 5.10-22–23; see also response to comment CCC-31). The proposed Project is consistent with all other applicable provisions of the LCP (see *id.*, Table 5.10-3). Once the designation is amended, the land intensity would be consistent with existing General Plan and LCP designations and site conditions. The EIR is intended to support El Segundo's LCP amendment as it considers the impacts of the proposed use (water treatment plant).

Table endnote 1 (page 3-42), which corresponds to the El Segundo entry, also explains that, per Section 53091, the proposed Project would not be subject to local building and zoning ordinances. In response to this comment, the Draft EIR text on page 3-42, Table 3-11 (endnote), is revised as follows:

> [1] Note that California Government Code Section 53091(d) states that "[b]uilding ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency." Furthermore, Section 53091(e) states that "[z]oning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water . . ." However, West Basin intends to make every effort to comply with all applicable building and zoning ordinances stipulated under the City of El Segundo Municipal Code in the construction and operation of the Ocean Water Desalination Project. <u>The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.</u>

In describing the organization of the Draft EIR's environmental analysis for each impact topic, the discussion in Section 5, *Environmental Analysis*, notes that a discussion of the corresponding regulatory framework is provided. A footnote (No. 3) is included which explains that, per Section 53091, the proposed Project would not be subject to local building and zoning ordinances (page 5-3). In response to this comment, the text in the footnote on page 5-3 is revised as follows:

> [3] Note that California Government Code Section 53091(d) states that "[b]uilding ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency." Furthermore, Section 53091(e) states that "[z]oning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water . . ." However, West Basin intends to make every effort to comply with all applicable building and zoning ordinances stipulated under the City of El Segundo Municipal Code in the construction and operation of the Ocean Water Desalination Project. The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.

Subsection 5.3.1, *Regulatory Framework*, of Section 5.3, *Biological Resources – Terrestrial*, presents the various plans, policies, and regulations with proposed Project relevance. In the introduction to the discussion of local requirements, the Draft EIR explains that, per Section 53091, the proposed Project would not be subject to local building and zoning ordinances (page 5.3-7). Nevertheless, the *Regulatory Framework* subsection goes on to identify local regulations related to biological resources protection in El Segundo. Further, Subsection 5.3.4, *Impacts and Mitigation Measures* (namely Impacts BIO 5.3-2 [page 5.3-38], BIO 5.3-5 [page 5.3-47], and BIO 5.3-6 [page 5.3-50]), analyzes potential proposed Project effects on resources identified in or subject to local plans, policies, and regulations. In response to this comment, the introduction is revised as presented below. Section 5.3 does not rely upon Government Code Section 53091 to justify, defer, or avoid discussion of potential effects related to conflicts with local regulatory requirements. For these reasons, the impact analysis is sound and the conclusions remain unchanged. In response to the comment, the Draft EIR text on page 5.3-7 is revised as follows:

> Local
> As set forth by the California Government Code (CGC) Section 53091(d) and (e), West Basin would not be subject to compliance with local building and zoning ordinances, as the Project involves locating and constructing water-related facilities. The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.

Section 5.9, *Hydrology and Water Quality*, Subsection 5.9.1, presents the various plans, policies, and regulations with proposed Project relevance. In the discussion of regional and local requirements, the Draft EIR describes the procedures for obtaining local building and grading permits, including demonstration the applicant has complied with applicable requirements governing state construction activity stormwater permits (GCASPs). A footnote (No. 9) is included which explains that, per Section 53091, the proposed Project would not be subject to local building and zoning ordinances (page 5.9-24). In response to the comment, the Draft EIR text on page 5.9-24 is revised as follows:

> [9] Note that California Government Code Section 53091(d) and (e) provide that building and zoning ordinances of a county or city "shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water . . ." However, the construction and operation of the Ocean Water Desalination Project would strive to comply with all appropriate building and zoning ordinances, as well as policies set forth in the City of El Segundo General Plan. The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.

However, Subsection 5.9.4 (namely Impacts HYDRO 5.9-1 [page 5.9-40], HYDRO 5.9-2 [page 5.9-49], and HYDRO 5.9-4 [page 5.9-65]) explains the proposed Project would be required to comply with mandatory state and regional requirements governing stormwater (i.e., those referenced in the Municipal Code as the GCASPs), and that adherence to those requirements would protect against violations of applicable water quality standards and other adverse effects on the hydrology and water quality of the proposed Project area. Section 5.9 does not rely upon Government Code section 53091 to justify, defer, or avoid discussion of potential effects related to conflicts with local regulatory requirements. For these reasons, the impact analysis is sound and the conclusions remain unchanged.

Section 5.10, *Land Use and Planning*, Subsection 5.10.4, addresses the potential for the proposed Project to conflict with plans, policies, and regulations, including the El Segundo General Plan (Impact LU 5.10-4; page 5.10-28) and the El Segundo Municipal Code (Impact LU 5.10-5; page 5.10-33).

The introduction to Impact LU 5.10-4 explains that the analysis focuses on the proposed Project's consistency with El Segundo General Plan land use policies. A footnote is included (No. 11), which explains that per Section 53091, the proposed Project would not be subject to local building and zoning ordinances (page 5.10-29). In response to this comment, the subject footnote is revised as presented below. However, the impact discussion proceeds to identify several General Plan policies with relevance to the proposed Project, along with an assessment of consistency (see Table 5.10-6, pages 5.10-30 and 5.10-31). Impact LU 5.10-4 does not rely upon Government Code section 53091 to justify, defer, or otherwise avoid discussion of potential effects related to conflicts with General Plan requirements. For these reasons, the impact analysis is sound and the conclusions remain unchanged. In response to the comment, the Draft EIR text on page 5.10-29 is revised as follows:

> [11] Since the proposed Project would involve the construction of a water infrastructure project by West Basin Municipal Water District (West Basin), it is exempt from local land use, grading, and building permit requirements (California Government Code Section 53091). However, West Basin intends to comply with applicable General Plan and city building codes and as such they are evaluated in this section. The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.

The Draft EIR's Impact LU 5.10-5 addresses the proposed Project's potential to conflict with relevant provisions of the El Segundo Municipal Code. The Municipal Code building and zoning regulations applicable to the portion of the proposed Project within the coastal zone are those appended to the LCP (i.e., the Municipal Code's M-1 and M-2 zoning regulations [1977]) or otherwise adopted for the purpose of LCP implementation (i.e., Municipal Code Title 15, Chapter 12 [1993]). That is, the proposed Project would not be subject to provisions of the Municipal Code that have not been certified by the CCC as part of the LCP. The impact discussion addresses the proposed Project's potential to conflict with provisions of the Municipal Code related to the M-2 zoning district. That discussion includes a footnote (No. 12), which explains that, per Section 53091, the proposed Project would not be subject to local building and zoning ordinances (page 5.10-34). In response to this comment, the impact discussion is revised as presented below. However, the impact discussion proceeds to identify the applicable M-2 zoning standards and the proposed Project's compliance therewith. Impact LU 5.10-4 does not rely upon Government Code section 53091 to justify, defer, or avoid discussion of potential effects related to conflicts with Municipal Code requirements. For these reasons, the impact analysis is sound and the conclusions remain unchanged.

In response to the comment, the Draft EIR text on page 5.10-34 is revised as follows:

> The City of El Segundo Zoning Map identifies the Project site as within the Heavy Manufacturing (M-2) zoning district[12]. In addition, ~~A~~as previously noted, the LCP Issue Identification section specifies that height, setback, and bulk requirements are those allowed by the City's M-2 Zone, except that in the SA designated lands, energy development will be limited to stringent development criteria set forth therein designed to not restrict public access.
>
> ESMC Chapter 15-6B, *Heavy Industrial (M-2) Zone*, provides standards for development within lands zoned M-2. All uses within the M-2 Zone are required to comply with the development standards contained in ESMC Section 15-6B-7, *Site Development Standards*.~~12~~ These development standards involve TDM and trip reduction criteria (pursuant to ESMC Chapter 15-16), general provisions (pursuant to ESMC Title 15-2), and development regulations for allowable lot area, building/structure height, setbacks, lot frontage, building area, walls/fences, and access.
>
> [12] Since the proposed Project would involve the construction of a water infrastructure project by West Basin Municipal Water District (West Basin), it is exempt from local land use, grading, and building permit requirements (California Government Code Section 53091). However, West Basin intends to comply with applicable General Plan and city building codes and as such they are evaluated in this section. The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.

Section 5.12, *Noise and Vibration*, Subsection 5.12.1, presents the various plans, policies, and regulations with proposed Project relevance. In the discussion of local requirements, the

Draft EIR describes the noise policies and regulations of the El Segundo General Plan, El Segundo Municipal Code, and Manhattan Beach Municipal Code. In the introduction to the discussion of General Plan requirements, the Draft EIR explains that, per Section 53091, the proposed Project would not be subject to local building and zoning ordinances (page 5.12-3). Nevertheless, the Regulatory Framework goes on to identify numerous El Segundo noise and vibration policies and standards. Moreover, as explained in the Methodology subsection of Section 5.12.3, "…the noise and vibration analysis that involves the ocean water desalination facility considers the General Plan and El Segundo Municipal Code. Given the site's proximity to Manhattan Beach, the analysis also considers consistency with the Manhattan Beach Municipal Code…" (page 5.12-14). In addition, Impact NOI 5.12-1 proceeds to evaluate the proposed Project's potential to conflict with applicable noise standards contained within these documents, concludes a significant impact would result, and identifies feasible mitigation. Impact NOI 5.12-1 does not rely upon Government Code section 53091 to justify, defer, or otherwise avoid discussion of potential effects related to conflicts with local regulatory requirements. In response to this comment, the discussion is revised as presented below. However, for these reasons presented, the impact analysis is sound and the conclusions remain unchanged.

The Draft EIR text on page 5.12-3 is revised as follows:

> City policies pertaining to noise are contained in the Land Use and Noise Elements. ~~Since the proposed Project would involve the construction of a water infrastructure project by West Basin, it is exempt from local land use, grading, and building permit requirements (California Government Code Section 53091).~~ The policies outlined in the *City of El Segundo General Plan* (General Plan) Land Uses Element and Noise Element are considered relevant to the proposed Project, as described below.

Subsection 5.16.1 of Section 5.16, *Utilities and Service Systems*, presents the various plans, policies, and regulations with relevance to the proposed Project. A footnote (No. 1) is included at the end of the El Segundo Municipal Code subheading, which explains that, per Section 53091, the proposed Project would not be subject to local building ordinances (page 5.16-4). In response to this comment, the Draft EIR text on page5.16-4 (Footnote No. 1) is revised as follows:

> [1] California Government Code Section 53091(d) states that "Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency." However, construction and operation of the Ocean Water Desalination Project would strive to demonstrate compliance with the applicable building ordinances stipulated under the City of El Segundo Municipal Code. <u>The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.</u>

As noted previously, the Municipal Code building and zoning regulations applicable to the portion of the proposed Project within the coastal zone are those appended to the LCP (i.e., the Municipal Code M-1 and M-2 zoning regulations [1977]) or otherwise adopted for the purpose of

LCP implementation (i.e., Municipal Code Title 15, Chapter 12 [1993]). That is, the proposed Project would not be subject to provisions of the Municipal Code that have not been certified by the CCC as part of the LCP. Furthermore, the Municipal Code sections identified in the subsection containing the footnote address procedural requirements governing water service, metering, rates, payments, and taxes, among others, and do not relate to physical developments, or avoiding or mitigating an environmental effect. Thus, Section 5.16 does not rely upon Government Code section 53091 to justify, defer, or otherwise avoid discussion of potential effects related to conflicts with local regulatory requirements. For these reasons, the impact analysis is sound and the conclusions remain unchanged.

Response CCC-3

While Draft EIR Section 3.3 describes one of the proposed Project objectives as diversifying West Basin's water source portfolio to increase reliability in the long term (15–30 years), the Draft EIR did not include a temporal length of the proposed Project components since there is no anticipated or planned operational end date for the ocean water desalination facility. However, while the analysis of greenhouse gas construction emissions are amortized based on the standard South Coast Air Quality Management District 30-year assumption, and while the project life for financing and depreciation purposes is based on a 30-year assumption, the CCC recommends the coastal hazards analyses extend out 100 years. Therefore, it is unrealistic to consistently apply a common operating life throughout the analyses. Only, the supplemental Coastal Hazards Analysis completed for the Final EIR (Appendix 15) extends out 100 years. No further changes are made to the Draft EIR in response to this comment.

Response CCC-4

In response to this comment and others, West Basin prepared a supplemental technical study to assess whether siting the proposed Project at the El Segundo Generating Station (ESGS) location, or some other location within Santa Monica Bay (SMB), would result in more or less entrainment of planktonic organisms (see *Comparison of 316(b) Data in Santa Monica Bay*, included as Final EIR Appendix 12). This technical study clarifies the existing data and information and supports the impact analysis in the Draft EIR. It also provides additional information that may be used during the permitting phase of the proposed Project. Results of the study indicate that the preferable location for a project's ocean water intake in coastal California must be as distant as possible from rocky reef/hard substrate habitat, coastal lagoons and estuaries, and marine protected areas (MPAs) in order to minimize the entrainment of larval fish, including special-status and managed fish and invertebrate taxa. As illustrated in the Draft EIR Figure 5.11-2, there are MPAs at either end of SMB and numerous artificial reefs in the nearshore coastal waters; ESGS is uniquely located in SMB at a site that is as distant from MPAs, the King Harbor artificial reef, and coastal wetlands as possible. Based on available data, the evidence indicates the ESGS is the "best available" site in SMB to minimize the intake and mortality of marine life. *See also Master Response CEQA and Ocean Plan Compliance.*

Response CCC-5

The concrete plugs installed in the intake and discharge tunnels by NRG Energy (NRG) will be demolished from the onshore end during construction of the desalination plant; specifically,

during construction of the Intake Pump Station. The Final EIR Section 11 presents *Refinements to the Project Description*, and Subsection 3.5.1 of the Final EIR Project Description describes two options for the demolition process: constructing the intake pump station vault surrounding the plug, and chipping out the plug from within the tunnel. The offshore intake and discharge structures would remain available, and modified for West Basin's use as described in the Draft EIR Subsection 3.5.2.

Response CCC-6

See response to comment CCC-4 and Final EIR Appendix 12. The analysis found that the largest factor affecting impacts on fish entrainment is the distance of the intake from hard substrate. The greater the distance an ocean water intake is located from natural or artificial rocky reef/hard substrate habitat, rocky headlands, coastal lagoons, and estuaries, the lower the expected potential entrainment of larval fish, including special-status and managed fish and invertebrate taxa. Based on available data, the evidence indicates the ESGS is the "best available" site in SMB to minimize the intake and mortality of marine life. Within the ESGS location, it does not appear to make a difference in the overall area of production foregone (APF) estimate whether the intake is extended from the currently proposed 10-meter contour location to a deeper 30-meter contour location. This is because potential increases in entrainment of soft-bottom fish species at the deeper contour cancel out potential decreases in entrainment of estuarine and soft-bottom species at the shallower contour.

Response CCC-7

The Draft EIR does not discuss a coastal hazard protection structure, and none is proposed as part of the proposed Project. Since rising sea levels will increase the potential coastal flooding and flood hazards in the future, West Basin conducted a site-specific Coastal Hazards Analysis for the proposed desalination facility at the ESGS North and South Sites, provided as Draft EIR Appendix 5. The conclusions of that analysis are presented in Draft EIR Subsection 5.9.4, in the discussion of coastal flooding and tsunami. As noted on Draft EIR page 5.9-72, "[S]ea level rise and the risk of tsunamis are existing environmental conditions, and unless the Project will exacerbate these conditions, they are not considered potentially significant impacts under CEQA. The analyses presented here are provided for informational purposes and West Basin will implement design measures to protect the Project from potential effects of sea level rise and tsunamis."

The Draft EIR analysis concludes that portions of the ESGS Site would be potentially vulnerable to flooding from future unmitigated coastal flood hazards, including from strong wave surge and tsunami inundation under future sea-level flood hazard conditions. Therefore, Mitigation Measure HYDRO-1 in Draft EIR Subsection 5.9.4 requires the West Basin to complete a Project-specific coastal engineering study for the final Project design, and would require the final Project engineering design to minimize conflicts with the applicable Coastal Act requirements (Coastal Act Sections 30235 and 30253).

However, in response to this and other comments, West Basin prepared a supplemental Coastal Hazards Analysis (see *Master Response: Supplemental Studies* and Final EIR Appendix 15) that utilizes the Ocean Protection Council's April 2017 *Rising Seas in California: An Update of*

Sea-Level Rise Science (Griggs et al. 2017)[1] and the 2018 *CCC Sea Level Rise Guidance* (CCC 2018) and considered the high-risk sea-level-rise projections and the "extreme risk aversion" scenario known as the "H++" scenario. The results of the supplemental study confirm the inland extent of the potential flooding of the ESGS Project sites that is presented in the Draft EIR. But it also provides a cross section of the wave run-up that includes calculations of the wave depth and velocity, which informs and supports strategies to minimize and mitigate exposure to these hazards. *Master Response: Supplemental Studies* provides a summary of the results of this study.

Response CCC-8

The studies presented in the Draft EIR Section 2.10 are provided as proposed Project development background, and are representative of West Basin's stepwise approach to carefully evaluating ocean desalination over the past 10 years. Draft EIR Sections 5.9 and 5.11 evaluate the potential impacts of the proposed Project on hydrology and water quality, and on marine biological resources, respectively; both of those sections use the 2015 Ocean Plan Amendments (OPA) provisions in their evaluations. In addition, West Basin has prepared four supplemental studies that provide support for future regulatory permitting decisions. See *Master Response: Supplemental Studies*.

As for calculating the APF, the Draft EIR analysis of potential ocean water intake entrainment as well as discharge shear stress impacts on marine plankton (Draft EIR pages 5.11-49 through 5.11-54 and 5.11-58 through 5.11-60, respectively) clearly illustrates that the scientific data used by the State Water Resources Control Board (SWRCB) and the methodology proposed for estimating ocean sited desalination impacts on planktonic organisms in OPA currently necessitates a range of APF calculations, since studies that have been conducted since the drafting of OPA in 2015 (Jessopp 2017; Zhang 2017), and were cited in the Draft EIR, indicate that the use of 1.0 mm sized wedgewire screens and intake flow rates <0.5 fps could reduce entrainment of planktonic organisms by 20 percent or more. Similarly, the potential shear stress impact to planktonic organisms could be reduced by 25 percent or more and only affect specific taxa that are <1 mm in size. Because of this uncertainty in potential effects to marine ecosystems from Project-related entrainment and brine discharge shear stress, no specific APF mitigation estimate for these impacts was committed to in Mitigation Measure BIO-M2. However, Mitigation Measure BIO-M2 does addresses the monitoring of the intake and discharge for the impingement and entrainment of organisms and commits West Basin to conducting site-specific scientific studies of both the entrainment of planktonic organisms into the wedgewire screen equipped ocean intake, and of potential shear stress impacts on planktonic organisms from the brine discharge. The results of these studies would then be used to accurately estimate Project-related impacts to marine ecosystems in the form of APF calculations, as required by OPA. As described in Mitigation Measure BIO-M2, the eventual calculated loss will be compensated for by either direct or indirect habitat restoration consistent with California Ocean Plan Chapter III.M.2.e.(3) or by providing monetary payments to an appropriate State-approved fee-based mitigation

[1] The Ocean Protection Council's April 2017 publication was prepared by its Science Advisory Team Working Group (Griggs et.al. 2017). The April 2017 publication was used to prepare its *State of California Sea-Level Rise Guidance: 2018 Update,* referenced as Ocean Protection Council 2018.

program consistent with the Ocean Plan Chapter III.M.2.e.(4), or a combination of the two. See also response to comment SLC-30.

See *Master Response: CEQA and Ocean Plan Compliance*. There is no requirement to revise background material that predates the 2015 OPA. No change has been made to Draft EIR Section 2.10 as a result of this comment.

Response CCC-9

The concrete plug will be removed during the construction of the desalination plant; specifically, during construction of the proposed Intake Pump Station (rectangular vault) that is described in the Draft EIR on page 3-4. See response to comment CCC-5 and Final EIR Section 11, *Refinements to the Project Description*, Section 3.5.1, and Figures 3-26 and 3-27.

Response CCC-10

Draft EIR Section 5.9 does not discuss a coastal hazard protection structure, and none is proposed as part of the Project. Draft EIR Subsection 5.9.4 explains that if the desalination facility were constructed at the South Site (as noted in the Draft EIR Section 7.4), "the entire ESGS South Site behind the 45th Street berm would be lowered to roughly at grade with the bike trail and would require coastal hazard protection similar to that provided by the existing ESGS seawall." (Draft EIR page 5.9-76.) However, in response to this and other comments, West Basin prepared a supplemental Coastal Hazards Study; see response to comment CCC-7. *Master Response: Supplemental Studies* provides a summary of the results of this study.

Response CCC-11

See response to comment CCC-5 and Final EIR Section 11, *Refinements to the Project Description*, Subsection 3.5.1. In either demolition option, about 84 cubic yards per plug would be loaded into trucks and hauled to landfill for disposal, or an approved concrete recycling plant. There would be no additional construction-related activities to clear the inside of the intake and discharge structures of any sand that may have accumulated. There would be some residual sand within the structures, similar to the existing operational condition. The offshore risers (or intake and discharge towers) on the Units 3 and 4 structures would be modified as part of the proposed Project, as described in Final EIR Section 11, *Refinements to the Project Description,* Subsection 3.5.1.

Response CCC-12

Potential laydown/staging areas for the proposed Project are shown in Figure 3-21. The known or potential impacts associated with their use are evaluated throughout the resource sections in the Draft EIR Section 5.

Response CCC-13

Regarding construction dewatering volumes and extraction rates, as discussed in detail under Impact 5.9-3 (Draft EIR Subsection 5.9.4, page 5.9-61 et seq.), groundwater levels in the city of El Segundo vary, but are typically 20 feet below ground surface. While proposed Project

construction may require dewatering where deep excavations encounter shallow or perched groundwater, any such dewatering activities would be temporary, highly localized, and would involve the extraction of low volumes of shallow groundwater (i.e., not groundwater from aquifers used for municipal or industrial water supply). As such, dewatering activities conducted during construction would not result in significant long-term effects to local groundwater supplies.

Regarding the potential for construction groundwater dewatering to mobilize contaminants, as described on page 5.9-16 of the Draft EIR, the Los Angeles Regional Water Quality Control Board (LARWQCB) General National Pollutant Discharge Elimination System Permit No. CAG994004 (R4-2003-0111) (Dewatering Permit) covers discharges of treated and untreated groundwater generated from permanent or temporary dewatering operations, including groundwater generated from construction dewatering activity. As assessed and discussed in detail under Impact 5.9-1 under "Construction Excavation Dewatering Activities" (Draft EIR Subsection 5.9.4, pages 5.9-42 to 5.9-43), construction dewatering at the proposed desalination facility would require West Basin or their contractor(s) to obtain coverage under the Dewatering Permit for dewatering. The permit requires testing of the effluent to identify the presence of potential contaminants and implementation of appropriate treatment and disposal methods (see response to comment MBCH3-69). An ongoing monitoring and reporting program, with LARWQCB review and approval, is also required under this permit to ensure on-site treatment and/or disposal adheres to the conditions of the Dewatering Permit. Mandatory compliance with the requirements of the Dewatering Permit would ensure that proposed Project dewatering discharges would not mobilize pollutants, result in exceedances of water quality standards, or otherwise degrade water quality or deleteriously affect the beneficial uses of receiving waters.

In addition, as discussed under Impact 5.9-1 and described in detail in Section 5.8 (Draft EIR pages 5.8-22 et seq.) Mitigation Measure HAZ-1, the Waste Management Plan, shall include procedures for managing groundwater generated from dewatering activities, including contaminated groundwater, if any. The procedures shall include the designation of a state-registered Professional Engineer or Professional Geologist to oversee dewatering activities and, if necessary, investigation and cleanup in the event that contamination is encountered; sampling procedures to assess the nature and extent of contamination; and reporting and notification requirements. The disposal procedures for contaminated groundwater would be required to comply with the regulations listed in Subsection 5.8.1, which include the Resource Conservation and Recovery Act, Hazardous Materials Business Plan Program, Hazardous Waste Control Law, and the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, all of which require that hazardous waste be disposed of at licensed facilities permitted to accept the waste. The specific disposal facility—the sanitary sewer or a hazardous waste treatment facility—would depend on the nature and concentrations of chemicals in the dewatering effluent.

Response CCC-14

As discussed in Draft EIR Section 5.14, *Recreation* (page 5.14-7) and Section 5.15, *Transportation and Traffic* (Impact TRA 5.15-6; page 5.15-33), work immediately adjacent to the Marvin Braude Coastal Bike Trail could occur for a period of several weeks. As currently envisioned, use of the bike trial could be disrupted for a period of several weeks during the 5-year

construction period. As explained in Impacts REC 5.14-1 (pages 5.14-7 and 5.14-8) and TRA 5.15-6 (pages 5-15-33 and 34), application of Mitigation Measures REC-1 and TRA-1 would provide for local agency coordination around bicycle path disruptions, and establishment of appropriate detours and associated signage during periods of closure. Thus, with these measures implemented, any temporary construction-related closures of the subject trail would be accompanied by instructions regarding safe alternative routes, which would not include forcing trail users onto the sand.

Response CCC-15

Refer to response to comment CCC-2. In response to this comment, the text of Table 3-11 pertaining to El Segundo is revised to further clarify that, in addition to an LCP amendment, the proposed Project would require a Coastal Development Permit (CDP) issued in accordance with the LCP, as amended. The revision to Table 3.11 does not affect the Draft EIR's impact discussion or conclusions. This revision would not require changes to the Draft EIR's impact discussion or conclusions; the CDP requirement is discussed at length in Section 5.10, *Land Use and Planning*, beginning on page 5.10-2: "Most proposed Project components are located within the coastal zone; therefore, their development would require a CDP. The City of El Segundo has certified and adopted an LCP and therefore, pursuant to Coastal Act Section 30519, has jurisdiction to issue a CDP for the desalination facility…"

The Draft EIR text on page 3-38, Table 3-11 is revised as follows:

Agency/Department	Permit/Approval	Required for
Local Agencies		
City of El Segundo[1]	Local Coastal Plan (LCP) amendment <u>and Coastal Development Permit (CDP),</u> in accordance with City of El Segundo Local Coastal Plan. A LCP amendment would require approval from the CCC.	Required for onshore construction of the ocean water desalination facility, which is located within the coastal zone and is under the City of El Segundo LCP jurisdiction. Evaluation of Project consistency with Local Coastal Plan. May be administered by the California Coastal Commission with the City's consent for consolidated permit review.

Response CCC-16

The commenter is correct; nighttime lighting directed over ocean waters can have a temporary effect on marine fish, invertebrates, birds, and marine mammals. This effect is primarily focused on attracting fish and some invertebrate taxa, like squid, to any areas with increased artificial illumination occurring over the water, which then can attract large fish, birds, and marine mammals, who prey on the schooling fish and invertebrates. Although this phenomenon has been a problem in the past, minimal illumination of ocean waters occurs today because of improved environmental awareness as well as the required refitting of work vessels and barges with low-intensity, shrouded, and focused deck lighting. Draft EIR Subsection 3.5.2, *Project Description*, has been revised to clarify that any work vessels employed by the proposed Project will be required to have state-of-the-art deck lighting that does not cause unnecessary lighting of ocean

waters; see Final EIR Section 11, *Refinements to the Project Description*. Therefore, the temporary, short-term scenario of nighttime work would not be expected to result in anything but negligible effects on marine biological resources.

Response CCC-17

See response to comment CDFW 19. Mitigation Measure BIO-9 is revised to include clarification on measures used to avoid impacts to El Segundo blue butterfly. In response to the comment, the Draft EIR text on page 5.3-38 is modified as shown in response to comment CDFW-19.

Response CCC-18

For a response to CCC's interpretation of a "net carbon neutral" facility, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

In response to Footnote 11, in CEQA analysis of GHG emissions impact, it is standard practice to amortize construction emissions over the life of the project, which for the proposed Project is assumed to be 30 years. SCAQMD guidance, *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold*, recognizes that construction-related GHG emissions from projects "occur over a relatively short-term period of time" and that "they contribute a relatively small portion of the overall lifetime project GHG emissions." The guidance recommends that construction project GHG emissions should be "amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies" (SCAQMD 2008).

For the proposed Project, construction emissions amortized over 30 years represent approximately 3.4 percent of the Local Project's annual emissions, and approximately 1.5 percent of the Regional Project's emissions.

Response CCC-19

In November 2018, subsequent to the Draft EIR's March 2018 publication, the CCC adopted an update to its sea-level rise policy guidance. In response to this and other comments, West Basin prepared a supplemental coastal hazards analysis (see Final EIR Appendix 15) in accordance with the updated (2018) Sea Level Rise Policy Guidance. See response to comment CCC-7. The results of the supplemental study confirm the inland extent of the potential flooding of the ESGS Project sites that is presented in the Draft EIR, and the Draft EIR therefore included Mitigation Measure HYDRO-1 to ensure the final Project design would not conflict with Coastal Act Sections 30235 and 30253. Since Mitigation Measure HYDRO-1 in the Draft EIR specified using the Coastal Commission's 2015 Sea Level Policy Guidance, and since that guidance was replaced in 2018 and may again be replaced prior to final Project design, Mitigation Measure HYDRO-1 is revised as follows:

> **HYDRO-1**: West Basin shall contract a California licensed engineer to update as required ~~prepare~~ ~~a~~the Coastal Hazard Resiliency Study focused on the ESGS site, consistent with the methods for assessing sea-level rise in the current CCC's Sea Level Rise Policy Guidance ~~(CCC 2015)~~, over the Project planning horizon. Recommendations in the Study shall be incorporated into the final design and construction specifications of

the Project as applicable to minimize conflicts with the applicable Coastal Act Section 30235 (Construction altering natural shoreline) and Section 30253 (Safety, stability, pollution, energy conservation, visitors). At a minimum, the study shall: . . .

Response CCC-20

See *Master Response: Supplemental Studies* and Final EIR Appendix 15.

Response CCC-21

See response to comment CCC-7, and *Master Response: Supplemental Studies*.

Response CCC-22

See *Master Response: Supplemental Studies* and Final EIR Appendix 15.

Response CCC-23

Sea-level rise and coastal erosion will occur regardless of the Project. A No Action scenario would assume continued maintenance of the existing armoring to protect the existing bike trail. For example, an agreement (Agreement #21618, dated August 7, 1973, between the County of Los Angeles and Standard Oil Company of California (now NRG)), gave the County a 50-year license to use NRG's real property along the beach exclusively for recreational purposes including a bicycle path, and that the "County shall be solely responsible for the maintenance and repair of such facilities and shall keep same in first-class condition" (County of Los Angeles 1973). The supplemental coastal hazards analysis (see response to comment CCC-7) assumes that the beach erodes with sea-level rise, but the rock revetment and trail are assumed to be maintained in place by others.

Under a No Action scenario, the presence of the existing NRG facility, without the proposed Project, would require managed retreat of the bike trail. The proposed Project would not affect the existing armoring or the existing bike trail with regards to erosion or flooding. The presence of the Project would not change public access and recreation opportunities. See *Master Response: Supplemental Studies* which provides a description of the supplemental Coastal Hazards Analysis.

Response CCC-24

In response to this and other comments on the Draft EIR, West Basin prepared a supplemental Coastal Hazards Analysis and considered tsunamis; see Final EIR Appendix 15, Section 3.6. The supplemental analysis describes publicly available information on tsunami hazards at the Project site, including the California Official Tsunami Inundation Maps and more recent mapping by the American Society of Civil Engineers (ASCE). The California Official Tsunami Inundation Map shows the Project is located immediately landward of the tsunami inundation hazard area (Figure 35; State of California 2009) consistent with the United States Geological Survey Tsunami Inundation Map - Venice Quadrangle, shown in the 2015 City of El Segundo's 2015 Hazard Mitigation Plan (page 64). However, the reference in the Hazard Mitigation Plan to a predicted tsunami run-up of 50 feet is not documented and is inconsistent with the tsunami amplitude of 2 meters analyzed by Jenkins (2016; 2017) and ASCE. The supplemental Coastal Hazards Analysis presents additional information on the ASCE structural design criteria for

tsunamis, including the design inundation depths and velocities for existing and future conditions with sea-level rise.

Response CCC-25

The supplemental Coastal Hazards Analysis prepared for this Final EIR informs and supports strategies to minimize and mitigate exposure to these hazards, such that the proposed Project would minimize conflicts with the applicable Coastal Act requirements (Coastal Act Sections 30235 and 30253). *Master Response: Supplemental Studies* provides a summary of the results of this study. See also Final EIR Appendix 15B.

Response CCC-26

Draft EIR Section 5.9 does not discuss a coastal hazard protection structure, and none is proposed as part of the Project. See responses to comments *CCC-10* and -23, and *Master Response: Supplemental Studies* which provides a description of the supplemental Coastal Hazards Analysis.

Response CCC-27

See response to comment CCC-7. The supplemental Coastal Hazards Analysis (Final EIR Appendix 15) has used the updated guidance.

Response CCC-28

Since rising sea levels will increase the potential coastal flooding and flood hazards in the future, West Basin conducted a site-specific Coastal Hazards Analysis for the proposed desalination facility at the ESGS North and South Sites, provided as Draft EIR Appendix 5. In response to this and other comments, however, West Basin prepared a supplemental Coastal Hazards Analysis which is included as Final EIR Appendix 15; see also *Master Response: Supplemental Studies*. The results of the supplemental study confirms the inland extent of potential coastal flooding identified in the Draft EIR, compare the new site-specific results with the more regional Coastal Storm Modeling System 3.0 (CoSMoS) results, and inform and support strategies to minimize and mitigate exposure to these hazards. *Master Response: Supplemental Studies* provides a description of the results of this study.

Response CCC-29

Draft EIR Section 5.9 does not discuss a coastal hazard protection structure, and none is proposed as part of the Project. The supplemental Coastal Hazards Analysis prepared for this Final EIR (see Appendix 15) advances the analysis in Draft EIR Appendix 5 (the subject of this comment), and informs and supports strategies to minimize and mitigate exposure to potential coastal flooding hazards, such that the proposed Project would minimize conflicts with the applicable Coastal Act requirements (Coastal Act Sections 30235 and 30253). *Master Response: Supplemental Studies* provides a summary of the results of this study.

As noted on Draft EIR page 5.9-72, "[S]ea level rise and the risk of tsunamis are existing environmental conditions, and unless the Project will exacerbate these conditions, they are not considered potentially significant impacts under CEQA. The analyses presented here are provided

for informational purposes and West Basin will implement design measures to protect the Project from potential effects of sea level rise and tsunamis."

Response CCC-30

See response to comment CCC-13.

Response CCC-31

As the commenter correctly notes, the Draft EIR discloses that the Coastal Zone Specific Plan designates the proposed Project site as Power Plant (PP), a designation which "…limits the use of the site to energy facility and energy related developments required for the continued operation of electrical power plant' (City of El Segundo, 1980)" (pages 5.10-8 and 5.10-9). As explained in Impact LU-5.10-2 (page 5.10-22), the type of use proposed under the Project may not be permitted under the LCP, because the Project is not an energy facility or energy-related development. Therefore, the Draft EIR states, "…the LCP may need to be amended to allow for a water treatment plant to be constructed within a parcel zoned exclusively for Power Plant (PP). The LCP amendment would require approval from the CCC" (page 5.10-22).

As the commenter also correctly notes, the Draft EIR's Subsection 5.10.3 establishes significance thresholds that state the proposed Project would have a significant adverse environmental effect if it would conflict with any applicable land use plan, policy or regulation of any agency with jurisdiction over the proposed Project, including the LCP, adopted for the purpose of avoiding or mitigating an environmental effect (page 5.10-13). The Draft EIR appropriately concludes less than significant for the proposed Project's potential to conflict with the LCP for two primary reasons.

First, the Draft EIR explains that in order for the proposed Project to proceed, (1) the LCP would likely need to be amended, (2) the LCP amendment would require certification by the CCC that it is consistent with the Coastal Act, and (3) the West Basin Water District would be required to obtain a CDP consistent with the LCP, as amended (page 5.10-23). The impact discussion further explains why it would be reasonable to conclude the LCP could be amended to allow for the Project (e.g., the proposed Project constitutes a use of greater than local importance, depends on proximity to the coast in order to function [i.e., coastal-dependent], and would not conflict with applicable Coastal Act policies [see Draft EIR Table 5.10-3]). Thus, the Draft EIR discloses the potential LCP conflict; acknowledges that compliance with the LCP, and by extension the Coastal Act, is mandatory; and explains how adherence to the corresponding procedural requirements for LCP amendment would resolve the potential conflict. Under CEQA, compliance with mandatory regulatory requirements designed to avoid or mitigate an impact addressed in the EIR constitutes substantial evidence that the lead agency may rely upon to conclude impacts would be reduced to a less than significant level (see *Center for Biological Diversity v. Department of Fish & Wildlife* (2015) 234 Cal. App. 4th 214, 246 ("[A] condition requiring compliance with regulations is a common and reasonable mitigation measure, and may be proper where it is reasonable to expect compliance." (citing *Oakland Heritage Alliance v. City of Oakland* (2011) 195 Cal.App.4th 884, 903)); see also *Gentry v. City of Murrieta* (1995) 36 Cal. App. 4th 1359, 1395 (no improper deferral of mitigation where condition required applicant to submit improvement plans, grading plans, and a final map for approval, plans that would be "subject to a host of specific performance

criteria imposed by various ordinances, codes, and standards, as well as other mitigation conditions")). In the present case, the proposed Project could not proceed in conflict with the LCP or Coastal Act, and therefore through adherence to the applicable LCP amendment and CDP application processes, the proposed Project would not result in a significant impact with respect to conflicts with LCP or Coastal Act policies.

Second, as defined in CEQA Guidelines Section 15382, a significant effect on the environment means a "substantial, or potentially substantial, adverse change in any of the ***physical conditions*** within the area affected by the Project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance" (emphasis added). As is clear from the definition, CEQA is concerned with a project's physical effects on the environment. Notwithstanding the prior discussion of the LCP amendment, the proposed Project's potential incompatibility with the LCP's established land use designation does not itself equate to a significant impact. Rather, as appropriately examined in the Draft EIR, a potential conflict is an indication that the issue should be explored further to determine whether the conflict would result in a substantial, adverse physical environmental change. In the present case, there is nothing in the Power Plant land use designation that appears to have been "adopted for the purpose of avoiding or mitigating an environmental effect," such that a conflict with the designation would result in a significant physical environmental effect. Rather, the LCP appears to have codified the heavy industrial land uses existent at the time of LCP preparation. As explained by the CCC (Regional Commission) in its analysis of the Specific Plan (El Segundo Local Coastal Program, Staff Summary page 15, and Coastal Zone Specific Plan page 21): "Two major energy installations currently exist in the coastal zone in El Segundo; both are described in detail in the City's Coastal Zone Specific Plan. The larger of the two facilities is the S.C.E electrical generating station which produces a total of 1,020,000 KW's. The smaller energy facility is the onshore portion of the Chevron Marine Tanker Terminal… The El Segundo LCP submittal gives most of the coastal zone an energy land use designation of either (MT) Marine Terminal or (PP) Power Plant. The implementing actions included in the Specific Plan are designed primarily to allow for on-site expansion or intensification of energy developments consistent with space constraints of the respective sites."

Compared to the power plant land use, which formed the basis of (and which would presently be allowed under) the current designation, the proposed Project would involve a smaller, less-intensive development. Moreover, the potential physical effects of the Project are the very subject of the whole Draft EIR. Nevertheless, the Draft EIR considers the full range of environmental effects, including but not limited to those related to potential conflicts with the LCP and the Coastal Act. For example, the analysis in Impact LU-5.10-2 (page 5.10-23, Footnote 8) explains that, in addition to the detailed Coastal Act policy consistency analysis presented in Table 5.10-3 (page 5.10-17), "… detailed discussion of specific Coastal Act issues are addressed in the appropriate EIR sections, including marine biology (Section 5.11), terrestrial biology (Section 5.3), greenhouse gas emissions (Section 5.7), public access and recreation (Section 5.14), visual impacts (Section 5.1), and alternatives (Section 7)." Thus, the Draft EIR completely and adequately considers the potential for non-conformity with the LCP and the significant, adverse physical effects that could result therefrom. For these reasons, the impact analysis is sound and the conclusions remain unchanged.

Response CCC-32

Unlike the LCPs of other jurisdictions with a larger coastal zone, more diverse coastal resource base, and/or which have been more recently certified or comprehensively updated, El Segundo's 38-year-old LCP contains no coastal resource protection policies. Rather, the LCP generally consists of: (1) the Coastal Zone Specific Plan, which sets forth land use designations and allowable uses consistent with those uses existent at the time of LCP preparation; and (2) the Issue Identification, which identifies applicable Coastal Act policies, describes the physical and regulatory setting at the time of LCP preparation, and identifies potential conflicts between coastal policies and the then-existing plans and development proposals.

The portion of the LCP referenced by the commenter as "LCP provisions to be amended" does not contain LCP provisions, but rather a section of the then-Regional Commission's staff report evaluating the City's then-proposed LCP's conformity with applicable Coastal Act policies. The provisions of the LCP governing land use are included in the Coastal Zone Specific Plan, which designates the Project site as Power Plant (PP) and enumerates permitted uses (LCP pages 24 and 25). Please refer to response to comment CCC-31 for a discussion of potential conflicts with the LCP, wherein it is explained that the Draft EIR acknowledges the potential conflict with the LCP's land use designation and explains the LCP will likely require amendment in order for the Project to proceed.

Notwithstanding the above, recognizing the Coastal Act is the standard of review for an LCP amendment proposal, the Draft EIR also evaluates the proposed Project's potential to conflict with Coastal Act policies. The Draft EIR acknowledges that "…final determination on Coastal Act consistency rests with the City of El Segundo and CCC" (page 5.10-16). Nevertheless, the Draft EIR's Table 5.10-3 (pages 5.10-17 through 5.10-20) presents the text of the various Coastal Act resource protection policies assumed to be relevant, discussions of the Project's potential to conflict with said policies, and determinations of conformity. The policy analysis presented in Table 5.10-3 covers the range of coastal resource policy issues raised by the commenter as warranting consideration in the LCP update. For example, the LCP Section VI Policy Groups A and B (protect existing bicycle path) are addressed in the Table 5.10-3 discussion of potential

conflicts with Coastal Act sections 30211 and 30212 (page 5.10-17). Group E (shoreline structures) is addressed in the table's discussion of potential conflicts with Coastal Act sections 30235 (page 5.10-19; note, the proposed Project does not propose shoreline structures). Group K (locating new development) is addressed in the table's discussion of potential conflicts with Coastal Act Section 30250 (page 5.10-19). Group M (public works improvements) is addressed in the table's discussion of Coastal Act Section 30254 (page 5.10-20). Group N (industrial development) is addressed in the table's discussion of Costal Act Section 30260 (page 5.10-20).

With respect to CEQA specifically, as noted in response to comment CCC-31, CEQA is concerned primarily with a project's physical change to the environment. The Draft EIR examines the proposed Project's potential to cause a physical adverse effect on coastal resources that are protected under the above-referenced Coastal Act policies. As noted in Section 5.10, *Land Use* (page 5.10-21, Footnote 5), in addition to the analysis provided in Table 5.10-3, the proposed Project's physical impacts related to specific resource areas subject to Coastal Act regulation are addressed in their respective Draft EIR topical sections. For example, potential Project effects on bicycle and pedestrian facilities (Policy Groups A and B), including the Marvin Braude Bike Trail, are addressed in Draft EIR Section 5.14, *Recreation* (pages 5.14-7 and 5.14-8), and Section 5.15, *Transportation and Traffic* (pages 5.15-33 through 5.15-36). The potential effects related to coastal hazards and flooding, including whether shoreline armoring (Group E) may be required, are addressed in Section 5.9, *Hydrology and Water Quality* (pages 5.9-72 through 5.9-80). The issue is addressed further in a coastal hazards analysis prepared subsequent to publication of the Draft EIR (see also response to comment CCC-33 and *Master Response: Supplemental Studies*). The direct and indirect effects of constructing and operating the proposed Project (Groups K and N) are the subject of the Draft EIR's Chapter 5, *Environmental Analysis*, and are addressed across all environmental topics. Further, the direct and indirect effects related to growth inducement associated with development of a new public works facility (Group M) are addressed in Draft EIR Section 6.2, *Growth-Inducing Impacts* (page 6-2 through 6-9).

In summary, the Draft EIR addresses the proposed Project's consistency with potentially applicable Coastal Act policies. Recognizing the CCC would make the final determination regarding policy consistency, the Draft EIR proceeds to address the proposed Project's potential physical changes that could affect coastal resources. Therefore, the Draft EIR's impact discussion adequately fulfills the CEQA mandate to address the proposed Project's potential to conflict with an applicable policy adopted for the purpose of avoiding or mitigating an environmental effect, and the physical adverse effects that could result therefrom. For these reasons, the impact analysis is sound and the conclusions remain unchanged.

Response CCC-33

The Draft EIR's Section 5.10, *Land Use and Planning*, describes and evaluates Project conformity with the CCC's 2015 Sea Level Rise Policy Guidance – the applicable guidance document at the time of Draft EIR publication (page 5.10-3). In the Impact LU 5.10-2 discussion, the Draft EIR explains the proposed Project would not conflict with the guidance, because it "would be located within the existing boundaries of the energy facilities and would avoid expansion and minimize the perpetuation of shoreline armoring" (page 5.10-22). As the commenter notes, subsequent to the Draft EIR's March 2018 publication, in November 2018, the

CCC adopted an update to its Sea Level Rise Policy Guidance. Since publication of the Draft EIR and in response to the commenter's recommendation, a supplemental Coastal Hazards Analysis has been prepared in accordance with the updated (2018) Sea Level Rise Policy Guidance. See response to comment CCC-07 and Final EIR Appendix 15.

In response to this comment, the Draft EIR's Section 5.10 (pages 5.10-3, 5.10-4, 5.10-22, 5.9-37, and 5.10-38) has been revised as indicated below to reflect the updated CCC 2018 policy.

The Draft EIR text on pages 5.10-3 and 5.10-4 is revised as follows:

> ***California Coastal Commission Sea Level Rise Adopted Policy Guidance***
> In August 2015, the Sea Level Rise Policy Guidance document was unanimously adopted for use by the CCC (CCC 2015). This document provides an overview of the best available science on sea-level rise and recommended methodology for addressing sea-level rise in Coastal Commission planning and regulatory actions. This guidance is a comprehensive, multi-purpose resource that will be updated periodically to address new sea-level rise science and information. Some of the principles listed in the document for addressing sea-level rise in the coastal zone that apply to the proposed Project include:
>
> *Minimize Coastal Hazards through Planning and Development Standards*
>
> **7. Minimize hazard risks to new development over the life of authorized structures.**
>
> **8. Minimize coastal hazard risks and resource impacts when making redevelopment decisions.**
>
> *Maximize Protection of Public Access, Recreation, and Sensitive Coastal Resources*
>
> **12. Maximize natural shoreline values and processes; avoid expansion and minimize the perpetuation of shoreline armoring.**
>
> In November 2018, the CCC adopted an update to the 2015 Sea Level Rise Policy Guidance (CCC 2018). The revisions address the State's updated understanding of sea level rise science and best planning practices for anticipated impacts. The changes mainly concern updated references to best available science, including revisions to sea level rise projections. Notably, while the 2015 guidance identified and incorporated findings from a 2012 National Research Council report (NRC 2012) as the best available science at the time, the 2018 updates revise much of that discussion to incorporate the findings of two Ocean Protection Council studies (Griggs, et al. 2017 [OPC 2017] and OPC 2018) as the best available science.

The Draft EIR text on page 5.10-37 is revised to update the Coastal Commission 2015 reference to 2018 as follows:

> By year 2100, sea levels may rise up to 55 inches (1.4-meter), causing a 45 percent increase in land in Los Angeles County to become more vulnerable to the 100-year flood event (CCC 2018~~5~~).

The Draft EIR text on page 5.10-38 is revised to include the following references:

California Coastal Commission (CCC), 2018. Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits, Adopted August 12, 2015, Updated November 7, 2018.

National Research Council (NRC), 2012. *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future*, Washington, DC: The National Academies Press, https://doi.org/10.17226/13389.

Griggs, G, Árvai, J, Cayan, D, DeConto, R, Fox, J, Fricker, HA, Kopp, RE, Tebaldi, C, Whiteman, EA (California Ocean Protection Council Science Advisory Team Working Group), 2017. Rising Seas in California: An Update on Sea-Level Rise Science, California Ocean Science Trust, April 2017

Ocean Protection Council (OPC), 2018. State of California Sea-Level Rise Guidance: 2018 Update. http://www.opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_ExhibitA_OPC_SLR_Guidance-rd3.pdf

The Draft EIR text on page 5.10-22 is revised as follows:

> The proposed Local Project ocean water desalination facility would be subject to compliance with the El Segundo LCP, as this Project component is sited within the coastal zone. In addition, the Local Project would comply with the Sea Level Rise Policy Guidance principles because it would be located within the existing boundaries of the energy facilities and would avoid expansion and minimize the perpetuation of shoreline armoring. A recent study of coastal hazards (see Final EIR Appendix 15) indicates the Project site could be subject to unmitigated coastal hazards associated with wave run-up late in the century under a medium to high sea level rise scenario. Accordingly, the Project site plan would be modified to mitigate exposure to such risks. These potential modifications would take into consideration sea level rise over the next approximately 100 years and reduce the Project's exposure to coastal hazards consistent with the CCC's updated 2018 Sea Level Rise Policy Guidance.

Also in response to this comment, the text in Draft EIR Section 5.9, *Hydrology and Water Quality*, pages 5.9-23 and 5.9-80, has been revised as indicated below to reflect the updated CCC 2018 policy guidance.

The Draft EIR on page 5.9-23 is revised as follows:

> ### *California Coastal Commission Sea-Level Rise Policy Guidance*
>
> The CCC has developed Sea-Level Rise Policy Guidance intended to help local governments, permit applicants, and other interested parties address the challenges presented by sea-level rise in California's coastal zone. The CCC's adopted 2018~~2015~~ Sea-Level Rise Policy Guidance (CCC 2018~~2015~~) outlines the types of information,

analysis, and design considerations that the agency's staff requires to determine whether shoreline projects conform to the above-listed Coastal Act policies.

The Draft EIR text on page 5.9-80 is revised to include the following reference:

California Coastal Commission (CCC), 2018. Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits, Adopted August 12, 2015, updated November 7, 2018.

Response CCC-34

Please also see response to comment CCC-48. With respect to alternatives, the Draft EIR's Subsection 7.2.1 describes several potential non-desalination alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. For the reasons described in Subsection 7.2.1 (pages 7-6 through 7-31), these alternatives were rejected due to issues of feasibility, environmental effects, and/or inability to meet Project objectives.

The commenter asserts that the CCC may find that some, but not all, of the proposed Project components are "coastal dependent." The commenter further requests additional consideration of Project conformity in the event some or all of the Project were found not to be coastal dependent. The Draft EIR assumes the proposed Project is a coastal dependent development or use, because its primary function is the desalination of seawater. As explained in Subsection 7.2.3 (pages 7-35 and 7-36): "…West Basin conducted a detailed assessment of the feasibility of installing a subsurface intake system in 2016. The study outlined the local geology and proximity to subsurface ocean water and evaluated numerous technologies that could access subsurface ocean water. As described in Appendix 10, the assessment concluded that due to the local geology, existing coastal development, subsurface water quality, potential for interference with the operation of the West Coast Seawater Barrier Project, and untested expensive technology, subsurface intakes would be infeasible."

As explained further in *Master Response: Supplemental Studies*, detailed technical investigations into seawater intake options concluded that the proposed Project could not obtain source water through alternative intake mechanisms (e.g., wells located near, but not directly on the shoreline), and that in order for the proposed Project to function, open ocean intakes would be required. Thus, even if the CCC were to disagree with the presumption that the proposed Project as a whole is a coastal-dependent development or use, because the intake facilities "…require a site on, or adjacent to, the sea to be able to function at all," those components are necessarily coastal-dependent per the Coastal Act Section 30101 definition. Accordingly, because the proposed Project would be "dependent upon a coastal-dependent development or use," it would necessarily be a coastal-related development (Section 30101.3).

As discussed in response to comment CCC-32, the Draft EIR provides analyses and preliminary conclusions regarding Project consistency with Coastal Act policies, including those concerning coastal-dependency (e.g., Impact LU 5.10-2; pages 5.10-15 and 5.10-16), while also explicitly

acknowledging that final determination of Project consistency rests with the CCC (Draft EIR page 5.1-13). Moreover, as described further in that response, CEQA is concerned with the potential physical adverse effects of the Project on the environment, and the Draft EIR addresses the potential effects on coastal resources subject to CCC jurisdiction. For these reasons, the Draft EIR's analysis of potential adverse physical effects is sound.

The determination of coastal-dependency would not change the Draft EIR's conclusions regarding whether the proposed Project could have a significant physical adverse environmental effect. As explained below, analysis of Project conformity with Coastal Act policies related to coastal dependency suggests the Project could be found consistent with the Coastal Act, even if the CCC concluded the whole Project (i.e., the desalination facility) is not coastal dependent.

The existing LCP designates the proposed Project site Power Plant (PP), which allows electrical generation, accessory buildings, on-site repowering, and on-site modification to existing facilities. While the facilities existent at the time of LCP certification may have relied upon proximity to the coast to function, nothing in the current LCP land use designation requires the site be used for coastal-dependent purposes. Thus, notwithstanding the Project's potential conflict with the principal permitted use (i.e., Power Plant; see response to comment CCC-33) future development of the site with a non-coastal dependent use would not itself conflict with any coastal-dependency requirement of the LCP.

In enacting the Coastal Act, the Legislature found and declared that among the basic goals of the State for the coastal zone were assure priority for coastal-dependent and coastal-related development over other development on the coast (Section 30001.5). As explained previously, the in-water proposed Project components (i.e., the ocean intake facilities) are necessarily coastal-dependent, as they require a site "on or adjacent to, the sea in order to be able to function at all" (Section 30101). Further, because the proposed Project would be "dependent upon a coastal-dependent development or use," it would necessarily be a coastal-related development (Section 30101.3). Therefore, under Section 30001.5, it appears the proposed Project should be afforded priority over other developments on the coast.

Section 30255 directs that coastal-dependent developments shall have priority over other developments on or near the shoreline. The policy goes on to provide that, when appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support. As explained for Section 30001.5, the proposed Project's in-water components (i.e., the ocean intake and outfall facilities) are necessarily a coastal-dependent development or use, as they require a site on, or adjacent to, the sea in order to be able to function at all. And because the desalination facility would be dependent upon a coastal-dependent development or use, it would be a coastal-related development. The site of the proposed desalination facility is within reasonable proximity to the existing ocean intake and outfall facilities upon which it would rely to operate. Therefore, it appears siting of a desalination plant at the proposed Project site would not conflict with Section 30255.

Section 30222 directs that use of private lands suitable for visitor-serving commercial recreational facilities designed to enhance public opportunities for coastal recreation shall have priority over

other types of development, except agriculture or coastal-dependent industry. Given the adjacent heavy industrial uses, it is not clear that the proposed Project site, specifically the North Site, is suitable for visitor-serving commercial recreational facilities or agricultural developments because it is collocated with the existing NRG industrial facilities. Moreover, there are currently no proposals for such uses, or any other coastal-dependent industrial uses, to which the proposed Project would be expected to yield under this policy. Therefore, it appears development of the proposed Project site with a desalination plant would not conflict with Section 30222, even if found not to be coastal-dependent.

Section 30233 allows dredging and filling of open coastal waters for, among other purposes, new or expanded coastal-dependent industrial facilities and incidental public service purposes. The proposed Project would require a small amount of dredging and fill in the areas of the former power plant's existing intake and discharge systems. As noted previously, given their purpose would be for ocean water intake and ocean effluent discharge, the subject dredge and fill work would be for the purpose of new or expanded coastal-dependent facility. However, even if the CCC were to find the work were not for a coastal-dependent purpose, the proposed desalination plant and associated intake and outfall infrastructures would be for a public service purpose (i.e., public water supply). Therefore, the dredge and fill needed for the intake and outfall facilities would be for "incidental public service purposes, including but not limited to, burying cables and pipes or inspection of piers and maintenance of existing intake and outfall lines" (Section 30233(a)(4)). For these reasons, the proposed Project would not conflict with Section 30233.

Section 30235 allows the development of shoreline structures that would alter natural shoreline processes, when required to serve coastal-dependent uses and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. As discussed in *Master Response: Supplemental Studies* and response to comment CCC-33, a coastal hazards analysis prepared for the Project indicates the proposed Project would not require the development of shoreline protection during its estimated life. However, irrespective of the CCC's determination regarding the Project's coastal dependency, if shoreline protection were required at some point due to unforeseen circumstances, such armoring would not conflict with this policy, because the shoreline is not natural. Rather, the entire coastline in this area has been armored with revetment. Therefore, the proposed Project would not conflict with Section 30235.

For these reasons, it appears the proposed Project would not conflict with policies related to coastal dependency. For the reasons explained in response to comment CCC-32, the CCC's deliberations would not affect Draft EIR's impact conclusions with respect to whether the proposed Project would result in a significant physical adverse environmental effect.

Response CCC-35

See responses to comments CCC-7, -23 and -26. The Draft EIR does not discuss a coastal hazard protection structure, and none is proposed as part of the proposed Project. Under a No Action scenario, the presence of the existing NRG facility, without the proposed Project, would require managed retreat of the bike trail. See response to comment CCC-10, and *Master Response: Supplemental Studies*, which provides a description of the supplemental study.

Response CCC-36

See *Master Response: Supplemental Studies*; specifically, AMS Technical Memo-Comparison of 316(b) Data from SMB, California (AMS 2019; Final EIR Appendix 12).

Response CCC-37

The comment correctly cites the Santa Monica Bay Restoration Commission (SMBRC) Plan (dated 2013), Objective 1.3, which is to eliminate biological impacts of water intake and discharge from coastal power plants and desalination plants. The proposed Project would not, however, be inconsistent with this objective. The SMBRC Plan explains that, "Like coastal power plants, desalination plants also take up ocean water and may even use the intake water from adjacent coastal power plants. Since the intake pipes for desalination plants are not specifically covered under the CWA Section 316(b), policies to address potential impingement and entrainment impacts of ocean water intake by desalination plants should be developed under the purview of other existing and appropriate water quality policies. SWRCB is developing and scheduled for adoption in 2014 an amendment to the Ocean Plan that would address issues associated with desalinization facilities and the disposal of brine discharges from other sources." The Plan goes further in adopting Milestone (1.3b) to implement the Plan objectives relative to desalinization facilities which states: "Develop and adopt policies to address potential impacts of water intake brine discharge from desalination facilities by 2014. Implementation Lead: SWRCB, Implementation Partners: LARWQCB, Water Districts."

Because the Project as proposed in the Draft EIR will be designed and operated in conformance with OPA regulations adopted by the SWRCB concerning coastally sited desalination plants, the proposed Project would not be inconsistent with this SMBRC Plan policy.

In further response to the comment, the Draft EIR text on page 5.11-34 is revised as follows:

> **National Estuary Program**
> The Santa Monica Bay National Estuary Program (SMBNEP) was established under 1987 CWA Section 320 and is intended to protect and restore Santa Monica Bay's resources. The Santa Monica Bay Restoration Commission (SMBRC) is responsible for developing, updating, and implementing the Bay Restoration Plan (BRP). The SWRCB and The Bay Foundation (TBF), a non-profit entity, serve as the hosting entity that provide physical locations, staffing, and matching funds to support the SMBNEP activities. The Bay Foundation also receives, administers, and uses grant funds from different entities to implement many Projects identified in the BRP. The SMBRC in its Bay Restoration Plan (SMBRC 2013) have adopted 14 restoration goals that include objectives to improve water quality through enhancement of current regulatory frameworks and collaborative, integrated watershed-wide planning and implementation. These goals include the minimization of potential entrainment and impingement effects of desalinization facilities.

The Draft EIR Reference section is revised on page 5.11-82 as follows:

> Santa Monica Bay Restoration Commission. 2013. Bay Restoration Plan. Adopted December 19, 2013. Available at: https://www.smbrc.ca.gov/about_us/smbr_plan/docs/smbrplan2013_adopted.pdf

Response CCC-38

In response to this comment, the paragraph discussing Environmentally Sensitive Habitat Areas in marine waters has been deleted from the Draft EIR on page 5.11-35 as follows:

> ~~**Environmentally Sensitive Habitat Areas**~~
>
> ~~Under the California Coastal Act, Environmentally Sensitive Habitat Areas (ESHA) are defined as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." According to El Segundo's Local Coastal Program, there are no ESHAs in El Segundo's coastal zone, thus, Coastal Act Sections 30240(a) and (b) are not applicable (City of El Segundo 1980). Section 5.3, Biological Resources – Terrestrial discusses the presence of artificially introduced buckwheat, which is the host plant for the protected El Segundo blue butterfly.~~

Response CCC-39

Conformity with the OPA will be determined by the LARWQCB during the California Water Code Section 13142.5(b) determination (the "Water Code determination") process. See *Master Response: CEQA and Ocean Plan Compliance*.

Response CCC-40

The word "could" is used throughout the EIR impacts analyses to describe what impacts may result if the proposed Project were to be approved and permitted to operate. Draft EIR Subsection 5.11.4 (pages 5.11-49 through 5.11-60) discusses in detail the potential adverse effects the proposed Project may have on marine resources, especially planktonic organisms, as a result of ocean water intake and brine discharge related entrainment. The impacts range from No Impact to Less than Significant with Mitigation.

Response CCC-41

See *Master Response: CEQA and Ocean Plan Compliance*. Additionally, Draft EIR Table 5.11-9 has been modified to include a 1 percent reduction in ocean water intake entrainment on the APF calculation in accordance with OPA 2015 (see responses to comments LARWQCB-33 and -34).

Response CCC-42

See responses to comments LARWQCB-33 and-34 and *Master Response: CEQA and Ocean Plan Compliance*.

Response CCC-43

See *Master Response: CEQA and Ocean Plan Compliance*. The APF calculation involves multiplying the source water area (acres) by the P_m. Below is a table with the source water areas used, the scaled P_m, as well as the APF. In contrast with APF, the calculation of P_m involves more variables including the proportional entrainment (PE) calculated from densities of larvae:

(1) entrained in the intake and (2) present in the source water each month over the course of the year that the Tenera 2008 study was performed. Replication of the P_m calculations (including PE values) using data from the Tenera 2008 report is included in Appendix B of the AMS Technical Memo-Comparison of 316(b) Data from SMB, California (AMS 2019; Final EIR Appendix 12), and copied below for transparency.

Tenera 2008 Report Page no.	Fish (scale group)[1]	Alongshore distance (km)	Offshore distance (km)	Area (km^2)	Area (acres)	Scaled P_m (41 MGD)	APF
4-42	Anchovy (1:10)	54.6	21.7	1184.8	292774.9	0.000226292	66.3
4-50	Silversides (1:10)	26.1	3.5	91.4	22573.0	0.003281234	74.1
4-56	Sea Basses (1:1)	21.9	5.6	122.6	30305.0	0.0005143	15.6
4-65	White Croaker (1:10)	39.4	13.5	531.9	131435.1	0.000432012	56.8
4-74	Queenfish (1:10)	35.9	9.7	348.2	86049.4	0.00005143	4.4
4-74	Unid. Croakers (1:10)	28.5	7.4	210.9	52114.4	0.000699448	36.5
	Combtooth Blennies[2] (1:1)				1356.0	0.00041144	0.6
	CIQ[2] (1:1)				1356.0	0.002273206	3.1
4-104	California Halibut (1:10)	32.2	8.2	264.0	65245.6	0.000246864	16.1
	Diamond Turbot[2] (1:1)				1356.0	0.003178374	4.3
4-117	Sanddabs (1:10)	23.9	6.2	148.2	36616.0	0.00015429	5.6
4-123	English Sole (1:10)	29.8	7.6	226.5	55964.3	0.000113146	6.3

[1] Scale group per Allen and Pondella 2006 according to habitat type; [2]Source water habitat per National Wetland inventory

The comment (that Tenera 2008, used a different method for determining the length of time that larvae are subject to entrainment, compared with that recommended by OPA), will be taken into consideration at the time of the Water Code determination request.

Response CCC-44

See *Master Response: CEQA and Ocean Plan Compliance*. Additionally, the analysis of potential Project-related entrainment and shear stress mortality and the effect of these impacts on marine ecosystems were assessed in detail in Draft EIR Subsection 5.11.4 (pages 5.11-49 through 5.11-60). Mitigation measure BIO-M2 commits to mitigating these impacts by conducting off-site ecological habitat enhancement or contributing to a State-acceptable ecological enhancement fund. The studies proposed in mitigation measure BIO-M2 are intended to provide the State with more accurate California based information on desalination entrainment and shear stress impacts and their magnitude in a coastal application and employing OPA-mandated operational requirements.

See also responses to comments SLC-30, LARWQCB-34, and LARWQCB-36.

Response CCC-45

The Coastal Act and City of El Segundo LCP policies are included in Table 5.10-3, within Section 5.10, *Land Use*, which is the appropriate section to include a consistency analysis with policies related to recreation and public access. As stated in Table 5.10-3, "As indicated in Section 5.14, *Recreation*, it is not anticipated that the Project would impact recreational use of the 8-acre narrow strip of beach, owned by the California State Lands Commission, that borders the western boundary of the ESGS. Construction activities could temporarily affect use of the Marvin Braude Coastal Bike Trail but the temporary impact to the bike trail would not limit public access to the beach." The conformity analysis include in Section 5.10 is sufficient and does not need to be repeated in Section 5.14, *Recreation*.

Response CCC-46

See response to comment CCC-14 regarding temporary impacts to the Marvin Braude Coastal Bike Trail. Proposed Project construction activities would not result in any temporary or permanent impacts to public parking areas that provide coastal access.

Response CCC-47

See response to comment CCC-32. As discussed in that response, Coastal Act policy conformity regarding public works is addressed in the Table 5.10-3 discussion of Coastal Act Section 30254 (page 5.10-20). As also noted in that response, the direct and indirect effects related to growth associated with development of a new public works facility are addressed in Draft EIR Section 6.2, *Growth-Inducing Impacts* (pages 6-2 through 6-9). Also refer to response to comment CCC-31 for a discussion of potential conflicts with the LCP, wherein it is explained that the Draft EIR acknowledges the potential conflict with the LCP's land use designation and explains the LCP will likely require amendment in order for the Project to proceed.

Response CCC-48

CEQA Guidelines Section 15126.6 requires that an EIR consider alternatives that can avoid or substantially lessen significant impacts of a project. Draft EIR Subsection 7.1.3 explains the proposed Project would result in very few significant and unavoidable impacts, and identifies those impacts to air quality and noise during construction. As discussed in the Draft EIR on page 7-37, the No Project Alternative evaluates water supply sources to be implemented if West Basin does not pursue ocean water desalination. The No Project Alternative includes the continuation of conservation programs and existing supply sources which primarily include recycled water and imported water (see Table 7-4) in addition to groundwater that is available to West Basin's customers. West Basin currently maximizes all feasible water supply alternatives, and will continue to do so under the No Project Alternative whether or not the proposed Project is approved.

However, the collective water supply alternatives identified above and under the No Project Alternative would not meet the objectives of the proposed Project (Draft EIR page 7-40). Maximizing the use of existing sources may reduce some of the need for imported water in the future, but current water supply sources do not holistically improve water security, or reduce the risk of imported water unavailability during drought conditions, and would not collectively

eliminate the need for imported water. See *Master Response: Water Supply Alternatives*. West Basin's future water supply diversification would result in a reduction in imported water which allows for an increase in conservation programs and recycled water, and ocean water desalination should it be approved as a supply source. As noted in the conclusion to the March 2019 Coordinated Strategic Plan to Advance Desalination for Enhanced Water Security,[2] "Desalination is an important part of a comprehensive approach to improve water availability, resiliency, and security in the U.S."

Response CCC-49

The removal of concrete plugs within the intake and discharge tunnels has been added to the Project Description Subsection 3.5.1 (see Final EIR Section 11, *Refinements to the Project Description*). The removal process would entail drilling and breaking up of the plugs, and hauling off the debris. It is anticipated that approximately 20 truckloads (40 round trip truck trips) would be required to haul the material from the site. These additional truck trips would be well within the maximum daily truck trips assumed during the demolition and soil off-hauling components of site preparation. The demolition activities needed for the concrete plugs would not result in substantial environmental impacts not already accounted for in the EIR. The removal of the concrete plugs from the intake and discharge would not change the Draft EIR conclusions respective to the analysis of alternatives.

Response CCC-50

As noted in the Draft EIR Subsection 7.1.3, the analysis did not find any significant impact on water quality or the marine environment that would necessitate an evaluation of alternatives that would extend the intake further offshore or to deeper water. Furthermore, subject to the LARWQCB's review and final determination, West Basin can support the determination that the ESGS is the best available site for the purposes of intake and discharge technology because the evidence demonstrates that the ESGS is uniquely located in SMB at a site that is as distant as possible from MPAs, the King Harbor artificial reef, and coastal wetlands in order to minimize the entrainment of larval fish, including special-status and managed fish and invertebrate taxa; see Final EIR Appendix 12 and responses to comments CCC-4 and CCC-6.

While the OPA recognizes the difference between long-term operational impacts and relatively short-term construction impacts through its emphasis on minimizing entrainment, Mitigation Measure BIO-M2 specifies that loss of habitat will be compensated for by either direct or indirect habitat restoration consistent with California Ocean Plan Chapter III.M.2.e.(3) or by providing monetary payments to an appropriate State-approved fee-based mitigation program consistent with California Ocean Plan Chapter III.M.2.e.(4), or a combination of the two and in a manner acceptable to the LARWQCB as part of the Project's permitting process, and that final determination of the appropriate mitigation shall be determined by the LARWQCB. See *also Master Response: CEQA and Ocean Plan Compliance.*

[2] A Report by the Desalination Science and Technology Task Force Subcommittee on Water Availability and Quality Committee on Environment, of the National Science & Technology Council, and issued by the Executive Office of the President of the United States.

Response CCC-51

The Draft EIR Appendix 11 evaluates the feasibility of constructing a brine discharge pipeline to Hyperion Water Reclamation Plant to co-mingle brine with the existing secondary-treated wastewater effluent. The study comports with the OPA requirements to evaluate the possibility of co-mingling brine with existing ocean discharges. The study concludes that the construction of a pipeline would be difficult, but technically feasible. However, the study also concludes that future wastewater flows in the Hyperion outfall are not sufficient reliable to support the dilution benefits associated with co-mingling. Furthermore, since the publication of the Draft EIR, the Mayor of the City of Los Angeles announced on February 21, 2019, that the City will recycle 100 percent of its wastewater by 2035, further assuring that any co-mingling of brine with wastewater at the Hyperion plant would be infeasible. As a result, significant alterations to the outfall diffuser would be required similar to the proposed outfall, and because West Basin does not own the Hyperion facility, the study concluded that it would be infeasible to obtain permission from the City of Los Angeles to retrofit the existing outfall to accommodate ocean water desalination brine. While the benefits of co-mingling brine with wastewater effluent are on meeting water quality standards, little benefit is gained with regards to discharge entrainment and shear stress impacts. As such, West Basin has met the OPA's requirement to investigate the feasibility of using existing outfalls to co-mingle brine and proposes to use a linear multi-port diffuser; see Final EIR Appendix 14.

Response CCC-52

Comments on the Draft EIR have not identified any new or additional significant and unavoidable adverse impacts of the proposed Project. With respect to non-conformance with land use plans and policies, the impact is not significant and unavoidable. The Draft EIR discloses on pages 5.10-8 and 5.10-9, that the El Segundo Coastal Zone Specific Plan designates the proposed Project site as Power Plant (PP), a designation which "… limits the use of the site to energy facility and energy related developments required for the continued operation of electrical power plant.' (City of El Segundo, 1980)." As explained in Impact LU-5.10-2 (page 5.10-22), the type of use proposed under the Project may not be permitted under the LCP, because the Project is not an energy facility or energy-related development. The Draft EIR notes that the LCP may need to be amended to allow for a water treatment plant to be constructed within a parcel with the LCP designation of "Power Plant (PP)." See Section 5.10 *Land Use and Planning* (pages 5.10-22-23); see also response to comment CCC-31.

The California Office of Planning and Research in the November 2017 Proposed Updates to the CEQA Guidelines (OPR 2017) has clarified that "the focus of the analysis should not be on the 'conflict' with the plan, but instead, on any adverse environmental impact that might result from a conflict. For example, destruction of habitat that results from development in conflict with a habitat conservation plan might lead to a significant environmental impact. The focus, however, should be on the impact on the environment, not on the conflict with the plan."

The Draft EIR addresses the impacts of the proposed Project on land use in Subsection 5.10.4 and concludes the proposed Project would not physically divide an established community, and Subsection 5.14.4 concludes the impacts of the proposed Project on recreation would have a less than significant impact with mitigation.

Response CCC-53

West Basin notes the CCC contact information for any future correspondence regarding this comment letter.

Response to Letter CDFW: California Department of Fish and Wildlife

Response CDFW-1

West Basin notes the summary of the proposed Project and California Department of Fish and Wildlife's (CDFW's) role in protecting the State's fish and wildlife resources as a Trustee Agency under CEQA.

Response CDFW-2

West Basin notes the provided description of marine resources in the Santa Monica Bay (SMB), and the importance of the marine environment in its role as an economic resource for commercial and recreational fishing. The EIR determined that with mitigation (see Draft EIR Subsection 5.11.4), the proposed Project would have a less than significant impact on any species, natural community, or habitat; would not threaten to eliminate a marine plant or animal community; would not interfere with the movement of any native resident or migratory fish or marine wildlife species; and would not introduce or spread invasive non-native species.

Response CDFW-3

In response to this and other similar comments, a supplemental study has been conducted that expands upon the Subsurface Intake Feasibility Study provided in the Draft EIR. The findings of this supplemental study (provided as Final EIR Appendix 13) present further evidence that confirms West Basin's conclusions in the Draft EIR, and provide support for future regulatory decisions. See *Master Response: Supplemental Studies*.

Response CDFW-4

West Basin prepared a supplemental technical study to assess whether siting the proposed Project at the El Segundo Generating Station (ESGS) location, or some other location within SMB, would result in more or less entrainment of planktonic organisms (see *Master Response: Supplemental Studies*). The supplemental study titled *Comparison of 316(b) Data in Santa Monica Bay,* included as Final EIR Appendix 12, clarifies the existing data and information and supports the impact analysis in the EIR. It also provides additional information that may be used during the permitting phase of the Project (see *Master Response: CEQA and Ocean Plan Compliance*). Results of the study indicate that the preferable location for a project's ocean water intake in coastal California must be as distant as possible from rocky reef/hard substrate habitat, coastal lagoons and estuaries, and marine protected areas (MPAs) in order to minimize the entrainment of larval fish, including special-status and managed fish and invertebrate taxa. As illustrated in the Draft EIR Figure 5.11-2, there are MPAs at either end of SMB and numerous artificial reefs in the nearshore coastal waters; ESGS is uniquely located in SMB at a site that is as distant from MPAs, the King Harbor artificial reef, and coastal wetlands as possible. Based on available data, the evidence indicates the ESGS is the "best available" site in SMB to minimize the intake and mortality of marine life.

Response CDFW-5

As explained in Draft EIR Subsection 2.10.9, West Basin partnered with Metropolitan Water District of Southern California to prepare the Ocean Water Desalination Intake Biofouling and Corrosion Study to further investigate the impacts of biofouling and corrosion rates related to wedgewire screens in open ocean water intake structures (Tetra Tech 2016). That study demonstrated that copper-nickel (Cu-Ni) alloys have superior fouling resistant characteristics which would help reduce the maintenance needs. And the success of using wedgewire screens, from an operational point of view, is dependent upon the management of corrosion and biofouling (macro- and microbiofouling) since these processes will affect the overall maintenance requirements as well as the longevity of the screens. As described in Final EIR Section 11 (*Refinements to the Project Description*, Subsection 3.7.4) periodic maintenance trips estimated at less than one per month, would be required for divers to inspect the intake screens, and to ensure that excessive biofouling does not develop. Should macro foulants be found, divers would use tools, such as brushes and chisels, to mechanically remove large foulants attached to the screens. The Draft EIR at page 5.9-56 also explains that the use of a Cu-Ni alloy for the wedgewire screens is proposed to minimize micro-biofouling and prevent macro-biofouling of the intake structure. Regarding impingement and entrainment of organisms smaller than 1 mm, Mitigation Measure BIO-M2 (see EIR Subsection 5.11.4) addresses the monitoring of the intake and discharge for the impingement and entrainment of organisms and commits West Basin to conducting site-specific scientific studies of both the entrainment of planktonic organisms into the wedgewire screen equipped ocean intake, and of potential shear stress impacts on planktonic organisms from the brine discharge. The results of these studies would then be used to accurately estimate Project-related impacts to marine ecosystems in the form of APF calculations, as required by the 2015 California Ocean Plan Amendments (OPA).

Response CDFW-6

Mitigation Measure BIO-M2 explains that consistent with the requirements of the OPA and as part of the California Water Code Section 13142.5(b) determination (the "Water Code determination") process, West Basin will prepare a marine life mortality report that includes a detailed entrainment study, and the entrainment assessment period shall be at least 12 consecutive months and sampling shall be designed to account for variation in oceanographic or hydrologic conditions and larval abundance and diversity such that abundance estimates are reasonably accurate. West Basin will ensure that CDFW is consulted with respect to any Mitigation Plan or fee-based mitigation program. As noted in the Draft EIR Table 3-11, West Basin will be consulting with CDFW regarding an Endangered Species Act consistency determination and as part of the Lake/Streambed Alternation Agreement process. See *Master Response: CEQA and Ocean Plan Compliance*.

Response CDFW-7

A detailed and comprehensive analysis of impacts to marine organisms from turbulence-induced shearing stress related to the discharge of brine is presented in the Draft EIR Subsection 5.11.4 under "Shear Stress" (Impact 5.11-1, page 5.11-58 *et seq*.). Impacts related to shear stress were determined to be less than significant with implementation of Mitigation Measure BIO-M2,

which requires West Basin to conduct an assessment of larval entrainment of both its ocean water intake and its ocean outfall, such that the magnitude of the proposed Project's effect on the marine ecosystem can be more accurately determined and mitigated. The assessed loss due to entrainment will then be compensated for by either direct or indirect habitat restoration consistent with California Ocean Plan Chapter III.M.2.e.(3) or by providing monetary payments to an appropriate State-approved fee-based mitigation program consistent with California Ocean Plan Chapter III.M.2.e.(4), or a combination of the two. The comprehensive assessment of water quality impacts from the discharge of brine (Draft EIR Subsection 5.9.4) was incorporated into the analysis of impacts on marine biological resources potentially occurring due to changes in receiving water quality within the mixing zone at the outfall diffuser. As discussed in detail in the Draft EIR Subsection 5.11.4 (page 5.11-56), because water quality constituents would not exceed existing background levels at the edge of the Zone of Initial Dilution, the discharge of brine would not be expected to pose any risk to marine habitats and taxa, including special-status fish, marine mammals, and sea turtles. Regarding the angle of the diffuser ports, Final EIR Appendix 14A presents a supplemental model analysis of dilution conducted for linear diffuser configurations with an assumed port depth of 24 feet and a diffuser port angle of 60°. See response to comment LARWQCB-30 for additional details.

Response CDFW-8

Final EIR Appendix 14A presents a supplemental model analysis of linear diffuser configurations consistent with the calculation procedures recommended by Roberts (2018). Through the supplemental model analysis, linear diffuser designs were developed for the Local Project and the Regional Project (see Final EIR Section 11, *Refinements to the Project Description*) that include a port depth of 24 feet below sea level, and a diffuser port angle of 60°. The objective of the analysis was to identify a linear diffuser configuration that would comply with the required Ocean Plan criteria for desalination discharges. These criteria are: The salinity increment must be less than 2 parts per thousand within the maximum allowable Brine Mixing Zone (BMZ) of 100 meters (328 feet), and the jets must be fully submerged and not impact the water surface. In addition, the analysis identified linear diffuser configurations that would minimize the extent of the BMZ and the jet exit velocity, in order to minimize mortality of organisms that may be entrained into the jets due to turbulence and shear. See responses to comments LARWQCB-30, -34, and -36 for additional details.

Response CDFW-9

CEQA Guidelines Section 15126.6 requires that an EIR consider alternatives that can avoid or substantially lessen significant impacts of a project. As described in Draft EIR Subsection 5.9.4, the proposed brine discharge system described in the Draft EIR Subsection 3.4.1 (see also response to comment CDFW-8) would comply with the impact thresholds described in the Draft EIR Subsection 5.9.3 (and with the CA Ocean Plan), and would not result in a significant impact on water quality that warrants an analysis of alternative discharge options.

For the purposes of the Ocean Plan requirements, the Draft EIR Appendix 11 evaluates the feasibility of constructing a brine discharge pipeline to Hyperion Water Reclamation Plant to co-mingle brine with the existing secondary-treated wastewater effluent. The study comports with the Ocean Plan requirements to evaluate the possibility of co-mingling brine with existing ocean

discharges. While the study concludes that the construction of a pipeline would be difficult, but technically feasible, the study also concludes that future wastewater flows in the Hyperion outfall are not sufficiently reliable to support the dilution benefits associated with co-mingling. Furthermore, since the publication of the Draft EIR, the Mayor of the City of Los Angeles announced on February 21, 2019, that the City will recycle 100 percent of its wastewater by 2035, further assuring that any co-mingling of brine with wastewater at the Hyperion plant would be infeasible. As a result, significant alterations to the outfall diffuser would be required similar to the proposed outfall location. Since West Basin does not own the Hyperion facility, the study concluded that it would be infeasible to obtain permission from the City of Los Angeles to retrofit the existing outfall to accommodate ocean water desalination brine. The EIR complies with the Ocean Plan's requirements to investigate the feasibility of using existing outfalls to co-mingle brine, and proposes to use a multi-port diffuser that would allow the brine to meet the Ocean Plan's water quality thresholds.

Final EIR Appendix 12 presents a comparison of entrainment data from SMB and the results indicate that within the ESGS location, it does not appear to make a difference whether the intake is extended from the currently proposed 10-meter contour location to a deeper 30-meter contour location. This is because potential increases in entrainment of soft-bottom fish species at the deeper contour cancel out potential decreases in entrainment of estuarine and soft-bottom species at the shallower contour.

See also responses to comments CCC-4, LARWQCB-42, and LARWQCB-52.

Response CDFW-10

The Draft EIR evaluates both methods of stockpiling riprap. As noted in the Draft EIR Table 3-11, if the proposed Project is approved, West Basin would apply to CDFW for a Lake or Streambed Alteration Agreement and West Basin would be required to consult with CDFW during the permitting process.

Response CDFW-11

The Draft EIR determined that the removal and reinstallation of the existing armor rock at the ESGS offshore intake and outfall would result in a less than significant impact (Draft EIR pages 5.11-39 through 5.11-40). The Draft EIR determined that the potential for the occurrence of any special-status species, including abalone (Draft EIR page 5.11-33 and Draft EIR Table 5.11-3) are not known or expected to occur in the Project Marine Study Area. Additionally, there is no known occurrence of the invasive algae, *Caulerpa*, in the offshore waters of California. The only known occurrence has been within San Diego Bay, where it has been eradicated. Finally, no sensitive marine habitats, MPAs, or Habitat Areas of Particular Concern (HAPC) designated by CDFW, U.S. Fish and Wildlife Service (USFWS), or the National Marine Fisheries Service (NMFS) exist inside or in the vicinity of the Project Marine Study Area, and as such, the proposed Project was assessed in the Draft EIR not to have the potential to impact critical habitat or other sensitive marine habitats (Draft EIR page 5.11-40). Based on this evidence, the Draft EIR determined that the potential effect of the removal and re- installation of the armor rock would be less than significant, rendering the inclusion of a mitigation measure requiring a pre-survey of the armor rock prior to removal or after removal, neither required nor justified under CEQA, as suggested by the commenter.

At present, the U.S. Army Corps of Engineers (USACE) requires all dredging and pile driving activity permittees in Southern California to conduct an Essential Fish Habitat, HAPC, and invasive algae assessment of the marine project area prior to permit issuance and commencement of operations. The protocols for conducting and reporting findings for these surveys is fairly standardized. Additionally, as the State's lead resource agency, CDFW can request the California Coastal Commission to include such a requirement in the Project's Coastal Development Permit and/or the Los Angeles Regional Water Quality Control Board (LARWQCB) to include it in any National Pollutant Discharge Elimination System (and/or Waste Discharge Requirement [WDR]) permit issued for the Project.

Response CDFW-12

Draft EIR Subsection 5.9.1 presents the regulatory framework for the hydrology and water quality analysis. The Marine Protection, Research, and Sanctuaries Act authorizes the U.S. Environmental Protection Agency (USEPA) to designate areas for ocean dredge material disposal and the USACE is the permitting agency for ocean disposal of dredged material. The USEPA and USACE Los Angeles District personnel jointly administers pre-dredge sediment evaluations, project-specific compliance tracking of disposal operations, evaluation of permit compliance and monitoring results, implementation of a site-specific monitoring program, and periodic review of the Site Management and Monitoring Plan. A detailed analysis of potential water quality impacts from construction dredging is presented in the Draft EIR Subsection 5.9.4 under the heading "Screened Ocean Intake and Concentrate Discharge Structures" (Impact 5.9-1, page 5.9-43). The evaluation of potential impacts to water quality from dredging included consideration of short-term impacts associated with turbidity, dissolved and particulate contaminants, dissolved oxygen concentration changes, and water quality degradation from dredge material stockpiling, transport, and disposal. The application of typical industry standard Best Management Practices (BMPs) and the requirements to implement such BMPs as part of regulatory permit coverage is also described and considered in the Draft EIR assessment of impacts. Mandatory requirements for compliance with a USACE Section 10 permit, LARWQCB water quality certification, and Waste Discharge Requirements as well as disposal of dredged materials are also described in the Draft EIR; coordination with these agencies regarding permits would be the appropriate time to coordinate with the Dredged Materials Management Team. See response to comment SLC-21 for additional details.

Response CDFW-13

Draft EIR Subsection 3.5.2 (page 3-25) and Subsection 5.11.4 (page 5.11-39) explain an impact hammer would only be used to ensure that the anchor pilings have reached the requisite total depth needed to anchor the intake or discharge pipeline terminus structures. The Project proposes to use fiberglass composite pilings or very-small-diameter steel pilings and both of these piling types generate very-low-amplitude noise underwater, as demonstrated in Draft EIR Table 5.11-6. A calculation of underwater noise during pile driving activities is provided in Draft EIR Subsection 5.11.4 (pages 5.11-45 through 5.11-50), and the results of underwater noise calculations is summarized in Draft EIR Table 5.11-7. As cited in the Draft EIR Subsection 5.11.4 (page 5.11-46), the maximum decibels (dB) levels of installing 16-inch fiberglass composite pilings employing a combined vibratory and impact hammer installation method

would generate peak sound exposure levels of 149 dB at a 10-meter distance; the peak dB readings are attributed to the impact hammer portion of the pile installation.

In response to this comment, a sound level monitoring BMP during pile driving activities has been included in Mitigation Measure BIO-M1 as follows:

> The plan shall incorporate, but not be limited to the following BMPs:
>
> - Pile driving shall be conducted only between June and November to avoid gray whale migration, unless NMFS in their Section 7 consultation with the USACE determines that the potential effect to marine mammals is less than significant.
>
> - A ~~1,600-foot (500-meter)~~ safety zone at least 1,600 feet (500 meters) in size shall be established and maintained around the sound source for the protection of marine mammals and sea turtles in the event that sound levels are unknown or cannot be adequately predicted. If NOAA or the USACE requests that the size of the safety zone be increased when NOAA or the USACE issues a permit for Project pile-driving, then the larger of the NOAA-requested or USACE-requested safety-zone size will be established and maintained around the sound source.[3]
>
> - Work activities shall be halted when a marine mammal or sea turtle enters the ~~1,600-foot (500-meter)~~ safety zone, and shall cease until the mammal has been gone from the area for a minimum of 15 minutes.
>
> - A "soft start" technique shall be used in all impact hammer sourced pile driving, giving marine mammals an opportunity to vacate the area.
>
> - A NMFS-approved biological monitor will conduct daily surveys before and during impact hammer pile driving to inspect the work zone and adjacent SMB waters for marine mammals. The monitor will be present as specified by NMFS Fisheries during the pile-driving phases of construction.
>
> - In-water sound level monitoring will be conducted during all pile-driving activities.

Mitigation measure BIO-M1 ensures that if final engineering design or site specific geologic conditions require an anchor pile installation slightly different than what was modeled in the Draft EIR, that the requisite assessment will be done as part of the Project permitting phase and the potential impacts remain less than significant with mitigation, as required by CEQA.

Similar to all changes to mitigation measure presented herein, these minor edits serve to clarify the mitigation measure; they do not decrease the effectiveness of the proposed mitigation measure, result in a substantial increase in the severity of the identified impact after implementation of mitigation, nor preclude meaningful review and comment.

3 This BMP was edited in response to comment SLC-29.

Response CDFW-14

See *Master Response: Marine Biological Resources Study Area* and Comparison of 316(b) Data from SMB, California (AMS 2019; Final EIR Appendix 12). Additionally, as identified in Section 5.11, *Marine Biological Resources*, in the discussion of potential entrainment (Draft EIR pages 5.11-49 through 5.11-54) and discharge shear stress (Draft EIR pages 5.11-58 through 5.11-60), the Clean Water Act Section 316(b) entrainment studies upon which the Project-related entrainment and shear stress effects are estimated and the area of production foregone (APF) calculations are based use a much larger area of recruitment within SMB for use in the empirical transport model. If the Point Dume, Point Vincente, Abalone Cove, or Palos Verdes MPAs contribute any larval fish to the marine study area, they would be reflected in the multi-year data used to analyze these impacts. Similarly, if any adults from any of the MPAs located on either end of SMB were to immigrate into the study area, that occurrence should be reflected in the site data used to identify fish and invertebrate species present within the marine study area.

Response CDFW-15

In response to the comment regarding brown pelican, and specifically related to brown pelican roosting, the Draft EIR text on pages 5.3-29 and 5.3-36 to -37 is revised as follows:

Draft EIR page 5.3-29:

California Brown Pelican

California brown pelican is a CDFW fully protected subspecies of the brown pelican that has been delisted from both the federal and ~~CESA~~ state endangered species lists ~~(formerly endangered on both)~~. It is a year-round resident of Los Angeles County. The brown pelican is found mostly offshore along coastal waters, but may also venture inland into large open waters; it is known to occur in inundated reservoirs throughout the county. It usually nests on the ground, in trees, or on cliffs along the Pacific Coast; refer to Appendix 6. However, the only breeding colonies of this subspecies along the California coast are located on Anacapa Island and Santa Barbara Island. The species is known to roost on mudflats, sandy beaches, wharfs, rocky areas, and jetties. The ~~Project~~ ESGS site is located along the California coast, where brown pelicans (as well as several other birds) can commonly be found foraging offshore; however, there is no suitable nesting habitat within a 250-foot buffer of the ESGS site~~within the survey area~~. This species was observed flying over the ~~Project~~ ESGS site during the November 2015 habitat assessment field survey. Roosting habitat in the form of sandy beach and a jetty exists at the ESGS site as it does within the entire Santa Monica Bay and Southern California coastline. However, because there is a high level of human activity along this section of beach, brown pelican is not expected to roost at the site and has not been observed roosting at the site. In addition, the sandy beach in this area is much narrower than similar and wider areas located to the immediate north and south that also provide sandy beaches that are suitable for roosting.

See modifications to Mitigation Measure BIO-5 in response to comment CEC-3

Response CDFW-16

Regarding potential noise and vibration impacts to snowy plover, sound dampening measures are included in Mitigation Measure BIO-5 as one of the adaptive measures to reduce disturbance to nesting birds. In addition, Mitigation Measures NOI-1 and NOI-2 include measures to reduce noise created by proposed Project activities, such as use of sound barriers. Mitigation Measure BIO-7 has been revised to include additional measures to protect western snowy plover as suggested by the commenter. Further, Mitigation Measure NOI-3 will determine the feasibility of construction methods that avoid pile driving. West Basin takes note of CDFW's request to use the "press-in" method of pile installation instead of pile driving, and this will be assessed as part of Mitigation Measure NOI-3. The Draft EIR notes on page 5.3-33 that direct impacts to western snowy plover is unlikely due to the lack of impact to the beach area and due to the high level of human disturbance currently affecting the area.

In an abundance of caution, and in response to comments from CDFW, the Draft EIR text on page 5.3-37 is revised as follows:

> **BIO-7:** A qualified biologist shall be present during all vegetation removal and construction on or immediately adjacent to the open beach. The qualified biologist shall be familiar with the identification of western snowy plover, their biology and ecology, and have field experience surveying from nests and conducting monitoring activities for western snowy plover. The qualified biologist shall be responsible for ensuring that no snowy plovers are present within the construction zone.
>
> If western snowy plover are observed within Critical Habitat Subunit 45C, and no breeding behavior activity is observed, the Project biologist will establish appropriate buffers and monitor the western snowy plovers as needed until the snowy plover are no longer observed using these areas. The Project biologist will have the ability to halt Project construction activities, if necessary, to avoid unanticipated impacts, including significant disturbance, to the snowy plover foraging, roosting or breeding behavior.

As discussed in Draft EIR Subsection 3.5.1, proposed Project construction work would generally occur during daylight hours from 7 a.m. to 6 p.m., with some demolition and materials removal or import to occur at night for oversized loads. Regarding potential light and glare impacts to snowy plover, Draft EIR Section 5.1, *Aesthetics*, (page 5.1-26) states that with mitigation incorporated, the facility construction would not create a new source of substantial light or glare that would adversely affect nighttime views, which would also avoid significant impacts to western snowy plover from lighting. Mitigation Measure AES-5 requires preparation of a Construction Safety Lighting Plan that demonstrates that all construction-related lighting is located and aimed away from adjacent residential and public beach areas and consists of the minimal wattage necessary to provide safety at the construction site. As a result, it is not anticipated that ambient lighting would substantially impact snowy plover.

Response CDFW-17

Although *The Manual of California Vegetation* (MCV) was not used, vegetation communities were accurately described in Draft EIR Subsection 5.3.2, beginning on page 5.3-13. The following revisions were made to incorporate corresponding communities described in the MCV.

Restored Coastal Scrub

The restored coastal scrub plant community occurs along the slopes of the southwestern corner of the desalination facility site. This plant community is primarily composed of native vegetation, including common yarrow (*Achillea millefolium*), brittlebush (*Encelia farinosa*), Menzies' goldenbush (*Isocoma menziesii*), Douglas' nightshade (*Solanum douglasii*), lemonadeberry (*Rhus integrifolia*), and California buckwheat (*Eriogonum fasciculatum*), but also includes some non-natives, particularly Mexican fan palm (*Washingtonia robusta*), pine (*Pinus* sp.), New Zealand flax (*Phormium* sp.), and rabbitsfoot grass (*Polypogon monspeliensis*). This community corresponds to Menzie's golden bush scrub (*Isocoma menziesii Shrubland Alliance)* as described in the MCV and is considered a natural sensitive community with a state rank of S3. This community integrates into ornamental vegetation in the southeastern corner of the Project site. Water irrigation pipelines, which provide artificial irrigation, are present throughout this community.

Ornamental

Ornamental areas are present along the remainder of the slopes within the survey area, which are primarily found along the eastern half of the desalination facility site and along the entire length west of Vista Del Mar. These slopes are dominated by iceplant (*Carpobrotus edulis*), particularly in the southern half of the desalination facility site. Additional ornamental shrubs and trees, including Mexican fan palm, are present on the slopes in the northern half of the site. This community corresponds to Ice Plant Mats (*Mesembryanthemum* spp. - *Carpobrotus* spp. Herbaceous Semi-Natural Alliance) as described in the MCV, which does not identify a state ranking due to its dominance by non-native species. Thus, it is not considered a natural sensitive community.

The area identified as sandy beach does not meet the requirements of the *Abronia latifolia Ambrosia chamissonis* Herbaceous Alliance, as *Ambrosia chamissonis* was observed growing sparsely within an area containing a rocky slope to support an adjacent bike path. Requirements for this alliance as well as sand dunes associated with this alliance were not observed during surveys conducted for the proposed Project.

Response CDFW-18

As described in Draft EIR Subsection 5.3.4, vegetation within the ocean water desalination facility (the ESGS north and south sites) is comprised of manmade ornamental areas and restored coastal sage scrub. In response to this comment, the section has been revised to clarify that the reference to ornamental areas and restored coastal sage scrub applies only within the ocean water desalination facility, and not the 250-foot buffer area that was surveyed during the habitat assessment. The Draft EIR text on page 5.3-32 is revised as follows:

Special-Status Plant Species

The ESGS is developed and is surrounded by two plant communities: restored coastal scrub and ornamental. The habitat assessment field survey did not identify any special-status plant species at the ESGS. All vegetated areas within the ~~survey area~~ ESGS north and south sites are manmade ornamental areas or areas that have been revegetated with a specific coastal scrub seed mix. Based on habitat requirements for specific species, the availability and quality of habitats needed by each special-status plant species, and the manmade nature of the on-site vegetation, it was determined that the ~~desalination facility~~ ESGS north and south site~~s~~ do~~es~~ not provide suitable habitat that would support any of the special-status plant species

known to occur in the its general vicinity. Therefore, Local Project ocean water desalination facility construction would not impact special-status plant species.

Response CDFW-19

The Draft EIR Terrestrial Habitat Assessment (Draft EIR Appendix 6) states that the survey done on November 2, 2015, was a general habitat assessment that assessed multiple special-status species and habitats. An additional focused assessment was conducted for the El Segundo blue butterfly on July 12, 2016 (Draft EIR Appendix 6, page 1). Although the surveys did not observe any butterflies at the site, the biologist concluded that the habitat was sufficient for occupation. Based on these assessments and the onsite habitat present, the Terrestrial Habitat Assessment (Draft EIR Appendix 6) concluded that the El Segundo blue butterfly has moderate potential to occur at the proposed Project site. Mitigation Measure BIO-9 is included to mitigate this potential impact. This measure requires a focused survey for this species during the appropriate time period, and includes appropriate follow up protocols.

The focused survey that would be conducted as part of Mitigation Measure BIO-9 would confirm the absence of the El Segundo blue butterfly and serve to document the location of the species and/or its host plant onsite. The measure specifies performance standards (i.e., halt work) that shall be followed if El Segundo blue butterfly are found to ensure the species is not significantly impacted. Furthermore, focused surveys for the presence of the butterfly need to be conducted just prior to construction activities to provide value since individuals can occupy the site between now and the proposed Project construction period. West Basin has added additional details to Mitigation Measure BIO-9 regarding actions to be taken in consultation with USFWS to ensure impacts remain less than significant.

> **BIO-9:** Although surveys have shown the El Segundo blue butterfly is absent from the Project site, ~~O~~one year prior to commencement of ground-disturbing activities, an El Segundo blue butterfly focused survey shall be conducted by a qualified biologist within areas of the Project site containing suitable habitat supporting coast buckwheat during the adult flight season (mid-June to early September). The adult flight stage of this species can last as little as 4 days to as much as 2 weeks per individual. If this species is found, ground- disturbing activities shall not occur within these areas until West Basin consults with the USFWS and determines if avoidance measures are possible or if an incidental take authorization permit is required prior to Project construction. Avoidance measures shall be determined based on consultation with USFWS and may include avoidance of occupied habitat, replacement of impacted habitat, and measures to control fugitive dust, which can adversely affect the species. The qualified biologist shall provide the results of the focused survey in the subsequent monthly compliance report. If El Segundo blue butterflies are found, the qualified biologist shall document butterfly mitigation, monitoring, and compliance efforts in the monthly compliance reports, including maps and photographs. The qualified biologist shall report all butterfly occurrences with the CNDDB. If avoidance of occupied or suitable habitat is not possible, West Basin shall consult with USFWS for replacement of impacted habitat at a ratio commensurate with the value of the affected area to be determined by USFWS.

These minor edits serve to clarify the mitigation measures; they do not decrease the effectiveness of the proposed mitigation measure, result in a substantial increase in the severity of the identified impact after implementation of mitigation, nor preclude meaningful review and comment.

Response CDFW-20

The Draft EIR identified in Table 5.3-2 that the six bat species found in the region (pallid bat, western mastiff bat, silver-haired bat, hoary bat, pocketed free-tailed bat, big free-tailed bat) have no potential to roost at the site. None of these bat species is listed on state or federal endangered species lists. The Draft EIR documented that no natural habitat exists on site and the potential for roosting on the power plant infrastructure was low and not previously documented. The Draft EIR concluded that power plant infrastructure is not suitable habitat for these special-status bat species. As a result, no additional surveys are required. However, in response to this comment and to ensure that no bats utilize the infrastructure on the site for roosting, the following mitigation measure has been added:

> **BIO-9B:** One year prior to commencement of demolition activities, a bat roosting survey will be conducted on the Project site to confirm the absence of any bat roosts. If bats are found to utilize any portion of the site, and avoidance is not feasible, West Basin shall report the findings to CDFW and will prepare and implement a bat relocation plan consistent with CDFW approved methods.

Response CDFW-21

Mitigation Measure AQ-1 requires West Basin to implement a series of dust suppression techniques to prevent fugitive dust from creating an off-site nuisance and to reduce construction-related fugitive dust impacts on nearby sensitive receptors, while Mitigation Measure AES-1 requires a Construction Management Plan that indicates the equipment and vehicle staging areas to be used and haul routes. Mitigation Measure BIO-2 ensures that sensitive species are avoided during construction while Mitigation Measure BIO-4 is intended to prevent the spread and propagation of nonnative, invasive weeds. No changes have been made to the Draft EIR in response to this comment.

Response CDFW-22

West Basin notes the CDFW contact information for any future correspondence regarding this comment letter.

Response to Letter CEC: California Energy Commission

Response CEC-1

West Basin acknowledges the commenter's statement that comments made on the Notice of Preparation have been addressed adequately in the Draft EIR. Subsequent responses to comments are found in CEC-2 though CEC-7.

Response CEC-2

Draft EIR Section 2.10 presents the proposed Project development background. Subsection 2.10.10 of the Draft EIR on page 2-37 summarizes a technical memo prepared by MWH in 2007, that describes "… a flow rate anticipated for the Local Project (defined as 42 MGD)" at that time. The text of the Draft EIR on page 2-41 is summarizing the results of a 2017 study, included in the Draft EIR as Appendix 2A, that assumed a 40 million gallons per day (MGD) intake rate.

However, and as explained specifically in the Draft EIR Section 3, *Project Description*, Subsection 3.4.1, on page 3-12, the total intake flow for the Local Project would be 42.2 MGD if the plant uses one method of pretreatment, 45.4 MGD if the plant uses a different pretreatment method and 41 MGD if treated backwash water is internally recycled. The topical sections in the Draft EIR Section 5 evaluate the Project described in the Section 3, *Project Description*; no change has been made to the Draft EIR in response to this comment.

Response CEC-3

The mitigation measures described in Draft EIR Section 5.3, *Biological Resources – Terrestrial*, have been revised based on the commenter's recommendations, with some additional modifications. The Draft EIR text on pages 5.3-36 through -38 is modified as follows:

> **BIO-1**: Prior to commencement of ground-disturbing activities, West Basin shall ~~implement~~ develop a Worker Environmental Awareness Program (WEAP) to educate all construction personnel on the area's sensitive biological resources, environmental concerns, and mitigation. The WEAP must discuss the locations and types of sensitive biological resources on the ~~Project~~ ESGS site and adjacent areas, identify monitoring methods, provide pictures, and identify habitat and wildlife protection measures. WEAP training shall be conducted as necessary during mobilization, demolition, and construction activities. New employees that join the construction crew must complete the training prior to working on the Project. A copy of the training logs shall be made available for inspection upon request by responsible agencies. The WEAP shall be administered by a qualified biologist.
>
> **BIO-2**: During site mobilization, demolition, and construction, West Basin shall monitor the ~~on-shore construction~~ ESGS site sufficiently to ensure that sensitive species are avoided. The extent of monitoring shall be determined by a qualified biologist. At a minimum, monitoring shall occur when ground-disturbing activities are conducted for the first time in new areas on the ESGS site, as well as during vegetation removal. The qualified biologist shall prepare monthly reports identifying monitoring results for the duration of the construction period. The qualified biologist shall have a bachelor's degree in biology or related subject or equivalent experience, and at least one year of work

experience with the special-status species (and their associated habitats) that have the potential to occur on or adjacent to the ESGS site.

BIO-4: West Basin shall implement the following measures during construction and operation to prevent the spread and propagation of nonnative, invasive weeds: Only certified weed-free straw, hay bales, and seed shall be used for erosion control and sediment barrier installations.

BIO-5: Construction activities involving vegetation removal shall be conducted between September 1 and December 31. For construction that occurs inside the nesting season (between January 15 and August 31), ~~West Basin~~ a qualified biologist shall conduct a pre-construction nesting avian species clearance survey in accordance with the following guidelines:

a) At least one pre-construction survey shall be conducted within 72 hours preceding initiation of vegetation removal and construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed 3 weeks in any given area, an interval during which birds may establish a nesting territory and initiate egg laying and incubation.

b) The survey shall cover all potential nesting habitat and substrate as well as roosting habitat on the Project site and within 500 feet of its perimeter.

c) If no active nests or roosts are identified, the construction work shall be allowed to proceed. The results of the clearance survey and any ongoing monitoring efforts and/or buffers shall be documented in ~~a~~ monthly compliance reports.

d) If the qualified biologist finds an active nest during the survey and determines that the nest may be impacted, a no-disturbance buffer zone shall be established (protected areas around the nest, typically established using pin flags or construction netting). The size of the buffer shall be determined by the qualified biologist in consultation with CDFW and USFWS, based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. These buffers are typically 300 feet from the nests or roosts of non-listed passerine species and 500 feet from the nests of raptors and listed species.

e) Any active nests or roosts observed during the survey shall be mapped on an aerial photograph using GPS, and provided in the monthly compliance report.

f) If active nests or roosts are detected during the survey, the qualified biologist shall monitor all nests or roosts at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified biologist, disturb nesting or roosting activities (e.g., excessive noise, exposure to exhaust), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified biologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed, or placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away

from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, placing noisy stationary construction equipment in acoustically engineered enclosures and/or relocating them away from noise-sensitive receptors, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.

BIO-9: Although surveys have shown the El Segundo blue butterfly is absent from the Project site, ~~O~~one year prior to commencement of ground-disturbing activities, an El Segundo blue butterfly focused survey shall be conducted by a qualified biologist within areas of the Project site containing suitable habitat supporting coast buckwheat during the adult flight season (mid-June to early September). The adult flight stage of this species can last as little as 4 days to as much as 2 weeks per individual. If this species is found, ground- disturbing activities shall not occur within these areas until West Basin consults with the USFWS and determines if avoidance measures are possible or if an incidental take authorization permit is required prior to Project construction. Avoidance measures shall be determined based on consultation with USFWS and may include avoidance of occupied habitat, replacement of impacted habitat, and measures to control fugitive dust, which can adversely affect the species. The qualified biologist shall provide the results of the focused survey in the subsequent monthly compliance report. If El Segundo blue butterflies are found, the qualified biologist shall document butterfly mitigation, monitoring, and compliance efforts in the monthly compliance reports, including maps and photographs. The qualified biologist shall report all butterfly occurrences with the CNDDB. If avoidance of occupied or suitable habitat is not possible, West Basin shall consult with USFWS for replacement of impacted habitat at a ratio commensurate with the value of the affected area to be determined by USFWS.

Response CEC-4

In response to the commenter's suggestion to add a reference to Draft EIR Section 5.3, *Biological Resources – Terrestrial*, the Draft EIR text on page 5.3-53 is revised as follows:

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens, 2009. A Manual of California Vegetation, 2nd Edition, California Native Plant Society, 2009.

California Department of Fish and Wildlife (CDFW), 2003. List of Terrestrial Natural Communities, 2003.

Sibley, D.A., 2014. The Sibley Guide to Birds, 2nd Edition, 2014.

Response CEC-5

As discussed in Table 5.3-2, neither burrowing owl nor suitable habitat for burrowing owl were observed in the survey area for the November 2015 habitat assessment. As noted in the 2012 California Department of Fish and Wildlife (CDFW) *Staff Report on Burrowing Owl Mitigation,* a habitat assessment is the first step in the evaluation process and assists investigators in determining whether or not occupancy surveys are needed. Site survey conducted at the El Segundo Generating Station site found no suitable habitat as noted on page 5.3-24. Since the surveys were negative, no additional surveys were conducted or are warranted. This approach is consistent with the 2012 CDFW *Staff Report on Burrowing Owl Mitigation*.

Response CEC-6

West Basin notes the CEC's concurrence with the cultural report included in Appendix 7A of the Draft EIR and the mitigation measures presented to reduce impacts.

Response CEC-7

West Basin notes the CEC contact information for any future correspondence regarding this comment letter.

Letter DTSC: Department of Toxic Substances Control

Response DTSC-1

West Basin acknowledges that the Department of Toxic Substances Control has no comments.

Response to Letter LARWQCB: Los Angeles Regional Water Quality Control Board

Response LARWQCB-1

West Basin notes the proposed Project summary provided by the Los Angeles Regional Water Quality Control Board (LARWQCB).

Response LARWQCB-2

West Basin notes the role of the LARWQCB as a responsible agency for the proposed Project and as the agency responsible for issuing the National Pollutant Discharge Elimination System (NPDES) permit required for the proposed Project. Subsequent responses are provided in response to comment LARWQCB-3 through LARWQCB-63.

Response LARWQCB-3

The Draft EIR Section 2.2 explains that once this EIR review process is complete, the West Basin Board of Directors will consider whether to approve the Local Project. If the Local Project is approved, West Basin plans to pursue regulatory permits. The Draft EIR Section 2.8 explains that this EIR is intended to support future regulatory agency permits and approvals, including a Water Code Section 13142.5(b) determination pursuant to the State Water Resources Control Board's (SWRCB's) 2015 California Ocean Plan Amendments (OPA). See also response to comment LARWQCB-2 and *Master Response: CEQA and Ocean Plan Compliance*.

Response LARWQCB-4

Draft EIR Subsection 3.4.1 explains that the Local Project would involve the installation of five new 42-inch pipes inside the existing El Segundo Generating Station (ESGS) intake tunnel and five new 42-inch pipes inside the existing ESGS discharge tunnel. As currently planned, two of these pipelines would be used for the Local Project and all five pipelines would be used for the Regional Project; as noted in Footnotes 4 and 5, this represents the worst-case construction impact scenario given that the conditions of the tunnels are unknown, and the impacts of installing all five are discussed at a project-level throughout Draft EIR Section 5. If West Basin determines in the future that the condition of the existing tunnels allows for their use without internal pipe installation, construction impacts and schedule would be reduced. The footprint of the physical construction impacts associated with the installation of the five intake and five discharge pipes (see Draft EIR Subsection 3.5.1, Table 3-6) would be no greater than the physical construction impacts associated with the installation of only two pipes each, but the duration of construction would be increased.

As described in the Draft EIR Subsection 3.4.1, a new header with 12 risers would be installed at the end of the existing intake tunnel. The Local Project would include the installation of wedgewire screens on four of the risers and eight risers would remain capped. In the future, if the Regional Project is pursued, an additional eight wedgewire screens would be attached to the additional eight risers to accommodate 12 wedgewire screens, eliminating additional disturbance of the seafloor during underwater installation of the Regional Project.

Also described in the Draft EIR Subsection 3.4.1, a diffuser system consisting of multiple ports would be installed directly on the seafloor. A total of 14 diffuser ports would be installed during construction of the Local Project; if the Regional Project is pursued in the future, the 14 ports would be changed to larger diameter ports, eliminating additional disturbance to the seafloor during underwater installation of the Regional Project.

Response LARWQCB-5

West Basin acknowledges that if it decides to move forward with the Regional Project, a separate NPDES permit and California Water Code Section 13142.5(b) determination (the "Water Code determination") would be required.

Response LARWQCB-6

The Draft EIR provides a detailed alternatives analysis as required by CEQA that explains the rationale for the preference of the ESGS site over other sites, including the Redondo Beach Generating Station (RBGS) site. The West Basin Board of Directors will use this EIR to review the potential environmental impacts of the proposed Project and to consider whether to approve the Project and pursue permitting, including a Water Code determination to be made by the LARWQCB. The LARWQCB must find that the applicant has complied with the OPA in order to make the Water Code determination, and through this process, LARWQCB will assess whether a reasonable range of nearby sites was assessed pursuant to the OPA. See also *Master Response: CEQA and Ocean Plan Compliance*, and *Master Response: Supplemental Studies*.

While CEQA Guidelines Section 15126 explains that an EIR shall identify and focus on the significant environmental effects of a project, in response to this and other comments, West Basin prepared two supplemental technical studies to evaluate (1) whether placing an open water intake at some other location in Santa Monica Bay (SMB) would result in more or less entrainment of planktonic organisms (see *Comparison of 316(b) Data in Santa Monica Bay* [Final EIR Appendix 12]) and (2) whether siting the Project at the ESGS location, or some other location within SMB, could support subsurface intakes (see *Subsurface Intake Feasibility Study* [Final EIR Appendix 13]). These two technical studies clarify the existing data and information and confirm the impact analysis in the EIR. They also provide additional information that may be used during the permitting phase of the Project.

Response LARWQCB-7

See *Master Response: CEQA and Ocean Plan Compliance*, *Master Response: Supplemental Studies* and the Supplemental Subsurface Intake Feasibility Study (Final EIR Appendix 13).

Response LARWQCB-8

See response to comment LARWQCB-7.

Response LARWQCB-9

The Existing Marine Habitats and Communities Subsection (Draft EIR pages 5.11-12 through 5.11-36) presents information on marine biological resources throughout the greater SMB, as well as for the ESGS Project Study Area specifically. Furthermore, the discussion of SMB covers the

biological resources of all potential alternative sites. In addition, a detailed analysis using abundances of fish larvae, sampled every month over the course of a year, at three separate locations in SMB (Scattergood Generating Station [SGS], ESGS, RBGS), was performed in order to evaluate the differences in planktonic species' variation and densities, and to draw conclusions about the potential levels of entrainment that could result from a desalination plant at each location (AMS Technical Memo-Comparison of 316(b) Data from SMB, California, AMS 2019; Final EIR Appendix 12). As a result of this analysis, RBGS was characterized as the least protective of all forms of marine life with larval stages compared to the ESGS and the SGS.

Response LARWQCB-10

The impact on water quality resulting from the dissolution of the copper-nickel (Cu-Ni) screens was evaluated in the Draft EIR Subsection 5.9.3. West Basin adequately quantified the potential impacts of copper leaching and no water quality impact from the Cu-Ni screen was identified. Since no impact was identified, CEQA does not require the evaluation of an alternative to avoid a Cu-Ni impact. Therefore, the evaluation of stainless steel wedgewire screens is not required.

Response LARWQCB-11

As described in Draft EIR Section 2.8 under "Ocean Plan Amendment" (page 2-22 et seq.), West Basin has conducted extensive pilot testing, siting studies, demonstration testing of full-scale processes, and developing a comprehensive Program Master Plan. These studies evaluated water quality of the brine discharge with respect to elevated salinity as well as other constituents (Draft EIR Subsection 2.10.1, pages 2-29). A Demonstration Project was conducted to test implementation of full-scale components for long-term evaluation, integrating the results of a previous Pilot Project (discussed in the Draft EIR Subsection 2.10.2, page 2-30). The Demonstration Project included a detailed study of the effects of brine discharge on local marine life from salinity and toxicity to support permitting, design, construction, and operation of West Basin's proposed full-scale desalination facility.

Water quality sampling conducted as part of West Basin's Pilot Project located in El Segundo (at the proposed Project site) and Demonstration Project located in Redondo Beach (SPI 2017, 2018) documented that up to eight[4] constituents at times exceeded the California Ocean Plan water quality objectives under baseline conditions. As discussed in detail in the assessment of water quality impacts (see Draft EIR Subsection 5.9.4, page 5.9-54), although the reverse osmosis (RO) treatment process would result in the discharge of increased concentrations of constituents associated with SMB source waters within a localized area around the diffuser, the total loading of constituents being discharged into SMB would not be increased above existing conditions.

Water quality evaluations of operational brine discharges conducted as part of the Pilot and Demonstration Projects (SPI 2017, 2018; incorporated by reference into the analysis of impacts presented in Draft EIR Subsection 5.9.4 and available as part of the Project Administrative Record and online at http://westbasindesal.com/research-and-planning.html) determined that the majority of constituents in the brine for which there is a numeric water quality objective (Draft

[4] Copper, ammonia, cyanide, beta/photon emitters, PAHs, 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) equivalents, benzidine, and bis(2-ethylhexyl) phthalate.

EIR Table 5.9-2, page 5.9-8) complied with Ocean Plan water quality objectives. None of the constituents were determined to exceed existing background levels in SMB following discharge and dilution/dispersion associated with the proposed diffuser. As discussed in detail in the Draft EIR Subsection 5.11.4 (page 5.11-56), because water quality constituents would not exceed existing background levels at the edge of the Zone of Initial Dilution (ZID), the discharge of brine would not be expected to pose any risk to marine habitats and taxa, including special-status fish, marine mammals, and sea turtles because of the extremely small percentage of total open water habitat contained within the ZID and the limited duration of exposure to marine taxa.

The Draft EIR acknowledges that the LARWQCB may require additional information for the Water Code determination and NPDES permit. Additional modelling and ultimately monitoring for bioaccumulation of discharge constituents would be conducted if required under the permit conditions. The NPDES permit application will include a Report of Waste Discharge, which will provide a detailed analysis of compliance with the Ocean Plan water quality standards, and the request for a Water Code determination will require that West Basin prepare and provide the LARWQCB with a Marine Life Mortality Report as described in Ocean Plan chapter III.M.2.e.(1)(a), and a Mitigation Plan. However, for purposes of determining potentially adverse impacts to ocean water quality and marine life, the Draft EIR adequately presents substantial evidence based on years of pilot testing and Demonstration Project testing that suggests bioaccumulation would not present significant impacts. No additional mitigation measures would be needed to ensure impacts are sufficiently minimized or avoided. See *Master Response: CEQA and Ocean Plan Compliance.*

Response LARWQCB-12

Mitigation Measure BIO-M2 specifies that the loss of habitat will be compensated for by either direct or indirect habitat restoration consistent with California Ocean Plan Chapter III.M.2.e.(3) or by providing compensation to an appropriate state-approved fee-based mitigation program consistent with California Ocean Plan Chapter III.M.2.e.(4), or a combination of the two and in a manner acceptable to the LARWQCB as part of the Project's permitting process. Final determination of the appropriate magnitude and source of the off-site ecological habitat enhancement and/or payments to an acceptable fee-based mitigation program shall be determined by the LARWQCB. Also see *Master Response: CEQA and Ocean Plan Compliance*.

Response LARWQCB-13

Chapter III.M.e.(3) of the Ocean Plan gives the Project Applicant the option of submitting a Mitigation Plan to the LARWQCB, so the LARWQCB can evaluate whether West Basin's proposed mitigation Project constitutes the best available mitigation measures feasible for the Project. See *Master Response: CEQA and Ocean Plan Compliance*. As mentioned on Draft EIR page 5.11-59, regardless of the magnitude of the impact of Project-induced entrainment, the impact would be reduced through the application of mitigation to restore or enhance marine or coastal habitat, which could include a local coastal marsh restoration project (such as the Ballona Wetlands Restoration Project). Seeking to restore wetland habitat and functions within the Ballona Reserve, the California Department of Fish and Wildlife is proposing a large-scale effort to restore, enhance, and establish native coastal wetland and upland habitats within the Ballona

Reserve; however, funding of the restoration effort is uncertain. If the West Basin Board of Directors certifies the Final EIR and approves the Project, West Basin will compensate for the loss of habitat (as determined by the LARWQCB) by either direct or indirect habitat restoration and will prepare a Mitigation Plan as detailed in the Ocean Plan and specified in Mitigation Measure BIO-M2, or by providing monetary payments to an appropriate State-approved fee-based mitigation program, or a combination. The Ballona Reserve could be a beneficiary of either approach.

Finally, the Draft EIR does not assume that the LARWQCB will accept out-of-kind mitigation and a mitigation ratio of 1 acre of mitigation habitat for every 10 acres of impacted open water or soft-bottom habitat. As noted on Draft EIR page 5.11-64, final determination of the appropriate mitigation shall be determined by the LARWQCB, and as such, mitigation may ultimately be provided at a ratio greater than1 acre of mitigation habitat for every 10 acres of impacted open water or soft-bottom habitat.

Response LARWQCB-14

In response to the comment requesting clarification between a project applicant and LARWQCB, the Draft EIR text on page 2-22 is revised as follows:

> West Basin has included this analysis of best available site, best available design, best available technology, and best available mitigation measures to assist the LARWQCB in its ~~determine~~ determination of the best combination of feasible alternatives to minimize intake and mortality of all forms of marine life pursuant to the OPA.

Response LARWQCB-15

In response to this comment, the Draft EIR text on page 2-23 is revised as follows:

> ~~If a listed species may be adversely affected by a Project, SWRCB staff will confer with the USFWS, and/or NMFS to inform these agencies of Project impacts to any federally listed species or critical habitat~~.

Response LARWQCB-16

See response to comment LARWQCB-10.

Response LARWQCB-17

In response to the comment requesting clarification of the role of the LARWQCB in determining feasibility of subsurface intakes, Footnote No.7 on page 2-37 of the Draft EIR text is revised as follows:

> [7]SWRCB amended the California Ocean Plan on May 6, 2015, to address desalination facilities withdrawing seawater ("Desal Amendments"). As a result, Ocean Plan Section III.M.2(d)(1) now requires that ~~in requesting~~ while making a Water Code Section 13142.5(b) determination for an ocean desalination facility, the ~~owner or operator of a proposed seawater desalination facility~~ LARWQCB must consider whether subsurface intakes are feasible to minimize intake and mortality of all forms of marine life.

Response LARWQCB-18

In response to this comment requesting clarification on subsurface intake technology, the Draft EIR text on page 2-37 is revised as follows:

> Although the technical memorandum found that SSIs could have advantages over screened ocean intakes, since SSIs collect water through sand sediment which acts as a natural barrier to organisms, and thus eliminates ~~with regard to~~ impingement and entrainment ~~and~~ while reducing~~es~~ pretreatment requirements, results indicated that significant additional geotechnical feasibility studies would be required for this intake option.

Response LARWQCB-19

See *Master Response: Supplemental Studies* and the Supplemental Subsurface Intake Feasibility Study (Final EIR Appendix 13).

Response LARWQCB-20

The analysis of impacts from brine discharge is discussed in Draft EIR Section 5.11, *Marine Biological Resources*. Area Production Foregone estimates for screened open water intakes (EIR Table 5.11-9), and for turbulent discharge-associated mortality (EIR Table 5.11-12) resulting from the Local Project and Regional Project, are presented with and without the recycling of backwash water. EIR Table 5.11-9 (see also response to comment LARWQCB-34) confirms that internally recycling treated backwash water would lower intake flows (41 million gallons per day [MGD] versus 45 MGD) thereby minimizing intake mortality. However, recycling the treated backwash water would add to the discharge flow (25.4 MGD versus 21 MGD, see EIR Table 5.9-5), thereby increasing discharge mortality (see response to comment LARWQCB-36 for revised EIR Table 5.11-12 that reports impacts of a linear diffuser design). The Draft EIR discusses multiple discharge and intake scenarios for the Local Project and the Regional Project; however, the treated backwash configuration will ultimately depend on the final design and operations procedures prior to construction.

Response LARWQCB-21

The Draft EIR text of the Project Description on page 3-11 is revised to reflect that the Local Project would use only four wedgewire screens (see Final EIR Section 11, *Refinements to the Project Description*) as follows:

> The existing intake structure would be modified ~~with~~ by installing an extended header pipe connected to 12 new ~~wedgewire screen~~ risers ~~and screens~~. The Local Project would attach wedgewire screens to four of the risers and eight risers would remain capped (see **Figure 3-16b**). The tops of the wedgewire screens would be approximately 18 feet below the water surface and approximately 13 feet above the ocean floor.

Response LARWQCB-22

The salinity of the brine that would be discharged under the different project scenarios is presented in Draft EIR Tables 5.9-6 and 5.9-8 and these salinity values have been added to the text of the Project Description (see Final EIR Section 11, *Refinements to the Project Description*).

Draft EIR page 3-13 is revised as follows:

> For the 20 MGD Local Project, the normal amount of flow to be discharged from the ocean desalination facility would be approximately 25.4 MGD, which would be composed of approximately 20.9 MGD of RO concentrate (brine) and 4.5 MGD of treated backwash water from the HRGMF and MF processes; the salinity of the combined flow would be 62.0 ppt. If washwater is internally recycled, the normal discharge flow would be reduced to approximately 21 MGD, composed of 20.9 MGD of RO brine and 0.1 MGD from the washwater recycling process (Figure 3-7); the salinity of the combined flow would be 67.8 ppt.

Draft EIR page 3-17 is revised as follows:

> For the 60 MGD Regional Project, the normal amount of flow to be discharged from the ocean desalination facility would be approximately 76.2 MGD, which would be composed of approximately 62.7 MGD of RO concentrate (brine), and 13.5 MGD of treated backwash water from the HRGMF and MF processes; the salinity of the combined flow would be 62.0 ppt. If the washwater is internally recycled, the normal discharge flow would be reduced to approximately 63 MGD with 62.7 MGD from the RO process and 0.~~1~~ 3 MGD from the washwater recycling process (Figure 3-7); the salinity of the combined flow would be 67.8 ppt.

Response LARWQCB-23

The Draft EIR text is revised to clarify that the San Diego County Water Authority is seeking agency approvals to build a pilot facility associated with the Camp Pendleton Seawater Desalination project with an intake flow of 20 gallons per minute to test water quality and different intake technologies.

The Draft EIR text on page 4-12 in Table 4-2 is revised as follows:

11	San Diego County Water Authority -Camp Pendleton Seawater Desalination Project	Camp Pendleton	~~100-150~~ Undetermined (pilot test facility of 20 gallons per minute)	Undeter-mined	Surface	In Feasibility Study

The Draft EIR text on page 4-16 is revised as follows:

> In collaboration with the United States Marine Corps, the Water Authority ~~is currently~~was evaluating the feasibility of a potential regional desalination project located at Camp Pendleton in northern San Diego County. ~~The Camp Pendleton Seawater~~

~~Desalination Project would involve an ocean water desalination facility producing between 100 to 150 MGD.~~ The Water Authority released the Camp Pendleton Seawater Desalination Project Feasibility Study in December 2009. The ~~project is considered very~~early in the development process and the Water Authority was ~~is currently~~ conducting additional technical studies for the project, including parallel piloting of a screened ocean intake and subsurface intake, to evaluate an intake flow of up to 40 gallons per minute and treatment of up to 20 gallons per minute of seawater (SDCWA 2016 and 2017). However, in September 2018, the Water Authority decided to close down its work on a potential seawater desalination pilot plant at Camp Pendleton due to extraordinary permitting hurdles and related costs created by the State Lands Commission staff, along with the decreased potential that the plant will be needed in coming decades (SDCWA 2018).

Response LARWQCB-24

In response to the comment regarding clarification between the Ocean Plan and Desalination Amendment, the Draft EIR text on page 5.9-8 is revised as follows:

The *Water Quality Control Plan for Ocean Waters of California* (California Ocean Plan) (SWRCB 2015), adopted by the SWRCB in 1972 ~~May 2015 and effective January 2016~~, establishes water quality requirements and objectives for California's ocean waters and provides the basis for regulation of wastes discharged into the state's coastal waters. In 2015, the SWRCB adopted the Desalination Amendment, which has been in effect since 2016.

Response LARWQCB-25

In response to the comment requesting clarification on the Ocean Plan's definition of "initial dilution," the Draft EIR text on page 5.9-11 is modified as follows:

The California Ocean Plan water quality objectives are to be met after the initial dilution of a discharge into the ocean. The California Ocean Plan defines initial dilution as the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally. For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Regional Board, whichever results in the lower estimate for initial dilution.

Response LARWQCB-26

In response to the comment requesting clarification on effluent density, the Draft EIR text on page 5.9-11 is modified as follows:

> If the effluent density is greater than the ambient density ~~salinity~~, as occurs for desalination brine, it produces a negatively buoyant plume that sinks toward the seabed. ~~In this case, the edge of the ZID is located at the point where the discharge plume contacts the seafloor.~~

Response LARWQCB-27

See response to comment LARWQCB-25.

Response LARWQCB-28

As described in Draft EIR Subsection 5.9.1, the offshore waters of SMB in the vicinity of the proposed intake and discharge structures are on the 303(d) list for arsenic, dichlorodiphenyltrichloroethane (DDT), mercury, polychlorinated biphenyls (PCBs), and trash (SWRCB 2017) as Category 5 criteria.[5] As described in detail in response to comment LARWQCB-11, water quality evaluations of operational brine discharges conducted as part of the Pilot and Demonstration Projects (SPI 2017 and 2018) determined that the majority of constituents in the brine for which there is a numeric water quality objective complied with Ocean Plan water quality objectives[6]. The 303(d) listed constituents for SMB, listed above, were either not detected in brine discharges (DDT and PCBs) or were present in-pipe (i.e., prior to discharge and dilution) at concentrations that complied with Ocean Plan water quality objectives (mercury and arsenic). Therefore, brine discharges would not result in pollutant concentrations for 303(d) listed constituents exceeding existing background levels in SMB following discharge and dilution/dispersion associated with the proposed diffuser. Also, the total loading of 303(d) listed constituents being discharged into SMB would not be increased above existing conditions as a result of the proposed Project as the source water is derived from SMB.

As described in detail in the Draft EIR Subsections 5.9.1 and 5.9.4 and summarized in *Master Response: CEQA and Ocean Plan Compliance*, West Basin will prepare and submit information required by the Ocean Plan when submitting the NPDES discharge permit application as well as the requisite request for a Water Code determination to the LARWQCB, including a Report of Waste Discharge, which will provide a detailed analysis of compliance with the Ocean Plan water quality standards and other relevant water quality objectives, including consideration of 303(d) listed pollutants. Effluent limitations serve as the primary mechanism in NPDES permits for controlling discharges of pollutants to receiving waters (Draft EIR Subsection 5.9.1). When developing effluent limitations for an NPDES permit, the permitting authority (i.e., the LARWQCB) considers limits based on the technology available to control the pollutants (i.e., technology-based effluent limits [TBELs]). TBELs require a minimum level of treatment of pollutants for point source discharges based on available treatment technologies, while allowing

5 A water segment where standards are not met and a TMDL is required, but not yet completed.

6 Trash and debris was not assessed as the brine discharge would be comprised of filtered source water that would not contain trash or other types of associated debris.

the discharger to use any available control technique to meet the limits (such as facilitating rapid dilution via a multi-port diffuser).

303(d) listed pollutants for a receiving waterbody are constituents for which TBELs are inadequate for achieving water quality standards. Where TBELs are inadequate, the permit authority develops more stringent effluent limitations that are protective of the water quality standards of the receiving water (i.e., water quality-based effluent limits [WQBELs]) that incorporate consideration of the potential impact of every proposed surface water discharge on the quality of a receiving waterbody. WQBELs are typically based on the development of total maximum daily loads (TMDLs) for specific 303(d) pollutants which identify the amount of a pollutant or property of a pollutant, from point, nonpoint, and natural background sources, including a margin of safety, that may be discharged to a water body and still ensure that the water body attains water quality standards. The allocations of pollutant loadings from point sources are called wasteload allocations. In the absence of a TMDL, as is the case with the 303(d) pollutants listed for SMB, the permitting authority still must assess the need for effluent limits based on water quality standards and, where necessary, develop appropriate wasteload allocations and effluent limits for an individual discharge to ensure the discharger complies with all relevant water quality regulations and standards, and does not contribute to the degradation of a receiving waterbody. Therefore, compliance with the NPDES permit effluent limitations will ensure brine discharges comply with all water quality standards and do not contribute to the degradation of an impaired receiving waterbody.

Additionally, as described in detail in the Draft EIR Subsection 5.9.4 (page 5.9-55), West Basin would be required to implement a Monitoring and Reporting Program as part of the NPDES Permit. The Monitoring and Reporting Program requirements would ensure technical and monitoring data are provided to the LARWQCB to determine West Basin's compliance with NPDES effluent limitations (including any WQBELs for 303(d) listed constituents), to assess the need for further investigation or enforcement action, and to protect public health and safety and the environment. West Basin would also be subject to the monitoring and reporting requirements of the California Ocean Plan (described in Subsection 5.9.1). Monitoring requirements under the California Ocean Plan ensure that monitoring be conducted for salinity levels, benthic community health, aquatic life toxicity, and hypoxia and that the monitoring program be consistent with the requirements detailed in Appendix III of the Ocean Plan which specifies monitoring plan framework, scope, and methodological design for determining compliance. The performance standard(s) associated with the monitoring requirements of the California Ocean Plan are defined in Chapter III of the Ocean Plan (Part 4 (a)) and in Appendix III (Part 8) with definitions of terms provided in Appendix II.

Response LARWQCB-29

See response to comment LARWQCB-10.

Response LARWQCB-30

In response to the comment, a supplemental analysis was conducted for a linear diffuser configuration, consistent with the calculation procedures recommended by Roberts (2018) (see *Master Response: Supplemental Studies* and Final EIR Appendix 14 for additional details). The objective of the analysis was to identify a linear diffuser configuration that would comply with the required Ocean Plan criteria for desalination discharges: the salinity increment must be less than 2 parts per thousand (ppt) within the maximum allowable Brine Mixing Zone (BMZ) of 100 meters (328 feet), and the jets must be fully submerged and not impact the water surface. The supplemental dilution simulations assumed a diffuser port depth of 24 feet below sea level, and a port angle of 60°. The analysis identified a liner diffuser configuration that would minimize the extent of the BMZ and minimize the jet exit velocity in order to minimize mortality of organisms that may be entrained into the jets due to turbulence and shear.

Through the supplemental model analysis, two linear diffuser designs were identified that had a common port spacing and number of ports, and therefore diffuser length, that will meet the required environmental compliance criteria for all potential proposed operational discharge scenarios modeled. The supplemental analyses identified potential linear diffuser configurations that would require only the port diameters be changed when transitioning from the Local Project to the Regional Project (see Final EIR Section 11, *Refinements to the Project Description* for details relating to incorporation of the linear diffuser design into the proposed Project). For both diffuser designs, one port diameter is needed for the Local Project operational discharge scenarios and a different diameter for the Regional Project operational discharge scenarios. The dilution requirement for salinity for the linear diffuser designs was met at the point where the discharge plume would impact the seafloor for some of the modeled scenarios, and compliance is also demonstrated at the end of the near field.[7]

In response to the comment, the Draft EIR text on pages 5.9-50 through 5.9-53 relating to the Local Project compliance with Ocean Plan salinity requirements is revised as follows:

> *Salinity*
>
> A multiport diffuser system typically consists of a series of nozzles that create relatively high-velocity jets to increase brine mixing through enhanced entrainment of ambient seawater and maintain a reasonable water jet velocity within the seawater column. The area where the mixing takes place is called the BMZ[19]. In an open ocean environment with dynamic mixing from ocean currents, tidal and wave actions such as Santa Monica Bay, the use of a multiport diffuser system is effective in preventing dense, high-salinity water from accumulating on the seafloor.

[7] After impacting the seafloor, the flow of the dense discharge plume becomes horizontal and proceeds away from the diffuser as a turbulent density current that continues to entrain surrounding seawater and continues to dilute. At some distance from the diffuser, this turbulence collapses under the influence of its own induced density stratification and active mixing essentially ceases. The region that encompasses the ascending plume, the descending plume, the impact point with the seabed and the horizontal flow up to the point of turbulence collapse, is called the near field.

The size and shape of the mixing zone depends upon the discharge rate, diffuser system design, initial salinity concentrations of the brine stream and the receiving water, and prevailing marine currents. The proposed multiport diffuser nozzles would be arranged in a ~~"rosette"~~ linear pattern (Figure 3-18c[8]). Brine from the Local Project desalination facility would be conveyed to the proposed diffuser via the existing ESGS concrete tunnel, as described in Section 3.4.1. Water depth at 2,078 feet offshore at the proposed diffuser location ranges from 28 to 34 feet. The proposed discharge structure design would consist of either a 44-foot-long linear diffuser with six 15.2-inch diameter ports, or a 93-foot-long linear diffuser with 14, 9-inch diameter ports (Figure 3-18c). For both linear diffuser design options, the port depth would be 24 feet below water surface and the diffuser port angle would be 60° from horizontal. ~~The diffuser has been designed with multiple ports inclined upward at a 46° angle[20] from the horizontal.~~ This orientation is intended to (1) ensure that the discharge ~~to reduce jet exit velocity,~~ meets California Ocean Plan salinity requirements, (2) reduce jet exit velocity and ~~to reduce~~ shear stress so that turbulence-induced mortality of organisms that may be entrained into the diffuser jets are minimized (see Section 5.11, *Marine Biological Resources*), and ~~to~~(3) ensure that the discharge plume does not reach the ocean surface.

As described in Section 5.9.1, the California Ocean Plan limits the increase of salinity of receiving water from desalination plant discharges to a daily maximum of 2 parts per thousand (ppt) above natural background salinity. The owner or operator of a desalination facility must meet the salinity standard at the boundary of the BMZ, defined as the horizontal distance of 100 meters (328 feet) from the point of discharge. A significant impact related to water quality, water quality standards or Waste Discharge Requirements would occur if operational discharges from the Local Project resulted in a salinity level of 2 ppt above ambient salinity levels beyond the BMZ.

To determine whether the proposed discharge would comply with the California Ocean Plan BMZ salinity requirements, a brine plume mixing model that is consistent with the method approved by the SWRCB was conducted (Appendix ~~4C~~ 14). **Table 5.9-5** summarizes two operational scenarios based on the conceptual design described in Section 3, which were evaluated using the mixing model. A detailed description of the mixing model methodology and results are included in **Appendix ~~4C~~ 14A.** The model analysis assumes an ambient ocean water flow velocity of zero (i.e., conservatively assumes an absolutely still ocean environment where ocean currents and tides are absent and mixing of the discharge plume with the surrounding water occurs as a direct result of the use of the diffusers).

[8] Draft EIR Figure 3-18c has been revised to reflect the linear diffuser design. The revised figure is included in Final EIR Section 11, Refinements to the Project Description.

TABLE 5.9-5.
PROPERTIES OF EFFLUENT CONSTITUENTS FOR LOCAL PROJECT DISCHARGE SCENARIOS

		Brine			Washwater			Combined effluent			
Project	Case ID	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Density (kg/m^3)
Local	L1	20.9	17.6	68.0	4.5	17.6	34.0	25.4	17.6	62.0	1046.2
	L2	20.9	17.6	68.0	0.1	17.6	34.0	21.0	17.6	67.8	1050.8

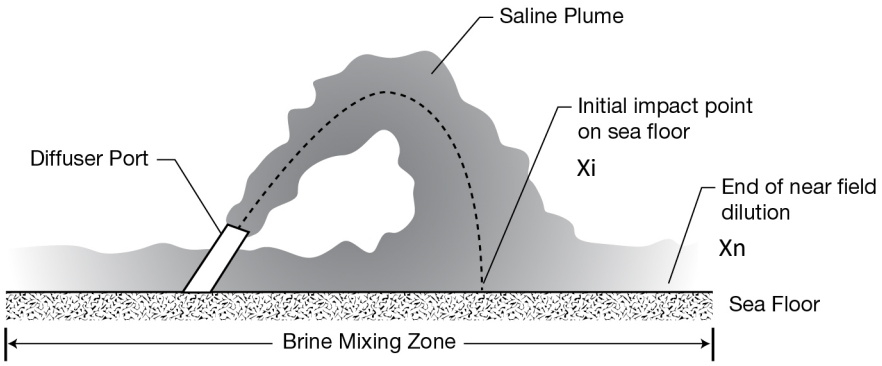
SOURCE: Roberts 2019~~8~~; Appendix 4~~C~~14A.

The size of a discharge plume and the extent of dilution depends, in part, on whether the plume is positively buoyant (light or rising), as occurs with typical wastewater discharges that have lower salinity and hence lower density than the ambient ocean water; or negatively buoyant (dense or sinking), as occurs for desalination brine discharges that have a higher salinity and hence higher density than the receiving ocean water. The latter represents the case applicable to this Project. Denser discharges are dispersed via an upward inclined jet that result in a plume that rises upward and then sinks down, making contact with the seafloor at some distance away from the diffuser nozzles (**Figure 5.9-4**). As the discharge plume ascends, the jet entrains ambient water, and the brine becomes diluted. Because the plume is denser than the receiving water, it reaches a terminal rise height and then falls back to the seafloor. Entrainment of seawater into the plume continues in the descending plume phase, promoting more mixing and dilution. After contacting the seafloor, the brine plume continues traveling horizontally and further entrains ambient seawater resulting in greater dilution. The region that encompasses the ascending plume, the descending plume, the point of impact with the seafloor, and the area of horizontal flow up to the point where momentum and turbulence-driven mixing dynamics cease is called the near field. The brine discharge model analysis estimated dilution ratios and salinity concentrations ~~at~~ where the plume contacts the seafloor (referred to as Xi) as well as ~~at~~ where the plume momentum from the nozzle becomes zero (referred to as Xn), representing the end of the near field (Figure 5.9-4). Given that the model assumes no additional mixing or dilution from ocean currents or tides, the model would not be able to predict additional dilution beyond where the plume momentum reaches zero.

Salinity Results and Discussion

The linear diffuser model analysis (Appendix 4~~C~~ 14A) demonstrates that operational discharges from the Local Project would not exceed 2 ppt above ambient conditions at the BMZ boundary. In fact, the model analysis indicates that the 2 ppt salinity threshold would be met ~~at a distance of 11.6 m (38 feet)~~ between the point at which the brine plume makes contact with the seafloor (at Xi), and ~~from the point of discharge (**Table 5.9-6**). Such a distance is well within the 100 meters (328 feet) from the point of discharge as prescribed in the California Ocean Plan and would translate to a circular area of approximately 0.1 acres around the diffuser. The terminal height would reach a maximum~~

~~of 19.5 feet above the seafloor for both scenarios and after descending and making contact with the seafloor, the model analysis indicates that the brine plume would continue entraining ambient seawater and further diluting until the plume momentum reaches zero (i.e.,~~ the edge of the near field (at Xn); ~~at 119~~ between 45 and 63 feet (13.7 m to 19.2 m) from the point of discharge (**Table 5.9-6**) for all scenarios modeled. The salinity at the edge of the near field would ~~decrease to 1.9~~ be equal to or less than 2 ppt above ambient, well within the distance of 100 meters (328 feet) prescribed in the California Ocean Plan. The total seafloor area from the diffuser to the edge of the near field (at Xn) would be an ~~circular~~ area of approximately ~~1~~ 0.3 and 0.5 acres (Appendix ~~4C~~14A). Thus, brine discharges from the Local Project would not exceed or violate the California Ocean Plan salinity standards or degrade water quality in terms of salinity; impacts related to salinity would be less than significant.



West Basin Ocean Water Desalination Project

SOURCE: Roberts 201~~9~~8; Appendix 14A ~~4C~~.

Figure 5.9-4
Characteristics of an Inclined Dense Jet

TABLE 5.9-6.
~~OPTIMUM PORT~~ LINEAR DIFFUSER CONFIGURATIONS FOR EACH LOCAL PROJECT FLOW SCENARIO WHERE ~~PORT DEPTH OF 20 FEET AND SALINITY INCREMENT LESS THAN 2 PPT AT THE JET IMPACT POINT~~ SALINITY INCREMENT AT THE END OF THE NEAR FIELD ≤ 2 PPT

		Diffuser Details				Impact Point			BMZ[1]			UM3 predictions at top	
Project	Case ID	Number of ports	Port diameter (in)	Jet velocity (ft/s)	Diffuser length (ft)	Dilution Si	Length Xi (ft)	Salinity Increment (ppt)	Layer thickness, y_L (ft)	Distance, x_n (ft)	Area (acres)	Average dilution, S_{ta}	Entrained flow (mgd)
Local: 6 Port Diffuser	L1	6	15.2	5.2	44	8.9	16.9	3.2	4.9	63	0.42	3.6	66
Local: 14 Port Diffuser	L1	14	9.0	6.4	93	14.1	15.9	2.0	4.6	60	0.51	5.56	116
	L2	14	9.0	5.3	93	10.6	11.9	3.2	3.5	45	0.34	4.24	68

[1] The BMZ boundary is at the end of the near field. Flow properties there are the near field properties (Figure 5.9-4).
SOURCE: Roberts 2019; Appendix 14A.

		~~Effluent~~			~~Nozzle conditions~~					~~Dilution~~		~~Salinity Increment~~			
~~Project~~	~~Case ID~~	~~Flow (mgd)~~	~~Salinity (ppt)~~	~~Density (kg/m^3)~~	~~No.~~	~~Diam. (in)~~	~~Angle (deg)~~	~~Flow (cfs)~~	~~Velocity (ft/s)~~	~~At Impact Point, S_i~~	~~At Near Field, S_n~~	~~At Impact Point, S_i~~	~~At Near Field, S_n~~	~~Impact Point Length (ft)~~	~~Near Field Length (ft)~~
~~Local~~	~~L1~~	~~25.4~~	~~62.0~~	~~1046.2~~	~~4~~	~~15.0~~	~~46~~	~~9.8~~	~~8.0~~	~~14.3~~	~~14.9~~	~~2.0~~	~~1.9~~	~~38~~	~~119~~
	~~L2~~	~~21.0~~	~~67.8~~	~~1050.8~~	~~4~~	~~12.4~~	~~46~~	~~8.1~~	~~9.7~~	~~17.3~~	~~18.0~~	~~2.0~~	~~1.9~~	~~38~~	~~119~~

~~NOTES:~~
~~Si and Sn refer to salinity and dilution at the point the plume contacts the seafloor (impact point) and at the edge of the near field, respectively (Figure 5.9-4).~~
~~SOURCE: Roberts 2018; Appendix 4C.~~

The Draft EIR text on pages 5.9-58 through 5.9-60 relating to the Regional Project compliance with Ocean Plan salinity requirements is modified as follows:

Screened Ocean Intake and Concentrate Discharge Structures

As described in Section 3.4.1, expansion of the Local Project to the Regional Project would involve expanding the Local Project intake and discharge structures to accommodate the 60 MGD Regional Project desalination facility. The intake structure would be modified through the installation of 8 additional wedgewire screens to pre-installed risers (comprising 12 total for the Regional Project), as described in Section 3.4.1. The Local Project diffuser structure would be modified through the ~~removal~~ replacement of the existing ~~four duckbill~~ diffusers (either six or 14 depending on diffuser design) ~~and the installation of eight smaller diameter duckbill~~ with larger diameter diffusers ~~(Section 3.4.1)~~. The ~~eight duckbill~~ diffusers for either linear diffuser design would be inclined upwards at a ~~26~~ 60° angle from the horizontal ~~(reduced as compared to the Local Project)~~ to meet California Ocean Plan salinity requirements and to maintain a submerged discharge plume.

Salinity

As described for the Local Project, a significant impact related to water quality, water quality standards or Waste Discharge Requirements would occur if operational discharges from the Regional Project resulted in salinity concentrations greater than 2 ppt above ambient salinity levels at the edge of the BMZ, which would be an exceedance of the receiving water salinity limitation detailed in Chapter III.M.3 of the Ocean Plan (see Section 5.9.1).The methodology and assumptions for assessing Regional Project salinity impacts are the same as described for the Local Project and are presented in detail, with the results, in Appendix ~~4C~~ 14A. **Table 5.9-7** summarizes two Regional Project scenarios which were used in the mixing model to evaluate compliance. The model analysis assumes a port depth of ~~20~~ 24 feet below sea surface~~, eight~~ and all discharge ports at a ~~26~~ 60° angle. Additionally, zero water flow or movement from ocean current and tides is assumed, consistent with the California Ocean Plan methodology for assessing salinity increases from desalination facilities.

TABLE 5.9-7.
PROPERTIES OF EFFLUENT CONSTITUENTS FOR REGIONAL PROJECT DISCHARGE SCENARIOS

		Brine			Washwater			Combined effluent			
Project	Case ID	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Density (kg/m^3)
Regional	R1	62.7	17.6	68.0	13.5	17.6	34.0	76.2	17.6	62.0	1046.2
	R2	62.7	17.6	68.0	0.3	17.6	34.0	63.0	17.6	67.8	1050.8

SOURCE: Roberts 2019~~8~~; Appendix 14A~~4C~~.

Salinity Results and Discussion

Assuming the most conservative scenario, the model analysis (Appendix ~~4C~~ 14A) demonstrates that operational discharges from the Regional Project would meet the

California Ocean Plan salinity standard (**Table 5.9-8**). Also, the operational discharges would remain below the water surface (i.e., the plume would remain submerged), consistent with California Ocean Plan requirements. The California Ocean Plan salinity limit of 2 ppt above ambient would be met at the point of ~~initial dilution~~ impact with the seafloor (at Xi, see Figure 5.9-4), located ~~66 feet from the diffuser(representing a circular area of approximately 0.3 acres around the diffuser) for the assessed operational discharge scenarios. Meeting the 2 ppt salinity requirement~~at ~~66~~ 24.8 feet (~~29.9~~ 7.6 m) from the point of discharge with the 14-port diffuser configuration, ~~would be~~ well within the California Ocean Plan allowable distance of 328 feet or 100 meters (the maximum allowable BMZ). As the discharge plume continues to entrain ambient seawater and ~~further~~ continues to dilute within the near field, salinity at Xn would be ~~reduced to 1.7~~ equal to or less than 2 ppt (Table 5.9-8) above ambient for all scenarios modeled. The edge of the near field (Xn) would be located ~~203~~ 70 to 76 feet from the diffuser for the 14-port configuration, representing an ~~circular~~ area of approximately ~~3~~ 0.7 acres around the diffuser. Furthermore, as described for the Local Project, the computed salinities would occur only along the seabed. Salinities would decrease with height in the water column and would be above ambient salinity concentrations only near the seabed (Appendix ~~4C~~ 14A).

TABLE 5.9-8.
~~OPTIMUM~~ LINEAR DIFFUSER PORT CONFIGURATIONS FOR EACH REGIONAL PROJECT FLOW SCENARIO WHERE ~~PORT DEPTH OF 20 FEET AND SALINITY INCREMENT LESS THAN 2 PPT AT THE JET IMPACT POINT~~ SALINITY INCREMENT AT THE END OF THE NEAR FIELD ≤ 2 PPT

		Diffuser details				Impact Point			BMZ[1]			UM3 predictions at top	
Project	Case ID	Number of ports	Port diameter (in)	Jet velocity (ft/s)	Diffuser length (ft)	Dilution Si	Length Xi (ft)	Salinity Increment (ppt)	Layer thickness, y_L (ft)	Distance, x_n (ft)	Area (acres)	Average dilution, S_{ta}	Entrained flow (mgd)
Regional: 6 Port Diffuser	R1	6	23.6	6.5	44	8.9	26.2	3.2	7.6	98	0.89	3.6	198
Regional: 14 Port Diffuser	R1	14	13.9	8.0	93	14.3	24.8	2.0	7.2	76	0.74	5.62	352
	R2	14	13.9	6.6	93	10.7	18.7	3.2	5.4	70	0.65	4.30	208

[1] The BMZ boundary is at the end of the near field. Flow properties there are the near field properties (Figure 5.9-4).
SOURCE: Roberts 2019; Appendix 14A.

		~~Effluent~~			~~Nozzle conditions~~					~~Dilution~~		~~Salinity Increment~~			
~~Project~~	~~Case ID~~	~~Flow (mgd)~~	~~Salinity (ppt)~~	~~Density (kg/m^3)~~	~~No.~~	~~Diam. (in)~~	~~Angle (deg)~~	~~Flow (cfs)~~	~~Velocity (ft/s)~~	~~At Impact Point, S_i~~	~~At Near Field, S_n~~	~~At Impact Point, S_i~~	~~At Near Field, S_n~~	~~Impact Point Length (ft)~~	~~Near Field Length (ft)~~
~~Regional~~	~~R1~~	~~76.2~~	~~62.0~~	~~1046.2~~	~~8~~	~~13.4~~	~~26~~	~~14.7~~	~~15.0~~	~~14.3~~	~~16.9~~	~~2.0~~	~~1.7~~	~~66~~	~~203~~
	~~R2~~	~~63.0~~	~~67.8~~	~~1050.8~~	~~8~~	~~11.1~~	~~26~~	~~12.2~~	~~18.1~~	~~17.2~~	~~20.3~~	~~2.0~~	~~1.7~~	~~66~~	~~203~~

~~SOURCE: Roberts 2018; Appendix 4C.~~

~~The incremental salinity increase from operational discharges would meet the 2 ppt threshold at the impact point, 66 feet from the diffuser for both Scenario R1 and R2. Therefore, the area where salinity concentration would be greater than 2 ppt would be restricted to a small area (less than 0.3 acre) around the diffuser and above the seafloor, which would attenuate rapidly with distance from the nozzle.~~

The analysis of the proposed Regional Project operational discharges indicates that, for ~~both~~ all scenarios modeled, the discharge of brine would meet California Ocean Plan salinity standards. The Regional Project would therefore, not exceed or violate the California Ocean Plan salinity standards or degrade water quality in terms of salinity; impacts related to salinity would be less than significant.

Response LARWQCB-31

In response to the comment regarding compliance with the Ocean Plan, the Draft EIR text on page 5.9-58 is revised as follows:

As described for the Local Project, a significant impact related to water quality, water quality standards or Waste Discharge Requirements would occur if operational discharges from the Regional Project result~~ed~~ in salinity concentrations greater than 2 ppt above ambient salinity levels at the edge of the BMZ, which would be an exceedance of the receiving water salinity limitation detailed in Chapter III.M.3 of the Ocean Plan (see Section 5.9.1).

Response LARWQCB-32

West Basin is fully committed to meeting the mitigation requirements outlined in the Ocean Plan. The Ocean Plan Chapter III.M.2.e.(1)(c) explains that the regional water board may determine that the construction-related disturbance of a project does not require mitigation because the disturbance is temporary and the habitat is naturally restored. As noted in the Draft EIR Subsection 5.11.4, dredging activities could be expected to result in the temporary loss of soft sediment benthic habitat, associated marine infauna and epifauna, and habitat used as foraging area for marine invertebrates and fish, including any special-status fish species utilizing the proposed Project marine study area. But because of the limited area of soft sediment habitat and associated marine community that would be affected by dredging activities, the abundance of comparable habitat and suitable foraging habitat within the proposed Project marine study area, and the anticipated quick recovery to pre-dredging conditions and productivity, it would appear that the habitat would be naturally restored. As such, pursuant to the OPA, West Basin would assert to the regional water board that the proposed Project does not require mitigation because the disturbance is temporary and the habitat is naturally restored. This same reasoning applies to the CEQA impact analysis, and the impact from dredging is determined to be less than significant under CEQA and no mitigation is required.

Response LARWQCB-33

The use of data in Table 5.11-8 has been clarified by distinguishing the source of data used in each column (either MBC and Tenera 2008 or Tenera 2014). As a result, the Draft EIR text on

page 5.11-51 is modified as follows:

TABLE 5.11-8
FISH LARVAE USED FOR APF CALCULATION, THEIR CONTRIBUTION TO THE LARVAL COMMUNITY AND TO THE APF CALCULATION, PROPORTIONAL MORTALITIES (P_M), AND SIZE OF LARVAE

		Contribution to larval community[1] (%)	Contribution to APF calculation[1] (%)	P_m Local[1,2]	P_m Regional[21,3]	Mean Size of Larvae[4] (mm)
Fish Taxa						
Atherinopsidae	Silverside	14	25	$3.45x10^{-3}$	$1.04x10^{-2}$	9.9/9.1
Engraulidae	Anchovy	13	23	$2.38x10^{-4}$	$7.15x10^{-4}$	8.9
Genyonemus lineatus	White Croaker	11	20	$4.55x10^{-4}$	$1.37x10^{-3}$	2.4/2.9
Hypsoblennius spp.	Combtooth Blenny	6.5	0.2	$4.33x10^{-4}$	$1.30x10^{-3}$	NA /2.35
Citharichthys spp.	Sanddab	5	2	$1.62x10^{-4}$	$4.88x10^{-4}$	NA
Paralichthys californicus	California Halibut	1.8	6	$2.60x10^{-4}$	$7.80x10^{-4}$	2.0/NA
Gobiidae	CIQ Goby	1.5	1	$2.39x10^{-3}$	$7.19x10^{-3}$	NA
Paralabrax spp.	Sea Bass	1.3	5.5	$5.41x10^{-4}$	$1.63x10^{-3}$	NA
Parophrys vetulus	English Sole	1.25	2	$1.19x10^{-4}$	$3.58x10^{-4}$	NA
Pleuronichthys guttulatus	Diamond Turbot	0.43	1.5	$3.35x10^{-3}$	$1.00x10^{-2}$	NA
Seriphus politus	Queenfish	0.07	1.5	$5.41x10^{-5}$	$1.63x10^{-4}$	NA
Sciaenidae	Unid. Croakers	NA	12.6	$7.36x10^{-4}$	$2.21x10^{-3}$	2.9

~~SOURCE: HDR 2018., Tenera 2014.~~
NOTES: NA = Not Available; [1]Data based on Tenera and MBC 2008, ~~1~~[2]Mean of 41 and 45 MGD intake; ~~2~~[3]Mean of 123 and 136 MGD intake; [4] Project marine study area/SCB; data based on Tenera 2014

Response LARWQCB-34

See *Master Response: CEQA and Ocean Plan Compliance*. In addition, the Draft EIR Table 5.11-9 has been modified to include a 1 percent reduction in ocean water intake entrainment on the APF calculation in accordance with OPA, and associated clarifications made to the text on page 5.11-52.

The Draft EIR text on page 5.11-52 is revised as follows:

> It should be noted that these APF calculations do not take into account the use of wedgewire screens, potentially excluding larvae that are > 1 mm in size, or the intake flow rate~~, and or the potential exclusion of larvae that are > 1 mm in size~~. For example, Tenera 2014 (see Draft EIR Appendix 4A) concluded that the entrainment of Silverside fish larvae, which account for approximately 14 percent of the Project marine study area larval fish population (Table 5.11-8), would be excluded from entrainment because ~~of their mean size being 9 mm, and because~~ larvae below 7 mm in size did not occur in the Project marine study area (Table 5.11-8, Tenera 2014). Tenera (2014) also concluded that entrainment of other fish larvae that were > 1 mm in size would be substantially reduced, if not eliminated. Tenera (2014) assumed 100 percent entrainment for each of the 12 fish

species used in their calculations of mortalities and in the estimation of APF. However, as evidenced from the size distribution of silverside larvae, using data on larval sizes could refine the potential for larval entrainment. Unfortunately, data on larval sizes only existed for 6 of the 12 species used by Tenera (2014). By assuming reduced entrainment for larvae > 1 mm in size for these 6 species, and 100 percent entrainment for the 6 species where data on larval size was lacking, the APF declined by ~11 percent (Table 5.11-9). If reductions in entrainment of larvae was extrapolated to all 12 out of the 12 fish species, APF would decline by ~24 percent (Table 5.11-9).

That potential reductions in larval entrainment by wedgewire screens can occur has been noted by the SWRCB, which cited a study at the Diablo Canyon Nuclear power plant in the technical support for OPA 2015 where use of wedgewire screens reduced larval entrainment 4.6 to 15.8 percent over the open intake. However, this study did not employ reduced flow in its assessment of entrainment reductions; with reduced intake flow entrainment of larval fish could be even less (OPA 2015). Other studies cited by the SWRCB demonstrated reductions in entrainment as high as 66 percent. It should be noted that the majority of these studies focused on larval fish body length and not head diameter in assessing percentages of potential reductions occurring when using wedgewire screens. It was because of this uncertainty in the effectiveness of wedgewire screens that the SWRCB concluded that, "Additionally, even though wedgewire screens can reduce entrainment mortality of juvenile and adult fish and essentially eliminate impingement mortality, intake-related mortality will be site and species-specific. Empirical studies on wedgewire screen efficacy may be required to test the models that have been designed to estimate entrainment. There also may be a need to empirically measure entrainment at individual desalination facilities." Consequently, the calculation of APF for an unscreened ocean intake located offshore of the ESGS (HDR 2018) potentially overestimates the loss of productivity to the marine ecosystem from entrainment, since most of the entrainment would be restricted to larvae < 1 mm in diameter or fish larval head size (Tenera 2014).

The Draft EIR text on page 5.11-54 is revised as follows:

TABLE 5.11-9
AREA PRODUCTION FOREGONE (APF) ESTIMATES FOR OPEN AND 1 MM WEDGEWIRE SCREENED OCEAN INTAKE FOR THE WEST BASIN DESALINIZATION PROJECT LINEAR DIFFUSER

Intake	APF Estimates for an Unscreened Intake[1] (acres)	APF Estimates for a Wedgewire Screened Intake with a 1% reduction in entrainment (acres) consistent with the CA Ocean Plan	APF Estimates for a Wedgewire Screened ~~Equipped~~ Intake Accounting for Exclusion of certain > 1 mm larvae[2] (acres)	APF Estimates for a Wedgewire Screened ~~Equipped~~ Intake with 100% Exclusion of Silverside Larvae[3] (acres)	APF Estimates for a Wedgewire Screen Intake with a 24% reduction in Entrainment[4] (acres)
Local (41 MGD)[5]	16.4	16.2	14.5~~2~~	14.2	12.5
Local (45 MGD)[6]	18.1	17.9	16.0~~3~~	15.6~~4~~	13.8
Regional (123 MGD)[5]	49.1	48.7	43.6~~59~~	42.5~~3~~	37.3
Regional (136 MGD)[6]	54.4	53.8	48.3~~25~~	47.1~~07~~	41.3

Intake	APF Estimates for an Unscreened Intake[1] (acres)	APF Estimates for a Wedgewire Screened Intake with a 1% reduction in entrainment (acres) consistent with the CA Ocean Plan	APF Estimates for a Wedgewire Screened ~~Equipped~~ Intake Accounting for Exclusion of certain > 1 mm larvae[2] (acres)	APF Estimates for a Wedgewire Screened ~~Equipped~~ Intake with 100% Exclusion of Silverside Larvae[3] (acres)	APF Estimates for a Wedgewire Screen Intake with a 24% reduction in Entrainment[4] (acres)

SOURCE: [1] HDR 2018 ~~[4]Tenera 2014.~~ All calculations include 1:10 scaling of estuarine: midwater habitat for non-estuarine fish species (Allen and Pondella 2006).

NOTES: [2] APF wedgewire screen values ~~are~~ based on estimated reductions in entrainment of ~~assorted~~ certain fish and invertebrate larvae, depending on the spectrum of larval sizes for each species. ~~(from a spectrum of larval sizes for each species)~~ when a 1.0-mm Wedgewire Screen is utilized ~~and~~ as presented in Tenera 2014.

[3] APF wedgewire screen values ~~are~~ calculated by excluding entrainment of Silverside larvae based on data in Tenera et al. 2014. All calculations include 1:10 scaling of estuarine: midwater habitat for non-estuarine fish species (Allen and Pondella 2006).

[4] Estimated mortality reductions if data existed for 12 out 12 species used for APF calculation and all species have some reductions in entrainment.

[5] Treated waste washwater is internally recycled.

[6] Treated waste washwater is NOT internally recycled.

Mitigation Measure BIO-M2 was written such that a commitment to direct or indirect ecological enhancement would be provided, or funds placed in a State-approved fee-based mitigation program, in order to address the uncertainty in the evaluation of the ecological impacts of screened ocean intakes. The proposed site-specific entrainment studies contained in Mitigation Measure BIO-M2 are intended to more precisely determine the level of impact to marine ecosystems from operation of a screened ocean intake and use of discharge diffuser jets.

Response LARWQCB-35

Regardless of the magnitude of the impact of entrainment, adequate mitigation to restore or enhance marine or coastal habitat, as calculated by the LARWQCB and not the Applicant, must be implemented pursuant to OPA, which mandates that impacts on all marine life be mitigated. Therefore, the Draft EIR concludes that implementation of Mitigation Measure BIO-M2 would reduce proposed Project-related entrainment impacts of all marine taxa, to less than significant after implementation of mitigation measures. The Draft EIR also recognizes that based on the absence of suitable habitat in the proposed Project marine study area, the absence of substantial larval densities of special-status species in the proposed Project marine study area, and the natural life history of special-status species of concern present in the proposed Project marine study area, the potential for entrainment of these special-status species is negligible to non-existent and the impact would be less than significant.

To clarify, the last sentence of paragraph 2 in the Draft EIR on page 5.11-53 is revised as follows:

> Therefore, the implementation of **Mitigation Measure BIO-M2** would reduce Project related entrainment impacts of ~~non-special-status~~ all marine taxa, to less than significant after mitigation.

Response LARWQCB-36

The Draft EIR text on page 5.11-59 and in Table 5.11-12 on page 5.11-60 accurately cite Roberts (2018) regarding the potential impact of diffuser jet induced shearing mortality. The studies discussed on Draft EIR page 5.11-59 demonstrate that the potential for shear induced mortality on planktonic organisms <1 mm in size is species/taxon specific and most likely not as definitive as portrayed in OPA 2015. Using the results of these studies, Table 5.11-12 illustrates the potential range of ecological effect, as determined by the different the area of production foregone (APF) values. The Draft EIR, in its assessment of potential Project-related shear stress impacts (Draft EIR pages 5.11-58 through 5.11-60), did not state that the reduced APF values presented in Draft EIR Table 5.11-12 were actual APF estimated impacts of the proposed Project. The intent was to demonstrate the inconsistency between what is currently allowed in OPA and what recent scientific studies are establishing relative to shear-induced mortality of planktonic organisms and to provide support for the approach outlined in Mitigation Measure BIO-M2 to mitigate marine ecosystem impacts from ocean water intake entrainment and diffuser induced shear stress mortality resulting from the proposed Project. The Draft EIR analysis of shear stress induced mortality of planktonic organisms and the stated approach outlined in Mitigation Measure BIO-M2 are both entirely consistent with the findings of Roberts (2018).

Nevertheless, in response to comment LARWQCB-52, a supplemental study was prepared by Roberts (2019; see Final EIR Appendix 14) that applies the methodology described in Roberts (2018), for determining the best diffuser design for the proposed Project. The study, Modeling Linear Diffusers for Brine Disposal, evaluates a linear array that includes nozzles set at a 60-degree angle to enhance dilution and minimize shear stress mortality from entrainment. See *Master Response: Supplemental Studies*. As a result of the linear diffuser design, the Draft EIR text on page 5.11-58, and Draft EIR Table 5.11-12, have been revised to reflect the range of APF associated with a 6-port, and a 14-port linear diffuser array:

Shear Stress

Mortality due to turbulence-induced shearing stress from the discharge of brine can impact plankton, particularly thin-shelled bivalve and gastropod veligers (Jessopp 2007; Zhang et al. 2017). Shearing stress from discharge of water through multiport diffusers has been modeled in a number of scientific studies and has been found to vary depending on a variety of factors, including the angle of the diffusers and water discharge velocities (Foster et al. 2013; Roberts 2018). The discharge of the brine entrains ambient seawater into a turbulent discharge plume wherein marine organisms face a greater risk of shear-induced damage and mortality. For the Local Project, Roberts (2019~~8~~) ~~used a preliminary and evolving methodology (which has not yet been approved) to~~ estimates that approximately ~~119-126~~ 66 - 116 MGD of ambient seawater would become entrained by the turbulent discharge of the Project's outfall (see Appendix ~~D3~~14A). If it is assumed that all organisms entrained into the turbulent discharge flow will suffer mortality, then the estimated APF of this entrainment would vary from ~~47-50~~ 26.3 - 46.3 acres due to the large volume of water that would be entrained by the discharge (**Table 5.11-12**). This could be considered a potentially significant impact.

However, the ocean produces a substantial amount of natural turbulence due to the action of wind and waves (Mann and Lazier 1991). This "background" turbulence is typically manifested at length scales > 1 mm, depending on forcing intensities. The Project-induced turbulence that needs to be mitigated would occur at length scales of < 1 mm (Roberts 2018). If the APF calculation is adjusted for Project-induced turbulences, i.e. by excluding some organisms > 1 mm for which there exists data, then the APF can initially decrease from ~~47–50~~ 26.3 - 46.3 acres to ~~39–42~~ 21.7 - 38.2 acres for the Local Project (Table 5.11-12).

Additionally, all of the organisms < 1 mm in size are not expected to be affected to the same extent by shear stress due to their natural elasticity and in the case of some invertebrate larvae, the hardness of their shells. Recent studies of turbulence-induced shearing mortalities on invertebrate organisms demonstrate that a number of taxa, including polychaetes, barnacles, cyprids and bryozoans show no effects from turbulent transport at velocities as high as 3 m/s (Jessopp 2007). At a velocity of 3 m/s, which is comparable to the discharge velocities of the Local Project, predicted to vary from 2.7 - 3.3 m/s (8 - 10 feet/s), the impact of turbulence-associated shear mortality would principally affect thin-shelled veligers such as those of *Mytilus edulis* and the gastropod *Littorina littorea* (Jessopp 2007). For these types of organisms, shear-induced mortalities vary from 15 to 35 percent of the population (Jessopp 2007; Zhang 2017). Because these types of veligers typically comprise a varying proportion of the plankton < 1 mm in size, taking the mortality of the total plankton population to be the midpoint of this range (25 percent) would represent a worse-case scenario for invertebrates and for fish eggs and larvae, which are typically more elastic and can be expected to withstand minimal levels of shear stress compared to thin shelled mollusks. Applying a 25 percent mortality rate to the discharge entrainment APF calculations further reduces the estimated APF acreage to ~~9.8–10.4~~ 5.4 - 9.5 for the Local Project (Table 5.11-12). However, although the OPA requires mitigation, it is unclear from current policy guidance how to calculate a scientifically accurate ~~fair~~ compensation at this time. The RWQCB is currently evaluating methodologies.

As discussed above concerning ocean water intake entrainment, the potential magnitude of entrainment from the Project's brine discharge is uncertain, primarily due to limited and pertinent scientific data concerning invertebrate and larval fish mortality that may actually occur from discharge turbulence. Scientific data that can be applied (Jessopp 2017; Zhang 2017) indicate that turbulence-induced mortality on invertebrates and fish larvae in the open ocean is far less than 100 percent and could be 15 percent or lower. As also discussed above for Project related intake entrainment, although the potential overall magnitude and effect of discharge turbulence-induced entrainment of larvae < 1 mm may be in question, the potential effect of injured or killed marine fish and invertebrates may still have a significant impact on the marine ecosystem.

Regardless of the magnitude of the impact of discharge-induced entrainment, it would be expected to be reduced through the application of mitigation to restore or enhance marine or coastal habitat, which could include a local coastal marsh restoration Project such as

the Ballona Wetlands Restoration Project. Therefore, the implementation of Mitigation Measure BIO-M2 would reduce Project related entrainment impacts of non-special-status taxa, to less than significant after mitigation.

Finally, as mentioned above, the potential for entrainment of special-status taxa would be negligible to non-existent. For example, the lack of veliger larvae or juvenile fish stages of black abalone and giant sea bass in any of the studies of plankton conducted in the last decade in the Project marine study area (Tenera and MBC 2008; Tenera 2014), the lack of kelp beds or other suitable habitat which provide the primary food source of both black abalone and Giant sea bass (Butler et al. 2009) in reasonable proximity to the intake and discharge tunnels, and the survivability of either taxas larvae to travel the requisite distance to the Project site from existing supporting habitat, as well as the > 1 mm egg and larval body size of giant sea bass, all support a determination of a very low to non-existent potential for substantial larval densities to be effected by Project entrainment that would pose a significant risk to the survivability and recovery of these species. Therefore, potential entrainment impact would be less than significant with implementation of Mitigation Measure BIO-M2.

TABLE 5.11-12
AREA PRODUCTION FOREGONE (APF) ESTIMATES FOR TURBULENT DISCHARGE-ASSOCIATED MORTALITY FOR THE WEST BASIN DESALINIZATION PROJECT LINEAR DIFFUSER

~~Intake~~	~~Estimated Entrained Flow (MGD)[1]~~	~~100% Mortality Discharge APF[2] (acres)~~	~~< 1 mm Mortality Discharge APF[3] (acres)~~	~~25% < 1 mm Mortality Discharge APF[4] (acres)~~
~~Local (41 MGD)~~	~~119~~	~~47.5~~	~~39.2~~	~~9.8~~
~~Local (45 MGD))~~	~~126~~	~~50.3~~	~~41.6~~	~~10.4~~
~~Regional (123 MGD))~~	~~678~~	~~270.8~~	~~223.6~~	~~55.9~~
~~Regional (136 MGD)~~	~~693~~	~~276.7~~	~~228.5~~	~~57.13~~

Intake Volumes	Estimated Entrained Flow (MGD)[1]		100% Mortality Discharge APF[2] (acres)		< 1 mm Mortality Discharge APF[3] (acres)		25% < 1 mm Mortality Discharge APF[4] (acres)	
	6-Port	14-Port	6- Port	14-Port	6-Port	14-Port	6-Port	14-Port
Local (41 MGD)[5]	66	116	26.3	46.3	21.7	38.2	5.4	9.5
Local (45 MGD)[6]		68		27.1		22.4		5.6
Regional (123 MGD)[5]	198	352	79.1	140.6	65.2	116	16.3	29.0
Regional (136 MGD)[6]		208		83		68.5		17.1

NOTES:

1 Volume of estimated entrained flow from Roberts 2018~~9~~.

2 Mortality assessed as 100% of organisms of all size classes in the entrained flow;

3 100% of organisms < 1mm in size with a proportional percentage of organisms > 1 mm being affected based on Tenera 2014;

4 Assumes 25% mortality of organisms < 1 mm in size, based on observed mortalities of marine taxa from Jessopp 2007 and Zhang et al. 2017. Entrainment includes 1:10 scaling of estuarine:midwater habitat for non-estuarine fish species (Allen and Pondella 2006).

5 Treated waste washwater is internally recycled.

6 Treated waste washwater is NOT internally recycled.

Regarding the Water Board approval of the approach for evaluating shear stress mortality, see *Master Response: CEQA and Ocean Plan Compliance.*

Response LARWQCB-37

See *Master Response: CEQA and Ocean Plan Compliance* and response to comment LARWQCB-35.

Response LARWQCB-38

See response to comment LARWQCB-36.

Response LARWQCB-39

As stated in the Draft EIR on page 5.11-59, the Ballona Wetland restoration project represents one potential direct or indirect ecological habitat restoration project that could provide the needed mitigation required by the proposed Project to account for ocean water intake and diffuser shear stress mortality impacts on marine ecosystems. See also response to comment LARWQCB-13 and *Master Response: CEQA and Ocean Plan Compliance.*

Response LARWQCB-40

See response to comment LARWQCB-13.

Response LARWQCB-41

See responses to comments LARWQCB-12 and SLC-30. Although no fee-based mitigation program is currently known or available at present, that may not be the case if and when the Project moves forward with permitting and construction in the future.

Response LARWQCB-42

The Draft EIR evaluates locating the desalination facility on the Chevron Marine Terminal Alternative site (Draft EIR Subsection 7.2.2) and comingling the discharge with the existing secondary treated effluent discharged through an existing 0.7-mile outfall. The Draft EIR concludes that: (1) the Chevron Marine Terminal Alternative site, at roughly 3 acres, would be too small for the Local Project; (2) West Basin would not have site control and site availability is uncertain; and (3) the existing NPDES permit allows Chevron to discharge up to 27 MGD and it is unclear as to whether or not the Chevron outfall has the available excess capacity to support the additional flows produced by the Project (21 to 25 MGD for the Local Project, see EIR Table 5.9-5) in addition to Chevron's existing average discharge flow of 7.375 MGD (Order No. R4-2017-0189, NPDES NO. CA0000337). As such, the alternative was found to be infeasible and not subject to further consideration pursuant to CEQA. With respect to the availability and capacity of the Chevron outfall, LARWQCB may require additional information through the Water Code determination process. However, for purposes of CEQA, the alternative evaluation in the Draft EIR complies with CEQA.

Response LARWQCB-43

As explained in the Draft EIR Subsection 7.2.2 starting on page 7-31, the Chevron Marine Terminal site, at roughly 3 acres, would be too small even for the Local Project, and as such, no further consideration of this alternative site is necessary. Because the Chevron outfall may not have available capacity (see response to comment LARWQCB-42), a new outfall as well as a new intake could be required for the proposed Project. And unlike the proposed Project, the Chevron Marine Terminal Alternative would not include the installation of the feedwater pipeline and discharge pipeline in existing abandoned tunnels. Instead, the feedwater and discharge pipelines would be installed belowground (horizontally directionally drilled or open-trench construction) to eventually terminate offshore at a similar or greater depth as the existing ESGS tunnels. As a result, the Chevron Marine Terminal Alternative would likely result in more severe construction-related impacts to the seafloor compared to the proposed Project, and the habitat and organisms it supports (see Draft EIR page 7-32). CEQA Guidelines Section 15126.6(d) explains that if an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed. See also *Master Response: Supplemental Studies*.

Response LARWQCB-44

As lead agency, West Basin has conducted a thorough assessment of alternative locations and available technologies for both the treatment plant and the ocean water intakes, which is documented in Section 7 of the Draft EIR. Regarding LARWQCB permitting requirements under the Clean Water Act and Ocean Plan, see *Master Response: CEQA and Ocean Plan Compliance.*

Response LARWQCB-45

In response to this comment, West Basin conducted supplemental assessments of the feasibility of horizontal directional drilling (HDD) technologies at the ESGS location. These studies have been added to the Final EIR as Appendix 13B and 13C, augmenting and updating the previous

information provided in Appendix 2A of the Draft EIR that evaluated the feasibility of utilizing subsurface intakes. See the *Master Response: Supplemental Studies*. The findings of these supplemental studies confirm West Basin's conclusions in the Draft EIR and provide support for future regulatory decisions.

Response LARWQCB-46

See response to comment LARWQCB-45.

Response LARWQCB-47

See *Master Response: CEQA and Ocean Plan Compliance*. Additionally, see response to comment LARWQCB-34.

Response LARWQCB-48

The Existing Marine Habitats and Communities section of the Draft EIR (pages 5.11-12 through 5.11-36) presents information on marine biological resources throughout the greater SMB, including RBGS, as well as for the ESGS Project Study Area specifically. All this information, and the information contained in Appendix 4A, is germane for informing potential Project-related environmental effects. See also response to comment LARWQCB-9.

Response LARWQCB-49

The missing appendices of the Tenera 2014 wedgewire screen Intake Effects Assessment Report are provided as Final EIR Appendix 4A.

Response LARWQCB-50

See response to comment LARWQCB-34 and *Master Response: CEQA and Ocean Plan Compliance*.

Response LARWQCB-51

See response to comment LARWQCB-34 and *Master Response: CEQA and Ocean Plan Compliance*.

Response LARWQCB-52

A supplemental analysis was conducted for a linear diffuser configuration (see Final EIR Appendix 14), consistent with the calculation procedures recommended by Roberts, 2018. See also *Master Response: Supplemental Studies* and responses to comments LARWQCB-30 and -36.

Response LARWQCB-53

Appendix 14A in the Final EIR presents a supplemental model analysis of dilution conducted for linear diffuser configurations consistent with the calculation procedures recommended by Roberts (2018). As part of the supplemental dilution analysis, the dilution requirement for salinity is now demonstrated to be met at the end of the near field while also minimizing the jet exit velocity and therefore shear stress and turbulence-induced mortality of organisms that may be entrained into the diffuser jets. See response to comment LARWQCB-30 for additional details.

Response LARWQCB-54

Final EIR Appendix 14A presents a supplemental model analysis of dilution conducted for linear diffuser configurations consistent with the calculation procedures recommended by Roberts (2018). The supplemental dilution simulations for a linear diffuser design assumed a port depth of 24 feet below sea level, and a diffuser port angle of 60°. See response to comment LARWQCB-30 for additional details.

Response LARWQCB-55

The commenter is referred to responses to comments LARWQCB-37, LARWQCB-39, and LARWQCB-40.

Response LARWQCB-56

See *Master Response: CEQA and Ocean Plan Compliance*.

Response LARWQCB-57

Replication of the P_m calculations (including PE values) using data from the Tenera 2008 report is included in Appendix B of the AMS Technical Memo-Comparison of 316(b) Data from SMB, California (AMS 2019). See also *Master Response: CEQA and Ocean Plan Compliance*.

Response LARWQCB-58

The commenter is referred to response to comment LARWQCB-34.

Response LARWQCB-59

The commenter is referred to responses to comments LARWQCB-4 through LARWQCB-13.

Response LARWQCB-60

West Basin has conducted supplemental assessments of the feasibility of HDD technologies at the ESGS location. See Final EIR Appendices 13B and 13C, and response to comment LARWQCB-45. As lead agency, West Basin has evaluated a proposed Project that does not include a hybrid intake system. If the West Basin Board of Directors certifies the EIR, approves the Project and directs staff to pursue permitting, and if during the permitting process the LARWQCB considers a hybrid intake system that includes a subsurface contribution, additional analysis may be required at that time.

Response LARWQCB-61

As lead agency, West Basin has evaluated a proposed Project located at the ESGS site. As part of the CEQA Alternatives analysis, the Draft EIR evaluates other site locations and technologies that could avoid significant impacts of the proposed Project. The Draft EIR Section 7 alternatives analysis complies with CEQA alternatives assessment requirements. If during permitting the LARWQCB or another permitting agency requires additional analysis of alternative locations to site the treatment plant and intakes, West Basin will work with the regulators to provide the information. In addition, this Final EIR includes a supplemental technical study that compares

316(b) studies conducted at neighboring coastal power generating sites to evaluate how the ESGS location compares to other locations within the SMB. Final EIR Appendix 12 concludes that the ESGS site is superior to other locations within the SMB. See *Master Response: Supplemental Studies*. See responses to comments LARWQCB-6 through LARWQCB-9.

Response LARWQCB-62

The Draft EIR Appendix 11 evaluates the feasibility of constructing a brine discharge pipeline to Hyperion Water Reclamation Plant to co-mingle brine with the existing secondary-treated wastewater effluent. The study comports with the Ocean Plan requirements to evaluate the possibility of co-mingling brine with existing ocean discharges. While the study concludes that the construction of a pipeline would be difficult, but technically feasible, the study also concludes that future wastewater flows in the Hyperion outfall are not sufficiently reliable to support the dilution benefits associated with co-mingling. Furthermore, since the publication of the Draft EIR, the Mayor of the City of Los Angeles announced on February 21, 2019, that the City will recycle 100 percent of its wastewater by 2035, further assuring that any co-mingling of brine with wastewater at the Hyperion plant would be infeasible. As a result, significant alterations to the outfall diffuser would be required similar to the proposed outfall location. Since West Basin does not own the Hyperion facility, the study concluded that it would be infeasible to obtain permission from the City of Los Angeles to retrofit the existing outfall to accommodate ocean water desalination brine.

The EIR complies with the Ocean Plan's requirements to investigate the feasibility of using existing outfalls to co-mingle brine. Because co-mingling is infeasible, West Basin proposes to utilize a multi-port diffuser that would allow the brine to meet the Ocean Plan water quality thresholds.

Response LARWQCB-63

West Basin notes that the LARWQCB may reach different conclusions as part of its analysis of feasible measures to minimize intake and mortality of all forms of marine life in its permitting process. West Basin notes the LARWQCB contact information provided for future correspondence.

Letter NAHC: Native American Heritage Commission

Response NAHC-1

West Basin notes the introductory text provided by the Native American Heritage Commission (NAHC). Responses to subsequent comments are addressed in responses to comment NAHC-2 through NAHC-4.

Response NAHC-2

As identified in the Draft EIR on page 5.4-47, no tribal cultural resources were identified as a result of Assembly Bill (AB) 52 consultation; therefore, no mitigation is required under CEQA.

Response NAHC-3

Mitigation Measure CUL-3 has been revised to include specific details regarding the Most Likely Descendent (MLD) process, including the 48-hour time limit on recommendation of disposition of remains (see response to comment SLC-14). Regarding the comment on the MLD timeline, the 48-hour time limit is included on page ii in Appendix 7A: "The MLD shall complete the inspection within 48 hours of notification by the NAHC."

Response NAHC-4

West Basin consulted with California Native American tribes as described in Subsection 5.4.4 (pages 5.4-47 to 5.4-50) and documented in Appendix 7C of the Draft EIR.

West Basin notes the attached summary of AB 52 requirements. The AB 52 consultation efforts are summarized in the Draft EIR on page 5.4-20. As identified in the Draft EIR on page 5.4-47, no tribal cultural resources were identified as a result of AB 52 consultation.

West Basin notes the NAHC contact information for any future correspondence regarding this comment letter.

Response to Letter SLC: California State Lands Commission

Response SLC-1

The commenter's statement identifying their role as a trustee agency for the proposed Project, as well as the brief description of the background of the California State Lands Commission (SLC), is noted for the record. West Basin acknowledges that a lease from the SLC will be required for portions of the proposed Project encroaching on state sovereign land. See Draft EIR Table 3-11.

Response SLC-2

West Basin acknowledges the Project summary, and notes all subsequent comments are responded to in responses to comments SLC-3 through SLC-31.

Response SLC-3

Should the proposed Project be approved, the concrete plugs installed in the intake and discharge tunnels by NRG Energy (NRG) will be demolished from the onshore end during construction of the desalination plant; specifically, during construction of the Intake Pump Station. Final EIR Section 11, *Refinements to the Project Description*, Subsection 3.5.1, describes the demolition process. The offshore components of the existing intake and outfall pipelines would not be affected by the concrete plugs and would be accessed during construction from floating barges and support vessels with dive teams, as described in Draft EIR Subsection 3.5.2. The impacts of offshore construction are evaluated throughout Section 5 of the Draft EIR. West Basin would work with NRG to resolve any facility ownership issues prior to submitting a lease application to the California Coastal Commission.

Response SLC-4

In response to this comment, the following text is added to the Draft EIR Subsection 3.7.4 (see Final EIR Section 11, *Refinements to the Project Description*):

3.7.4 Offshore Facility Maintenance

Operation of the Local Project screened ocean intake and concentrate discharge facilities would require periodic inspections of the submerged components. During normal plant operations, periodic maintenance trips estimated at less than one per month, would be required for divers to inspect the diffuser and the intake screens, and to ensure that excessive biofouling does not develop. A crew of up to five divers would make up to 11 trips over the course of the year, on a 40-50-foot dive vessel. The 400- 500-hp vessel would travel to the project site from the POLA or POLB and would work a 10-hour day including round-trip travel. Should macro foulants be found, divers would use tools, such as brushes and chisels, to mechanically remove large foulants attached to the screens.

Response SLC-4a

Emissions for marine vessels during offshore construction activities are included in Appendix 3 as noted on page 5.2-30 of the Draft EIR and summarized in Table 5.2-11. The addition of monthly maintenance activities would contribute minor sources of operational air emissions

associated with workers commuting to the marina and boat engine emissions during the 1 or 2 days' worth of work per month. The use of one or two boats to access the mooring locations at the end of the discharge tunnels once a month or less often would not exceed emissions thresholds of significance for criteria pollutants and greenhouse gas (GHG). The contribution of emissions from maintenance activities would be less than significant. Furthermore, views of maintenance boats once per month would not contribute adversely to the views of the ocean that currently includes mooring vessels at the marine oil terminal. Maintenance boats would not adversely impact aesthetics.

Response SLC-5

The Draft EIR Project Description text on page 3-22 is revised (see Final EIR Section 11, *Refinements to the Project Description*) as follows:

> Construction of the ocean intake and concentrate discharge system would require approximately ~~three (3)~~ one (1) year~~s~~, and is anticipated to occur in parallel with ocean water desalination facility construction. Work is anticipated to occur 5 days per week during daylight hours, although marine construction activities could require up to 72 hours of continuous construction in desirable sea conditions. Nighttime lighting would be low intensity (ideally, sodium), properly shrouded and installed/positioned to minimally illuminate the decks for the safety of onboard personnel, and not the ocean waters.

The Draft EIR page 5.9-43 correctly states that in-water construction activities would extend over a 12-month period.

The Draft EIR Table 3-5 presents a schedule of onshore activities and Table 3-7 presents a schedule of offshore activities. As noted above, Draft EIR page 3-22 acknowledges that offshore construction "is anticipated to occur in parallel" with onshore facility construction.

Draft EIR page 5.1-11 (Aesthetics, Light and Glare) is also revised as follows:

> Construction would occur over ~~24~~ 12 months . . .

Therefore, the Draft EIR text on page 5.1-11 correctly explains that "[t]emporary mooring of barges would be visible for months at a time" and because these boats would be similar in character to the existing boats that use the nearby harbors and marinas, and because these activities would be temporary, impacts to scenic vistas would be less than significant. Similarly, the Draft EIR text on page 5.12-17 (Noise) indicates that "operation of the equipment on the barges would be largely imperceptible onshore, masked by the sounds of the surf. Offshore construction noise impacts to sensitive receptors onshore would be less than significant." Because work vessels employed by the proposed Project would be required to have state-of-the-art deck lighting that does not cause unnecessary lighting of ocean waters, the temporary, short-term, and unlikely scenario of nighttime work would not be expected to result in anything but negligible effects on marine biological resources (see also response to comment CCC-16).

Draft EIR page 5.14-8 (Recreation) explains that no interruption of surfing, swimming, kayaking, and paddle boarding would occur during construction of the offshore facilities because activities would be approximately 2,000 feet from the shore. Temporary anchor buoys would be located outside the surf zone, marked for visibility in compliance with the required Anchor Plans, and monitored by construction personnel to ensure that kayakers and boaters stay clear. In addition, mitigation measure HAZ-4 requires the preparation of a Marine Safety Plan that would apply to all marine activities, and would include a transportation plan for barges, tugboats, crewboats, and other vessels, as well as plan for navigational marking and lighting. All elements of the Marine Safety Plan shall be in compliance with U.S. Coast Guard regulations.

Response SLC-6

The Draft EIR Project Description text on page 3-23 is revised (see Final EIR in Section 11, *Refinements to the Project Description*) as follows:

> Installation of the intake screen and discharge diffuser would require removing and ~~reconfiguring~~ re-installing an estimated 2,000 tons of riprap around the existing intake structure and similarly approximately 2,000 tons of riprap around the discharge pipeline tower structure. The riprap surrounding both the intake and discharge towers ~~would~~ may be removed and temporarily stockpiled on the seafloor. Assuming the rock would be stockpiled in a roughly 3-foot to 4-foot high by 100-foot diameter mound with 2 horizontal to 1 vertical (2H:1V) slopes, the estimated area of seafloor that would be temporarily covered is approximately 4,000 square feet (or slightly less than 0.1 acre).

The 100-foot-diameter circle showing the footprint of the temporary stockpile area is included on revised Figures 3-24 and 3-25; see Final EIR Section 11, *Refinements to the Project Description*.

Alternatively, if stockpiling on the seafloor is infeasible, EIR Subsection 3.5.2 (see Final EIR Section 11, *Refinements to the Project Description)* explains that a typical 200-foot-long by 50-foot-wide ocean-going deck barge with a capacity of approximately 2,500 tons could be loaded with the removed riprap and towed to the Port of Los Angeles and stored in the marine contractor yard temporarily while offshore construction operations are undertaken.

Response SLC-7

Emissions for marine vessels during offshore construction activities are included in Appendix 3, as noted on page 5.2-30 of the Draft EIR and summarized in Table 5.2-11. The estimates provide a worse-case analysis of marine vessel emissions based on conservative assumptions of construction methods including the transportation of 2,000 tons of riprap to and from the offshore construction area. The transportation of riprap on a barge is described on page 3-23. Worse case construction durations are included in Table 3-7. Similarly, GHG emissions are summarized in Table 5.7-3 reflecting worse case total GHG emissions for marine construction activities described in the Project Description. The Draft EIR notes on page 5.14-8 in Section 5.14, *Recreation,* that offshore construction would be far enough out to shore to avoid impacts to recreation. Boating traffic impacts are addressed on page 5.8-19. Mitigation Measure HAZ-3 and HAZ-4 require an anchoring plan and marine safety plan that would specifically address

anchoring impacts to marine wildlife and marine vessel traffic safety. The Draft EIR provides worse-case assessments for these issues based on the construction methods presented in Section 3.

Response SLC-8

Additional riprap would not be necessary. Final riprap placement would remain within the original footprint. The Draft EIR text on page 5.11-42 is revised as follows:

> Once the modifications to the screened ocean intake and outfall structures are completed, the temporarily removed armor rock would be replaced to anchor and protect the new seafloor-based intake and outfall structures. ~~Additional armor rock may be required which would provide more artificial hard substrate than is currently present at the Project site.~~

Response SLC-9

Additional riprap would not be necessary; therefore, no additional marine vessels would be needed.

Response SLC-10

The Draft EIR text on page 3-13 was meant to refer to either the cast-aside materials, or the materials that had been stockpiled on a barge or at the Port of Long Beach. In response to the comment, the Draft EIR Project Description text on page 3-13 is revised (see Final EIR in Section 11, *Refinements to the Project Description*) as follows:

> Once installed, the exposed end of the tunnel would be resealed and covered ~~either~~ with the ~~cast aside~~ dredged material and the stockpiled riprap would be put back around the discharge tower.

Response SLC-11

In response to several comments received on the Draft EIR, a supplemental analysis that evaluated a linear diffuser configuration, consistent with the calculation procedures recommended by Roberts (2018) was conducted as part of the Final EIR (see *Master Response: Supplemental Studies* and Final EIR Appendix 14 for additional details; see also response to comment LARWQCB-30). The objective of the analysis was to identify a linear diffuser configuration that would comply with the required Ocean Plan criteria for desalination discharges. As a result, the Draft EIR text of the Project Description on page 3-13 is revised (see Final EIR in Section 11, *Refinements to the Project Description*) as follows:

> Once the new pipelines are installed, a multi-port diffuser system consisting of a pipe manifold with multiple ~~duckbill~~ diffuser ports would be installed directly onto the side of the existing discharge tower and extend approximately 120 feet south. A total of ~~eight duckbill~~ fourteen 9-inch diameter diffuser ports would be installed during construction of the Local Project[5A] ~~; however, only four ports would be used for the Local Project (see Section 3.6 below)~~. The diffuser ports would be positioned approximately 15.5 feet apart,

with seven diffuser ports on opposite sides (14 total) of the discharge pipe ~~(**Figure 3-25**)~~ at approximately 8 feet above the ocean floor and approximately 20 feet below the ocean surface (see **Figure 3-18c**). They would be designed at ~~different~~ a 60° upward angle~~s for lower~~ to allow for ~~velocity discharge~~ rapid dilution and reduction of salinity, consistent with ~~in order to substantially reduce turbulence mortality while achieving~~ the California Ocean Plan ~~dilution requirements~~.

Footnote 5A: The same fourteen diffuser ports would also be utilized for the Regional Project, although at a diameter of 13.9 inches to accommodate the higher flow rate.

Accordingly, Draft EIR text on page 3-32 is also revised as follows:

8. The diffusers would be installed on the ~~concrete lid~~ new discharge manifold pipe header~~, with flexibility in their number and placement for both the local and regional flow demand~~.

Response SLC-12

In response to the comment, the Draft EIR text on page 4-15 is revised to indicate that a Supplemental EIR for the Poseidon Huntington Beach Desalination Project was certified by the SLC in October 2017, as follows:

Currently, the Huntington Beach project is pending permits/approvals from the Coastal Commission and Regional Water Quality Control Board, and the State Lands Commission ~~has initiated~~ certified a~~n~~ Supplemental EIR in October 2017 prior to ~~considering~~ issuing a lease for the intake and discharge tunnels.~~[3]~~

~~[3] The NOP was released November 18, 2016.~~

Response SLC-13

The geoarchaeological review presented in the Draft EIR on page 5.4-24 assesses the likelihood for encountering subsurface archaeological deposits during construction of the offshore proposed Project components. Additionally, the impacts discussion for the screened ocean intake and discharge on pages 5.4-30 and -36 of the Draft EIR addresses the possibility for encountering submerged archaeological resources that may qualify as historical resources or unique archaeological resources. See response to comment SLC-14.

Response SLC-14

Mitigation Measures CUL-1 and CUL-3 have been revised as follows to include provisions for the inclusion of a maritime archaeologist as part of any onshore or offshore ground disturbing activity. This would include geophysical surveys required under Mitigation Measure HAZ-1 if the surveys disturbed ocean sediments.

CUL-1: Prior to onshore and offshore ground-disturbing activities, West Basin shall retain a Qualified Archaeologist defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior 2008). The Qualified Archaeologist shall be responsible for implementation of all cultural

resources mitigation measures and will oversee Cultural Resource Monitors (CRMs) to monitor Project-related ground-disturbing activities. The CRMs shall have demonstrable monitoring experience and familiarity with the types of resources that may be encountered during Project-related ground-disturbing activities.
West Basin shall ensure that the Qualified Archaeologist oversees construction monitoring, mitigation, and curation activities necessary; fulfills all the requirements of these measures; ensures that the Qualified Archaeologist obtains technical specialists and CRMs; and ensures that the Qualified Archaeologist evaluates any cultural resources that are newly discovered.

A current schedule of anticipated Project activity shall be provided to the Qualified Archaeologist on a weekly basis during ground disturbance.

CUL-3: All Project related ground-disturbing activities occurring within the onshore and offshore geological formations that have the potential to contain buried archaeological deposits shall be subject to archaeological and Native American monitoring. Prior to ground-disturbing activities, West Basin shall prepare a CRMMP that summarizes monitoring methodology for both onshore and offshore components, identifies specifically the portions of the Project that require monitoring based on archaeological sensitivity of the geological formation underlying the Project components, and provides general and specific ~~measures~~ treatment to minimize potential impacts to inadvertent discoveries of archaeological resources. The CRMMP shall include inspection procedures developed by the Qualified Archaeologist in coordination with West Basin. The CRMMP shall include provisions for the inclusion of a Qualified Maritime Archaeologist to accompany any diving personnel to identify the presence of archaeological resources within anchorage locations and to monitor any associated sediment disturbance.

The CRMMP shall include protocol to be carried out in the event human remains are uncovered during Project construction. All work within 50 feet of any identified human remains shall be immediately halted, and the Los Angeles County Coroner shall be contacted to evaluate the remains and follow the procedures and protocols set forth in CEQA Guidelines Section 15064.5(e)(1). If the County Coroner determines that the remains are Native American, the California Native America Heritage Commission (NAHC) will be contacted by telephone within 24 hours of the find, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and PRC 5097.98 (as amended by AB 2641). The NAHC shall then identify a Most Likely Descendant (MLD) of the deceased Native American. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods. Per PRC 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

Copies of the CRMMP shall reside with the Qualified Archaeologist, each monitor, and West Basin.

Response SLC-15

Mitigation Measure CUL-4 has been revised as follows to include the language recommended by the SLC regarding submerged archaeological sites or submerged historical resources.

> **CUL-4:** The Qualified Archaeologist and the CRMs shall have the authority to halt construction if previously unknown cultural resource sites or materials are encountered. All construction activities within 50 feet of the find shall halt, and redirection of ground disturbance shall be accomplished under the direction of the construction supervisor. In the event cultural resources are discovered during any offshore construction activities, Project personnel shall halt all activities in the immediate area and notify both the California State Lands Commission and a Qualified Maritime Archaeologist to determine the appropriate course of action. The Qualified Archaeologist shall determine what, if any, data recovery or other ~~mitigation~~ treatment is needed. The final disposition of archaeological and/or historical resources recovered on state lands under the jurisdiction of the California State Lands Commission must be approved by the Commission. Should cultural resources be identified during the geophysical survey and/or monitoring of offshore components, a Qualified Maritime Archaeologist shall be retained to prepare the treatment plan, and the appropriate permits will be obtained from the State Lands Commission. Construction in the area shall not resume until the Qualified Archaeologist has completed data collection activities and the resource has been recorded.

Response SLC-16

Mitigation Measures CUL-8 and CUL-10 have been clarified to ensure that the Paleontological Resources Monitoring and Mitigation Plan identifies the depths and the specific portions of the proposed Project where paleontological monitoring should occur based on geological formation underlying the onshore and offshore Project components. See response to comment SLC-18 and MBCH3-40. If it is determined that offshore construction would impact Quaternary alluvial deposits depending on the depth of excavation, paleontological monitoring and reporting will occur per Mitigation Measures CUL-6 through CUL-11. Additionally, as shown in response to comment SLC-15, Mitigation Measure CUL-4 has been revised to require that SLC will be notified in the event of all offshore cultural resources discoveries.

The comment notes that the analysis of paleontological resources assumed an offshore construction depth of only 10 feet, whereas the Project Description indicates a deeper offshore excavation is possible. In response to this comment, the following modification has been made to text on page 5.4-39 of the Draft EIR.

> ### Screened Ocean Intake and Concentrate Discharge
>
> Local Project screened ocean intake and concentrate discharge construction ~~would not~~ may involve excavations greater than 10 feet or that extend into older Quaternary alluvial deposits. Therefore, Local Project screened ocean intake and concentrate discharge construction ~~would not~~ may destroy a unique paleontological resource or site or unique geologic feature ~~and no impact would occur~~. However, with implementation of Mitigation Measures CUL-6 through CUL-11, impacts would be less than significant.

The EIR concludes that Impact 5.4-3 would result in less than significant impacts with mitigation. The proposed modification to the EIR clarifying that offshore construction may exceed 10 feet does not change the overall conclusion that excavation activities may affect paleontological resources, requiring mitigation to ensure less than significant impacts. The Draft EIR identifies on page 5.4-27 that paleontological resources may exist offshore below 13 feet. To clarify that excavation deeper than 10 feet offshore may affect these formations, mitigation measure CUL-8 has been modified to include offshore construction activities.

> **CUL-8:** Prior to the start of onshore or offshore ground-disturbing activities, West Basin shall ensure that the Qualified Paleontologist prepares a PRMMP in accordance with SVP guidelines. The PRMMP shall summarize paleontological resources monitoring methodology, identify at which depth and the specific portions of the Project where monitoring shall occur based on geological formation underlying the onshore and offshore Project components, and provide general and specific treatment to minimize potential impacts to inadvertent discoveries of paleontological resources. The final disposition of paleontological resources recovered on state lands under the jurisdiction of the California State Lands Commission must be approved by the Commission. The PRMMP shall function as the formal guide for monitoring, collecting, and sampling activities.

Table 5.4-4 is modified as shown below:

TABLE 5.4-4
SUMMARY OF IMPACT CUL 5.4-3 PALEONTOLOGICAL RESOURCES

	Ocean Water Desalination Facility	Offshore Intake and Discharge Facilities	Inland Conveyance Facilities
Impact CUL 5.4-3: Impacts on paleontological resources.			
Local Project			
Construction	LTSM	LTSM ~~NI~~	LTSM
Operation	NI	NI	NI
Regional Project			
Construction	LTSM	NI	LTSM
Operation	NI	NI	NI

NOTES:
NI = No Impact, no mitigation proposed
LTSM = Less than Significant impact with mitigation

Response SLC-17

West Basin will coordinate with the SLC's Offshore Geophysical Survey Permit Program for any permits resulting from geophysical surveys that occur as a result of the proposed Project. As a result, Table 3-11, which lists regulatory permits and approvals, is revised in the Draft EIR on page 3-38 as follows:

TABLE 3-11
PERMITS, APPROVALS, AND REGULATORY REQUIREMENTS*

Agency/Department	Permit/Approval	Required for
State Agencies		
California State Lands Commission (CSLC)	Offshore Geophysical Survey Permit	Geophysical surveys in the ocean bottom and marine environment

Response SLC-18

The following summary for Public Resources Code Section 6313 has been included in Subsection 5.4.1 and CUL-8 has been revised as follows to include the SLC's recommended language. West Basin welcomes coordination with SLC staff and legal counsel. For changes to Mitigation Measure CUL-3 see response to comment SLC-14 above.

> ***California Public Resources Code Section 6313***
>
> PRC Section 6313(a) states that title to all abandoned shipwrecks, archaeological sites, and historic resources on or in the tide and submerged lands of California shall be in the custody and subject to the control of the State Lands Commission. The Commission may transfer title, custody, or control to other state agencies or recognized scientific or educational organizations, institutions, or individuals by appropriate legal conveyance. PRC Section 6313(d) requires permits be granted by the Commission for salvage operations involving submerged archaeological sites or submerged historic resources when the proposed salvage activity is justified by an educational, scientific, or cultural purpose, or the need to protect the integrity of the site or the resource. All activities permitted under subdivision (d) shall be accomplished under the direct supervision of a person who meets the qualifications required of a professional marine archaeologist as stated in PRC 6313(e)(2). The Commission shall provide for the disposition of all objects or other materials recovered as part of salvage operations, which may include provisions for display in museums, educational institutions, and other appropriate locations available to the public.

Response SLC-19

In response to the commenter's concerns regarding the timing of the Energy Minimization and GHG reduction plan (GHG Plan) in Mitigation Measures GHG-1, specifically that the GHG Plan be made available no later than 60 days before the start of construction, to allow sufficient time for agency review, the Draft EIR text on page 5.7-30 is revised as follows:

> **GHG-1:** West Basin shall prepare an Energy Minimization and GHG Reduction Plan no later than 60 days prior to the start of Project construction activities.

In addition, the Draft EIR text on page 5.7-31 is modified as follows:

> **3) GHG Mitigation Options** – The Energy Minimization and GHG Reduction Plan shall include GHG mitigation strategies that shall, at minimum, be sufficient to offset the Project's incremental GHG emissions over the net ~~zero~~ carbon neutral threshold of significance and shall be verifiable and feasible to implement over the Project life. The GHG Reduction Plan shall indicate how reductions will be achieved on an annual basis starting with operational year 1.

These changes presented in the mitigation measure do not result in a decrease in the effectiveness of the proposed measure, do not result in an increase in the severity of the identified impact after mitigation, and do not preclude meaningful review and comment.

Response SLC-20

Different intake pumps would not be required if the tunnels were used without the five new pipe inserts.

Response SLC-21

The Best Management Practices (BMPs) included on page 5.9-45 of the Draft EIR are based on the standardized permit requirements issued by state and federal[9] agencies which are routinely included to reduce suspended sediments during dredging. Naturally occurring oceanographic conditions would be expected to quickly disperse any generated turbidity plume. These BMPs include the use of silt curtains, gunderbooms,[10] dredging operation controls, such as longer cycle times to reduce the speed at which a loaded dredge bucket is pulled through the water column, elimination of multiple bites with the dredge bucket, and using environmental dredge buckets. These BMP's are appropriately listed in Section 5.9 *Hydrology and Water Quality* (Draft EIR page 5.9-45) because they are required by regulatory agencies and also reduce potential impacts to less than significant levels.

Response SLC-22

The intake and discharge tunnels are part of the baseline condition. Although they would be used to convey intake and discharge water via pipelines, they won't be significantly modified as result of the proposed Project. It is therefore not appropriate to include these features in the supplemental Coastal Hazards Analysis. See also *Master Response: Supplemental Studies.*

Response SLC-23

The anchoring of all work vessels involved in proposed Project-related offshore construction activities would be confined to the 8-acre offshore construction area illustrated in Draft EIR Figure 3-15. In further response to this comment, the Draft EIR text on page 5.11-39 is revised as follows:

> The temporary stockpiling of dredged sediments, ~~and~~ temporary removal and replacement of armor rock<u>, and anchoring by Project work vessels,</u> can be expected to result in the temporary disturbance of both soft-bottom and artificial hard-bottom habitats in the offshore Project work area.

Response SLC-24

As suggested by the commenter, the Draft EIR text on page 5.8-24 of Mitigation Measure HAZ-3 is revised as follows:

---

9 The Draft EIR text explains that dredge BMPs would include those required by the USACE Section 10 permit conditions.

10 An aquatic filter barrier system that draws water through a fabric barrier at low velocity.

HAZ-3: West Basin shall prepare an Anchoring Plan that applies to all ships, barges, and other ocean-going vessels and describes procedures for deploying, using, and recovering anchorages. The Anchoring Plan shall include, but not be limited to, the following elements:

- A brief overview of the Project objectives.
- Description of anchor set and anchor leg (wires, winches, and other support equipment).
- Description of vessels to be anchored and support tugs to be used.
- Description and delineation of safety zone and anchor zone, including identification and mapping all areas of kelp, seagrasses, and hard substrate found within the work area. The anchoring plan shall ensure that these marine habitats of special significance shall not be impacted by the placement of vessel and buoy anchors, by dragging of anchors, buoy lines or cables, by riprap placement, or by sidecasting of dredging spoils.
- Identification of Contractor Vessels and Buoys, including daylight and nighttime marking schemes.
- Anchoring procedures.
- Local notice to U.S. Coast Guard and mariners.

All elements of the Anchoring Plan shall be in compliance with U.S. Coast Guard regulations.

Response SLC-25

The Draft EIR Subsection 3.5.2 describes the preferred method of pile installation as driving the piles into the seafloor with a vibratory driver/extractor, and acknowledges an impact hammer may be used to set the pile to final depth. It is anticipated that a total of 10 to 20 steel or fiberglass piles would be installed over 10 working days (or 15 calendar days) depending on weather. Each pile would require about 1 to 2 hours of driving as well as several hours for rigging and placement. In response to this comment, the Draft EIR Project Description text on page 3-25 is revised (see Final EIR Section 11, *Refinements to the Project Description*) as follows:

> Although not anticipated, if difficult driving is encountered at the site and installation of the pile meets refusal, the use of an impact hammer may be warranted to drive the pile the last few feet to final design tip elevation (Time duration <1 hour. Assume 50 blows per piling, 2 piles driven per day, XLogR = 15, pulse duration = 0.8 seconds, 2.0 weighting factor adjustment).

Response SLC-26

Seismic reflection geophysical surveys were conducted offshore of the coast at El Segundo on September 3, 2015, to delineate geologic features below the seafloor; see Appendix I of the Draft EIR Appendix 2A. The survey provided sufficient information upon which to ascertain whether a vibratory pile driving hammer can be used to install proposed Project anchor piles. Vibratory hammers can be used to set pilings in almost all types of sediment with the exception of rock. The surface sediment composition of the seafloor in the vicinity of the El Segundo Generating Station tunnels is mainly fine-medium-grained sand, gravel, and cobbles (the Old Dunes Sands Aquifer)

overlying a thin layer of clay and silts (the Manhattan Beach Aquitard) which overlies the Gage Aquifer, consisting of fine-medium to gravelly sand; see Draft EIR Appendix 2A, Table 3.1. Vibratory hammers are regularly used in coastal pier repairs, even in locations where subsurface outcroppings of rock are present. The existing geologic evidence suggests that the use of a vibratory hammer offshore would be feasible.

As described in the Draft EIR Section 5.11, *Marine Biological Resources*, in the discussion of Pile-Driving and Other Sources of Underwater Noise Section (Draft EIR pages 5.11-45 through 5.11-50), the frequency and amplitude of underwater noise is primarily a direct function of the pile-driving method employed (vibratory or impact hammer) and the diameter and composition of the piling. Large diameter steel pilings generally generate higher decibel noise than wood, concrete or composite fiberglass pilings. The proposed Project proposes to use fiberglass composite pilings or very small diameter steel pilings, as discussed in the Draft EIR on page 3-25 and pages 5.11-45 through 5.11-50, and to primarily use a vibratory installation method. Both of these piling types generate very low amplitude noise underwater, as demonstrated in Draft EIR Table 5.11-6. The Huntington Beach Desalination Project referenced by the commenter proposed to use 12-inch steel H-piles and an impact hammer installation method, which would generate high amplitude underwater noise. The Huntington Beach Desalination Project estimated that installation of H-piles would generate impulsive cumulative sound exposure level (SEL) underwater noise levels as high as 203 decibels (dB) at 230-meter distance (CSLC 2017). As cited on page 5.11-46 in the Draft EIR, Table 5.11-6, footnote 2, a recent underwater noise monitoring study in Florida that employed a combination of vibratory and impact hammers to install 16-inch fiberglass composite pilings reported peak SELs of 149 dB at 10 meters' distance decreasing to 120 dB at 371 meters' distance (Iafrate et al. 2016). The peak dB reading is attributed to the impact hammer portion of the pile installation (Iafrate et al. 2016). This data was used to estimate potential underwater noise levels for the proposed Project.

Recently revised and updated specifications concerning installation of the anchor piles for the proposed Project indicate that no more than 50 strikes by an impact hammer would be required to set the anchor piles to final depth. Consequently, Table 5.11-7 has been updated to reflect this change. Also, for impulsive and nonsound sources, the results listed in revised Table 5.11-7 reflect cumulative SEL values for both vibratory (non-impulsive) and impact (impulsive) hammer use. The Draft EIR Table 5.11-7 is modified as follows:

TABLE 5.11-7
ESTIMATED VIBRATORY AND IMPACT HAMMER PILE-DRIVING SOUND LEVELS AND DISTURBANCE TO CRITERIA LEVELS

Pile Type	Equipment Type	Distance to Sound Level Thresholds (meters) for ~~Non-impulsive~~ Vibratory Hammer Sound Sources[2]								Attenuation Equipment
		SEL Cumulative Threshold [4]		150 dB (Fish-Behavioral) [3, 4]	SEL Cumulative Threshold [3, 4]					
		187 dB (Fish ≥2g)	183 dB (Fish < 2g)		199 dB (Low-Frequency Cetaceans)	198 dB (Mid-Frequency Cetaceans)	173 dB (High-Frequency Cetaceans)	201 dB (Phocid Pinnipeds)	219 dB (Otariid Pinnipeds)	
12-inch Steel Pipe Pile[1]	Vibratory	~~1~~ 0.0	~~1~~ 0.0	12	~~20~~ 2.3	~~108~~ 0.1	~~29.5~~ 2.1	~~12.1~~ 1.2	~~0.9~~ 0.1	None
13-inch Steel Pipe Pile[1, 5]	Vibratory	1.0	~~1~~ 2.0	~~25~~ 22.0	~~20~~ 4.3	~~108~~ 0.2	~~29.5~~ 3.8	~~12.1~~ 2.3	~~0.9~~ 0.2	None
16-inch Steel Pipe Pile[1]	Vibratory	1.0	~~1~~ 2.0	4.0	~~58.5~~ 5.1	~~5.2~~ 0.3	~~86.5~~ 4.4	~~35.6~~ 2.7	~~2.5~~ 0.2	None
16-inch Fiberglass/ concrete pile[1]	Vibratory	0.0	1.0	1.0	~~4.3~~ 1.8	~~0.4~~ 0.1	~~6.4~~ 1.6	~~2.6~~ 1.0	~~0.2~~ 0.1	None
Pile Type	**Equipment Type**	**Distance to Sound Level Thresholds (meters) for ~~Impulsive~~ Impact Hammer Sounds Sources[2]**								**Attenuation Equipment**
		SEL Cumulative Threshold		150 dB (Fish-Behavioral) [3, 4]	SEL Cumulative Threshold [3, 4]					
		187 dB (Fish ≥ 2 g)	183 dB (Fish < 2 g)		183 dB (Low-Frequency Cetaceans)	185 dB (Mid-Frequency Cetaceans)	155 dB (High-Frequency Cetaceans)	185 dB (Phocid Pinnipeds)	203 dB (Otariid Pinnipeds)	
12-inch Steel Pipe Pile[3]	Impact	~~6~~ 1.0	~~11~~ 1	100	~~1.1~~ 1.8	0.1	2.2	~~0.7~~ 1.0	~~0.0~~ 0.1	None
13-inch Steel Pipe Pile[3, 4, 5]	Impact	~~0~~ 10.0	~~0~~ 18.0	215	29.2	1.0	34.8	15.7	1.1	None
16-inch Steel Pipe Pile[3]	Impact	~~3~~ 2.0	~~5~~ 3.0	63	~~2.7~~ 4.8	~~0.2~~ 0.2	5.5	~~1.7~~ 2.5	~~0.1~~ 0.2	None
16-inch Fiberglass/ concrete pile[3]	Impact	~~0~~ 1.0	1.0	76	~~0.2~~ 1.2	~~0.0~~ 0.0	~~0.5~~ 1.4	~~0.1~~ 0.6	~~0.0~~ 0.0	None

NOTES:

1 Vibratory pile driving hammers have been documented to reduce underwater noise levels a minimum of 14-15 dB and up to 28-29 dB, depending on the pile type, water depth, and type of hammers being used (Caltrans 2015). Estimating the potential underwater noise attenuation distances for steel pipe and fiberglass/concrete pilings using a vibratory hammer, underwater noise levels documented for impact hammers were reduced by 14 dB.

2 NOAA 2018b, NOAA 2016b; NMFS 2016; Caltrans 2015, AMS 2018

3 Time duration for using an impact hammer to set any pilings to desired depth assuming the vibratory hammer cannot, by itself, achieve required anchor depth was <1 hour. Calculations assumed ~~4,440~~ 50 blows per piling, 2 piles per day, XLogR = 15, pulse duration = 0.8 seconds, ~~2.5~~ 2.0 weighting factor adjustment.

4 In calculating the potential SEL cumulative or behavioral threshold distances for fish, if no RMS values available for pile driving calculation, the mean of Peak dB and SEL dB values used. If no SEL value available for the pile driving calculation, then the RMS values is used.

5. Data for the installation of the 13-inch steel pilings reflect very shallow water conditions on the Mad River in Arcata, CA and appear to reflect unique underwater noise reflective conditions.

Additionally, as a result of these changes to Table 5.11-7, the text in the Draft EIR on Page 5.11-47 is revised as follows:

> As illustrated in Table 5.11-7, underwater sound levels high enough to potentially cause acute damage to fish is ~~<1~~ 2 meters for a vibratory hammer and ~~1-11~~≤ 18 meters for an impact hammer, depending on the pile composition and diameter used for the piling. Cumulative SEL levels resulting in ~~B~~behavioral changes ~~sound levels~~, depending on the type of pile hammer used, range between 12 and 215 meters. ~~Level A~~ SEL Cumulative harassment underwater sound levels for marine mammals range between 0.1 and ~~108~~ 34.8-meters, depending on the species, piling composition and diameter, and type of hammer used. Ambient underwater noise for a major harbor like San Francisco is estimated at approximately 150 dB (CalTrans 2009) and 138 dB for coastal locations (Wilson et al. 1997; Fabre and Wilson 1997).

Additionally, the References in the Draft EIR page 5.11-77 are modified as follows:

> Caltrans, 2009. Technical Guidance for Assessment and Mitigation of Hydroacoustic Effects of Pile Driving on Fish, https://tethys.pnnl.gov/sites/default/files/publications/Caltrans_2009_Guidance_Manual_for_noise_effects_on_fish.pdf, Accessed August 30, 2019.

As presented in the revised Table 5.11-7, which does not change the findings presented in the Draft EIR, because of significant differences in anchor piling design and installation methods between the proposed Project and the commenter's referenced Project in Huntington Beach (SLC 2017), the underwater noise levels and potential impacts to marine taxa between the two Projects are not comparable. As such, the commenter's concern that the underwater noise impact for the current Project would be significant and unavoidable, because the underwater noise analysis for the Huntington Beach Desalination Project was determined to be significant and unavoidable, is not supported by the evidence.

Response SLC-27

The Draft EIR Table 5.11-7 is inadvertently missing two references. The first reference is National Oceanic and Atmospheric Administration (NOAA) 2018b. The NOAA underwater acoustic worksheet was used to calculate impulsive and non-impulsive sound generations and potential travel distances. The second reference, Applied Marine Sciences (AMS) 2018, is the assembled worksheet that calculates potential distances underwater noise would travel for the different piling types considered for the proposed Project, under impulsive and non-impulsive pile driving scenarios. As a result, the Draft EIR Table 5.11-7, Note #2 is modified as follows:

> NOTES:
> [2] NOAA 2018b, NOAA 2016b; NMFS 2016; Caltrans 2015; AMS 2018

Additionally, the References in the Draft EIR page 5.11-80 are modified as follows:

> Applied Marine Sciences, 2018. Populated NOAA 2018 Acoustic Technical Guidance Excel Spreadsheets for West Basin Desalination Project.

National Oceanic and Atmospheric Administration (NOAA), 2018b. User Manual for Optional Spreadsheet Tool - 2018 Acoustic Technical Guidance. Available at: https://www.fisheries.noaa.gov/action/user-manual-optional-spreadsheet-tool-2018-acoustic-technical-guidance.

Response SLC-28

The analysis of underwater noise from proposed Project pile-driving activities presented in the Draft EIR Subsection 5.11.4 is based on the current conceptual design of the offshore intake and discharge structures and represents the worst-case scenario, given the fact that using vibratory pile driving is feasible at this location and no more than 50 strikes by an impact hammer would be required to set the anchor piles to final depth; see response to comment SLC-26. The actual construction of these structures will not occur for several years and may change slightly once detailed design engineering is completed. Additionally, the technology and operational options available to pile-driving activities to reduce the generation of underwater noise is advancing as concerns about its effect on marine taxa increases. Mitigation Measure BIO-M1 was drafted to ensure that should the anchor pile design change, new pile installation technology becomes available, or BMPs become improved, the proposed Project would comply with a pile installation that would ensure minimal effects to fish and marine mammals from underwater noise. Mitigation Measure BIO-M1 would also ensure that even with no changes to pile installation technology or Project requirements for anchor piles, all design, underwater noise generation, and construction effects would be reviewed again by the Project sponsor, in order to implement measures to prevent effects to marine taxa, regardless of whether permitting were to occur through the U.S. Army Corps of Engineers (USACE) or the National Marine Fisheries Service (NMFS).

Response SLC-29

In response to the comment that establishing a 500-meter safety zone (buffer) around the sound source for protection of marine mammals and sea turtles in the event that sound levels are unknown or cannot be adequately predicted may not be sufficiently protective, Mitigation Measure BIO-M1, has been modified such that 500-meters is the minimum size of the safety zone and that the size of the safety zone may be increased if requested by NOAA or the USACE when permits for proposed Project pile-driving are issued by them, as follows:

> The plan shall incorporate, but not be limited to the following BMPs:
>
> - Pile -driving shall be conducted only between June and November to avoid gray whale migration, unless NMFS in their Section 7 consultation with the USACE determines that the potential effect to marine mammals is less than significant.
>
> - A ~~1,600-foot (500-meter)~~ safety zone at least 1,600 feet (500 meters) in size shall be established and maintained around the sound source for the protection of marine mammals and sea turtles in the event that sound levels are unknown or cannot be adequately predicted. If NOAA or the USACE requests that the size of the safety zone be increased when NOAA or the USACE issues a permit for Project pile-driving, then the larger of the NOAA-requested or USACE-requested safety-zone size will be established and maintained around the sound source.

- Work activities shall be halted when a marine mammal or sea turtle enters the ~~1,600-foot (500-meter)~~ safety zone, and shall cease until the mammal has been gone from the area for a minimum of 15 minutes.

- A "soft start" technique shall be used in all impact hammer sourced pile driving, giving marine mammals an opportunity to vacate the area.

- A NMFS-approved biological monitor will conduct daily surveys before and during impact hammer pile driving to inspect the work zone and adjacent Santa Monica Bay waters for marine mammals. The monitor will be present as specified by NMFS Fisheries during the pile-driving phases of construction.

- In-water sound level monitoring will be conducted during all pile driving activities.[11]

Other BMPs will be implemented as necessary, such as bubble curtains or an air barrier, to reduce underwater noise levels to NMFS established acute and chronic levels within the safety zone. Alternatively, West Basin may consult with NMFS directly and submit evidence to the satisfaction of the Environmental Review Officer. In such case, West Basin shall comply with NMFS recommendations and/or requirements.

Although humpback whales do occasionally occur within Santa Monica Bay (SMB), their occurrence close to shore where pile driving activities would be conducted, is less than the potential for the occurrence of gray whales. At present, approximately 20,000 California gray whales migrate seasonally between Alaska and Mexico, with many of the females accompanying newly born calves swimming closer to shore on their northward migration, potentially bringing them closer to the inshore location of proposed Project-related pile driving activities. Humpback whales in SMB tend to occur in the deeper water depths and over submarine canyons where food prey tends to congregate. Recent assessments of humpback whales occurring in SMB indicate that when they occur in SMB, they are observed near the Redondo submarine canyon and Point Vincente (Bearzi et al. 2011). The other requirements for pile driving activities outlined in mitigation measure BIO-M1 will suffice to address the unexpected occurrence of a humpback whale near offshore construction activities and prevent any harm or harassment to the animal.

See also response to comment MBCH3-78.

Response SLC-30

As discussed in *Master Response: CEQA and Ocean Plan Compliance,* for the purposes of CEQA, the relevant threshold of significance is consistency with the 2015 Ocean Plan Amendments (OPA) requirements since it is the Los Angeles Regional Water Quality Control Board, which will ultimately make the California Water Code Section 13142.5(b) determination (the "Water Code determination"). Nevertheless, the analysis of potential ocean water intake entrainment as well as discharge shear stress impacts on marine plankton (Draft EIR pages 5.11-49 through 5.11-54 and 5.11-58 through 5.11-60, respectively) clearly illustrates that the

11 This BMP was added in response to comment CDFW-13.

scientific data and the methodology proposed for estimating ocean sited desalination impacts on planktonic organisms in OPA currently necessitates a range of area of production foregone (APF) calculations. Studies that have been conducted since the drafting of OPA (Jessopp 2017; Zhang 2017), and cited in the Draft EIR (Draft EIR page 5.11-59), indicate that the use of 1.0 mm sized Wedgewire screens and intake flow rates <0.5 fps could reduce entrainment of planktonic organisms by 20 percent or more. Similarly, the potential shear stress impact to planktonic organisms could be reduced by 25 percent or more and only effect specific taxa that are <1 mm in size. Because of this uncertainty in potential effect to marine ecosystems from proposed Project-related entrainment and brine discharge shear stress, no specific APF mitigation estimate for these impacts was committed to in Mitigation Measure BIO-M2.

Mitigation Measure BIO-M2 commits West Basin to conduct site-specific scientific studies of both the entrainment of planktonic organisms into the wedgewire screen equipped ocean intake and of potential shear stress impacts on planktonic organisms from the brine discharge. The results of these studies would then be used to accurately estimate proposed Project-related impacts to marine ecosystems in the form of APF calculations, as required by OPA. The proposed Project is committed to mitigating these impacts by providing either direct or indirect habitat restoration consistent with the requirements of the California Ocean Plan Chapter III.M.2.e.(3) or by providing monetary payments to an appropriate State-approved fee-based mitigation program consistent with California Ocean Plan Chapter III.M.2.e.(4), or a combination of the two.

As indicated in Mitigation Measure BIO-M2, the proposed Project is fully committed to compensating for all Project-related intake water entrainment and discharge-related shear stress mortality resulting from its operations, as determined by scientifically valid and applicable assessment studies. However, it is premature to commit to providing financial compensation or habitat restoration for APF estimates based on a "worse-case" 100 percent mortality of all planktonic organisms. Moreover, such an APF estimate is at least two to three times higher than actual impacts caused by the proposed Project. As recently discussed in *High Sierra Alliance v. County of Plumas* (2018) 29 Cal. App. 5th 102, CEQA does not require a lead agency to assume an unlikely worst-case scenario in its environmental analysis.

Response SLC-31

West Basin notes the Commission's role in the proposed Project as a responsible and trustee agency and acknowledges contact information provided for future correspondence.

SECTION 14
Local Agency Comments and Responses

14.1 Local Agency

The following comment letters were received from local agencies on the West Basin Municipal Water District (West Basin) Ocean Water Desalination Project (Project) Draft Environmental Impact Report (Draft EIR). The comment letters are grouped together and are followed by all responses as indicated in **Table 14-1**.

TABLE 14-1
LIST OF DRAFT EIR COMMENT LETTERS: LOCAL AGENCY

Letter Code	Commenting Party	Letter Page Number	Response Page Number
CARS	City of Carson	14-3	14-237
CULV	City of Culver City	14-8	14-239
ELSEG	City of El Segundo	14-12	14-242
HAW	City of Hawthorne	14-15	14-244
HBCH	City of Hermosa Beach	14-16	14-245
MLBU	City of Malibu	14-31	14-261
MBCH	City of Manhattan Beach	14-50	14-277
MBCH2	City of Manhattan Beach 2	14-53	14-278
MBCH3	City of Manhattan Beach 3	14-54	14-279
RBCH	City of Redondo Beach	14-78	14-328
LADPR	Los Angeles County Department of Parks and Recreation	14-82	14-331
LADWP	Los Angeles Department of Water and Power	14-181	14-334
LASAN	Los Angeles Bureau of Sanitation	14-182	14-335
MWD	Metropolitan Water District	14-183	14-336
SCAQ	South Coast Air Quality Management District	14-208	14-337
SCG	SoCal Gas	14-210	14-338
SCG2	SoCal Gas 2	14-234	14-339

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OFFICE OF THE CITY MANAGER

CITY OF CARSON

June 25, 2018

Zita Yu, Ph.D., P.E.
Project Manager
West Basin Municipal Water District
17140 South Avalon Boulevard, Suite 210
Carson, California 90746-1296

Sent via e-mail to: DesalEIR@WestBasin.org

RE: City of Carson Comments on West Basin Municipal Water District Ocean Desalination Draft Environmental Impact Report

Dear Dr. Yu:

City of Carson would like to thank you for this opportunity to comment on West Basin Municipal Water District's (West Basin) Draft Environmental Impact Report (DEIR) for the proposed Ocean Water Desalination Project (Project).

While we do not oppose ocean desalination all together, we strongly believe West Basin should only pursue this half-billion-dollar Project as an option of last resort. As such, in 2016, the California State Assembly Select Committee on Water Consumption and Alternative Sources held public hearings throughout California to study the effect of the drought and climate change on the State's water resources. The Select Committee recommended that the State pursue a diverse water portfolio to deal with these environmental issues. However, the committee recommended that "desalination should be used as an option of last resort." The Committee found that desalination should "only be considered after a region has been successful with conservation and has embarked on substantial water reclamation projects as well." We wholeheartedly agree. CARS-1

West Basin's longstanding and seemingly steadfast commitment to ocean-water desalination at all cost and over less expensive and more energy friendly means of increasing our water supply—conservation, recycling, stormwater capture, and brackish groundwater desalination—will result in a significant and disproportionate impact on low income and minority populations. CARS-2

The Project would produce *the* most expensive water[1] in an unnecessary amount[2] for a vast service area that encompasses widely disparate communities, the most disadvantaged of which, such as Carson, will bear the brunt of the Project's high costs, adverse environmental impacts and outsized energy use.

The disparity between West Basin's affluent communities and its low-income and minority neighborhoods such as Carson is evident in the differences in residential per capita water usage (R-GPCD). West Basin seeks to impose the steep costs of building and operating an ocean desalination plant across its entire service area, even though customers in affluent communities such as Palos Verdes use upwards of 200 R-GPCD, while customers in Hawthorne use only 62 R-GPCD, (DEIR, p. 7-13.).[3] In this scenario, low income and minority communities such as Carson, whose water use is below the average for the South Coast region,[4] are subsidizing wealthier communities' excessive, above average water consumption. Additionally, when water rates go up, as they inevitably will, a $10 increase that seems modest in affluent Rolling Hills Estates has a significantly greater impact on a ratepayer living below the federal poverty line in disadvantaged communities. Desalination costs range in per acre foot from $2,600.00 to $4,500.00. The West Basin Report studied more cost-effective alternative water supplies, including conservation measures and stepped up use of reclaimed water. The costs of conserved water would range from $580.00 to $1,400.00 per acre foot. In addition, common-sense programs that detect water system leaks in the water distribution system can result in saving 260,000 gallons per mile of water mains annually at an estimated cost of $400.00 per acre foot.

CARS-2

CARS-3

We applaud West Basin's significant conservation savings over the past 25 years, but challenge West Basin's assertion that demand has hardened to a point which makes it difficult to realize the additional savings West Basin claims is needed with anything less than an ocean desalination plant. In fact, when statewide conservation measures were in place, West Basin's own conservation efforts completely eliminated the need for a 20 MGD ocean desalination facility.[5]

West Basin's contention that its Project's impact on disadvantaged communities is less than significant does not tell the whole story. First, the DEIR leaves out multiple low-income or minority populations (such as Carson) by analyzing only tracts where aboveground infrastructure would be implemented (El Segundo and Hawthorne).[6] (DEIR, 5-13.) Second, it compares the impacts on tracts in Hawthorne to those on the city of Hawthorne itself, rather than to the West

CARS-4

[1] Heather Cooley and Rapichan Phurisamban, *The Cost of Alternative Water Supply and Efficiency Options in California*, 13, PACIFIC INSTITUTE (June 6, 2018), http://pacinst.org/wp-content/uploads/2016/10/PI_TheCostofAlternativeWaterSupplyEfficiencyOptionsinCA.pdf.

[2] Comment Letter from Los Angeles Waterkeeper to West Basin Municipal Water District (explaining that the need for 21,500 acre-feet a year of new potable water supply is not supported in the DEIR).

[3] *August Supplier Conservation*, 9, 10 (June 6, 2018), https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/2017oct/supplierconservation_100317.pdf.

[4] From July 2017 to August 2017 alone the average residential per capita water use for the South Coast region decreased from 69.63 R-GPCD to 65.87 R-GPCD. (89.3 KPCC, *Is California Water Use Increasing?* http://projects.scpr.org/applications/monthly-water-use/region/south-coast/.)

[5] See Comment Letter from Los Angeles Waterkeeper to West Basin Municipal Water District.

[6] Environmental Science Associates Et Al., *Ocean Water Desalination Project Draft Environmental Impact Report*, 6-13, SMARTER WATER LA (June 6, 2018), http://westbasindesal.org/assets/Documents%20and%20Files/Project%20Materials/draft-eir/West_Basin_DEIR.pdf.

Basin service area as a whole, which is inappropriate and misleading.[7] (DEIR, 6-11.) As the Project would provide a water supply for all customers in West Basin's service area, the relative impacts of the Project on disadvantaged communities should be compared to the service area as a whole. Third, West Basin misrepresents Hawthorne's demographics by averaging minority populations of three separate tracts before comparing them to Hawthorne as a whole, thus diluting the actual minority percentages of individual tracts.[8] (DEIR, 6-11.) West Basin then misleadingly concludes that the impact on these areas is not disproportionate because they do not impact significantly greater minority populations. The criteria West Basin used to determine what constitutes significantly greater minority populations—"at least 10 percent greater on average than the overall city or census-designated place"—seems arbitrary, again minimizing both the existence of, and the Project's impact on, disadvantaged communities.[9] (DEIR, 6-10.) CARS-4

Many of West Basin's low-income and minority customers already suffer from poor air quality in communities identified as being among those most disproportionately burdened by multiple sources of pollution.[10] The high energy intensity of desalination, at five times greater than that of purified recycled water, is of particular concern.[11] The continuous energy demand of the 20 MGD desalination plant will be as much as the equivalent energy demand of all of the 14,173 households in Manhattan Beach.[12] West Basin also reports "significant and unavoidable" construction-related impacts of NOx emissions will result from the Project, and such impacts will hit these already affected communities hardest.[13] (DEIR, 5.2-59.) The immense energy demand of the proposed 20 MGD plant will result in the contribution of roughly 44,000 metric tons annually of CO_{2e}, undermining California's climate progress and fueling further warming and drought.[14] Increasing our carbon footprint is certainly not the direction in which California ought to be headed. CARS-5

In addition to CO_{2e} emissions greatly affecting air quality in the region, operation will be a major step backward from the progress West Basin has made to fight climate change. As West Basin self-reports, their Edward C. Little Water Recycling Facility has "reduced emissions of [CO_{2e}] by over 356 tons in one year's time."[15] CARS-6

The Pacific Institute studied the energy and greenhouse gas emissions related to ocean desalination, as compared with other more costs effective sources of water. The Fact Sheet provided by West Basin indicates that ocean water desalination will use approximately 50% more energy than imported water from the Metropolitan Water District. The amount of electrical use needed to purify the seawater per acre foot is estimated at 4,200 kWh. The amount of

[7] Id. at 6-11.
[8] Id.
[9] Id. at 6-10.
[10] *CalEnvrioScreen 3.0 Results*, oehha.ca.gov (June 6, 2018), https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30.
[11] Powers Engineering, *Assessment of Energy Intensity and Greenhouse Emissions of Proposed West Basin Desalination Plant and Water Supply Alternatives*, 1, Smarter Water LA (June 6, 2018), https://www.smarterwaterla.org/wp-content/uploads/2018/01/Powers_Engineering_2018_WB_Desal.pdf.
[12] Powers Engineering, *supra* note 11, at 1.
[13] Environmental Science Associates et al., *supra* note 5, at 5.2-59.
[14] Powers Engineering, *supra* note 11, at 1.
[15] *Edward C. Little Water Recycling Facility*, westbasin.org (June 6, 2018), http://www.westbasin.org/water-supplies-recycled-water/facilities.

electricity consumed in the State Water Project energy is 3,500 kWh and the Colorado River Aqueduct is 2,500 kWh per acre foot.

CARS-6

The bottom line is that ocean desalination is not the answer, and we call on West Basin to take a step back and see that the Project's costs overwhelmingly outweigh any benefit, particularly in light of the more cost-effective, environmentally sound options available for meeting our water supply needs. Operation of an ocean desalination plant will have the perverse result of low-income communities subsidizing West Basin's most affluent communities' excessive water consumption. In addition, the Project will adversely impact air quality and contribute to climate change impacts on communities that already bear a disproportionate pollution burden.[16] West Basin should be exploring opportunities for expanding its successful conservation and recycling programs and other water supply options that do not compromise the health and economic well-being of communities. Ocean desalination should be considered an option of last resort and one that West Basin should not be pursuing at this time.

CARS-7

Other More Cost-Effective Options than Ocean Desalination

In June of 2016 the Water Replenishment District of Southern California (WRD) awarded a $110 million contract to construct a state of art water treatment plant to enable WRD to develop the first locally sustainable groundwater basins in California. Known as the Groundwater Reliability Improvement Project (GRIP), when completed it will allow WRD to replenish both the Central and West groundwater basins. Carson is located above the West Basin groundwater basin. The GRIP project will replace the annual need for 21,000 acre feet of water imported from Northern California and from the Colorado River. The project will purify treated tertiary water for infiltration into the groundwater basins.

Carson is the host city for the Joint Water Pollution Plant (JWPP) operated by the Los Angeles County Sanitation Districts, which treats sanitary sewer discharges from dozens of cities surrounding the city. The City of Carson is a member agency of the LACSD, along with 76 other cities in Los Angeles County. The JWPP currently treats and cleans wastewater discharged from homes and businesses. In September of 2017 the LACSD entered into an agreement with the Metropolitan Water District to construct a $17 million demonstration facility to purify water for recharging into four groundwater basins. When completed next year the plant will process 500,000 gallons-per-day. Under a full-scale program, the purified water would be pumped from Carson through a new pipeline network to four groundwater basins, allowing for additional groundwater storage. The full-scale program would supply 150 million gallons-per-day of purified water, sufficient to supply 350,000 homes. The cost per acre foot is estimated at 1,600 an acre-foot, which is comparable to other new local water supplies.

CARS-8

In addition, the City of Carson is concerned with the unnecessary expenditure of public funds for such a facility that will not increase the supply of water at a cost efficient method consistent with existing water conservation and reclamation projects serving the City of Carson. The City of Carson supports environmentally sensitive and sustainable methods and projects as alternatives as described in the body of our comments to the proposed project in the Draft Environmental Impact Report.

CARS-9

[16] *CalEnviroScreen 3.0 Results*, oehha.ca.gov (June 6, 2018), https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30.

The City of Carson appreciates the opportunity to provide our comments regarding the West Basin Ocean Water Desalination Project. If you have any questions, I may be reached at (310) 952-1728. CARS-10

Sincerely,

Kenneth C. Parfsing
City Manager

cc: Carson City Council
John Raymond, Assistant City Manager
Saied Naaseh, Community Development Director
Sunny Soltani, City Attorney

CITY OF CULVER CITY

9770 CULVER BOULEVARD
CULVER CITY, CALIFORNIA 90232-0507
CITY HALL Tel. (310) 253-6000
FAX (310) 253-6010

June 4, 2018

West Basin Municipal Water District
ATTN: Zita Yu, Ph.D., P.E., Project Manager
17140 South Avalon Boulevard
Carson, CA, 90745

To whom it may concern:

The City of Culver City wishes to thank the West Basin Municipal Water District (West Basin) for the opportunity to review the draft Environmental Impact Report (EIR) for its Ocean Water Desalination Project. This letter, sent on behalf of the City of Culver City, emphasizes the City's position on water conservation and environmental impacts and summarizes the official comments to the draft EIR.

At the May 14, 2018 City Council meeting, West Basin presented an overview of the Project and explained that West Basin intends to reduce the purchase of imported water from the Metropolitan Water District as part of its long term plans for securing a reliable local water source. This includes diversifying its water portfolio through the proposed Ocean Water Desalination Project.

Culver City greatly appreciates the continued partnership with West Basin and commends West Basin for the robust recycled water and water conservation programs. The City maintains a strong policy position on environment sustainability, supporting and prioritizing programs that:

- Seek the expanded use of recycled water.
- Fund City water conservation programs to reduce demands on the local water supply.
- Conserve water and increase a sustainable, affordable, and local water supply for Culver City.
- Continue partnerships to advance recycling, groundwater cleanup, and stormwater capture as the largest elements in the community's water portfolio.
- Increase the City's ability to comply with environmental regulations.
- Improve air quality in Culver City and surrounding areas.

CULV-1

As such, the City respectfully encourages West Basin to support the prioritization of different technologies that focus on conservation and use of recycled water. The City

CULV-2

understands that desalination technology could be a viable solution to water supply in the future. However, at the present time, the City is particularly concerned with the intense energy consumption of the project, the unknown and overriding financial costs, and the impact to local marine life. It is our opinion that alternative technologies such as water reclamation, recycling, stormwater capture, infiltration, and conservation have not been fully exhausted, are less costly, and environmentally preferable. CULV-2

For years, the City has asked for the expanded availability of recycled water, which could serve the industrial facilities and 100-plus acres of park and green space in Culver City. It is our understanding that between 150 and 250 MGD of discharge from Hyperion is potentially available for this purpose. The City believes that there are better opportunities that could be pursued before choosing desalination as an option. So we support the continued efforts to research and study the direct use of recycled water for all non-potable uses and potable uses in the future. CULV-3

For all these reasons, we oppose this project at this time until other environmentally preferable alternatives are fully developed and all other options discussed above are exhausted. CULV-4

Thank you for your consideration.

Sincerely,

Thomas Aujero Small
Mayor

cc: The Honorable Members of the City Council
John M. Nachbar, City Manager

Official City Comments on West Basin Ocean Water Desalination Project Draft Environmental Impact Report

The City of Culver City appreciates the opportunity to review and provide comments to the Draft Environmental Impact Report for the Ocean Water Desalination Project. The City respectfully submits the following comments.

1. To the extent feasible Culver City supports further expansion of recycled water use in the West Basin as an alternative to desalinization. This would offset the use of potable water and therefore act as a virtual new water supply and would further reduce the amount of treated sewage that Hyperion is releasing to Santa Monica Bay. We understand that between 150 and 250 MGD of discharge from Hyperion is still potentially available for this purpose. Culver City has over 100 acres of parks that would benefit from an expanded recycled water supply and distribution system. In addition, the potential for use of recycled water by the industrial and commercial sectors of Culver City should be explored. CULV-5

2. We are concerned with the cost of desalinization when compared with other alternatives such as expanding recycled water production. While we understand that a financial analysis is not required as part of environmental review, we are especially concerned that detailed economic analysis of the construction and operating costs of a desalinization facility has not been conducted. The implications regarding impacts on the cost of water for the West Basin service area need to be further evaluated. CULV-6

3. We are concerned with the environmental impact of the proposed desalinization project especially in terms of energy use and GHG production. Other more environmentally favorable alternatives such as expansion of recycled water production should be exhausted before pursuing the desalinization alternative. CULV-7

4. Since the proposed desalination facility is so sensitive to energy costs, what protections are proposed to ensure long term economic feasibility of operating the facility in the event of large increases in energy costs in the future? There are a number of examples of desalinization facilities that have been shut down due to economic infeasibility. Again, although a review of financial considerations are not required as part of environmental review, we feel this is such an important consideration that it should be studied before any further actions are taken to advance this project. CULV-8

5. All the agencies in the West Basin are facing a difficult challenge to meet stormwater pollution control mandates. We favor multi-benefit approaches to problem solving and this seems to be an area where there can be more coordination between West Basin and the agencies in its service area. One example would be a project sponsored by the Ballona Creek watershed agencies that is currently under development. This project will treat an average of 6.46 MGD through a process of in-line ultraviolet (UV) or ozone disinfection technology and return the clean water to the creek to flow to the ocean. In lieu of returning the treated water to the ocean, some of this water could be diverted to West Basin for further treatment to make it useable as recycled water to serve Culver City or even potentially for direct reuse. More research in the area of stormwater CULV-9

capture and reuse is needed. Capture of dry weather and portions of wet weather stormwater flows for treatment and reuse for a regional solution to both stormwater pollution control and water supply is an area that needs further analysis. CULV-9

6. Although any one of the environmentally preferred alternatives to desalinization may not meet the project goals entirely, it is possible that a combination of efforts to increase conservation, increase production and use of recycled water and incorporate stormwater capture, treatment and reuse would achieve the project goals. CULV-10

City of El Segundo

Department of Planning & Building Safety

June 21, 2018

West Basin Municipal Water District
17140 S Avalon Blvd
Carson, CA 90746

Re; Draft EIR: Ocean Water Desalination Plant

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Ocean Water Desalination Plant. El Segundo is the home of the two proposed sites for the desalination plant so the City functions as a Responsible Agency under CEQA for this project. As such, comments are restricted to our areas of expertise and focused on matters subject to the City's exercise of powers, as related to the specific proposed project. The following comments are offered: ELSEG-1

The water desalination plant project proposed in the DEIR thoroughly addresses the vast majority of environmental issues relating to the construction and operation of the treatment plant as well as the regulatory environmental compliance applicable to such a project.

The following comments are from the El Segundo Fire Department.

The proposed sites for the construction of the plant have a past history of heavy industrial chemical and hazardous materials use, as identified in the report. A comprehensive Site characterization and possibly a site remediation plan should be prepared, submitted to the CUPA, and approved to delimit the size and extension of any contamination found. This will require regulatory oversight. The Environmental Safety Division of the El Segundo Fire Department (ESFD) does issue a voluntary cleanup oversight option with DTSC as the lead agency for determination of remedial action and final clean up or further requirements. If the construction activity includes demolition of existing structures asbestos might be present requiring additional determination and hazardous waste disposal restrictions. In addition to that, only trained workers can perform asbestos removal. ELSEG-2

On page 3-41, the Permit/Approval identified for CUPA is listed as a Hazardous Waste Generator Permit (Small Quantity). The ESFD disagrees with that statement. Due to the nature of the facility operations, it is expected for the plant to be permitted, regulated and routinely inspected by ESFD CUPA in more than one program. The site will most likely need permits in the following CUPA Programs: ELSEG-3

350 Main Street, El Segundo, California 90245-3813
Phone (310) 524-2380

Hazardous Materials Business Plan: Due to reportable amounts of hazardous materials being stored at this site, below is a chart of typically used hazardous materials in water desalination process:

Sodium Hypochlorite	Prevent Biological Growth, Disinfection
Ferric Sulfate	Enhance Filter Performance
Polymer	Enhance Filter Performance
Sulfuric Acid	Positive LSI to Membranes
Sodium Bisulfate	Remove Chlorine
Carbon Dioxide	Stabilize Product Water
Lime	Stabilize Product Water
Ammonia	Disinfection

In addition to the water treatment chemicals, other hazardous materials for plant maintenance and operation include:

Diesel	Emergency Generator
Propane/LPG	Forklift, warehousing

Hazardous Waste Generator Program: This facility will likely generate hazardous waste routinely as part of their operation and maintenance program, the type and quantity of waste generated will vary by process, however this site will likely generate hazardous waste to be in the RCRA (federal) and Large Quantity Generator (LQG) categories, both regulated by ESFD CUPA. Typically, onsite storage of disinfection chemicals (chlorine and ammonia) presents the greatest potential for toxic vapor plume release and associated public health risk due to the chemical properties of these disinfectants.

ELSEG-3

CAL ARP: This site will store and handle quantities of hazardous materials included in the regulated substance list for CAL ARP, (ammonia and chlorine). The environmental Impact report does not specify clearly what type of chemicals will be used, however, if used in the gas form, both chemicals will need to be evaluated and permitted for CAL ARP purposes. It is expected however that the site will use less hazardous solutions and or concentration of these chemicals.

APSA: because the plant will or could have an emergency generator depending on the volume of fuel stored at the site (>1320 Gal) and APSA permit and SPCC will be required.

Tier Permit: The water quantity and quality does not meet the criteria for hazardous waste and the plant and the treatment process proposed will not be subject to Tiered Permit requirements. However the water desalination plant discharge does meet the permit requirements for NPDES program and regulation. The Public Works division of the City of El Segundo is the responsible agency for compliance of Industrial wastewater and NPDES.

Program	HMBP	HW	APSA	UST	Cal ARP	Tier Permit
Permit	Required	Required	Required	NA	**	NA
Construction	Required	Required	NA	NA	NA	NA
Operation	Required	Required	Required	NA	**	NA

** Determination based on the chemicals need to be completed

Storage of Hazardous Materials: Many of the individual chemicals may not present significant fire and explosion hazards. Nonetheless, some of the chemicals are incompatible and their accidental mixing due to human errors or catastrophic events may present a fire or explosion risk. The following chemicals are incompatible when mixed and their mixing may result in excessive emissions of heat or volatile hazardous substances:

- Sodium Hypochlorite—incompatible and reactive with ammonia, ferric sulfate and polymers;
- Ferric Sulfate—incompatible with sodium hypochlorite;
- Polymer—incompatible with sodium hypochlorite;
- Sulfuric Acid—reacts violently with water;
- Sodium Bisulfite—incompatible with sulfuric acid and sodium hypochlorite;
- Carbon Dioxide—no incompatibility;
- Lime—no incompatibility (if stored in dry form);
- Ammonia—incompatible with sulfuric acid and sodium hypochlorite.

ELSEG-3

Non hazardous materials issues (Odors and emissions): Because of chemicals historically used in the proposed site and the nature of construction and removal of those chemicals, odor complaints may be an important issue for the surrounding communities. An increase in calls and complaints to the ESFD could be expected. Chemicals used in the water desalination process, the reverse osmosis membrane regeneration and storage of hazardous materials can be a source of complaints if not properly controlled by plant personnel and or engineering. Specifically important are ammonia compounds and chlorine bleach since they have pungent odors easily detectable by members of the surrounding areas.

Sincerely,

Gregg McClain
Planning Manager

Hawthorne, California

Department of Planning and Community Development

SENT VIA EMAIL

May 21, 2018

West Basin Municipal Water District
Attn: Zita Yu, Ph.D., P.E., Project Manager
17140 South Avalon Boulevard
Carson, CA 90746

Subject: Ocean Water Desalination Project Draft EIR

Dear Ms. Yu:

The City of Hawthorne appreciates the opportunity to comment on the Draft EIR for the Ocean Water Desalination Project. The Draft EIR identifies both the preferred route and alternative routes of water conveyance lines that are proposed to extend through the City of Hawthorne. Accordingly, the City of Hawthorne will play a critical role in the Water Desalination Project and has the following comments on the Draft EIR and project design: HAW-1

- An encroachment permit, construction phasing plan, and traffic safety/routing plan for the components of the project that are proposed in the City of Hawthorne shall be reviewed and approved by the City Engineer prior to commencement of construction in the City's jurisdiction. HAW-2
- As all of the proposed conveyances are on streets that have or will have been recently paved, the City will require full width paving with ARHM from gutter to gutter on these streets after installation of these pipelines to restore the streets to their existing, pre-installation conditions. HAW-3
- The EIR should specifically identify the City of Hawthorne as a Responsible Agency and note the project components (preferred and alternative routes) for which the City of Hawthorne would provide approvals. HAW-4

If you have additional question, please feel free to contact me at 310-349-2970. HAW-5

Sincerely,

Brian James
Director of Planning and Community Development

4455 W. 126th Street. Hawthorne, California, 90250 • 310-349-2970 • www.cityofhawthorne.org

June 25, 2018

Zita Yu, Ph.D., P.E.
Project Manager
West Basin Municipal Water District
17140 South Avalon Boulevard, Suite 210
Carson, California 90746-1296

This letter is submitted on behalf of the City of Hermosa Beach, in response to the Draft Environmental Impact Report ("DEIR") for the West Basin Municipal Water District Ocean Water Desalination Project ("the Project"). The City Council of Hermosa Beach has voted in the past to oppose this project because it would have negative impacts on the environment, and because it is an unduly expensive and unnecessary water supply option.[1]

The cost of water produced by seawater desalination has been estimated to be four to eight times higher than alternative sources of water, ranging from $1,900 to over $3,000 per acre foot.[2] As described further in the discussion of the DEIR's alternatives analysis, Section V.C. below, West Basin has not been forthcoming about the likely cost of the Project's water, claiming without quantitative support that the water they produce will "control water costs and provide long term price stability".[3] We are concerned that there is significant "demand risk" presented by the Project: our water demand can be met by less expensive sources of water, and there is risk that the Project will create an unnecessary financial burden for rate payers and municipalities.[4] The financial risk of the Project is illustrated by Australia's experience building six large-scale seawater desalination plants at a cost of $10 billion.[5] Those plants were abandoned or operate at reduced capacity, in favor of efficiency and other more cost-effective water supply alternatives. HBCH-1

The City of Hermosa Beach strongly prefers to focus its water supply portfolio on readily available lower-cost and lower-impacts alternatives including water conservation, water efficiency, stormwater capture, and water recycling. We encourage West Basin to continue to pursue water supply options other than seawater desalination. For example, the Water Replenishment District of Southern California expects that it can supply 57,770 acre feet per year (AFY) of additional groundwater production to offset imported water demands with stormwater, tertiary recycled water and advanced treatment recycled water.[6] HBCH-2

In addition to our position that pursuing seawater desalination is neither necessary nor appropriate, we have concerns with the Project and the assessment of environmental impacts in the DEIR. We have identified the following issues with the DEIR, described further, below: HBCH-3

- **The environmental review fails to present substantial evidence that marine biological and water quality impacts are less than significant or can be mitigated**. The DEIR is flawed in limiting analysis of marine impacts to an arbitrary and inappropriately small study area, rather than evaluating impacts on the Santa Monica Bay and cumulative impacts at the level of the Southern California Bight. The DEIR

[1] Staff Report and City of Manhattan Beach "Letter Opposing Construction of a Water Desalination Plant by West Basin Municipal Water District", February 16, 2016, http://www.citymb.info/home/showdocument?id=22699.
[2] NRDC et al. PROCEED WITH CAUTION II: CALIFORNIA'S DROUGHTS AND DESALINATION IN CONTEXT, (2016) at 3 https://www.nrdc.org/sites/default/files/california-drought-desalination-2-ib.pdf
[3] DEIR at 7-3.
[4] PROCEED WITH CAUTION II at 7.
[5] *Id.*
[6] CH2M HILL, ENGINEERS, INC. GROUNDWATER BASINS MASTER PLAN, FINAL REPORT, Water Replenishment District of Southern California (2016) http://www.wrd.org/sites/pr/files/GBMP_FinalReport_Text%20and%20Appendicies.pdf

has failed to account for impacts to important sensitive resources, particularly marine protected areas. The document unreasonably dismisses potentially significant marine biological and water quality impacts, despite gaps in relevant information.

- **The Project is likely to have significant energy impacts**; yet the DEIR's assessment of energy impacts, energy efficiency and waste is deficient.
- **The Project is unjustified in taking credit for speculative greenhouse gas reductions** that potentially could be achieved if desalination offsets the volume of imported water utilized, because there is no guarantee that the Project will result in such an offset.
- **The DEIR fails to account for the significant impacts of developing a new water source at a vulnerable beach location**. The analysis unreasonably disregards state policy and best practices to address public safety, disaster preparedness, climate change and sea level rise.
- **The DEIR's alternatives analysis fails to address significant environmental impacts**, and it rules out feasible alternatives that would address signficant impacts, based on arbitrary criteria and unsupported conclusions.
- **Mitigation proposed for significant marine biological, water quality, energy, greenhouse gas, coastl hazard and cumulatives impacts is speculative or wholey inadequate**, because the impacts themselves have not been accurately presented.
- **The analsyis of the a Regional Project of 60 MGD is insufficient** as it purports to tier off the impact assessment of the Local Project of 20 MGD, but that is impermissible and fails to adequately account for the potential impacts of the larger project.

HBCH-3

I. The Project DEIR fails to present substantial evidence that marine biological and water quality impacts are less than significant or can be mitigated.

West Basin's DEIR is deficient because it evaluates the impacts the Project would have only to a limited marine study area, which fails to account for significant impacts that could result from the transport of marine life and pollutants throughout the Santa Monica Bay and the Southern California Bight. Particularly if the appropriate threshold of significance, based on the California Ocean Plan Desalination Amendment ("Desal Amendment"), is applied, i.e. that the Project "minimize intakes and mortality to all forms of life", it is clear that the DEIR has not presented substantial evidence that marine biological and water quality impacts are less than significant or can be mitigated.

HBCH-4

A. The DEIR has designated a limited marine study area which excludes consideration of significant environmental impacts of the Project to marine biological and water quality in the Santa Monica Bay.

Under California law, West Basin must analyze whether the Project will have a significant effect on the environment, which is the extent to which it will cause "substantial adverse change in the physical conditions which exist in the area affected by the proposed project."[7] In conducting this analysis, the DEIR is required to include a description of the environmental setting of the project, which is " the physical environmental conditions in the vicinity of the project … This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant."[8]

HBCH-5

[7] CEQA Guidelines § 15002 (g).
[8] CEQA Guidelines § 15125 (a).

West Basin acknowledged that Santa Monica Bay ("SMB" or "the Bay") is the environmental setting in which the Project will occur.[9] However, in DEIR Section 5.9.2 "Study Area", the "marine study area" is described as:

> A 2- mile by 1.5-mile area of marine waters and seafloor extending 1.5 miles offshore and 1 mile up-coast and down-coast of the proposed desalination discharge and seawater intake facilities.[10]

HBCH-5

Throughout the document, the DEIR acknowledges that there are habitat and species of concern within SMB, but the review discounts the likely impacts of the Project on these resources by assessing only the extent to which they are present in the much more geographically limited marine study area. The DEIR states that:

> Based on the absence of suitable habitat in the Project marine study area, the absence of substantial larval densities of special-status species in the Project marine study area, and the natural life history of special-status species of concern present in the Project marine study area, the potential for entrainment of these special-status species is negligible to non-existent. Therefore, the impact would be less than significant.[11]

This approach fails to consider the many studies establishing that the habitats and biological communities of the entire SMB are connected by a complex system of currents, the movement of marine life, and an array of anthropogenic impacts in this highly developed region. For example, in SMB:

> Many nearshore fish and invertebrates have a life cycle that includes an obligate pelagic larval stage that can last from a few days to several months. Due to the small size of marine larvae, advection by coastal circulations is the dominant process driving larval dispersal which will have an order one influence on their fish stock dynamics.[12]

Study of connectivity in the Southern California Bight has found significant transport of water between mainland sites in SMB and the Channel Islands. "Effective marine management depends upon an explicit knowledge of dispersal as a result of ocean circulation."[13] It is essential for the DEIR to account for the fact that ocean circulation can cause both the dispersal of marine species larvae, which could cause far greater impacts than are acknowledged in the DEIR, including impacts to larvae, and dispersal of the brine and pollutants released as a bi-product of desalination.

HBCH-6

Currents and ocean circulation patterns are likely to disperse the pollutants released by the Project far beyond the marine study area. The Project could therefore cause significant water quality impacts to a much broader area of SMB than acknowledged by the DEIR.[14] The DEIR has not incorporated readily available substantial evidence, such as the peer reviewed studies referenced in this comment letter, which indicates that the impacts of increased salinity and lowered dissolved oxygen from brine discharges, and release of other contaminants from the Project operations, could be significant and reach far beyond the marine study area.[15]

HBCH-7

[9] DEIR at 5.11-10.
[10] DEIR at 5.9-25. However, Section 5.11.2 describes the marine study area slightly differently, using nautical miles: "an area extending approximately 1 nautical mile upcoast and downcoast of the terminus points of the ESGS intake and outfall pipelines and situated parallel to the shoreline and extending approximately1.5 nautical miles offshore from the beach, ending in approximately 90 feet of water," DEIR at 5.11-10.
[11] DEIR at 511-54.
[12] S. Mitarai et al., *Quantifying connectivity in the coastal ocean with application to the Southern California Bight* 114 J. OF GEOPHYSICAL RES. C10026, (2009), https://doi.org/10.1029/2008JC005166 https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2008JC005166.
[13] *Id*.
[14] S. Mitarai et al., *Quantifying connectivity in the coastal ocean with application to the Southern California Bight* 114 J. OF GEOPHYSICAL RES. C10026, (2009), https://doi.org/10.1029/2008JC005166 https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2008JC005166.
[15] E.g. DEIR at 5-11-58.

At a minimum, the Santa Monica Bay as a whole, rather than the DEIR's limited marine study area, should be the area evaluated for impacts caused by the Project. HBCH-8

B. The DEIR has not accounted for potential impacts to significant ecological areas, particularly marine protected areas.

The DEIR acknowledges the presence of significant ecological areas in Santa Monica Bay, including the Mugu Lagoon to Latigo Point Area of Biological Significance 18 miles northwest of the Project area, the Point Dume State Marine Conservation Area ("SMCA") and State Marine Reserve ("SMR") 22 miles northwest of the Project area, and the Palos Verdes SMCA and SMR 7 miles south of the Project area.[16] However, the DEIR has not evaluated the impacts the Project may have to the health and biological function of these marine protected areas ("MPAs"), and the DEIR lacks evidence to establish that the MPA's distance is far enough from the Project that it will not have significant negative impacts on these areas.

Under the Marine Life Protection Act, California created a world-class network of marine protected areas that were carefully designed, with extensive expert input, to support connectivity between the areas. While the Project is not located within a protected area, it is located between the Point Dume and Palos Verdes MPAs, between which marine life is expected to transit and have the potential to be impacted by the Project along the way. HBCH-9

> [M]ost marine invertebrates and fishes produce young (eggs, larvae) that are typically dispersed by ocean currents over great distances (10's to 100's of kilometers). Thus much of the population connectivity achieved by marine species is by the transport of their young from one population to another in spatially separated similar habitats …This export of individuals from one local population to another, which may be protected by one or more MPAs, influences both the role of MPAs for conservation and management and the design (e.g. size and spacing) of MPAs. These elements of population connectivity are critically important to MPAs and MPA networks.[17]

As described above, the assessment of the Project's marine and water quality impacts is based on evaluation of a small rectangular area within the Santa Monica Bay. The entire SMB is the appropriate "marine study area", and all assessments of impacts in the DEIR should be revised to ensure that they account for the movement of water and marine life throughout that body of water and the associated impact on the MPAs bordering the Bay.

C. The Southern California Bight is the appropriate area for consideration of regional impacts of the Project.

Assessment of the Project's impacts to the marine environment of Santa Monica Bay is the minimum spatial scale that is reasonable, given the circulation patterns and interconnectivity of the broader marine region known as the Southern California Bight ("SCB"), in which SMB is situated. CEQA requires that significant environmental impacts be considered in the "full environmental context": HBCH-10

> Knowledge of the regional setting is critical to the assessment of environmental impacts. Special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project.[18]

[16] DEIR at 5.11-34 to 5.11-36.
[17] M. Carr et al., *The central importance of ecological spatial connectivity to effective coastal marine protected areas and to meeting the challenges of climate change in the marine environment*, 27 AQUATIC CONSERVATION S1, (2017), https://onlinelibrary.wiley.com/doi/abs/10.1002/aqc.2800
[18] CEQA Guidelines § 15125 (c).

The Southern California Bight is "the coastal ocean from Point Conception to just south of San Diego and inshore of the Santa Rosa Ridge".[19] While the DEIR acknowledges that the Project is located in this region, and that there are multiple seawater desalination facilities within the SCB[20], the DEIR fails to consider the features and functions of this marine eco-region when assessing the Project impacts on marine biological resources and water quality impacts. For example, the SCB is characterized by circulation patterns that are more complex than elsewhere off the west coast.[21] Furthermore, as discussed in the following section, the DEIR acknowledges that the SCB is the relevant geographic range for which to consider significant and cumulative marine impacts.[22]

HBCH-10

D. The DEIR's marine cumulative impact assessment is deficient in evaluating only a narrow set of projects.

The DEIR acknowledges CEQA's requirement that because the Project has "an incremental effect that is "cumulatively considerable"[23], it is necessary to address "past, present and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the Agency".[24] However, the cumulative assessment of impacts to the marine environment is limited to a brief acknowledgement of only twelve projects.[25] The cumulative impact assessment omits consideration of the vast number of anthropogenic activities "producing related or cumulative impacts" to marine life in the Santa Monica Bay and the Southern California Bight.

The SCB is a highly-developed area that is impacted by a wide array of activities. Just as species transit between habitats throughout SMB and the SCB, pollutants and negative impacts are also transported between ecosystems, and this transport and accumulation of pollutants can negatively impact MPAs:

> [S]ome forms of ecosystem connectivity can be detrimental to both recipient and donor ecosystems … impacts to donor ecosystems that create inhospitable conditions can drive populations from those ecosystems, altering their structure and functions and diminishing their productivity. These impacts can be transmitted from one ecosystem to another by altering ecosystem functions … The cumulative and distributed negative effects of ecosystem connectivity can translate into lost ecosystem services ...[26]

The cumulative impact assessment should evaluate the harm to marine life caused by a much wider range of anthropogenic activities in the SCB with effects similar to those anticipated from the Project. As discussed in the comment letter submitted by Heal the Bay, incorporated herein by reference, impacts that should be considered in the cumulative impact assessment include, but are not limited to all relevant point- and non-point sources of pollution in the SCB and noise impacts to marine life.

HBCH-11

[19] CIRCULATION IN THE SOUTHERN CALIFORNIA BIGHT, https://web.csulb.edu/depts/geology/facultypages/bperry/Southern%20California%20Bight/pollution.htm (last visited April 22, 2018).
[20] DEIR at 4-12.
[21] CIRCULATION IN THE SOUTHERN CALIFORNIA BIGHT, https://web.csulb.edu/depts/geology/facultypages/bperry/Southern%20California%20Bight/pollution.htm (last visited April 22, 2018).
[22] DEIR at 4-3.
[23] CEQA Guidelines § 15130 (a).
[24] CEQA Guidelines § 15130 (b).
[25] DEIR at 4-3, 4-11, 4-12.
[26] M. Carr et al., *The central importance of ecological spatial connectivity to effective coastal marine protected areas and to meeting the challenges of climate change in the marine environment*, 27 AQUATIC CONSERVATION S1, (2017), https://onlinelibrary.wiley.com/doi/abs/10.1002/aqc.2800

E. The objective of the California Ocean Plan Desalination Amendment should be included as a key threshold of significance for water quality and marine biological impacts.

The DEIR applies general CEQA Guidelines thresholds of significance in evaluating the water quality[27] and marine biological[28] impacts of the Project. However, the CEQA Handbook indicates that where specific regulations particular to the environmental effect in question are available, those should be used as the appropriate threshold of significance.[29]

The California Ocean Plan Desalination Amendment ("Desal Amendment") is the regulatory framework adopted specifically to address the water quality and marine biological effects of seawater desalination facilities. The Desal Amendment was adopted by the State Water Resources Control Board ("SWRCB") in 2015, after publication of substantial evidence, including scientific studies and public input, which is available in the staff record.[30] The Desal Amendment requires that desalination projects use best available site, design, and technology to "minimize intakes and mortality to all forms of life".[31] The Desal Amendment was adopted to address the fact that seawater desalination projects are known to have significant, long-term environmental effects. The Desal Amendment requires that projects "minimize intakes and mortality to all forms of life" and therefore should be incorporated into the DEIR, rather than the more permissive general thresholds of the CEQA Guidelines.

HBCH-12

While the DEIR acknowledges that the Desal Amendment is salient to the threshold of significance, stating that this regulation was "considered", the thresholds of significance used do not reflect the key metric applied in the Desal Amendment.[32] When assessing water quality and marine biological impacts, the extent to which the Project will "minimize intakes and mortality to all forms of life" should be added and applied as a threshold of significance in the DEIR.

F. Potentially significant marine biological and water quality impacts have not been evaluated or addressed.

Although the requirements of the Desalination Amendment were not used as thresholds of significance, West Basin acknowledges that this is the regulatory standard with which the site, design and technology of the Project must comply. While compliance with the Desal Amendment is necessary, compliance with its guidance alone does not guarantee that the Project will not have significant environmental impacts. A 2016 convening of experts at Stanford University concluded that, despite the promulgation of the Desal Amendment, "[m]ore work is needed to understand the long-term impacts of [desalination] discharges."[33] The requirements of the Desal Amendment are merely a starting point for best available site, design and technology. Approaches that are "best available" are, by definition, progressively evolving as new studies are conducted, lessons are learned, and technologies are tested and advanced.

HBCH-13

[27] DEIR Section 5.9.3.
[28] DEIR Section 5.11.3.
[29] CEQA Guidelines § 15064.7 (a).
[30] *See*, ST. WATER RESOURCES CONTROL BOARD, FINAL STAFF REPORT INCLUDING THE FINAL SUBSTITUTE ENVIRONMENTAL DOCUMENTATION FOR THE AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE WATERS OF CALIFORNIA, ADDRESSING DESALINATION FACILITY INTAKES, BRINE DISCHARGES, AND THE INCORPORATION OF OTHER NON-SUBSTANTIVE CHANGES, Adopted May 6, 2015, (hereinafter "Final Staff Report for Desal Amendment"), https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/rs2015_0033_sr_apx.pdf
[31] California Ocean Plan, Desalination Amendment, Chapter III.M.2.a.(2).
[32] DEIR at 5.11-36.
[33] MARINE AND COASTAL IMPACTS OF OCEAN DESALINATION IN CALIFORNIA at 5.

The impacts of large-scale seawater desalination are not well documented or understood, and it is difficult to accurately predict how the Project will impact the specific environment of SMB. As discussed below, although the DEIR acknowledges that there are substantial gaps in information available to assess the actual impact of the Project's planned technology, the document repeatedly concludes that the impacts will not be significant. There are also significant gaps in information that are not acknowledged by the DEIR. Because of these data gaps, it is unreasonable for the DEIR to make an unfounded leap in analysis to conclude that water quality and marine biological impacts will be less than significant.

1. Impacts of wedgewire screen intakes are uncertain and may be significant; the DEIR should not rely on speculative future mitigation.

The 20 MGD Local Project is planned to withdraw between 42 to 45 MGD of source seawater[34]; the 60 MGD Regional Project would require between 126.6 -136.2 MGD of source seawater.[35] The Desal Amendment requires that if the preferred subsurface intakes are not feasible, then surface water intakes with 1.0 mm or smaller slot size may be utilized.[36] West Basin proposes to use a "screened ocean intake system with 1 mm open passive wedgewire screens and operating intake flow at < 0.5 fps".[37] However, the DEIR states:

> [t]o date, there have not been any scientific studies designed or conducted to systematically evaluate wedgewire screens' performance in the absence of any appropriate sampling protocols developed to allow for proper assessment.[38]

This acknowledged paucity of information calls into question the effectiveness of wedgewire screens to minimize marine life impacts.

West Basin hired consultants to conduct the *Intake Effects Assessment Report* (Tenera 2014), which examined the impacts of a demonstration facility with a maximum daily intake of 0.511 MGD, then used this assessment to model the impacts of a 20MGD plant.[39] The 20 MGD Local Project would intake 45.4 MGD of seawater[40], which is an intake 89 times greater than the demonstration facility. The 60 MGD Regional Project would utilize up to 136.2 MGD[41], which is an intake 266.5 times greater than the demonstration facility. The DEIR states that modeling based on the demonstration facility finds no significant impact for the Local Project; the Regional Project has apparently not been modeled, but the impacts are nonetheless dismissed as less than significant. It is an unreasonable leap in analysis to assume that the results of a very small-scale modeling exercise can be extrapolated to the far larger intake volume, using untested intake technology.

HBCH-13

The DEIR acknowledges data gaps and uncertainty in assessing the impacts of the intake: "At present, the extent of protection that wedgewire screens could provide to prevent entrainment of larval fish and invertebrates in the Project marine study area is unknown."[42] The DEIR then defaults to reliance on mitigation for whatever impacts may, in fact, result. The mitigation proposed, "BIO-M2", is essentially compliance with Water Code Section 13142.5(b) and the Ocean Plan Desal Amendment. This proposed mitigation program is inadequate, because it would be based on a future study of impacts and unspecified mitigation actions.[43]

HBCH-14

[34] DEIR at 3-4.
[35] DEIR at 3-16.
[36] California Ocean Plan, Desalination Amendment, Chapter III.M.2.d.(1)(c)(ii). See Section V. D, below, for further discussion of design and siting of the Project such that it could utilize subsurface intakes.
[37] DEIR at 5.11-49.
[38] DEIR at 5.11-52.
[39] DEIR at 2-33, 5.11-52.
[40] DEIR at 3-12.
[41] DEIR at 3-16.
[42] DEIR at 5.11-53.
[43] "The primary adverse effect of screened open ocean intakes is mortality of larval fish, fish eggs and other types of plankton. This mortality can be assessed, but prediction of the overall impact from such mortality using traditional models

2. Brine impacts may be significant, yet the DEIR has not addressed key gaps in information and analysis necessary to determine the significance of impacts.

West Basin states that they will be unable to comingle brine with wastewater, which is the "preferred technology for minimizing intake and mortality to all forms of life resulting from brine"[44] in the Desal Amendment, because sufficient supplies of wastewater will purportedly not be available. Instead, the Project plants to utilize multiport diffusers, which is the Desal Amendment's "next best method for disposing of brine when the brine cannot be diluted by wastewater".[45] The DEIR notes that 25.4 MGD of brine would be discharged for the 20 MGD Project[46]; while an average of 76.2 MGD would be discharged for a 60 MGD Regional Project, although that discharge could peak at 83 to 95 MGD.[47] However, the impacts of the Project's brine discharge are not fully understood, because the multiport diffuser "design is not yet finalized".[48] HBCH-15

The CEQA Guidelines require that sufficient technical detail be provided to "permit full assessment of significant environmental impacts" of a project.[49] This Project is highly technical, and modification of the intake or outflow technology can have important implications for the significance of environmental impacts. The DEIR is therefore flawed for failing to finalize and analyze the specific brine dispersal technology that will be utilized.

There are also substantial omissions in the DEIR's analysis of known impacts of brine disposal. The DEIR fails to acknowledge that potential impacts of brine effluent discharges are poorly understood. For example, desalination brine has been shown to "impact the physiology and growth of seagrass meadows due to osmotic stress around the brine-effluent discharge point"[50], yet the DEIR does not evaluate the potential impact on seagrass, including important eelgrass beds near the proposed Project.[51] HBCH-16 The water temperature of desalination brine effluent can also be elevated by up to 25% over ambient water temperature.[52] Despite acknowledgement of regulatory requirements related to thermal impacts, the DEIR fails to analyze the Project's potential thermal impacts.[53] HBCH-17

A 2018 review of the latest available information states that "to date, the effects of brine-effluent discharge on coastal marine ecosystems are poorly understood, [sic] thereby merit further research via controlled bioassay experiments and more importantly long-term monitoring".[54] For example, the impacts of desalination brine on HBCH-18

is hindered by the paucity of information on typical survivorship to maturity for most species. As a result, the overall impact of intake mortality on the marine ecosystem cannot always be quantified reliably." WATER IN THE WEST, ET AL., MARINE AND COASTAL IMPACTS OF OCEAN DESALINATION IN CALIFORNIA, Stanford University, at 4 (2016), http://waterinthewest.stanford.edu/sites/default/files/Desal_Whitepaper_FINAL.pdf.

[44] California Ocean Plan, Desalination Amendment, Chapter III.M.2.d.(2)(b).

[45] *Id.*

[46] DEIR at 3-13.

[47] DEIR at 3-17; DEIR Appendix 4C. Philip J.W. Roberts, "Modeling Brine Disposal from the West Basin Ocean Water Desalination Project" at 11.

[48] DEIR Appendix 4C. Philip J.W. Roberts, "Modeling Brine Disposal from the West Basin Ocean Water Desalination Project" at 13.

[49] CEQA Guidelines § 15147.

[50] "Impacts of Seawater Desalination on Coastal Environments," at 448.

[51] *See, e.g.* Brock Bernstein et al. RECOMMENDATIONS FOR A SOUTHERN CALIFORNIA REGIONAL EELGRASS MONITORING PROGRAM, Technical Report 632, May 2011, Southern California Coastal Water Research Project, at 10 http://www.westcoast.fisheries.noaa.gov/publications/habitat/california_eelgrass_mitigation/recommendations_for_monitoring_1_.pdf.

[52] "Impacts of Seawater Desalination on Coastal Environments," at 454.

[53] DEIR at 5.9-20, 5.9-32, 5.11-4.

[54] Karen L. Petersen et al. SUSTAINABLE DESALINATION HANDBOOK, Chapter 11, "Impacts of Seawater Desalination on Coastal Environments," at 440, *available at* https://www.sciencedirect.com/science/article/pii/B9780128092408000113

the zooplankton food web, benthic bacteria, benthic meiofauna (e.g. bioindicator species that are highly sensitive to anthropogenic effects such as nematodes) are largely unknown.[55]

While the use of multiport diffusers has been shown to reduce some of the impacts of brine effluent, experts differ on the efficacy of this technology to reduce marine life mortality, particularly given the tradeoffs between dilution and shear mortality caused by the jet force of the diffusers.[56] To adequately assess the impacts of the Project's brine on the marine environment, it is essential to both determine which diffuser configuration is going to be used, and to test the impacts of that specific technology. Furthermore, the DEIR must acknowledge and address the significant gaps in analysis of the impacts of the brine effluent.

HBCH-18

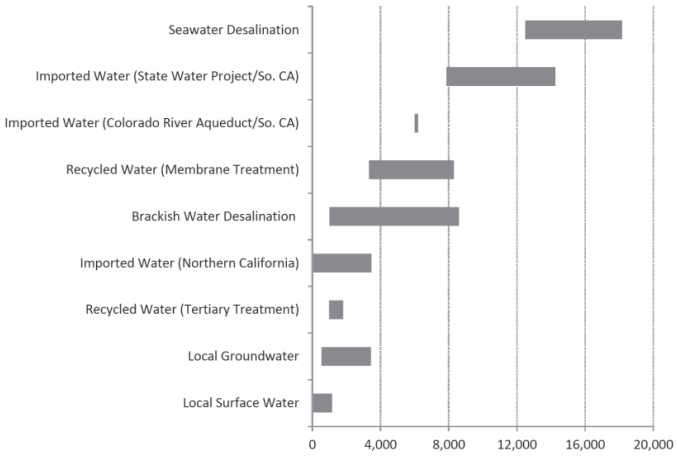
II. The Project is likely to have significant energy impacts; the Project should be reevaluated and the DEIR revised in light of these energy impacts.

A. Analysis of energy efficiency and waste is insufficient.

In assessing energy impacts of the Project, the DEIR acknowledges the applicability of CEQA Guidelines Appendix F., which directs EIRs to place "particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy".[57] However, the Project runs counter to this directive, and the DEIR downplays the extent to which seawater desalination is the most energy intensive source of water.

HBCH-19

The DEIR assesses the Project's energy use only in comparison to imported water, rather than comparing the energy use of seawater desalination to the even less energy intensive options. The Project is purportedly justified by the need for a diversified water supply, but diversification can still be accomplished without the use of this large-scale desalination plant. The DEIR should demonstrate how much energy seawater desalination uses in comparison to the range of other water supply alternatives, and not only compare the energy impacts of the Project to imported water.



HBCH-20

[55] "Impacts of Seawater Desalination on Coastal Environments," at 442-445.
[56] Philip J.W. Roberts, *Brine Diffusers and Shear Mortality*, Final Report for Eastern Research Group, https://www.waterboards.ca.gov/santaana/water_issues/programs/Wastewater/Poseidon/2018/4-18-18_Diffuser_Analysis_Method.pdf Dr. Roberts work appears to be at odds with the assessments conducted by
[57] DEIR at 5.5-9,-10.

Figure 1. Comparison of the Energy Intensity of California Water Supplies[58]

Despite the length of the document, the DEIR does not reference the preeminent analysis conducted by the Pacific Institute, comparing the energy and GHG emissions of seawater desalination to other water supply options.[59] This is an important example of significant gaps in the evidence utilized by the DEIR in conducting its analysis. HBCH-20

The DEIR also purports to take energy conservation credit for Southern California Edison's (SCE) generation of additional renewable power to meet the California's Renewables Portfolio Standard (RPS).[60] We are aware of no instance in which a project can take credit for the energy savings of a wholly independent entity, merely because it purchases the power from this entity. We are concerned, as discussed below, that the Project actually undermines the RPS. HBCH-21

In light of the energy intensity of seawater desalination, it is likely that the Project would have significant, unavoidable, energy impacts. The Project should be re-evaluated in light of these impacts.

B. The DEIR does not account for impacts that could undermine grid reliability and SCE's compliance with the RPS.

The DEIR asserts that the Project will have less than significant impacts on adopted energy conservation plans or on state or federal energy standards.[61] This conclusion is flawed, at a minimum, because it does not fully account for the additional and unplanned load that the project will place on the electrically constrained SCE service area. As the DEIR notes, SCE is transitioning to increased renewable energy production to comply with the RPS. However, the addition of this new project could jeopardize the attainment of RPS goals. HBCH-22

SCE has added more than 5,000 MW of new generation resources in coastal areas to account for the retirement of old power plants.[62] However, that addition of new generation was based on projected energy needs that did not include this Project. The energy consumption of this plant could surpass the amount saved by new energy efficiency programs while also placing a peak demand on the system. SCE and the CPUC should be consulted and conduct a third party assessment of the Project's impacts on energy conservation plans and state and federal energy standards. These agencies' assessments should be incorporated into a revised and recirculated EIR.

III. The Project erroneously takes credit for GHG reductions related to the offset of imported water, yet there is no guarantee that the project will result in such offset.

The DEIR asserts that the Project – whether developed to the Local or Regional size – "would ensure that there would be no net increase in GHG emissions compared to existing conditions associated with water supplied by MWD," specifically, imported water, and thus would not represent a significant or cumulative contribution to GHG emissions.[63] Seawater desalination is one of the most energy-intensive water options available, and the conclusion that it will not result in significant GHG emissions is unsubstantiated. HBCH-23

[58] Heather Cooley, *Key Issues in Seawater Desalination in California: Energy and Greenhouse Gas Emissions*, Pacific Institute at 7 (2013), http://pacinst.org/publication/energy-and-greenhouse-gas-emissions-of-seawater-desalination-in-california/
[59] *Id.*
[60] DEIR at 5.5-17.
[61] DEIR at 5.5-14 to 5.5-18.
[62] NRDC et al. PROCEED WITH CAUTION II: CALIFORNIA'S DROUGHTS AND DESALINATION IN CONTEXT, (2016), https://www.nrdc.org/sites/default/files/california-drought-desalination-2-ib.pdf
[63] DEIR at 5.7-38.

The DEIR compares GHG emission of desalination only to the emissions caused by imported water supplied by MWD. Instead, as discussed above, the energy and emissions impacts of the Project should be compared to the range of other water supply options, which use far less energy. The DEIR relies heavily on the assumption that desalinated water will replace imported water, arguing that the significant impacts of the West Basin Project can by justified compared to the impacts of imported water. This argument fails because experts agree that:

> Ocean desalination will not, in the foreseeable future, significantly reduce stress on freshwater resources—particularly freshwater ecosystems. Even the highest total projected production of potable water from ocean desalination in California is so low that it will not meaningfully reduce stress on freshwater systems …[64]

HBCH-24

HBCH-25

The DEIR also implies that there will be a one-for-one replacement of imported water by MWD, asserting that the Project will "reduce dependency on imported water and would not result in a new increase in West Basin's total water supply portfolio".[65] This purported benefit is illusory; it is not a guaranteed outcome because West Basin does not exercise control over the multiple sources from which its retailers purchase water. The California Coastal Commission rejected a similar argument by Poseidon water in Carlsbad, because without a contractual obligation, the new desalinated water could simply meet new increased demand, rather than replacing imported water.

HBCH-26

Finally, the DEIR asserts that the Project will offset the increased energy and emissions impacts of the Project by using renewable energy, where possible. This approach ignores the superior alternative of using renewable energy to offset the GHG emissions of a less energy intensive water source, rather than offsetting new emissions and thereby maintaining current GHG levels.[66]

HBCH-27

IV. Developing a new water source at a vulnerable beach location unreasonably disregards state policy and best practices to address public safety, disaster preparedness, climate change and sea level rise.

The Project's proposed investment in new infrastructure a few feet above sea level is antithetical to state policy and best practices for responding to rising sea levels and coastal hazards exacerbated by climate change.[67] The DEIR's assessment of sea level rise and coastal hazards concludes: "portions of the ESGS Site would be vulnerable to flooding from future coastal flood hazards, including from strong wave surge and tsunami inundation under future sea-level flood hazard conditions."[68] The DEIR acknowledges that "operation of the Project on either the ESGS North Site or South Site would result in potentially exposing people or structures to risk of loss, injury or death … due to sea-level rise."[69] The DEIR then makes the unreasonable conclusion that these impacts would be less than significant with mitigation, but this purported mitigation is entirely speculative, as it will be determined by future study and recommendations.[70] In their comment letter, incorporated herein by

HBCH-28

[64] Leon Szeptycki, et al., MARINE AND COASTAL IMPACTS OF OCEAN DESALINATION IN CALIFORNIA, Water in the West, Center for Ocean Solutions, Monterey Bay Aquarium, The Nature Conservancy, (2016), available at http://stanford.io/2axdXE7.
[65] DEIR at 5.7-37.
[66] *See,* Heather Cooley, *Key Issues in Seawater Desalination in California: Energy and Greenhouse Gas Emissions*, Pacific Institute (2013), http://pacinst.org/publication/energy-and-greenhouse-gas-emissions-of-seawater-desalination-in-california/
[67] *See,* California Coastal Commission, SEA LEVEL RISE POLICY GUIDANCE, August 12, 2015, https://www.coastal.ca.gov/climate/slrguidance.html
[68] DEIR at 5.9-75. *See also,* Appendix 5B. Technical Memorandum: Coastal Hazards Analysis of the West Basin Municipal Water District Ocean Water Desalination Project for Sea Levels at Year 2100.
[69] DEIR at 5.9 -76.
[70] DEIR at 1-21.

reference, Heal the Bay has further described the geologic instability and dangers, which have not been adequately addressed in the DEIR.

As the DEIR acknowledges, the Project is subject to provisions of the Coastal Act, because it is located in the Coastal Zone, and it is a "coastal-dependent" use and a "public works" project that would involve production, storage, and transport of water.[71] While the grant of a Coastal Development Permit and the final determination on Coastal Act consistency will be made by the City of El Segundo and the California Coastal Commission, the DEIR has failed to address critically important risks related to the Project's location, which is vulnerable to erosion, flooding, earthquakes and sea level rise.[72] Where there is an opportunity, as in this case, to choose the location of new public infrastructure, it should be located away from vulnerable areas. While the DEIR acknowledges the applicability of the Coastal Commission's Sea Level Rise Policy Guidance, the analysis is flawed and unreasonable in concluding that there are no significant impacts resulting from the conflict between the Policy and the Project.[73] The Project has disregarded the Sea Level Rise Policy Guidance; it should be re-evaluated in light of recommendations, for example, to "relocate or remove existing development out of hazard areas and limit the construction of new development in vulnerable areas."[74]

HBCH-28

It is unreasonable for West Basin to ignore the opportunity to avoid a range of serious dangers inherent in the Project site by, for example, instead developing less vulnerable water supply options, or at a minimum selecting a site in a less vulnerable location. The Project is likely to endanger public safety and waste significant public resources; the DEIR has failed to address the impacts of sea level rise and coastal hazards inherent in the Project location. It is unacceptable for the DEIR to dismiss these impacts as less than significant with reference to a future study as a mitigation measure.

V. The alternatives analysis fails to address significant environmental impacts; the DEIR unreasonably rules out feasible alternatives based on arbitrary criteria and unsupported conclusions.

A. Alternatives analysis omits consideration of significant impacts.

West Basin asserts that construction-related air quality and noise impacts are the only significant and unavoidable impacts for which alternatives must be considered.[75] In analyzing project alternatives, West Basin's analysis is deficient in that it fails to consider the additional significant impacts described above, for which there are reasonable alternatives that could eliminate the impacts, such as those alternatives discussed in Los Angeles Waterkeeper's comment letter, incorporated herein by reference. In particular, West Basin has not accounted for the significant unavoidable impacts to marine biological resources, water quality, energy, greenhouse gas emissions and climate change dynamics. Those impacts were incorrectly dismissed as less than significant, or the acknowledged significant impacts were dismissed with general claims that future mitigation will address their impacts. The alternatives analysis fails to give sufficient consideration to alternatives that reduce a number of significant impacts. By failing to consider alternatives that address those impacts, West Basin has not made a "reasoned choice" of alternatives as required by CEQA.[76]

HBCH-29

B. The DEIR's alternatives analysis uses narrow screening criteria to unreasonably remove feasible alternatives from consideration.

HBCH-30

[71] DEIR at 5.10-16.
[72] http://www.pacinst.org/reports/sea_level_rise/hazmaps/Venice.pdf
[73] DEIR at 5.10-16.
[74] SEA LEVEL RISE POLICY GUIDANCE, Chapter 7: "Adaptation Strategies" at 125.
[75] DEIR at 7-3 to 7-4.
[76] CEQA Guidelines § 15126.6(f).

The analysis of the feasibility of a project alternative should be based upon consideration of:

> "site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)."[77]

Rather than assessing the broader set of alternatives against these characteristics of feasibility outlined in the CEQA Handbook and the Project objectives, West Basin has applied a set of narrowly drawn "screening criteria" to justify elimination of reasonable, feasible alternatives from consideration.[78] The initial screening of alternatives" was arbitrarily narrow in requiring that precisely 21,500 AFY average annual additional water supply be generated, as is discussed in Los Angeles Waterkeeper's comment letter and incorporated by reference herein.[79]

HBCH-30

Among the alternatives that could reduce environmental impacts and meet basic project objectives, the DEIR has failed to consider a blend of those water supply options such as increased conservation, stormwater capture and increased non-potable recycling.[80] West Basin should also consider the possibility of a smaller project that could be sited in a less hazardous location and would be capable of utilizing subsurface intakes and powered by renewable energy.[81]

C. The alternatives analysis includes unsupported assertions that cost and economic considerations make less impactful alternatives infeasible.

Among the Project's stated objectives are to "[i]mprove West Basin's local control of future water costs and long-term price stability", and to "[d]evelop a potable water supply that is economically viable". These objectives are suspect, as CEQA guidance instructs project proponents to consider alternatives that avoid or substantially lessen significant effects even if those alternatives would be more costly.[82] To the extent that consideration of the alternatives' costs is permissible, West Basin has failed to "include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison to the proposed project."[83]

HBCH-31

The DEIR provides only vague statements, and no quantitative information, about the cost and economic viability of each alternative, while discrediting many of the less impactful alternatives on these grounds.[84] West Basin's 2018 FAQ on the Project, in response to the question of "How much will the facility cost, and how will it affect water rates?" states that:

> The Project is currently in the environmental phase and a detailed design has not been developed to provide exact cost estimates. West Basin is planning to conduct a future study to evaluate the potential effect on water rates as a result of implementing the Project …"[85]

[77] CEQA Guidelines § 15126.6(f)(1).
[78] DEIR at 7-5.
[79] DEIR at 7-6.
[80] DEIR at 7-8.
[81] Stanford University's Water in the West Program states that "sustainable seawater desalination projects are those that are smaller; that provide supply to meet a specific, clear local demand; that are located away from sensitive and valuable marine areas; and that are powered by renewable energy sources." Leon Szeptycki, et al., MARINE AND COASTAL IMPACTS OF OCEAN DESALINATION IN CALIFORNIA, Water in the West, Center for Ocean Solutions, Monterey Bay Aquarium, The Nature Conservancy, (2016), available at http://stanford.io/2axdXE7.
[82] CEQA Guidelines § 15126.6 (b).
[83] CEQA Guidelines § 15126.6 (d).
[84] DEIR at 7-3 to 7-59.
[85] West Basin Ocean Water Desalination Project Frequently Asked Questions (FAQs), 2018 http://www.westbasindesal.org/assets/Documents%20and%20Files/Project%20Materials/West-Basin-FAQ.pdf

It is entirely unreasonable for the DEIR to claim that the Project is more cost effective or economically feasible when no quantitative information is provided to compare its costs to the alternatives, and when the prevailing analysis indicates that seawater desalination costs four to eight times more than less environmentally impactful alternatives.[86]

HBCH-31

D. West Basin's evaluation of the Desalination Amendment's site, design and technology criteria for evaluating project alternatives should be revised to consider a project that can be configured to minimize impacts.

In an effort to comply with the Desalination Amendment, which "provides a uniform, consistent process for permitting of seawater desalination facilities statewide,"[87] West Basin has conducted a number of studies to evaluate various options for the Project's site, design, and technology.[88] Under CEQA, project proponents have a duty to avoid or minimize environmental damage where feasible, including pursuing feasible alternatives that would "substantially lessen any significant effects that the project would have on the environment."[89] The Project was designed first and foremost to produce 20 MGD, with the possibility of being expanded to 60MGD. As discussed in the Los Angeles Waterkeeper's comment letter and incorporated herein by reference, the volume of water to be produced through seawater desalination is arbitrary and unnecessary. Despite its review of different project configurations, West Basin has rejected options that would produce lower volume of water. If the production volume were changed, then the preferred intake technology of subsurface intakes could be considered.

HBCH-32

Co-location with the El Segundo once-through cooled (OTC) power plant runs counter to reduction of impacts to marine life, because this site is not configured to allow for the use of best available site, design or technology.[90] In the current Project configuration, the water quality benefits of co-location to utilizing power plant wastewater to dilute desalination brine will be unavailable, because the El Segundo Power Plant will soon phase out, in compliance with the SWRCB's Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling.[91] West Basin has decided to use wedgewire screens whose effectiveness is not proven, rather than designing a smaller project that could utilize subsurface intakes. Rather than leading with a set volume of water that is to be produced, the Project should be designed at the outset to utilize best available site, design and technology.

HBCH-33

For the reasons described in this section, the alternatives analysis should be revised to thoroughly consider alternative water supply options based on more reasonable project criteria.

VI. A Regional Project of 60 MGD should not be permitted to tier off the DEIR for the Local 20 MGD Project.

HBCH-34

[86] NRDC et al. PROCEED WITH CAUTION II: CALIFORNIA'S DROUGHTS AND DESALINATION IN CONTEXT, (2016), https://www.nrdc.org/sites/default/files/california-drought-desalination-2-ib.pdf
[87] ST. WATER RESOURCES CONTROL BOARD, DESALINATION FACILITIES AND BRINE DISPOSAL, https://www.waterboards.ca.gov/water_issues/programs/ocean/desalination/ (last visited April 23, 2018).
[88] *See* DEIR Appendix 2A. "Feasibility Assessment of Subsurface Seawater Intakes Proposed", Appendix 2B. "Seabed Infiltration Gallery Construction and Life-Cycle Costs", and Appendix 10. Ocean Plan Amendment Siting and Intake and Discharge Method Considerations".
[89] CEQA Guidelines §15021(a)(2)
[90] Desal Amdt Final Staff Report at 76.
[91] California Water Boards, "Ocean Standards – § 316(b) Regulation" https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/

The DEIR has made the unreasonable conclusion that, in a number of key instances, because the impacts of the 20 MGD Local Project are less than significant, the impacts of a 60 MGD Regional Project would also be less than significant. For example, in evaluating the water quality impacts of the Regional Project, the DEIR states:

> As with the Local Project, the brine discharge would not contribute contaminants or increase their concentration significantly over ambient levels beyond the mixing area …Therefore, impacts [of the Regional Project] to ocean water quality would be less than significant.[92]

It is unreasonable to assume that the impacts of the Local Project can be extrapolated to the Regional Project on a linear basis. Particularly in the presence of other cumulative sources of marine pollution, such as those discussed in Section I.D, the withdrawal of three-times more seawater or discharge of this larger volume of brine effluent may have a greater than three-times the impacts. Even if a conclusion of less than significant impact for the Local Project is correct, this finding cannot be applied without the conduct of fresh analysis to a project three-times the size. At a minimum, the DEIR fails to account for one-to-one increase in impacts; more likely, it has failed to acknowledge that the impacts are likely to be multiplied, potentially exponentially.

The DEIR has attempted to establish that nearly all assessments of impacts at the 20 MGD Local Project level should apply to projects at the 60 MGD Regional level, essentially asserting that the Regional Project should be allowed to tier off the Local Project. CEQA allows for tiering of environmental impact reports when the first EIR is prepared at the larger, more general level, "prepared and certified for a program, plan, policy, or ordinance".[93] The DEIR has taken the opposite approach: it asserts that a more narrow project could be used to tier approval of a project three times the size. If the 60 MGD project is the actual goal of this development, all assessment of impacts should be based on thorough evaluation of the impacts of a project of that size.

HBCH-34

VII. Conclusion: The Project should be re-evaluated and if pursued, the DEIR should be revised and re-circulated.

West Basin has prepared a lengthy DEIR, but it suffers from information gaps, flawed analysis, and erroneous conclusions. The DEIR has failed to account for a number of the Project's anticipated significant impacts, particularly to the marine environment, energy and greenhouse gas emissions, public safety sea level rise and coastal hazard preparedness. The DIER has also failed to propose mitigation measures that could adequately address these significant impacts.

The flaws in the DEIR reflect the fact that the Project itself is ill conceived. We strongly urge West Basin to abandon this Project and focus on other less costly and less impactful water supply options, including water recycling, and groundwater recharge that are within its purview. To the extent that seawater desalination will be pursued, we encourage West Basin to reconfigure the Project so that it is located in an area less vulnerable to sea level rise and coastal hazards; utilizes subsurface intakes and other best available technology to minimize marine impacts; operates entirely on renewable energy; and is scaled-down to allow for flexible operations, tailored to meet demand.

HBCH-35

Sincerely,

John Jalili,
Interim City Manager

[92] DEIR at 5.9-60.
[93] CEQA § 21094(a)(1); CEQA Guidelines § 15152.

June 25, 2018 *Sent via email to DesalEIR@westbasin.org*

Zita Yu, Ph.D., P.E
Project Manager
West Basin Municipal Water District
17140 South Avalon Boulevard, Suite 210
Carson, CA 90745

RE: West Basin's Ocean Water Desalination Project DEIR – City of Malibu Comments

Dear Dr. Yu:

This letter is submitted on behalf of the City of Malibu in response to the Draft Environmental Impact Report (DEIR) for the West Basin Municipal Water District Ocean Water Desalination Project (Project).

The cost of water produced by seawater desalination is four to eight times higher than alternative sources of water, ranging from $1,900 to over $3,000 per acre foot.[1] The City is concerned that there is significant "demand risk" presented by this Project (the City's water demand can be met by less expensive sources of water), and there is risk that this Project will create an unnecessary financial burden for rate payers and municipalities.[2] The financial risk of this Project is illustrated by Australia's experience building six large-scale seawater desalination plants at a cost of $10 billion.[3] These plants were abandoned or operate at reduced capacity, in favor of efficiency and other more cost-effective water supply alternatives. MLBU-1

The City of Malibu strongly prefers to focus its water supply portfolio on readily available, lower-cost and lower-impact alternatives, including water conservation, water efficiency, stormwater capture, and water recycling, and suggests that West Basin pursue water supply options other than seawater desalination. For example, the Water Replenishment District of Southern California expects that it can supply 57,770 AFY of additional groundwater production to offset imported water demands with stormwater, tertiary recycled water and advanced treatment recycled water.[4] MLBU-2

[1] NRDC et al. PROCEED WITH CAUTION II: CALIFORNIA'S DROUGHTS AND DESALINATION IN CONTEXT, (2016), https://www.nrdc.org/sites/default/files/california-drought-desalination-2-ib.pdf
[2] NRDC et al. PROCEED WITH CAUTION II AT 7
[3] Id.
[4] CH2M HILL, ENGINEERS, INC. GROUNDWATER BASINS MASTER PLAN, FINAL REPORT, Water Replenishment District of Southern California (2016) http://www.wrd.org/sites/pr/files/GBMP_FinalReport_Text%20and%20Appendicies.pdf

In addition to perspectives that pursuing seawater desalination is neither necessary nor appropriate, City staff has specific concerns with the Project and the review of the Project's environmental impacts in the DEIR, including the following:

1. The environmental review fails to present substantial evidence that marine biological and water quality impacts are less than significant or can be mitigated.
2. The Project is likely to have significant energy impacts.
3. The Project is unjustified in taking credit for speculative greenhouse gas reductions
4. The DEIR fails to account for the significant impacts of developing a new water source at a vulnerable beach location.
5. The DEIR's alternatives analysis fails to address significant environmental impacts.
6. Mitigation proposed for significant marine biological, water quality, energy, greenhouse gas, coastal hazard and cumulative impacts is speculative.
7. The analysis of the Regional Project of 60 MGD is insufficient as it attempts to tier off the impact assessment of the Local Project of 20 MGD.

MLBU-3

1. The Project DEIR fails to present substantial evidence that marine biological and water quality impacts are less than significant or can be mitigated.

A. The DEIR has designated a limited marine study area, which excludes consideration of significant environmental impacts of the Project to marine biology and water quality in Santa Monica Bay (SMB).

Under California law, West Basin must analyze whether the Project will have a significant effect on the environment, which is the extent to which it will cause "substantial adverse change in the physical conditions which exist in the area affected by the proposed project."[5] In conducting this analysis, the DEIR is required to include a description of the environmental setting of the project, which is "… the physical environmental conditions in the vicinity of the project … This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant."[6]

MLBU-4

West Basin acknowledged that SMB is the environmental setting in which the Project will occur.[7] However, in DEIR Section 5.9.2 "Study Area," the "marine study area" is described as:

[5] CEQA Guidelines § 15002 (g).
[6] CEQA Guidelines § 15125 (a).
[7] DEIR at 5.11-10.

> A 2-mile by 1.5-mile area of marine waters and seafloor extending 1.5 miles offshore and 1 mile up-coast and down-coast of the proposed desalination discharge and seawater intake facilities.[8]

MLBU-4

Throughout the document, the DEIR acknowledges that there are habitat and species of concern within SMB, but the review discounts the likely impacts of the Project on these resources by assessing only the extent to which they are present in the much more geographically-limited marine study area. The DEIR states that:

> Based on the absence of suitable habitat in the Project marine study area, the absence of substantial larval densities of special-status species in the Project marine study area, and the natural life history of special-status species of concern present in the Project marine study area, the potential for entrainment of these special-status species is negligible to non-existent. Therefore, the impact would be less than significant.[9]

MLBU-5

This approach fails to consider the many studies establishing that the habitats and biological communities of the entire SMB are connected by a complex system of currents, the movement of marine life, and an array of anthropogenic impacts in this highly developed region. For example, in SMB:

> Many nearshore fish and invertebrates have a life cycle that includes an obligate pelagic larval stage that can last from a few days to several months. Due to the small size of marine larvae, advection by coastal circulations is the dominant process driving larval dispersal which will have an order one influence on their fish stock dynamics.[10]

Study of connectivity in the Southern California Bight has found significant transport of water between mainland sites in SMB and the Channel Islands. "Effective marine management depends upon an explicit knowledge of dispersal as a result of ocean circulation."[11] It is essential for the DEIR to account for the fact that ocean circulation can cause both the dispersal of marine species larvae, which could cause far greater impacts than are acknowledged in the DEIR, including impacts to larvae, and dispersal of the brine and pollutants released as a bi-product of desalination.

[8] DEIR at 5.9-25. However, Section 5.11.2 describes the marine study area slightly differently, using nautical miles: "an area extending approximately 1 nautical mile upcoast and downcoast of the terminus points of the ESGS intake and outfall pipelines and situated parallel to the shoreline and extending approximately1.5 nautical miles offshore from the beach, ending in approximately 90 feet of water," DEIR at 5.11-10.

[9] DEIR at 511-54.

[10] S. Mitarai et al., *Quantifying connectivity in the coastal ocean with application to the Southern California Bight* 114 J. OF GEOPHYSICAL RES. C10026, (2009), https://doi.org/10.1029/2008JC005166 https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2008JC005166.

[11] S. Mitarai et al., *Quantifying connectivity in the coastal ocean with application to the Southern California Bight* 114 J. OF GEOPHYSICAL RES. C10026, (2009), https://doi.org/10.1029/2008JC005166 https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2008JC005166.

Currents and ocean circulation patterns are likely to disperse the pollutants released by the Project far beyond the marine study area. The Project could therefore cause significant water quality impacts on a much broader area of the SMB than acknowledged by the DEIR.[12] The DEIR has not incorporated substantial evidence readily available, which indicates that the impacts of increased salinity and lowered dissolved oxygen from brine discharges, and release of other contaminants from the Project operations could be significant and reach far beyond the marine study area.[13]

MLBU-6

At a minimum, SMB as a whole, rather than the DEIR's limited marine study area, should be the area evaluated for impacts caused by the Project.

MLBU-7

B. The DEIR has not accounted for potential impacts to significant ecological areas, particularly marine protected areas (MPA).

The DEIR acknowledges the presence of significant ecological areas in SMB, including the Mugu Lagoon to Latigo Point Area of Biological Significance (ASBS) 18 miles northwest of the Project area, the Point Dume State Marine Conservation Area (SMCA) and State Marine Reserve (SMR) 22 miles northwest of the Project area, and the Palos Verdes SMCA and SMR seven miles south of the Project area.[14] However, the DEIR has not evaluated the impacts the Project may have on the health and biological function of these MPA, and the DEIR lacks evidence to establish that the MPA's distance is far enough from the Project that it will not have significant negative impacts on these areas.

Under the Marine Life Protection Act, California created a world-class network of MPA that were carefully designed, with extensive expert input, to support connectivity between the areas. While the Project is not located within a protected area, it is located between the Point Dume and Palos Verdes MPAs, between which marine life is expected to transit and have the potential to be impacted by the Project along the way.

MLBU-8

> [M]ost marine invertebrates and fishes produce young (eggs, larvae) that are typically dispersed by ocean currents over great distances (10's to 100's of kilometers). Thus much of the population connectivity achieved by marine species is by the transport of their young from one population to another in spatially separated similar habitats … This export of individuals from one local population to another, which may be protected by one or more MPAs, influences both the role of MPAs for conservation and

[12] S. Mitarai et al., *Quantifying connectivity in the coastal ocean with application to the Southern California Bight* 114 J. OF GEOPHYSICAL RES. C10026, (2009), https://doi.org/10.1029/2008JC005166 https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2008JC005166.
[13] E.g. DEIR at 5-11-58.
[14] DEIR at 5.11-34 to 5.11-36.

> management and the design (e.g. size and spacing) of MPAs. These elements of population connectivity are critically important to MPAs and MPA networks.[15]

As described above, the assessment of the Project's marine and water quality impacts is based on a small rectangle within SMB. The entire SMB is the appropriate "marine study area," and City staff would like to see assessments of impacts in the DEIR to account for the movement of water and marine life throughout that body of water and the associated impact on the MPAs bordering SMB.

MLBU-8

C. The Southern California Bight is the appropriate area for consideration of regional impacts of the Project.

Assessment of the Project's impacts to the marine environment of SMB is the minimum spatial scale that is reasonable, given the circulation patterns and interconnectivity of the broader marine region known as the Southern California Bight (SCB), in which SMB is situated. CEQA requires that significant environmental impacts be considered in the "full environmental context:"

> Knowledge of the regional setting is critical to the assessment of environmental impacts. Special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the project.[16]

MLBU-9

The SCB is "the coastal ocean from Point Conception to just south of San Diego and inshore of the Santa Rosa Ridge."[17] While the DEIR acknowledges that the Project is located in this region and that there are multiple seawater desalination facilities within the SCB,[18] the DEIR fails to consider the features and functions of this marine eco-region when assessing the Project impacts on marine biological resources and water quality impacts. For example, the SCB is characterized by circulation patterns that are more complex than elsewhere off the west coast.[19] Furthermore, as discussed in the following section, the

[15] M. Carr et al., *The central importance of ecological spatial connectivity to effective coastal marine protected areas and to meeting the challenges of climate change in the marine environment*, 27 AQUATIC CONSERVATION S1, (2017), https://onlinelibrary.wiley.com/doi/abs/10.1002/aqc.2800

[16] CEQA Guidelines § 15125 (c).

[17] CIRCULATION IN THE SOUTHERN CALIFORNIA BIGHT, https://web.csulb.edu/depts/geology/facultypages/bperry/Southern%20California%20Bight/pollution.htm (last visited April 22, 2018).

[18] DEIR at 4-12.

[19] CIRCULATION IN THE SOUTHERN CALIFORNIA BIGHT, https://web.csulb.edu/depts/geology/facultypages/bperry/Southern%20California%20Bight/pollution.htm (last visited April 22, 2018).

DEIR acknowledges that the SCB is the relevant geographic range for which to consider significant and cumulative marine impacts.[20]

MLBU-9

D. Evaluation of only a narrow set of cumulative marine impacts undermines the DEIR's cumulative impact assessment.

The DEIR acknowledges CEQA's requirement that, because the Project has "an incremental effect that is "cumulatively considerable,"[21] it is necessary to address "past, present and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the Agency."[22] However, the cumulative assessment of impacts to the marine environment is limited to a brief acknowledgement of only twelve projects.[23] The cumulative impact assessment omits consideration of the vast number of anthropogenic activities "producing related or cumulative impacts" to marine life in the Santa Monica Bay and the Southern California Bight.

The SCB is a highly-developed area that is impacted by a wide array of activities. Just as species transit between habitats throughout SMB and the SCB, pollutants and negative impacts are also transported between ecosystems, and this transport and accumulation of pollutants can negatively impact MPAs:

MLBU-10

> [S]ome forms of ecosystem connectivity can be detrimental to both recipient and donor ecosystems … impacts to donor ecosystems that create inhospitable conditions can drive populations from those ecosystems, altering their structure and functions and diminishing their productivity. These impacts can be transmitted from one ecosystem to another by altering ecosystem functions … The cumulative and distributed negative effects of ecosystem connectivity can translate into lost ecosystem services ...[24]

The cumulative impact assessment should evaluate the harm to marine life caused by a much wider range of anthropogenic activities in the SCB with effects similar to those anticipated from the Project. As discussed in the comment letter submitted by Heal the Bay, incorporated herein by reference, impacts that should be considered in the cumulative impact assessment include, but are not limited to all relevant point- and non-point sources of pollution in the SCB and noise impacts to marine life.

[20] DEIR at 4-3.
[21] CEQA Guidelines § 15130 (a).
[22] CEQA Guidelines § 15130 (b).
[23] DEIR at 4-3, 4-11, 4-12.
[24] M. Carr et al., *The central importance of ecological spatial connectivity to effective coastal marine protected areas and to meeting the challenges of climate change in the marine environment,* 27 AQUATIC CONSERVATION S1, (2017), https://onlinelibrary.wiley.com/doi/abs/10.1002/aqc.2800

E. The objective of the California Ocean Plan Desalination Amendment should be included as a key threshold of significance for water quality and marine biological impacts.

The DEIR applies general CEQA Guidelines thresholds of significance in evaluating the water quality (Sec. 5.9.3) and marine biological (Sec. 5.11.3) impacts of the Project. However, the CEQA Handbook indicates that where specific regulations particular to the environmental effect in question are available, those should be used as the appropriate threshold of significance.[25]

The California Ocean Plan Desalination Amendment (Desal Amendment) is the regulatory framework adopted specifically to address the water quality and marine biological effects of seawater desalination facilities. The Desal Amendment was adopted by the State Water Resources Control Board (SWRCB) after publication of substantial evidence, including scientific studies and public input, which is available in the staff record.[26] The Desal Amendment requires that desalination projects use best available site, design, and technology to "minimize intakes and mortality to all forms of life."[27] The Desal Amendment was adopted to address the fact that seawater desalination projects are known to have significant, long-term environmental effects. The Desal Amendment's requirement that projects "minimize intakes and mortality to all forms of life" should, therefore, be incorporated into the DEIR, rather than the more permissive, general thresholds of the CEQA Guidelines.

MLBU-11

While the DEIR acknowledges that the Desal Amendment is salient to the threshold of significant, stating that this regulation was "considered," the thresholds of significance used do not reflect the key metric applied in the Desal Amendment.[28] When assessing water quality and marine biological impacts, the extent to which the Project will "minimize intakes and mortality to all forms of life" should be added and applied as a threshold of significance in the DEIR.

F. Potentially significant marine biological and water quality impacts have not been evaluated or addressed.

Although the requirements of the Desalination Amendment were not used as thresholds of significance, West Basin acknowledges that this is the regulatory standard with which the site, design and technology of the Project must comply. While compliance with the Desal Amendment is necessary, compliance with its guidance alone does not guarantee that the Project will not have significant environmental impacts. A 2016 convening of experts at

MLBU-12

[25] CEQA Guidelines § 15064.7 (a).

[26] *See*, ST. WATER RESOURCES CONTROL BOARD, FINAL STAFF REPORT INCLUDING THE FINAL SUBSTITUTE ENVIRONMENTAL DOCUMENTATION FOR THE AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE WATERS OF CALIFORNIA, ADDRESSING DESALINATION FACILITY INTAKES, BRINE DISCHARGES, AND THE INCORPORATION OF OTHER NON-SUBSTANTIVE CHANGES, Adopted May 6, 2015, (hereinafter "Final Staff Report for Desal Amendment"), https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/rs2015_0033_sr_apx.pdf

[27] California Ocean Plan, Desalination Amendment, Chapter III.M.2.a.(2).

[28] DEIR 5.11-36.

Stanford University concluded that, despite the promulgation of the Desal Amendment, "[m]ore work is needed to understand the long-term impacts of [desalination] discharges."[29] The requirements of the Desal Amendment are merely a starting point for best available site, design and technology. Approaches that are "best available" are, by definition, progressively evolving as new studies are conducted, lessons are learned, and technologies are tested and advanced.

The impacts of large-scale seawater desalination are not well documented or understood, and it is difficult to accurately predict how the Project will impact the specific environment of SMB. As discussed below, although the DEIR acknowledges that there are substantial gaps in information available to assess the actual impact of the Project's planned technology, the document repeatedly concludes that the impacts will not be significant. There are also significant gaps in information that are not acknowledged by the DEIR. Because of these data gaps, it is unreasonable for the DEIR to make an unfounded leap in analysis to conclude that water quality and marine biological impacts will be less than significant.

1. Impacts of wedgewire screen intakes are uncertain and may be significant, the DEIR should not rely on speculative future mitigation.

MLBU-12

The 20 MGD Local Project is planned to withdraw between 42 to 45 MGD of source seawater;[30] the 60 MGD Regional Project would require between 126.6 -136.2 MGD of source seawater.[31] The Desal Amendment to the Ocean Plan requires that if the preferred subsurface intakes are not feasible, then surface water intakes with 1.0 mm or smaller slot size may be utilized.[32] West Basin proposes to use "screened ocean intake system with 1 mm open passive wedgewire screens and operating intake flow at < 0.5 fps."[33] However, the DEIR states:

> [t]o date, there have not been any scientific studies designed or conducted to systematically evaluate wedgewire screens' performance in the absence of any appropriate sampling protocols developed to allow for proper assessment.[34]

This acknowledged lack of information calls into question the effectiveness of wedgewire screens to minimize marine life impacts.

West Basin hired consultants to conduct the *Intake Effects Assessment Report* (Tenera 2014), which examined the impacts of a demonstration facility with a maximum daily

[29] MARINE AND COASTAL IMPACTS OF OCEAN DESALINATION IN CALIFORNIA at 5
[30] DEIR at 3-4.
[31] DEIR at 3-16.
[32] California Ocean Plan, Desalination Amendment, Chapter III.M.2.d.(1)(c)(ii).
[33] DEIR at 5.11-49.
[34] DEIR at 5.11-52.

intake of 0.511 MGD, then used this assessment to model the impacts of a 20 MGD plant.[35] The 20 MGD Local Project would intake 45.4 MGD of seawater,[36] an intake 89 times greater than the demonstration facility, while the 60 MGD Regional Project would utilize up to 136.2 MGD,[37] an intake 266.5 times greater than the demonstration facility. The DEIR states that modeling based on the demonstration facility finds no significant impact for the Local Project. The Regional Project has apparently not been modeled, but the impacts are dismissed as less than significant. It is an unreasonable leap in analysis to assume that the results of a small-scale modeling exercise can be extrapolated to the far larger intake volume, using untested intake technology.

MLBU-12

The DEIR acknowledges data gaps and uncertainty in assessing the impacts of the intake: "At present, the extent of protection that wedgewire screens could provide to prevent entrainment of larval fish and invertebrates in the Project marine study area is unknown."[38] The DEIR then defaults to reliance on mitigation for whatever impacts may, in fact, result. The mitigation proposed, "BIO-M2," is essentially compliance with Water Code Section 13142.5(b) and the Ocean Plan Desal Amendment. This mitigation program will be based on future study of impacts and is speculative at this time.[39]

MLBU-13

2. Brine impacts are likely to be significant; important information has been ignored or dismissed.

West Basin states that they will be unable to comingle brine with wastewater, which is the "preferred technology for minimizing intake and mortality to all forms of life resulting from brine,"[40] because sufficient supplies of wastewater will purportedly not be available. Instead, the Project will utilize multiport diffusers, which is the Desal Amendment's "next best method for disposing of brine when the brine cannot be diluted by wastewater."[41] The DEIR notes that 25.4 MGD of brine will be discharged for the 20 MGD Project;[42] and 76.2 MGD will be discharged for a 60 MGD Regional Project, although that discharge could peak at 83 to 95 MGD.[43]

MLBU-14

[35] DEIR at 2-33, 5.11-52.
[36] DEIR at 3-12.
[37] DEIR at 3-16.
[38] DEIR at 5.11-53.
[39] "The primary adverse effect of screened open ocean intakes is mortality of larval fish, fish eggs and other types of plankton. This mortality can be assessed, but prediction of the overall impact from such mortality using traditional models is hindered by the paucity of information on typical survivorship to maturity for most species. As a result, the overall impact of intake mortality on the marine ecosystem cannot always be quantified reliably." WATER IN THE WEST, ET AL., MARINE AND COASTAL IMPACTS OF OCEAN DESALINATION IN CALIFORNIA, Stanford University, at 4 (2016), http://waterinthewest.stanford.edu/sites/default/files/Desal_Whitepaper_FINAL.pdf.
[40] California Ocean Plan, Desalination Amendment, Chapter III.M.2.d.(2)(b).
[41] California Ocean Plan, Desalination Amendment, Chapter III.M.2.d.(2)(b).
[42] DEIR at 3-13.
[43] DEIR at 3-17.

The CEQA Guidelines require that sufficient technical detail be provided to "permit full assessment of significant environmental impacts" of a project.[44] This Project is highly technical, and modification of the intake or outflow technology can have important implications for the significance of environmental impacts. The DEIR is therefore flawed for failing to finalize and analyze the specific brine dispersal technology that will be utilized.

MLBU-14

There are also substantial omissions in the DEIR's analysis of known impacts of brine disposal. The DEIR fails to acknowledge that potential impacts of brine effluent discharges are poorly understood. For example, desalination brine has been shown to "impact the physiology and growth of seagrass meadows due to osmotic stress around the brine-effluent discharge point"[45], yet the DEIR does not evaluate the potential impact on seagrass, including important eelgrass beds near the proposed Project.[46] The water temperature of desalination brine effluent can also be elevated by up to 25% over ambient water temperature.[47] Despite acknowledgement of regulatory requirements related to thermal impacts, the DEIR fails to analyze the Project's potential thermal impacts.[48]

MLBU-15

MLBU-16

A 2018 review of the latest available information states that "to date, the effects of brine-effluent discharge on coastal marine ecosystems are poorly understood, [sic] thereby merit further research via controlled bioassay experiments and more importantly long-term monitoring".[49] For example, the impacts of desalination brine on the zooplankton food web, benthic bacteria, benthic meiofauna (e.g. bioindicator species that are highly sensitive to anthropogenic effects such as nematodes) are largely unknown.[50]

While the use of multiport diffusers has been shown to reduce some of the impacts of brine effluent, experts differ on the efficacy of this technology to reduce marine life mortality, particularly given the tradeoffs between dilution and shear mortality caused by the jet force of the diffusers.[51] To adequately assess the impacts of the Project's brine on the marine environment, it is essential to both determine which diffuser configuration is going to be used, and to test the impacts of that specific technology.

MLBU-17

[44] CEQA Guidelines § 15147.
[45] "Impacts of Seawater Desalination on Coastal Environments," at 448.
[46] See, e.g. Brock Bernstein et al. RECOMMENDATIONS FOR A SOUTHERN CALIFORNIA REGIONAL EELGRASS MONITORING PROGRAM, Technical Report 632, May 2011, Southern California Coastal Water Research Project, at 10 http://www.westcoast.fisheries.noaa.gov/publications/habitat/california_eelgrass_mitigation/recommendations_for_monitoring_1_.pdf.
[47] "Impacts of Seawater Desalination on Coastal Environments," at 454.
[48] DEIR at 5.9-20, 5.9-32, 5.11-4.
[49] Karen L. Petersen et al. SUSTAINABLE DESALINATION HANDBOOK, Chapter 11, "Impacts of Seawater Desalination on Coastal Environments," at 440, available at https://www.sciencedirect.com/science/article/pii/B9780128092408000113
[50] "Impacts of Seawater Desalination on Coastal Environments," at 442-445.
[51] Philip J.W. Roberts, Brine Diffusers and Shear Mortality, Final Report for Eastern Research Group, https://www.waterboards.ca.gov/santaana/water_issues/programs/Wastewater/Poseidon/2018/4-18-

Furthermore, the DEIR must acknowledge and address the significant gaps in analysis of the impacts of the brine effluent. MLBU-17

2. The Project is likely to have significant energy impacts; the Project should be reevaluated and the DEIR revised in light of these energy impacts.

A. Analysis of energy efficiency and waste is insufficient.

In assessing energy impacts of the Project, the DEIR acknowledges the applicability of CEQA Guidelines Appendix F, which directs EIRs to place "particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy."[52] However, aspects of the analysis are inconsistent with this directive, and the DEIR downplays the extent to which seawater desalination is the most energy intensive source of water. MLBU-18

The DEIR assesses the Project's energy use only in comparison to imported water, rather than comparing the energy use of seawater desalination to the even less energy intensive options. The Project is purportedly justified by the need for a diversified water supply, but diversification can still be accomplished without the use of this large-scale desalination plant. The DEIR should demonstrate how much energy seawater desalination uses in comparison to the range of other water supply alternatives, and not only compare the energy impacts of the Project to imported water. MLBU-19

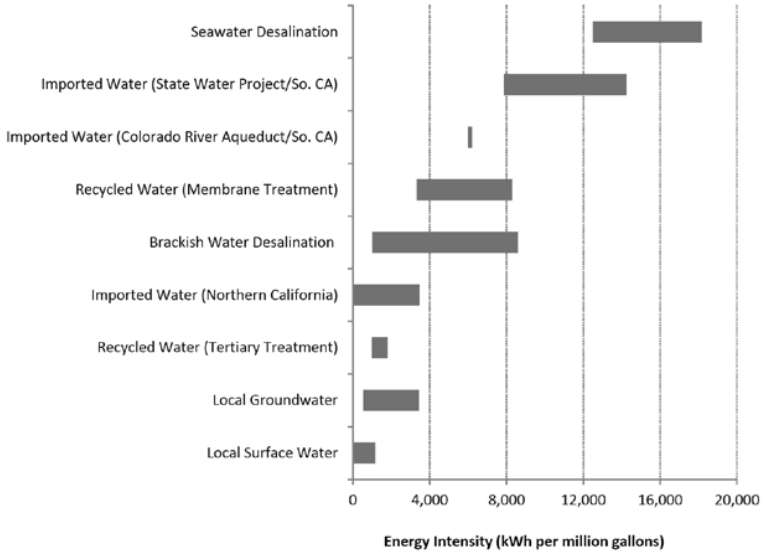


Figure 1. Comparison of the Energy Intensity of California Water Supplies[53]

[52] DEIR at 5.5-9,-10.

[53] Heather Cooley, *Key Issues in Seawater Desalination in California: Energy and Greenhouse Gas Emissions*, Pacific Institute at 7 (2013), http://pacinst.org/publication/energy-and-greenhouse-gas-emissions-of-seawater-desalination-in-california/

The DEIR does not reference the preeminent analysis conducted by the Pacific Institute comparing the energy and GHG emissions of seawater desalination to other water supply options.[54] This is an important example of significant gaps in evidence utilized by the DEIR in conducting its analysis.

MLBU-19

In consideration of these issues with the DEIR, it appears that the Project would have significant, unavoidable energy impacts. City staff suggests that West Basin re-evaluate the energy impacts of the Project with these points in mind.

MLBU-20

B. The DEIR does not account for impacts that could undermine grid reliability and SCE's compliance with the RPS.

The DEIR has concluded that the Project will have less than significant impacts to adopted energy conservation plans or to state or federal energy standards.[55] This analysis appears to be deficient because it does not fully account for the additional and unplanned load that the project will place on the electrically constrained Southern California Edison (SCE) service area. As the DEIR notes, SCE is transitioning to increased renewable energy production in compliance with the RPS. However, the addition of this new project could actually jeopardize the attainment of RPS goals.

MLBU-21

SCE has added more than 5,000 MW of new generation resources in coastal areas to account for the retirement of old power plants.[56] However, that addition of new generation was based on projected energy needs that did not include this Project. The energy consumption of this plant could surpass the amount saved by the new energy efficiency programs, while also placing a peak demand on the system. SCE and the California Public Utilities Commission (CPUC) should be consulted, a third party assessment of the Project's impacts on energy conservation plans and state and federal energy standards should be conducted, and that assessment be incorporated into a revised and recirculated EIR.

3. The Project erroneously takes credit for GHG reductions related to the offset of imported water, yet there is no guarantee that the project will result in such offset.

The DEIR asserts that the Project – whether developed to the Local or Regional size – would "ensure that there would be no net increase in GHG emissions compared to existing conditions associated with water supplied by MWD," specifically, imported water, and thus would not represent a significant or cumulative contribution to GHG emissions.[57] Seawater desalination

MLBU-22

[54] *See,* Heather Cooley, *Key Issues in Seawater Desalination in California: Energy and Greenhouse Gas Emissions,* Pacific Institute (2013), http://pacinst.org/publication/energy-and-greenhouse-gas-emissions-of-seawater-desalination-in-california/
[55] DEIR at 5.5-14 to 5.5-18.
[56] NRDC et al. PROCEED WITH CAUTION II: CALIFORNIA'S DROUGHTS AND DESALINATION IN CONTEXT, (2016), https://www.nrdc.org/sites/default/files/california-drought-desalination-2-ib.pdf
[57] DEIR at 5.7-38.

is one of the most energy-intensive water options available, and the conclusion that it will not result in significant GHG emissions is unsubstantiated.

The DEIR compares GHG emission of desalination only to the emissions caused by imported water supplied by MWD. Instead, as discussed above, the energy and emissions impacts of the Project should be compared to the range of other water supply options, which use far less energy. The DEIR relies heavily on the assumption that desalinated water will replace imported water, arguing that the significant impacts of the West Basin Project can by justified compared to the impacts of imported water. This argument fails because experts agree that:

> Ocean desalination will not, in the foreseeable future, significantly reduce stress on freshwater resources—particularly freshwater ecosystems. Even the highest total projected production of potable water from ocean desalination in California is so low that it will not meaningfully reduce stress on freshwater systems[58]

The DEIR also implies that there will be a one-for-one replacement of imported water by MWD, asserting that the Project will "reduce dependency on imported water and would not result in a new increase in West Basin's total water supply portfolio."[59] This claimed benefit is illusory; it is not a guaranteed outcome, because West Basin does not exercise control over the multiple sources from which its retailers purchase water. The California Coastal Commission rejected a similar argument by Poseidon water in Carlsbad, because without a contractual obligation, the new desalinated water could simply meet new increased demand, rather than replacing imported water.

Finally, the DEIR asserts that the Project will offset the increased energy and emissions impacts of the Project by using renewable energy, where possible. This approach ignores the superior alternative of using renewable energy to offset the GHG emissions of a less energy-intensive water source, rather than offsetting new emissions and thereby maintaining current GHG levels.[60]

4. Developing a new water source at a vulnerable beach location unreasonably disregards state policy and best practices to address public safety, disaster preparedness, climate change and sea level rise.

A. The Project has failed to account for sea level rise and climate change impacts.

MLBU-22

MLBU-23

MLBU-24

MLBU-25

MLBU-26

[58] Leon Szeptycki, et al., MARINE AND COASTAL IMPACTS OF OCEAN DESALINATION IN CALIFORNIA, Water in the West, Center for Ocean Solutions, Monterey Bay Aquarium, The Nature Conservancy, (2016), available at http://stanford.io/2axdXE7.

[59] DEIR at 5.7-37.

[60] *See,* Heather Cooley, *Key Issues in Seawater Desalination in California: Energy and Greenhouse Gas Emissions*, Pacific Institute (2013), http://pacinst.org/publication/energy-and-greenhouse-gas-emissions-of-seawater-desalination-in-california/

West Basin's Project would require massive investment in new infrastructure a few feet above sea level. The DEIR's assessment of sea level rise concludes that "portions of the ESGS Site would be vulnerable to flooding from future coastal flood hazards, including from strong wave surge and tsunami inundation under future sea-level flood hazard conditions."[61] The DEIR acknowledges that "operation of the Project on either the ESGS North Site or South Site would result in potentially exposing people or structures to risk of loss, injury or death … due to sea-level rise."[62] The DEIR claims that the impacts would be less than significant with mitigation, but what this mitigation would entail is to be determined by future study and recommendations.[63] In their comment letter, incorporated herein by reference, Heal the Bay has further described the geologic instability and dangers, which have not been adequately addressed in the DEIR.

As the DEIR acknowledges, the Project is subject to provisions of the Coastal Act, because it is located in the Coastal Zone, and it is a "coastal-dependent" use and a "public works" project that would involve production, storage, and transport of water.[64] While the grant of a Coastal Development Permit and the final determination on Coastal Act consistency will be made by the City of El Segundo and the California Coastal Commission, the DEIR has failed to address critically important risks related to the Project's location, which is vulnerable to erosion, flooding, earthquakes and sea level rise.[65] Where there is an opportunity, as in this case, to choose the location of new public infrastructure, it should be located away from vulnerable areas. While the DEIR acknowledges the applicability of the Coastal Commission's Sea Level Rise Policy Guidance, the analysis is flawed and unreasonable in concluding that there are no significant impacts resulting from the conflict between the Policy and the Project.[66] The Project has disregarded the Sea Level Rise Policy Guidance; it should be re-evaluated in light of recommendations, for example, to "relocate or remove existing development out of hazard areas and limit the construction of new development in vulnerable areas."[67]

MLBU-26

5. The alternatives analysis has inappropriately eliminated feasible alternatives based on arbitrary criteria. The analysis should be revised to more broadly consider alternative water supply options, as well as site, design and technology required by the California Ocean Plan.

MLBU-27

A. Alternatives analysis omits consideration of significant impacts.

[61] DEIR 5.9-75. *See also,* Appendix 5B. Technical Memorandum: Coastal Hazards Analysis of the West Basin Municipal Water District Ocean Water Desalination Project for Sea Levels at Year 2100.
[62] DEIR 5.9 -76.
[63] DEIR 1-21.
[64] DEIR at 5.10-16.
[65] http://www.pacinst.org/reports/sea_level_rise/hazmaps/Venice.pdf
[66] DEIR at 5.10-16.
[67] SEA LEVEL RISE POLICY GUIDANCE, Chapter 7: "Adaptation Strategies" at 125.

West Basin asserts that construction-related air quality and noise impacts are the only significant and unavoidable impacts for which alternatives must be considered.[68] In analyzing project alternatives, West Basin's analysis is deficient in that it fails to consider the additional significant impacts described above, for which there are reasonable alternatives that could eliminate the impacts, such as those alternatives discussed in Los Angeles Waterkeeper's comment letter, incorporated herein by reference. In particular, West Basin has not accounted for the significant unavoidable impacts to marine biological resources, water quality, energy, greenhouse gas emissions and climate change dynamics. Those impacts were incorrectly dismissed as less than significant, or the acknowledged significant impacts were dismissed with general claims that future mitigation will address their impacts. The alternatives analysis fails to give sufficient consideration to alternatives that reduce a number of significant impacts. By failing to consider alternatives that address those impacts, West Basin has not made a "reasoned choice" of alternatives as required by CEQA.[69]

MLBU-27

B. *The DIR's alternatives analysis uses narrow screening criteria to unreasonably remove feasible alternatives from consideration.*

The analysis of the feasibility of a project alternative should be based upon consideration of:

> "…site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)."[70]

MLBU-28

Rather than assessing the broader set of alternatives against these characteristics of feasibility outlined in the CEQA Handbook and the Project objectives, West Basin has applied a set of narrowly drawn "screening criteria" to justify elimination of reasonable, feasible alternatives from consideration.[71] The initial screening of alternatives was arbitrarily narrow in requiring that precisely 21,500 AFY average annual additional water supply be generated, as is discussed in Los Angeles Waterkeeper's comment letter and incorporated by reference herein.[72]

Among the alternatives that could reduce environmental impacts and meet basic project objectives, the DEIR has failed to consider a blend of those water supply options, such as increased conservation, stormwater capture and increased non-potable recycling.[73] West

[68] DEIR at 7-3 to 7-4.
[69] CEQA Guidelines § 15126.6(f).
[70] CEQA Guidelines §15126.6(f)(1).
[71] DEIR at 7-5.
[72] DEIR at 7-6.
[73] DEIR at 7-8.

Basin should also consider the possibility of a smaller project that would be capable of utilizing subsurface intakes and powered by renewable energy.[74]

MLBU-28

C. The alternative analysis includes unsupported assertions that cost and economic considerations make less impactful alternatives infeasible.

Among the Project's stated objectives are to "[i]mprove West Basin's local control of future water costs and long-term price stability", and to "[d]evelop a potable water supply that is economically viable". These objectives are suspect, as CEQA guidance instructs project proponents to consider alternatives that avoid or substantially lessen significant effects even if those alternatives would be more costly.[75] To the extent that consideration of the alternatives' costs is permissible, West Basin has failed to "include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison to the proposed project."[76]

The DEIR provides only vague statements, and no quantitative information, about the cost and economic viability of each alternative, while discrediting many of the less impactful alternatives on these grounds.[77] West Basin's 2018 FAQ on the Project, in response to the question of "How much will the facility cost, and how will it affect water rates?" states that:

> The Project is currently in the environmental phase and a detailed design has not been developed to provide exact cost estimates. West Basin is planning to conduct a future study to evaluate the potential effect on water rates as a result of implementing the Project …" [78]

MLBU-29

It is entirely unreasonable for the DEIR to claim that the Project is more cost effective or economically feasible when no quantitative information is provided to compare its costs to the alternatives, and when the prevailing analysis indicates that seawater desalination costs four to eight times more than less environmentally impactful alternatives.[79]

[74] Leon Szeptycki, et al., MARINE AND COASTAL IMPACTS OF OCEAN DESALINATION IN CALIFORNIA, Water in the West, Center for Ocean Solutions, Monterey Bay Aquarium, The Nature Conservancy, (2016), available at http://stanford.io/2axdXE7.
[75] CEQA Guidelines § 15126.6 (b).
[76] CEQA Guidelines § 15126.6 (d).
[77] DEIR at 7-3 to 7-59.
[78] West Basin Ocean Water Desalination Project Frequently Asked Questions (FAQs), 2018 http://www.westbasindesal.org/assets/Documents%20and%20Files/Project%20Materials/West-Basin-FAQ.pdf
[79] NRDC et al. PROCEED WITH CAUTION II: CALIFORNIA'S DROUGHTS AND DESALINATION IN CONTEXT, (2016), https://www.nrdc.org/sites/default/files/california-drought-desalination-2-ib.pdf

D. West Basin's evaluation of the Desalination Amendment's site, design, and technology criteria for evaluating project alternatives should be revised to consider a project that can be configured to minimize impacts.

In an effort to comply with the Desalination Amendment, which "provides a uniform, consistent process for permitting of seawater desalination facilities statewide," [80] West Basin has conducted a number of studies to evaluate various options for the Project's site, design, and technology.[81] Under CEQA, project proponents have a duty to avoid or minimize environmental damage where feasible, including pursuing feasible alternatives that would "substantially lessen any significant effects that the project would have on the environment." [82] The Project was designed first and foremost to produce 20 MGD, with the possibility of being expanded to 60MGD. As discussed in the Los Angeles Waterkeeper's comment letter and incorporated herein by reference, the volume of water to be produced through seawater desalination is arbitrary and unnecessary. Despite its review of different project configurations, West Basin has rejected options that would produce lower volume of water. If the production volume were changed, then the preferred intake technology of subsurface intakes could be considered.

MLBU-30

Co-location with the El Segundo once-through cooled (OTC) power plant runs counter to reduction of impacts to marine life, because this site is not configured to allow for the use of best available site, design or technology.[83] In the current Project configuration, the water quality benefits of co-location to utilizing power plant wastewater to dilute desalination brine will be unavailable, because the El Segundo Power Plant will soon phase out, in compliance with the SWRCB's Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling.[84] West Basin has decided to use wedgewire screens whose effectiveness is not proven, rather than designing a smaller project that could utilize subsurface intakes. Rather than leading with a set volume of water that is to be produced, the Project should be designed at the outset to utilize best available site, design and technology.

MLBU-31

For the reasons described in this section, the alternatives analysis should be revised to thoroughly consider alternative water supply options based on more reasonable project criteria.

[80] ST. WATER RESOURCES CONTROL BOARD, DESALINATION FACILITIES AND BRINE DISPOSAL, https://www.waterboards.ca.gov/water_issues/programs/ocean/desalination/ (last visited April 23, 2018).
[81] See DEIR Appendix 2A. "Feasibility Assessment of Subsurface Seawater Intakes Proposed", Appendix 2B. "Seabed Infiltration Gallery Construction and Life-Cycle Costs", and Appendix 10. Ocean Plan Amendment Siting and Intake and Discharge Method Considerations".
[82] CEQA Guidelines §15021(a)(2)
[83] Desal Amdt Final Staff Report at 76.
[84] California Water Boards, "Ocean Standards – § 316(b) Regulation" https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/

6. A Regional Project of 60 MGD should not be permitted to tier off the DEIR for the Local 20 MGD Project.

The DEIR has made the unreasonable conclusion that, in a number of key instances, because the impacts of the 20 MGD Local Project are less than significant, the impacts of a 60 MGD Regional Project would also be less than significant. For example, in evaluating the water quality impacts of the Regional Project, the DEIR states:

> As with the Local Project, the brine discharge would not contribute contaminants or increase their concentration significantly over ambient levels beyond the mixing area …Therefore, impacts [of the Regional Project] to ocean water quality would be less than significant.[85]

It is unreasonable to assume that the impacts of the Local Project can be extrapolated to the Regional Project on a linear basis. In the presence of other cumulative sources of marine pollution, the withdrawal of three-times more seawater or discharge of this larger volume of brine effluent may have a greater than three-times the impacts. Even if a conclusion of less than significant impact for the Local Project is correct, this finding cannot be applied without the conduct of fresh analysis to a project three-times the size. The DEIR does not account for one-to-one increase in impacts; more likely, it does not acknowledge that the impacts are likely to be multiplied, potentially exponentially. MLBU-32

The DEIR has attempted to establish that nearly all assessments of impacts at the 20 MGD Local Project level should apply to projects at the 60 MGD Regional level, essentially asserting that the Regional Project should be allowed to tier off the Local Project. CEQA allows for tiering of environmental impact reports when the first EIR is prepared at the larger, more general level, "prepared and certified for a program, plan, policy, or ordinance."[86] The DEIR has taken the opposite approach: it asserts that a narrower project could be used to tier approval of a project three times the size. If the 60 MGD project is the actual goal of this development, all assessment of impacts should be based on the impacts of a project of that size.

West Basin has prepared a lengthy DEIR, but there are significant gaps in the analysis. The City is concerned that a number of the significant impacts have not been accounted for and requests that the DEIR be revised and recirculated. West Basin is also encouraged to consider reconfiguring the Project so that it can utilize subsurface intakes and operate entirely on renewable energy at a flexible, scaled-down level, tailored to meet demand. MLBU-33

[85] DEIR at 5.9-60.
[86] CEQA § § 21094(a)(1); CEQA Guidelines § 15152.

Sincerely,

Craig George
Environmental Sustainability Director

cc: Reva Feldman, City Manager

Comment Letter CITY OF MANHATTAN BEACH

From:	Alise Kabakoff
To:	West Basin Desal EIR
Cc:	Quinn M. Barrow
Subject:	Request for Comment Period Extension - Ocean Water Desalination Project
Date:	Tuesday, April 24, 2018 3:16:06 PM
Attachments:	image001.jpg Letter to Zita Yu re Request for Comment Period Extension (West Basin Municipal Water District).PDF

Dr. Yu:

Please see the attached sent on behalf of Mr. Barrow. MBCH-1

Thank you.

Alise Kabakoff
Legal Assistant

RWG Law Logo

RICHARDS WATSON GERSHON
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Comment Letter CITY OF MANHATTAN BEACH

Quinn M. Barrow

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April 24, 2018

VIA ELECTRONIC MAIL

Zita Yu, Ph.D., P.E., Project Manager
West Basin Municipal Water District
17140 South Avalon Boulevard
Carson, California 90746
desalEIR@westbasin.org

Re: Request for Comment Period Extension

Dear Dr. Yu:

I am writing on behalf of the City of Manhattan Beach to request a 30-day extension to the comment period for the Draft Environmental Impact Report (DEIR) for West Basin Municipal Water District's (WBMWD) proposed Ocean Water Desalination Project. We are requesting that the deadline for comments be extended to 5:00 p.m. on June 25, 2018.

WBMWD's proposed Ocean Water Desalination Project would be sited in close proximity to the City of Manhattan Beach, involves a commitment of a significant amount of limited resources, and impacts the future of Los Angeles County's water supply. As such, the City of Manhattan Beach is committed to providing thorough comments on this DEIR.

MBCH-1

To date, our review of the DEIR has required locating and reviewing an extensive number of lengthy documents that, while referenced in the DEIR, are not included in the DEIR or the appendices. Preliminary review of such documents has revealed that they bear directly on analyses at issue in the DEIR. In light of this, we believe the current 60-day comment period does not allow adequate time to provide meaningful comments and request that the comment period be extended to 5:00 p.m. on June 25, 2018. Because the DEIR is a culmination of WBMWD's Ocean Water Desalination Program that initially began in 2002, a brief 30-day extension will promote more thoughtful public comments without significantly impacting the project schedule.

Thank you for your consideration.

Very truly yours,

Quinn M. Barrow

Quinn M. Barrow
City Attorney, City of Manhattan Beach

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Comment Letter CITY OF MANHATTAN BEACH2

From:	Quinn M. Barrow
To:	West Basin Desal EIR
Cc:	Patrick Sheilds
Subject:	FW: Request for Comment Period Extension - Ocean Water Desalination Project
Date:	Tuesday, May 01, 2018 3:23:05 PM
Attachments:	Letter to Zita Yu re Request for Comment Period Extension (West Basin Mu....pdf

Dear Dr. Yu and Mr. Sheilds,

On April 24, 2018, we sent the attached letter on behalf of the City of Manhattan Beach requesting a 30-day extension of the comment period for the Draft Environmental Impact Report for the West Basin Municipal Water District's proposed Ocean Desalination Project. As explained in the letter, we believe that the current 60-day comment period does not allow adequate time to provide meaningful comments.

Due to the time-intensive nature of this review, we would appreciate a response to this request by Thursday, May 3, 2018. To the extent that staff determines that the Board of Directors needs to consider this extension request, we request that you agendize the request for the Special Meeting of the Board of Directors that, according to the District's website, is scheduled for 10:15 a.m. on May 3, 2018. If the item is placed on the agenda for the May 3 special meeting, please let us know at your earliest convenience.

MBCH2-1

Thank you,

Quinn M. Barrow
City Attorney
City of Manhattan Beach

Comment Letter CITY OF MANHATTAN BEACH2

Quinn M. Barrow

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355 South Grand Avenue
40th Floor
Los Angeles, CA 90071-3101
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April 24, 2018

VIA ELECTRONIC MAIL

Zita Yu, Ph.D., P.E., Project Manager
West Basin Municipal Water District
17140 South Avalon Boulevard
Carson, California 90746
desalEIR@westbasin.org

Re: Request for Comment Period Extension

Dear Dr. Yu:

I am writing on behalf of the City of Manhattan Beach to request a 30-day extension to the comment period for the Draft Environmental Impact Report (DEIR) for West Basin Municipal Water District's (WBMWD) proposed Ocean Water Desalination Project. We are requesting that the deadline for comments be extended to 5:00 p.m. on June 25, 2018.

WBMWD's proposed Ocean Water Desalination Project would be sited in close proximity to the City of Manhattan Beach, involves a commitment of a significant amount of limited resources, and impacts the future of Los Angeles County's water supply. As such, the City of Manhattan Beach is committed to providing thorough comments on this DEIR. MBCH2-1

To date, our review of the DEIR has required locating and reviewing an extensive number of lengthy documents that, while referenced in the DEIR, are not included in the DEIR or the appendices. Preliminary review of such documents has revealed that they bear directly on analyses at issue in the DEIR. In light of this, we believe the current 60-day comment period does not allow adequate time to provide meaningful comments and request that the comment period be extended to 5:00 p.m. on June 25, 2018. Because the DEIR is a culmination of WBMWD's Ocean Water Desalination Program that initially began in 2002, a brief 30-day extension will promote more thoughtful public comments without significantly impacting the project schedule.

Thank you for your consideration.

Very truly yours,

Quinn M. Barrow

Quinn M. Barrow
City Attorney, City of Manhattan Beach

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City of Manhattan Beach
Community Development Department

1400 Highland Avenue, Manhattan Beach, CA 90266
Phone: (310) 802-5500 FAX: (310) 802-5501 TDD: (310) 546-3501

June 25, 2018

West Basin Municipal Water District
Attn: Zita Yu, Ph.D., P.E., Project Manager
17140 South Avalon Boulevard, Suite 210
Carson, California 90746

Via First Class Mail and Electronic Mail to: desalEIR@westbasin.org

Dear Dr. Yu:

On behalf of the City of Manhattan Beach ("Manhattan Beach" or "City"), we submit the following comments on the Draft Environmental Impact Report ("Draft EIR"), State Clearinghouse No. 2015081087, dated March 2018, which was prepared in connection with the West Basin Municipal Water District's ("West Basin") proposed Ocean Water Desalination Project (the "project"). As stated in the Notice of Preparation for the Draft EIR, the purpose of the project is "to produce between 20 and 60 million gallons per day of potable drinking water." It further claims that "[t]he 20 MGD capacity is the minimum capacity needed to meet the West Basin service area's future water demands at a local scale, consistent with West Basin's UWMP and Water Reliability 2020 Program objectives to reduce dependence on imported water." MBCH3-1

Based on the numerous comments set forth below, Manhattan Beach contends that the Draft EIR fails to comply with the requirements of the California Environmental Quality Act (CEQA) (Pub. Res. Code § 21000 *et seq*.), and the State of California Guidelines for the California Environmental Quality Act (14 Cal. Code Regs. § 15000 *et seq*.), including CEQA's public disclosure mandates. Accordingly, Manhattan Beach requests that West Basin suspend any further consideration of the project until a Draft EIR that fully discloses, analyzes, and identifies all feasible mitigation to reduce the impacts of the project has been prepared and recirculated for public review and comment. Manhattan Beach objects to any further action by West Basin on the project until the necessary and proper environmental review has been completed.

Manhattan Beach requests that written responses to each of the following comments be provided in accordance with CEQA Guidelines section 15088. MBCH3-2

I. The Draft EIR Fails to Analyze the Environmental Impacts of the Whole of the Project by Piecemealing Analysis of the Local Project and the Regional Project

Throughout the EIR, the environmental analysis of the Regional Project impermissibly analyzes its impacts by reasoning that the Regional Project's operational expansion (i.e., Regional Project compared to Local Project) is similar to the implementation of the Local Project (i.e., baseline conditions compared to Local Project). This is impermissible for two reasons: First, the programmatic portion of the EIR must base its analysis on the current baseline environmental conditions at the time the NOP for the Programmatic EIR was issued, which is with no desalination facilities present. Second, the analysis fails to analyze whether the entire project exceeds applicable thresholds and does not account for potentially compounding impacts of the two project components.

II. The Draft EIR's Analysis is Flawed in Several Respects

CEQA is clear: "An EIR should be prepared with a sufficient degree of analysis to provide decisionmakers with information which enables them to make a decision which intelligently takes account of environmental consequences." CEQA Guidelines § 15151. The Draft EIR in its present form fails to comply with this requirement as the analysis is flawed in several critical respects, as discussed below.

MBCH3-2

A. Project Description

The description of the project is not stable and definitive. Rather, the project is either at the North Site, or perhaps the South Site, and may have a capacity of 20 MGD, 40 MGD, or 60 MGD. Further, the Local Project includes significant elements of the "Regional Project" such that any future environmental analysis will be constrained in the ability to consider mitigation measures or alternatives to address environmental impacts. At bottom, it appears that West Basin has defined the project to segment the Local Project from the Regional Project, which is the real project being contemplated. In so doing, West Basin provides a veneer of analysis on the Local Project, while deferring to some future time the analysis of the full project – the Regional Project. In order to fulfill CEQA's requirements to describe and analyze the entire scope of the project and to fully disclose the potential environmental impacts, the EIR must be revised to provide a full discussion of the Regional Project components and a full analysis of that project. If the District needs to refine design elements in the future, after the analysis of the full Regional Project as now clearly envisioned, further review (supplemental EIR, subsequent EIR, or perhaps even one or more addenda) would be appropriate.

The project description provides passing references to waste backwash treatments, chemical cleaning solutions, and chemical waste naturalization systems, but does not provide sufficient detail regarding the treatment and naturalization systems to understand whether those processes have the potential to cause environmental impacts. The project description must be expanded to explain these processes, and the environmental analysis needs to be augmented to explain the potential for impacts, such as impacts on sewer systems based on disposal of the wastes. This is of particular concern to the City because the Draft EIR suggests that the waste materials could be pumped into the Manhattan Beach local sanitary sewer lines.

MBCH3-3

Table 3-2 discusses desalinization facility chemicals, however, there is no disclosure of the potential risks associated with spills of these chemicals. The Draft EIR should fully disclose each chemical's potential risks and impacts to human (and other) life in the event exposure were to result from spillage or some other release. MBCH3-4

The project description lacks details regarding the location and number of parking spaces to be provided on the site (whether the North or South Site), and the site plans fail to disclose the details of the parking lots. Without this aspect of the proposed project disclosed, reviewers are unable to assess the potential for impacts that could result from the proposed parking facility, including aesthetics, biological resources, and traffic and circulation impacts that could be caused by spillover parking, particularly when the auditorium is in use. It is also unclear whether or not parking areas would be impacted by the "Regional Project" construction. MBCH3-5

The project description states:

> "At times, during startup and infrequently during upsets while the plant is in operation, it may be necessary to bypass the entire treatment facility to discharge. Thus, the discharge system would be sized for a peak discharge from the plant of 41 to 46 MGD." (p. 3-13.)

It also states:

> "Depending on pretreatment processes and washwater recycling, the discharge system would be sized for peak discharge of 83 to 95 MGD." (p. 3-17.)

The potential system bypass scenarios are not explained in any meaningful way, and it is unclear how much treatment already may have occurred before the bypass, and whether this discharge includes RO concentrate, backwash water, chemically treated materials, partially treated water, or perhaps all of the above. The system apparently will be designed to accommodate full bypass discharge of up to 95 MGD; however, the impacts of such discharges are not adequately disclosed. MBCH3-6

The project description acknowledges that on-site storage of chemicals would occur; however, there is no discussion or quantification of the amount of chemicals that would need to be stored for the ultimate Regional Project. The project description states that "[o]nsite storage of chemicals would be sufficient for 10 to 20 days of usage at average dosage rates"; however, the quantities needed for this period of time likely would increase substantially under the Regional Project. The increased chemical quantities must be disclosed, and the potential impacts of the expanded chemical storage activities must be fully disclosed and analyzed. MBCH3-7

Table 3-11 provides a list of permits, approvals, and regulatory requirements. The list, however, does not contain any mention of approvals that would be necessary for use of park space for pumps necessary for the desalinated water conveyance components under the Regional Project scenario. Further, there is no identification of the process that will be undertaken to replace the lost parkland. MBCH3-8

B. Basis of Cumulative Analysis

The discussion of existing facilities in the Draft EIR acknowledges that "the Southern California Bight supports many more" ocean water intake/discharge facilities; however, only those located "near" the proposed Project are considered. (p. 4-12.) A complete list of the intake/discharge facilities in the Southern California Bight should be disclosed. Failure to include a comprehensive list and to analyze the full cumulative impact potential results in an inadequate Draft EIR. MBCH3-9

C. Aesthetics

1. Scenic Resources

At the outset, it is not clear whether impacts from the potential expansion of energy facilities were analyzed with respect to impacts on scenic resources. Were the potential new power poles (p. 5.5-21) analyzed? MBCH3-10

Even based on the current scope of the analysis, there is no evidence or support for the Draft EIR's conclusion of less than significant impacts with mitigation for construction impacts to scenic resources as it relates to the South Site. The proposed project will place construction materials and equipment into the public viewshed of scenic resources, thereby impairing those resources. The Draft EIR (pp. 5.1-10 through 5.1-11) relies in large part on the impacts being "temporary" to justify the conclusion of LTSM. On the contrary, the construction period for the Local Project alone is five years – which is 1/6 of the anticipated project lifetime based on South Coast Air Quality Management District ("SCAQMD") assumptions (p. 5.7-28, Table 5.7-4, fn. 3). And, the construction period for the Regional Project is a full eight years – over one quarter of the project's total anticipated lifetime. Impacts lasting this long cannot be considered "temporary," and there is no support for the LTSM conclusion. MBCH3-11

Compounding this problem is the fact that the mitigation measures proposed to address impacts to scenic resources constitute impermissible deferred mitigation and are not enforceable, nor is there any evidence that they actually will reduce significant aesthetics impacts to less than significant. For example, mitigation measure AES-1 states that staging areas will be sited or screened to minimize public views "to the maximum extent practicable." Who determines what is the "maximum extent practicable"? When is that determined? What is the basis or benchmark standards that will be used for determining what is the "maximum extent practicable"? None of this information is provided, rendering the mitigation measure flawed and impermissibly deferring actual mitigation. MBCH3-12

Mitigation measure AES-2 is similarly problematic, stating that rooftop mechanical and electrical equipment will be placed so that it is not highly visible or is screened "where possible." Again, who determines what is "possible"; and what standards will be used to make that determination? From what vantage points will the analysis be made? MBCH3-13

In addition to the specific problems with these mitigation measures, there is no evidence that they will reduce significant impacts to scenic resources to less than significant. How will screening "where possible" mitigate eight years of construction impacts in the case of the Regional Project or five years of impacts in the case of the Local Project? MBCH3-14

The Draft EIR's flaws with respect to aesthetic impacts to scenic resources are unfortunately not limited to construction impacts. The Draft EIR concludes that there will be less than significant operational impacts to scenic resources with the inclusion of mitigation (the same flawed mitigation measures discussed above). There is simply no support for this conclusion. For example, Key View 3 in its current condition plainly shows widespread ocean views (Figure 5.1-4). The visual simulation from this Key View with the Local Project shows a large building blocking nearly all of the ocean view (Figure 5.1-8), with even more massing blocking the view for the Regional Project (Figure 5.1-13). How can the Draft EIR contend that impacts to scenic resources will be less than significant when the Draft EIR's own visual simulations directly refute this and show a permanent impairment of scenic views from a Key View location? MBCH3-15

Moreover, the Regional Project bases its conclusion of LTSM with respect to operational impacts on a comparison with "historic uses on the site" (p. 5.1-17). This is a false comparison and an improper baseline. The Draft EIR must analyze, and base its impact conclusions on, what is physically present on the site now, and the scenic views afforded to the public now, not what might have been present on the site previously but no longer exists. MBCH3-16

The Draft EIR also concludes that both the Local and Regional Projects will be consistent with the Coastal Act. There is no support for this conclusion given that both projects directly contravene the El Segundo LCP and the Coastal Act in general because they block views of scenic coastal areas, as described immediately above. MBCH3-17

While the Draft EIR gives passing mention to the LCP and the Coastal Act, there is no analysis of the project's consistency, or lack thereof, with the Manhattan Beach General Plan and, specifically, Policy LU-4.1 regarding protecting "enjoyment of the beach." This policy is listed as a relevant policy (p. 5.1-3) and, therefore, the project's consistency with the policy should be analyzed. MBCH3-18

2. Visual Character/Quality

The Draft EIR concludes that impacts to visual character and quality will be less than significant with mitigation, but evidence in the Draft EIR contradicts this conclusion with respect to the South Site. Specifically, as shown from Key View 3, the proposed project is not compatible with the existing residential neighborhoods, including El Porto in Manhattan Beach.

The proposed mitigation measures – the exact same measures proposed for impacts to scenic resources which, as discussed above, constitute impermissible deferred mitigation – do not reduce impacts to less than significant. Specifically, as with scenic resources, how will the proposed mitigation measures reduce impacts to the visual character of the area during either five years (Local Project) or eight years (Regional Project) of construction? How will the mitigation measures reduce permanent (operational) impacts to visual character given the adverse change in the visual character of the area depicted in Key View 3, among others? MBCH3-19

In addition, the Draft EIR underestimates potential impacts from the Regional Project by analyzing and disclosing only the incremental increase in impacts from the Local Project, as opposed to the Regional Project's actual impacts compared to the current baseline of what is physically on the project site now. So, while the Draft EIR concedes that the Regional Project will have greater visual impacts than the Local Project, the Draft EIR conceals those impacts by focusing only on MBCH3-20

the change from the Local Project, as though it already were built. This is an incorrect approach. The Regional Project will degrade visual character significantly, but it is impossible to discern exactly how significant the impacts will be given the improper baseline that the Draft EIR uses. MBCH3-20

Finally, please explain how the same mitigation measures proposed to address visual character impacts caused by the Local Project suffice to address and reduce impacts from the Regional Project to less than significant, given that the Regional Project is larger and has greater hardscape, thus increasing its visual impacts. MBCH3-21

3. Light and Glare

Continuing a theme, the Draft EIR concludes that construction-related light and glare impacts from the Local Project will be less than significant based on the "temporary" nature of construction. Given that construction will occur over a minimum five-year period, or eight years if the Regional Project were to be constructed, these adverse impacts cannot be considered temporary in nature. As a result, there is no evidence to support the conclusion that impacts here are less than significant.

In addition, the two mitigation measures proposed to reduce the project's operational light and glare impacts to less than significant amount to impermissible deferred mitigation. For example mitigation measure AES-6 states that an Outdoor Lighting Plan will be prepared to "ensure that any exterior lighting does not spill over onto the adjacent residential uses." What is the benchmark standard for what constitutes impermissible spill over? Is it a certain number of footcandles or some other standard of measurement? Who will decide what constitutes "impermissible" spill over? When will this be decided? MBCH3-22

Similarly, AES-7 requires painting or otherwise treating the desalination facility to minimize visual intrusion and consistency with "local laws, ordinances, regulations, and standards." What are the specific laws, ordinances, regulations, and standards that will apply? Who will decide what is sufficient? What is the benchmark that will be used to determine whether an impact is "minimized"?

D. Air Quality

The Federal Conformity Analysis for SRF (CEQA Plus) determination in connection with Impact AQ 5.2-1 relies on ignoring the actual implications of the project's exceedance of NOx emissions during construction. As shown in Table 5.2-7, the Local Project and the Regional Project both exceed de minimis levels of NOx emissions during construction. Yet, the Draft EIR concludes that the projects are consistent with the State Implementation Plan ("SIP"). There is no support for this conclusion when, as the Draft EIR acknowledges, the General Conformity process is designed to ensure that actions "do not cause or contribute to new violations" and "do not increase the frequency or severity of existing regulations." (p. 5.2-25.) By exceeding the de minimis thresholds for NOx, the project inhibits compliance with the SIP, a conclusion that is further supported by the Significant and Unavoidable impact determination in Impacts AQ 5.2-2 and 5.2-3, based on the project's NOx emissions during construction and the exceedance of air quality standards. MBCH3-23

Mitigation Measure AQ-3 includes a bulleted point discussing use of Tier 4 engine certification, and potential "alternative measures" if this standard cannot be achieved. The measure states that the "effectiveness of alternative measures must be demonstrated through future study with written findings supported by substantial evidence that is approved by the lead agency before use." Will the process of determining the equivalence of proposed alternate measures allow for public notice and participation? MBCH3-24

Please provide further information regarding Table 5.2-18 and, specifically, what the "refined analysis for Offshore Emissions" is. Based on the Maximum Offshore Emissions line in the table, the Local Project exceeds applicable thresholds for NO_X, yet the ultimate conclusion for NO_X is less than significant. MBCH3-25

The discussion of construction-related TACs initially states that the project will have significant impacts at the South Site because it "exceed[s] the 10 in a million threshold (approximately 48 in one million)" (p. 5.2-49), thus exceeding the threshold by a factor of four. The discussion then concludes that Mitigation Measures AQ-1 through AQ-3 will reduce the risk of chronic health impacts to less than significant, but there is no quantitative analysis presented in the Draft EIR to justify this conclusion or to demonstrate whether and how the proposed mitigation will reduce impacts to less than significant; the same flaw is true with respect to the Regional Project (p. 5.2-53). MBCH3-26

The Draft EIR's discussion of objectionable odors related to construction relies on the same flawed premise as discussed elsewhere in this letter – namely, that impacts may be considered less than significant because the construction is "of relatively limited duration" (p. 5.2-56). This is simply not accurate. For those Manhattan Beach residents living on 45th Street, approximately 100 feet away from the South Site, five years of construction (Local Project) or eight years of construction (Regional Project) is hardly "of limited duration." On the contrary, the objectionable odors caused by construction will have a marked, adverse impact on those residents. In short, there is no support in the Draft EIR for the conclusion that objectionable, construction-related odors will be less than significant. MBCH3-27

E. Biological Resources – Terrestrial

The Draft EIR fails to adequately assess the baseline conditions for the water conveyance corridors and regional pump station sites and construction staging areas. Rather than undertake surveys of the areas that could be impacted, the Draft EIR states that the areas are "devoid of natural vegetation and associated wildlife (p. 5.3-11). This conclusion was based on a review of aerial photography; however, site analysis through a biological survey should not be deferred, and is necessary to establish an adequate baseline for impact analysis. It is noteworthy that a reconnaissance-level survey of the alignments was completed for cultural resources, calling into question why the same protocol was not undertaken for biological resources. The lack of meaningful site surveys undermines the assumptions throughout the analysis of biological impacts that the conveyance system and pump locations "are devoid of natural vegetation." (See, e.g., p. 5.3-16.) Without an understanding of the baseline, the Draft EIR fails to fulfill CEQA's disclosure requirements, thereby undermining the biological impact conclusions. MBCH3-28

Similarly, the nesting birds survey was completed in November 2015, outside of the avian nesting season. (p. 5.3-15.) It is unclear why the survey wasn't completed during the nesting season, and the timing all but guaranteed that no nesting birds would be identified. A new survey during the nesting season should be undertaken in order to properly identify the baseline conditions. MBCH3-29

A survey of plant communities for the project site was conducted on November 2, 2015, with a more narrow survey of El Segundo blue butterfly habitat areas completed on July 12, 2016. These survey times, however, did not cover blooming periods for many of the plants listed in Table 5.3-1. It is unclear why the survey was not conducted at a time when most of the sensitive plants could be blooming, to enhance identification potential. Choosing the November period for the main survey undermines the establishment of a solid baseline condition from which to assess impacts. Further, it is unclear why coast buckwheat (Ergonum parvifolium), the host plant for the El Segundo blue butterfly, is not listed in Table 5.3-1.

Without an adequate survey of the North and South Sites, the conclusion that the desalination facility construction would not impact special-status plant species is not adequately supported. MBCH3-30

Although mitigation of potential biological impacts is identified, the measures improperly defer the mitigation. For example, BIO-2 requires avoidance of sensitive species, but defers the extent of monitoring to a future time without any minimum standards or protocols identified. BIO-2 is inadequate without establishment of meaningful performance standards. MBCH3-31

Mitigation measure BIO-6 requires a western snowy plover survey prior to commencement of ground disturbing activities; however, the measure does not establish how close to construction commencement the survey should be completed. Mitigation measure BIO-5 requires a nesting bird survey to be completed within 72 hours preceding disturbance activities, and BIO-6 should have a similar temporal component. MBCH3-32

The cumulative analysis of biological resources does not analyze potential cumulative impacts to the western snowy plover. Given the sensitivity of this species, a detailed cumulative analysis is warranted and should be based on a list of other projects with the potential to impact the species. MBCH3-33

F. Cultural Resources

The research of cultural resources states that three "historic-period built environmental resources… are located within or immediately adjacent to the Project site." (p. 5.4-21.) These resources are the Hawthorne High School, an apartment building, and the ESGS. The Draft EIR discussion of the potential impacts of the conveyance pipelines simply states that "[b]ecause the pipelines would be installed beneath the existing street right-of-ways, the Project would not directly impact" the high school or the apartment building. There is not, however, any discussion of the potential construction-related vibration impacts on these resources, or the special vibration thresholds of impact that apply to older buildings. The Draft EIR fails to fully disclose the potential construction impacts in this regard. MBCH3-34

The Draft EIR states that the offshore portion of the project "appears to have the potential to contain archaeological deposits dating between approximately 12,000 and 4,000 years ago." (p. 5.4-24.) However, the Draft EIR does not call for any monitoring or further site analysis of the MBCH3-35

now submerged lands in which these resources may reside. Will there be archaeologic or tribal cultural resource monitors present during any aspect of the underwater construction? MBCH3-35

Mitigation Measure CUL-3 improperly defers analysis and mitigation of potential archaeological impacts. Rather than identifying resources in the Draft EIR, a cultural resources monitoring and mitigation plan ("CRMMP") would be prepared in the future prior to construction. Those measures should be identified now and included in the mitigation monitoring and reporting program that must be adopted if the project is approved. The deferred analysis and mitigation will only be disclosed after the fact and with no opportunity for public review or comment. The minimal contents of the CRMMP that are referenced in CUL-3 include monitoring methodology, future identification of the areas of the project in which monitoring would be required, and measures to minimize potential impact of inadvertent discoveries of resources. Each of these aspects of the CRMMP can and must be completed as part of the Draft EIR. Further, it is unclear whether the CRMMP also will cover the underwater areas to be disturbed in conjunction with the intake and outflow elements of the project, and what additional or different monitoring measures would be required for that marine environment. MBCH3-36

Mitigation Measure CUL-4 also improperly defers mitigation and does not disclose the type of mitigation that may be employed or the circumstance when different types of mitigation may be appropriate. Further, there is no mention of whether this mitigation will apply in the marine environments where intake and outflow construction will occur. Further, the mitigation measure mentions resource recovery, but does not acknowledge that recovery often is not the preferred or appropriate approach when leaving resources properly secured in place is an option. MBCH3-37

Mitigation Measure CUL-5 does not explain whether certain sensitive information would be kept confidential. If that is the intent, the mitigation measure should be revised to make that clear. MBCH3-38

Mitigation Measure CUL-8 improperly defers analysis and mitigation of potential paleontological impacts. Rather than identifying resources in the Draft EIR, a paleontological resources monitoring and mitigation plan ("PRMMP") would be prepared in the future prior to construction. Those measures should be identified now and included in the mitigation monitoring and reporting program that must be adopted if the project is approved. The deferred analysis and mitigation will only be disclosed after the fact and with no opportunity for public review or comment. The contents of the PRMMP referenced in CUL-8 are not specified in any meaningful way, whereas CEQA requires that each of these aspects be completed as part of the Draft EIR. Further, it is unclear whether the PRMMP will also cover the underwater areas to be disturbed in conjunction with the intake and outflow elements of the project, and what additional or different monitoring measures would be required for that marine environment. MBCH3-39

The Draft EIR assumes that excavations of ten feet or less into older Quaternary alluvial deposits will not result in any impacts; however, there is no explanation of how that threshold was determined or what evidence was relied upon in establishing the threshold. Further, the Draft EIR does not adequately address the potential impacts of the intake/outflow construction in areas that previously were not submerged, and thus appear to have the possibility of containing paleontological resources. Similarly, mitigation measure CUL-10 utilizes an eight-foot threshold, however the basis for that threshold is not explained in the Draft EIR. What will happen with respect to resources that are discovered in depths less than eight or ten feet? MBCH3-40

G. Energy

Please clarify – what are the "on-site solar power generation" facilities referenced on page 5.5-15? MBCH3-41

The Draft EIR asserts that anti-idling requirements will result in "energy savings" with respect to construction-related energy impacts (p. 5.5-16). How does the use of vehicles, even if fuel-efficient, result in "energy savings" if, absent the project, no construction for the project would occur and no vehicles would be used on the site? From a baseline perspective of no activity, the expenditure of fuels does not result in "energy savings." MBCH3-42

Table 5.5-4 shows total energy consumption comparisons, purportedly to show the project's small energy consumption relative to overall use. This is a false comparison. First, the comparison is from the project to Los Angeles County *overall*, which is improper because it is not comparable to the project – that is, comparing the project's energy demands to the annual energy consumption across a county of several million people and businesses serves no purpose other than to try and downplay the energy demands of the project. Second, why is the comparison to the County and not to other water supply and delivery systems? What is the energy demand of the proposed project compared to stormwater capture projects? What is the energy demand of the proposed project compared to other desalination facilities? That information is far more relevant, and the failure to disclose is it is a flaw in the Draft EIR. MBCH3-43

Similarly, the Draft EIR relies in part on Table 5.5-4 to reach an unsupported conclusion of LTSM with respect to Impact ENERGY 5.5-3, and incorrectly concludes that the project would not cause wasteful, inefficient, and unnecessary consumption of energy. There is no way to determine how inefficient and wasteful the project is based on the information provided in Table 5.5-4, which provides no valid point of comparison. In addition, Impact ENERGY 5.5-3 attempts to justify the LTSM conclusion by asserting that the project "is not considered wasteful because it results in a diversified water supply that reduces dependency on imported water, increase[] drought resiliency, and increase[] water reliability." (p. 5.5-19.) This is an improper factor for measuring the project's energy outputs and wastefulness. In other words, a project's energy efficiency cannot be based on the purported benefits of the project. Please provide a comparison of the project's energy demands and those of other water supply and delivery systems. MBCH3-44

With respect to Electrical Energy Demand and Infrastructure, the Draft EIR admits that the desalination facilities "would result in an increased demand for energy in order to provide increased reliability of an essential service" (p. 5.5-21) but then claims that the project would not result in the need for new or expanded sources of energy supply or new or expanded energy delivery systems or infrastructure "other than as noted above." (p. 5.5-21.) What is noted above **are** new and expanded energy delivery systems, including new poles and a new electrical substation; thus, there clearly is an impact, and the project exceeds the threshold under Impact ENERGY 5.5-3. To reduce this impact, the Draft EIR relies solely on Mitigation Measure GHG-1 to reduce impacts to LTSM. Setting aside the significant deficiencies in Mitigation Measure GHG-1 (discussed below in this letter), will GHG-1 result in the need for no electrical poles or electrical substation to be built? If not, the proposed mitigation is not actually reducing the impacts of ENERGY 5.5-3 to less than significant. Please provide a quantification of the reduced energy demand as a result of GHG-1 and also clarify whether GHG-1 definitively will result in no new electrical poles or electrical substation being built as part of the project. MBCH3-45

What is the basis for using SCE's entire service area (which encompasses more than 180 cities) as the geographic basis for an analysis of cumulative energy impacts? This selection appears designed to underplay the significance of the project's energy demands by, in essence, enlarging the denominator so the numerator appears minute by comparison. Why is the geographic basis not simply West Basin's service area? MBCH3-46

H. Geology, Soils, and Seismicity

The Draft EIR states, "the potential for lateral spreading at the proposed desalinated water conveyance corridors and regional pump station optional sites is unknown at this time" (p. 5.6-2). Without analysis of the identified sites, the baseline conditions to which the proposed project must be compared is not adequate or disclosed. MBCH3-47

The Draft EIR fails to establish an adequate baseline condition for analysis the site because it omits the fact that the El Segundo Local Coastal Plan (ESLCP) considers the area a hazard area where impacts can extend beyond local significance. (ESLCP Staff Summary & Recommendations; p. 6-8; 9.) The Draft EIR, therefore, also fails to disclose the potential for beach erosion, and potential MBCH3-48

slope instability that could trigger landslide activity and damage to the public bicycle trail and the proposed desalination facilities. The narrow expanse of beach in this area seaward of the project sites could cause impacts to be even greater in this area, and the analysis does not consider the further impacts that would accompany rising sea levels in the coming decades as a result of global climate change. MBCH3-49

Construction-related impacts are found to be less than significant; however, the sole justification for this conclusion is that construction activities are "temporary" (p. 5.6-15; 5.6-17). Temporary impacts can still be significant. Similarly, the Draft EIR concludes that seismic damage to the intake and discharge tunnels could result in "temporary shutdown of the system" and relies solely on the temporary nature to reach the less than significant conclusion. (p. 5.6-16). Further analysis and explanation is required to fulfill CEQA's requirements and information disclosure mandate. MBCH3-50

The Draft EIR states that the ESGS site "does not appear to contain soils susceptible to expansion"; however, no evidence is provided to support this statement.

Figure 5.6-2 shows the location of monitoring wells and field sampling locations. While there are various locations on the North Site that have been sampled or monitored, there is only one location on the South Site. Further analysis of soil conditions is warranted on both the North and South Sites in order to disclose the existing baseline geologic and soils conditions; it is critically important for the South Site because so little has been done to date. MBCH3-51

I. Greenhouse Gas Emissions

The discussion under Impact GHG 5.7-1 includes a quantification of the project's annual GHG emissions (Table 5.7-4), but the Draft EIR does not include any quantitative threshold in this area against which to judge the significance of the project's GHG impacts. Under even the charitable analysis in Table 5.7-3, which takes credit for a reduction in GHG emissions associated with the current imported water delivery, the Local Project will result in 10,959 annual $MTCO_2e$ emissions (Table 5.7-3). The Regional Project will result in nearly triple that amount of emissions, 36,765 $MTCO_2e$ (Table 5.7-4). Yet, the Draft EIR provides no threshold of significance against which MBCH3-52

these emissions are measured. Why does the Draft EIR not use, for example, SCAQMD's 10,000 $MTCO_2e$ standard for industrial projects, or a similar numeric threshold? MBCH3-52

In Table 5.7-3, are the annual operational energy emissions averaged over the life of the Local Project? If so, what is the breakdown per year? Is it constant every year of operation? MBCH3-53

In the discussion of the Local Project's construction-related impacts (p. 5.7-26), the Draft EIR states that the total Local Project GHG emissions would be reduced to less than the emissions associated with the equivalent volume of imported water (currently, 15,064 $MTCO_2e$). What is the justification for using a net-zero goal as an emissions threshold rather than a numeric one? MBCH3-54

The discussion of the Regional Project's GHG emissions assumes a linear or incremental increase in GHG emissions from the Local Project. What is the basis for this assumption? There is no evidence in the Draft EIR to support the assumption that the Regional Project's GHG emissions will simply be incrementally worse than the Local Project's emissions. MBCH3-55

The discussion of Mitigation Measure GHG-1 does not include any quantitative analysis of the reduction in GHGs. Please provide a quantitative breakdown of the emissions reductions from each of the elements of GHG-1 to demonstrate how impacts are reduced to less than significant. MBCH3-56

In addition, Mitigation Measure GHG-1 is flawed in several significant ways and constitutes impermissible deferred mitigation. The measure requires preparation of an Energy Minimization and GHG Reduction Plan, but does not say who (what staff) will review and approve the plan, what the level of public involvement will be, or what factors will be used in reviewing the plan. Similarly, the mitigation measure promises that West Basin will incorporate into the plan "all available feasible energy recovery and conservation technologies" or will explain why those technologies are not feasible. Who decides what is feasible? When? Is there an opportunity for public review and comment on that decision? Absent some public input and oversight into this process, the possibility exists that the Draft EIR will conclude GHG impacts are less than significant, but the actual result will be different if technologies are discounted because they purportedly are not feasible. MBCH3-57

Furthering this concern is additional language in Mitigation Measure GHG-1, which states that "West Basin shall implement items a. and b. and progress through the remainder (items c. through e.) on the basis of the options' physical and economic feasibility, as reasonably determined by West Basin…." In essence, it appears that West Basin will be the arbiter of whether to implement and enforce mitigation for its own project, and may rely on economic justifications to avoid implementing mitigation. This is not enforceable mitigation if West Basin can simply decide it is too expensive to pursue technologies and strategies listed as "required" under this mitigation measure. Absent some assurance that (1) mitigation will be implemented and (2) mitigation will reduce impacts to less than significant, Mitigation Measure GHG-1 fails to achieve what it claims and GHG impacts remain significant. MBCH3-58

With respect to Mitigation Measure GHG-2, what is the public process for involvement of the verification of the annual GHG Report? What if the public disagrees with the analysis or conclusions in the report? Is there a process for addressing this concern to ensure enforcement of the mitigation? MBCH3-59

Does Table 5.7-6 include any desalination activities? If not, doesn't this demonstrate that GHG emissions reductions that are achieved by water conservation and recycling programs *other* than desalination? The Table appears to show that GHG emissions will be reduced by 26,827 in 2020, before the desalination facility comes online. How will these numbers change when the Local Project's 10,959 annual $MTCO_2e$ emissions and the Regional Project's 36,765 $MTCO_2e$ emissions are considered? MBCH3-60

J. Hazards and Hazardous Materials

The Project Description notes that the Draft EIR assumes off-shore sediment disposal from off-shore dredging (see footnote 7). It also indicates that on-shore disposal will be necessary if the dredged material is contaminated or does not meet established criteria. The Hazards and Hazardous Materials section does not explain or analyze the potential for contaminated sediment. How and when will testing of the sediment occur to determine whether on-shore disposal is necessary? Will it occur on-shore or off-shore, and are there associated environmental impacts? Further, in the event that contamination is found, what measures will be taken to ensure that it will not be released into the water? MBCH3-61

Mitigation Measures HAZ-3 through HAZ-6 are imposed to reduce impacts associated with the use of hazardous materials for construction of the intake and discharge pipes. Each mitigation measure requires future preparation of a plan that the Draft EIR concludes would reduce impacts to less than significant. Pursuant to the mitigation measures, these plans must include minimum informational items. They do not, however, provide adequate minimum measures or performance standards to ensure that impacts would be mitigated to less than significant or to allow the public to understand how these mitigation measures are effective. Please supplement these mitigation measures or explain how future preparation, review, and approval of these plans is adequate. MBCH3-62

As previously noted, the impacts associated with the Regional Project are analyzed only in comparison to the impacts of the Local Project. The Hazards and Hazardous Materials section does not substantiate its basis for not analyzing these impacts for the Project as a whole–i.e., the Local Project and the Regional Project. Treating the Local Project and the Regional Project as two separate projects does not adequately inform the public of the project's full environmental effects and ignores the potential for the hazardous materials of one portion of the project to exacerbate those of the other portion of the project. MBCH3-63

K. Hydrology and Water Quality

The Hydrology & Water Quality section explains that currents run counterclockwise from the south to the Channel Islands. There is no analysis of potential impacts when concentrated brine collects within this countercurrent or the potential for the brine to impact the Ballona Wetlands as the current directs the concentrated saltwater to the north. MBCH3-64

Further, as identified in the Hydrology & Water Quality section, the lowest salinity levels are at the terminus of Ballona Creek about two miles to the north. The countercurrent flows north from the brine discharge points to the terminus of Ballona Creek. But because this terminus is outside of the marine study area, there is no analysis of potentially elevated salinity levels and its impacts on differing species inhabiting the marine area near the terminus of Ballona Creek. Please expand

the scope of analysis to consider species in the area of Ballona Creek and the wetlands, as there is a strong likelihood that concentrated brine could flow north to lower salinity waters where species may be present that are more intolerant to high salinity. MBCH3-64

The Draft EIR claims that subsurface water intakes were found to be infeasible for the proposed project based on the composition of the sea floor. The Draft EIR fails to provide substantial evidence that it is infeasible although the California Ocean Plan requires subsurface water intakes unless they are infeasible. MBCH3-65

This area of the Santa Monica Bay is listed as impaired for debris, sediment toxicity, DDT, and PCBs; and the project would result in the discharge or release of additional contaminating properties into the water. The EIR appears to determine that the impacts associated with the project's release of contaminants into the water are less than significant because the project is mandated to comply with applicable water quality standards. In addition, it claims that discharge "would not increase the total load of constituents in Santa Monica Bay." Given that the project will result in the release of contaminants, including brine, please explain how the project will result in no increased contaminants. In addition, it is unclear whether the brine discharge and increased salinity levels could exacerbate the effects of the existing contaminants in the impaired water body. The Draft EIR should identify how any of the existing or new contaminants would interact. MBCH3-66

The Draft EIR claims that stainless steel wedgewire screens are not necessary because West Basin has fully quantified the potential impacts of copper leaching (p. 5.9-57, fn. 23). However, no full quantification is provided in the Draft EIR. Rather, the Draft EIR correctly notes that copper dissolution in marine environments has not been extensively evaluated. Nonetheless, the Draft EIR concludes, without support, that instantaneous copper concentrations would not exceed limits. Because the evidence provided for this determination is based on speculative and unsupported premises, this impact is potentially significant. West Basin should consider, through the Draft EIR's environmental analysis, the use of stainless steel wedgewire as a less impactful alternative similar to the wedgewire selected by the proposed desalination facility in Huntington Beach. MBCH3-67

Table 5.9-6 indicates that the salinity increment for the Local Project is 1.9 ppt at near field, which is 0.1 below the threshold salinity increase at the BMZ boundary. Table 5.9-8 shows that the salinity increment for the Regional Project is 1.7 ppt at near field. This 1.7 ppt increment is measured against the baseline salinity levels that would be established by the Local Project. The Draft EIR must analyze the salinity of the Local Project plus the Regional Project from current environmental conditions (i.e., current salinity levels). By assessing the Regional Project from a Local Project's future baseline, the Draft EIR disguises the whole project's impacts to salinity levels. It is unclear from the Draft EIR's analysis whether the Local Project and the Regional Project would together exceed the threshold of 2.0 ppt at the BMZ boundary because the analysis calculates future salinity levels at the near field closer to the discharge point. However, the whole of the project would exceed a 2.0 ppt increment at near field. MBCH3-68

Basing the environmental analysis of the Regional Project on the analysis of the Local Project is also problematic because it assumes that the impacts of the Regional Project, as measured from the future baseline of the Local Project, would be similar to the impacts of the Local Project. This assumption is not supported and fails to account for compounding water quality impacts and

biological stress thresholds. Please revise the Draft EIR to examine the total impacts of the project from current baseline conditions accounting for any compounding effects. MBCH3-68

The Draft EIR notes that dewatering will occur in a "no pump zone" where there is contaminated groundwater. Because this groundwater would not otherwise be used, this dewatering would not result in the depletion of usable groundwater. The EIR does not discuss where the contaminated water, once extracted, will be exported. Is there a potential for the contaminated water to contaminate non-contaminated groundwater? MBCH3-69

The Draft EIR does not address the potential for groundwater to be contaminated with ocean salt water. Based on the proximity of the dewatering activities to the ocean, is there a potential for salt water to contaminate groundwater during excavation or dewatering? MBCH3-70

There are potential impacts due to the decreased elevation of the project site compared to sea levels, which could expose people to risks associated with flooding, tsunamis or wave run-up. The project would exacerbate these conditions because it would grade the site to a lower elevation. According to the Draft EIR, Mitigation Measure HYDRO-1 reduces impacts to less than significant. But Mitigation Measure HYDRO-1 does not impose any specific measures, and the Draft EIR does not explain how the types of measures developed later will reduce impacts. Instead, it requires a Coastal Hazard Resiliency Plan and requires specific information to be included. It does not, however, require any specific minimum requirement or a defined, quantifiable performance standard. Because Mitigation Measure HYDRO-1 lacks any specific measures or performance standards against which to base its efficacy, reliance on Mitigation Measure HYDRO-1 constitutes impermissible deferred mitigation. MBCH3-71

The Draft EIR fails to analyze the potential flooding impacts of the whole of the project, i.e., the Local Project and the Regional Project together. As a result, the Draft EIR does not examine the combined flooding risks from grading and reducing the elevation of the entire site. Further, Mitigation Measure HYDRO-1 is required to reduce the impacts of the Regional Project because the environmental analysis of the Regional Project is based on that of the Local Project. But, it is unclear how this Mitigation Measure would apply to the Regional portion of the project.

L. Land Use and Planning

Under the LCP and the Coastal Zone Specific Plan Map, the site is designated Power Plant ("PP"), which is limited to "energy facility and energy related development required for the continued operation of the electrical power plant." Further, page 28 of the Specific Plan defines the uses allowed in the PP area, and these uses include an electrical generating station, along with accessory uses. It does not include a desalination plant or any broader category of use within which such a facility would fit. MBCH3-72

Moreover, the LCP and the Coastal Commission's findings identify that this site is "fully utilized, would support only modifications to the existing electrical power plant, and would be limited to energy related development." The project is inconsistent with the LCP and therefore with the Coastal Act.

M. Marine Biological Resources

Section 5.8 (Hazards and Hazardous Materials) correctly identifies that construction of the screened ocean intake and concentrate discharge would involve the use of marine fuel and other hazardous construction materials such as oils, lubricants, paints and thinners, solvents and cleaning agents, degreasers, glues and adhesives, cement and concrete, and asphalt mixtures. The Marine Biological Resources section does not directly address the levels of these hazardous materials that could potentially leak into the ocean in the vicinity of the intake and discharge as compared to the levels that could impact marine species. Section 5.8 addresses protections against accidental fuel releases or spills. Neither Section 5.11 nor 5.8 addresses any concomitant leaching or leaking that occurs with the use of the above construction materials. MBCH3-73

The California Ocean Plan identifies subsurface intakes as the environmentally preferred technology and requires the use of this technology unless it is infeasible, as determined by the Regional Water Quality Control Board ("RWQCB"). In the event that subsurface intakes are infeasible, then screened ocean intakes may be considered. The project proposes use of the existing ocean intakes, which are not subsurface, and the EIR does not identify whether subsurface intakes were found to be infeasible. Because the use of subsurface intakes is environmentally preferred and generally required, the Draft EIR should be revised to analyze the feasibility of installing subsurface intakes and identify whether the RWQCB has found them infeasible here. In the event that the California Ocean Plan will require subsurface intakes, the impacts of constructing the intakes need to be analyzed in the EIR. MBCH3-74

The California Ocean Plan also requires the project to comingle brine discharge with an existing wastewater discharge point to dilute the brine before final discharge into the ocean. The project proposes the use of multipoint diffusers, which is the next best method for discharging brine (as identified on page 5.11-9). However, the Draft EIR does not examine whether the environmentally best option–discharge into wastewater–can be implemented. Without an examination of and determination of wastewater feasibility, the project is inconsistent with the California Ocean Plan. MBCH3-75

The marine study area extends approximately one nautical mile upcoast and downcoast of the intake and discharge terminus points and approximately 1.5 nautical miles offshore from the beach. What is the scientific basis for selecting this study area? The Draft EIR fails to provide adequate scientific basis for narrowly defining the study area, and unduly limiting the scope of the analysis. Further, the study area appears to exclude the area in which the Hyperion Treatment Plan deep water discharges, and thus provides no analysis of the cumulative impacts associated with the discharges. MBCH3-76

In limiting the study area, West Basin evades any discussion of potential impacts to the Marine Protected Areas in and near the Santa Monica Bay, such as the Abalone Cove Sate Marine Conservation Area, Point Vicente State Marine Conservation Area, Point Dume State Marine Conservation Area, and the Mugu Lagoon to Latigo Point Area of Special Biological Significance.

By selecting this study area, the Draft EIR also limits its biological impact analysis to only those species found to be located within it. Is there a potential that species living further up or down the coast, or in deeper waters, could be impacted by brine discharge either directly or indirectly? For example, are there species inhabiting the area near the terminus of Ballona Creek that may be more

sensitive to salinity level increases? The EIR also asserts that the dispersal of ocean species from the intake/discharge points during construction and operations alleviates risks to these species. Are there species that typically inhabit areas outside the study area that depend on the location of species within the study area? MBCH3-76

There is critical habitat located less than 2.5 miles to the north of the project site. Because it is not located in the self-designated study area, impacts to this habitat and to the snowy plover are not analyzed. Any basis for limiting the study area to a one-mile radius should demonstrate that there are no potential impacts to this critical habitat and the snowy plover. The Draft EIR provides no analysis for the public to understand whether the critical habitat or snowy plover would be directly or indirectly impacted either by a change in species distribution or due to sensitivity to the project's discharge. MBCH3-77

Approximately eight acres in total of the seafloor would be disturbed in the area located approximately 0.5 nautical miles offshore. In this area, pile driving would also occur during construction that cause noise and vibration. However, the Draft EIR does not analyze the noise and vibration levels that would result. Instead, study of these marine impacts are deferred to the study required by Mitigation Measure BIO-M1. Because study of these impacts are deferred, the Draft EIR fails to provide the necessary facts and information to review the study findings or potential impacts to species in the vicinity.

Additionally, the study required in Mitigation Measure BIO-M1 requires certain BMPs if the study finds that noise exceeds standards, including 120 db at 500 meters. Harassment impacts to species occur when the species experiences levels of 120 dBrms for non-impulsive and 160 for impulsive. What is the rationale for considering only impacts on species located within 500 meters? If the rationale is that species will disperse from a 500-meter area due to the initial noise disturbances, why are these initial behavioral disturbances not considered significant and what are the indirect impacts of this dispersal and on species migration? MBCH3-78

Due to the Draft EIR's defined study area, there is no analysis related to species inhabiting the Ballona Wetlands or the ocean areas at the terminus of the Ballona River. Given ocean currents, could brine discharges directly or indirectly impact species in the Ballona Wetlands located 3.75 miles away? MBCH3-79

The Draft EIR's analysis of the salinity increment is based on a baseline salinity level of 33.5 ppt (see page 5.11-11.) The basis for this background salinity level is a study from 1993. Has the background salinity level been confirmed at the time of the Notice of Preparation? Similarly, surveys of the sandy beach intertidal areas were completed well over a decade ago in November 2006 and May 2007, studies of Demersal Fish were most recently completed a decade ago; and several other studies are five or more years old. More current surveys of the existing marine habitats and communities are necessary to adequately establish the current baseline, which is required for an adequate assessment of the project's potential impacts. MBCH3-80

Table 5.11-3 references white shark, concluding that the species is "Not Expected to Low", however more recent studies have shown that the warmer waters in the Santa Monica Bay, including waters near Manhattan Beach, serve as nurseries for white sharks. The Draft EIR fails to discuss this presence and whether there would be impacts to these shark nurseries or sharks in MBCH3-81

the study area. Many species in Table 5.11-4 are listed as threatened or as California species of special concern with a low probability to occur in the study area. The Draft EIR omits these species from consideration as species that may be impacted due to this low probability and asserts that only two of these protected species have "any probability" of occurring in the study area. Further, these occurrences are based in part on outdated surveys from 2001 and 2008 and, given increasingly rapid marine conditions, may be out of date and no longer relevant. Please update the analysis to fully analyze impacts to all protected species and verify species occurrences with updated surveys. MBCH3-81 MBCH3-82

The Draft EIR states that "[p]ile driving using either vibratory or impact hammers could result in underwater noise which can be harmful to both fish and marine mammals" (p. 5.11-39). Further analysis of the specific impacts on migrating whales is necessary and should take into account recent studies by Ted Cranford, a whale biologist at San Diego State University, who studies noise impacts on whales. MBCH3-83

The Draft EIR states that vessels used in construction are expected to originate from the Port of Los Angeles or Port of Long Beach (p. 5.11-39). This statement, however, is inconsistent with other statements that some of the vessels may originate from Marina Del Ray. The origination location must be clarified and impact analysis updated accordingly based on where the vessels will originate. MBCH3-84

The recovery period for species to repopulate their prior habitat is estimated at a few months to less than two years based on studies from 1996 and 1998. Since 1998, other desalination projects have been approved and constructed, which would provide more up-to-date information on repopulation after similar construction activity. Further, it is assumed in the Draft EIR that these species will disperse; but there is no substantial evidence to support such dispersal or that it will occur fast enough to prevent mortality or harassment. MBCH3-85

Dredging of sediments during construction has the potential to entrain fish and mobile epibenthic invertebrates. The impact analysis on potential entrainment impacts reaches a less than significant impact determination on the premise that fish will be able to swim free once the dredged sediments are placed on the sea floor. However, there is no corresponding analysis regarding impacts to bottom dwelling species, which could be trapped in or under the dredged material. MBCH3-86

The impacts of increased turbidity levels are determined to be less than significant with the implementation of standard BMPs. However, the Draft EIR does not identify which of these BMPs will be implemented; and no mitigation measure mandates implementation. A less than significant determination cannot rely on BMPs that may or may not be required as part of project implementation. MBCH3-87

Further, it is estimated that "losses of 1 to 2 percent of the source water populations for the majority of taxa analyzed" would result from entrainment (Draft EIR, p. 2-33). There is, however, no analysis or consideration of how an up to two percent loss of larvae year after year could impact the studied species over the long term. MBCH3-88

According to *Overview of Desalination Plant Intake Alternatives* (WaterReuse Association, 2011; found at: *https://watereuse.org/wp-content/uploads/2015/10/Intake_White_Paper.pdf*) "Wedge-wire screens are cylindrical metal screens with trapezoidal-shaped 'wedgewire' slots with openings of 0.5 to 10 mm. They combine very low flow-through velocities, small slot size, and naturally occurring high screen surface sweeping velocities to minimize impingement and entrainment. These screens are designed to be placed in a water body where significant prevailing ambient cross flow current velocities (≥ 1 fps) exist. This high cross-flow velocity allows organisms that would otherwise be impinged on the wedge-wire intake, to be carried away with the flow." (Id. at p. 14.) The Draft EIR analysis, however, does not provide any evidence to show that currents in the Santa Monica Bay will provide sufficient cross flow velocities to reduce impingement. MBCH3-89

The Draft EIR determines that impacts related to impingement would be less than significant and provides: "Based on video surveys and water sampling of a pilot-scale ocean intake fitted with 1 mm (0.04 inch) or 2 mm (0.08 inch) slot size wedgewire screens and an intake velocity of 0.5 fps, Tenera (2014) determined that impingement of all motile marine organisms would be reduced to zero. As a result, impingement of larval fish or invertebrates would not be expected to occur from the Project[.]" This survey involved a "pilot-scale ocean intake." At full operational scale, what is the basis for assuming that impingement would be similar to this pilot-scale intake? Does the chance of impingement increase either (a) when the intake size is greater or (b) when there is more than one intake in the immediate area? MBCH3-90

The Draft EIR's analysis of entrainment determines that entrainment would not be significant because the 1 mm wedgewire screen is small enough to prevent intake of species greater than 2 mm. Please clarify how this screen design also prevents impingement of species greater than 2 mm. MBCH3-91

The Draft EIR's analysis of impacts related to increased salinity levels does not assess potential impacts on larvae or small organisms such as plankton. Is there a scientific basis for assuming that increased salinity does not have a greater impact on these immature and small ocean species? MBCH3-92

The Draft EIR notes that shear turbulence would most impact organisms of a size smaller than 1 mm. These impacted organisms are the same organisms that are most impacted by intake impingement and entrainment. However, the Draft EIR does not analyze and calculate the total mortality of these impacts that would result from all type of project impacts from turbulence to impingement and entrainment. The Draft EIR must assess the total mortality of these organisms from all impact causes. By segmenting the mortality analysis into discrete causal categories, individual impacts appear less significant than the total impact of the project would cause. MBCH3-93

As previously noted, the California Ocean Plan requires, wherever feasible, that the brine discharge be mixed with the output of an existing wastewater source, such as municipal water discharge or sewers. The Draft EIR does not consider this as a potential project feature or as mitigation. Based on the comments above, there is a likelihood that the project would result in unmitigated significant impacts. As such, use of an existing wastewater discharge point must be considered as a feasible mitigation measure. MBCH3-94

The Draft EIR concludes that the Regional Project would not have any significant impacts on the basis that the Regional Project's components are similar to those of the Local Project. This analysis fails to consider the total operational intensity of the Regional Project from current baseline conditions. For example, the salinity increment of the total project could exceed the 2.0 ppt threshold when analyzed from current conditions. The analysis of the Regional Project appears to consider the impacts of the Regional Project as measured from a scenario where the Local Project is already operational. MBCH3-95

N. Noise

The South Site is 130 feet from Manhattan Beach residential uses. Noise levels from pile driving would be approximately 93 dB at this distance. As noted in the Draft EIR, Manhattan Beach's noise ordinance exempts "reasonable daytime construction noise." The Draft EIR omits that reasonable daytime construction noise is exempt only if construction adheres to the provisions of Manhattan Beach Municipal Code Chapter 9.44. The Project is located outside of Manhattan Beach's jurisdictional boundaries, and West Basin has not indicated that it will mandate compliance with Chapter 9.44. Thus, the Project's construction noise is not exempt from Manhattan Beach's noise threshold standard under Section 5.48.250 unless and until West Basin mandates compliance with Chapter 9.44. Compliance may include limiting construction hours or other discretionary measures where noise impacts are significant. MBCH3-96

Further, construction noise is expected to occur for a total of 108 months (72 months for the Local Project and an addition 36 months for the Regional Project) with pile driving occurring for a total of seven months (three months for the Local Project and four months for the Regional Project). This duration of noise at sensitive receptors in excess of 90 dB is not reasonable and additional mitigation is necessary. MBCH3-97

Further, West Basin has not demonstrated that it has implemented all feasible mitigation to reduce significant noise impacts. First, construction projects routinely implement noise-mitigating measures such as noise walls, shields, or blankets to physically block noise transmission. Projects with significant noise impacts also use drilling to avoid significant noise impacts during construction. Second, the mitigation measure offered lacks sufficient specificity for enforcement or the public's understanding of its requirements. Mitigation Measure NOI-3 lacks sufficient specificity for enforcement as it merely requires West Basin to "determine the feasibility of using" certain noise-reducing construction methods. It does not require any specific measures to reduce noise and constitutes impermissible deferred mitigation because it defers the identification of specific measures and their feasibility to a future study. MBCH3-98

Mitigation Measure NOI-5 requires West Basin to evaluate whether vibration impacts from pile driving would damage the Chevron storage tank. This analysis should be included in the Draft EIR and should not be deferred. Further, Mitigation Measure NOI-5 does not provide specific measures required if the deferred study concludes that damage could occur. If damage were to occur to the tank, the risks of that damage would implicate the release of hazardous materials. The Draft EIR must analyze the potential for such damage to inform the public of potential environmental harms and environmental hazards. MBCH3-99

Ambient noise impacts on nearby residential uses in Manhattan Beach are not analyzed in Section 5.12. Instead, the Draft EIR concludes that acoustical treatments are sufficient to maintain noise levels below Manhattan Beach's thresholds because "compliance with the noise ordinance standards would require that the facility control noise sources to levels below existing ambient levels" of 59.3 dBA Leq. The Draft EIR must analyze whether adherence to noise standards and thresholds would in fact occur by assessing anticipated noise levels (with the proposed acoustical treatments) at nearby sensitive receptors. This information is also necessary for public disclosure of the project's noise impacts on the nearby community. Without this analysis, it is not possible for the public to assess the project's noise impacts until the project is constructed and operational; CEQA mandates analysis of these environmental impacts at the EIR stage. MBCH3-100

The environmental analysis for the Regional Project on page 5.12-30 fails to analyze the total noise levels of the Local and Regional Projects when both are operational. The Draft EIR must disclose the whole project's noise impacts on nearby sensitive receptors in the adjacent residential community. MBCH3-101

O. Recreation

The Draft EIR discusses the potential impacts of the pump station(s) necessary for the desalinated water conveyance system, stating that the "approximately 5,000-square-foot pump station sites would remove some areas of existing parks from public use, but once constructed would not substantially reduce the availability of recreational facilities in the community." (p. 5.14-10.) Based on this superficial analysis, which does not appear to take into account input from the agencies with jurisdiction over the park areas, the Draft EIR concludes that the impacts will be less than significant. While "only small portions of existing public space would be committed to the pump station," accommodation of water supply projects should not supersede other policies related to the provision of adequate park and recreation facilities for the public. It is also unclear how conclusions about impacts can be reached when there has not been detailed analysis of the potential sites. Further, at a minimum, the Draft EIR should discuss replacement of lost park space. MBCH3-102

Mitigation Measure REC-1 references coordination with local agencies and local approvals; however, the project description does not specifically identify these local approvals. MBCH3-103 Further, the mitigation measure defers the identification of the ways in which construction activities could be "minimized during peak-use periods for impacted facilities...." (p. 5.14-11.) The mitigation measure also discusses restoring bicycle facilities to their original condition but provides no details about whether bicycle facilities will be rerouted during the construction period to avoid closures of other impacts that would restrict use of the facilities for recreational and transportation purposes. MBCH3-104

Analysis of construction related impacts for the Regional Project states that construction or expansion of recreational facilities will not be required (p. 5.14-13). This unsupported conclusion does not address the potential need to reroute the beach bike path away from the construction site due to noise, air quality, or other construction-related impacts. The same is true of construction impacts to bike facilities and parks as a result of the desalinated water conveyance facilities. MBCH3-105

P. Transportation and Traffic

The Draft EIR includes (pp. 5.15-7 through 5.15-8) a listing of Manhattan Beach General Plan goals and policies applicable to the projects by virtue of the proximity to 45th Street. Yet, there is no analysis of consistency (or lack thereof) with these General Plan goals and policies. Please revise to provide this analysis. MBCH3-106

The Draft EIR concludes that the Local Project will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities (Impact TRA 5.15-6), but acknowledges that "construction activities would occur adjacent to the [Marvin Braude Coastal] bike trail for several weeks." (p. 5.15-33.) Does this mean that over the entire five-year construction period for the Local Project, West Basin commits that the trail would be impacted for only "several weeks" in total? How would the Local Project not decrease the safety of the bike trail if riders are forced onto the sand in the sections where the trails are to be closed? MBCH3-107

The project description states that construction worker trips "would be expected to occur before 7AM in the morning and either before 4PM or after 6PM in the afternoon and would therefore occur outside of the peak traffic hours…." (p. 3-18.) Mitigation Measures TRA-1 and TRA-2 do not require construction worker trips to be during the above noted peak hours, and thus there is no assurance that the "expectations" relied upon in the Draft EIR are realistic or will be followed. Thus, specific mitigation prohibiting construction related trips from occurring during peak periods must be incorporated into the mitigation measures. MBCH3-108

Q. Utilities and Service Systems

The Draft EIR includes several references to potential connection to the Manhattan Beach sewer system. (See, e.g., p. 5.16-16). Please note that the City of Manhattan Beach has not agreed to any such connection at this time and would require a full analysis of project impacts that addresses each of the comments set forth in this letter before it would consider approving such a connection. MBCH3-109

R. Other CEQA Considerations

The Draft EIR states that the water generated by the project "would replace (a portion of) existing imported water… and therefore would not be growth inducing" (pp. 6-5; 6-7, 6-8). The Draft EIR does not, however, explain the why the additional water generated from the project could not be added to the existing imported water. The Draft EIR does not identify any impediment to a future District Board deciding to continue to get as much imported water as possible in addition into the desalinated water, in which case the expanded water supply in the area would likely induce growth. The Draft EIR must be revised to consider these types of impacts, and if the intent is to replace existing imported water, the project approval must have a legally enforceable condition requiring the replacement to preclude the potential growth inducement. MBCH3-110

Tellingly, and contrary to the assertions that the desalinated water will replace existing imported water, the Draft EIR admits that project "would be implemented in phases ***to ensure the new supply is appropriately keeping up with population growth***" (p. 6-9, emphasis added). This admission suggests that the true intent is not simply to replace imported water, but is clearly intended to expand water supplies to accommodate (or induce) continued population growth. As such, further analysis is required of the project's removal of water constraints by increasing water

availability and the future development and population that will be accommodated by removing the water constraints, as well as the implications of this concession in other environmental impact areas such as GHG emissions, which are expressly premised on the reduction of imported water. MBCH3-110

S. General Comments

The project description mentions that the decommissioned NRG Units 3 and 4 would need to be demolished in conjunction with use of the North Site. While some of the sections in the Draft EIR discuss the potential demolition impacts, others seem to ignore this significant aspect of the North Site. Further, because much of the construction analysis conflates the North and South Sites, the Draft EIR fails to disclose the difference in construction-related impacts between the North and South Sites. See, for example, the Local Project construction-related recreation impacts, where the analysis covers both the North and South Sites. The discussion states that "the construction activities involved with the demolition of the ESGS Units 3 and 4" are included; however, the demolition impacts of the North Site differ considerably from those associated with the South Site. This is a global comment and should be addressed in each subsection of Chapter 5 of the Draft EIR when discussing construction impacts, otherwise the difference in environmental impacts between the North and South Sites is not adequately disclosed. MBCH3-111

III. The Draft EIR Fails to Consider Feasible Alternatives and Analyzes Ineffective Alternatives

In addition to the identified alternatives, the Draft EIR should include an analysis of an alternative that combines the brine discharge with the discharges of the Hyperion Water Reclamation Plan, which is the preferred method of reducing the salinity of the brine from the desalination project before putting it back into the ocean. The Hyperion facility is located in relatively close proximity to the project site and connecting the outflow activities between the two facilities would reduce potential impacts, and would further the Ocean Plan amendments. The Draft EIR should be revised to study this additional alternative. MBCH3-112

It is unclear why the Layout Alternative: Reduced Elevation - ESGS South Site Plan Alternative was included for analysis when it does not address or reduce any of the potentially significant environmental impacts. As such, the Draft EIR should be revised to include more alternatives that actually could reduce one or more of the potentially significant impacts identified in the Draft EIR. MBCH3-113

The Draft EIR's discussion of the environmentally superior alternative focuses in large part on a comparison of the North Site and South Site, although both of those sites were considered in the Local Project analysis throughout the EIR. Calling the North Site the environmentally superior site, although neither the North Site nor the South Site was analyzed as an alternative, undermines the Draft EIR's alternatives analysis. While the City does acknowledge that the impacts of the North Site likely are less than those on the South Site, a revised Draft EIR addressing all of the comments identified herein, including consideration of different alternatives, must be completed before an environmentally superior alternative can truly be identified. MBCH3-114

IV. Conclusion

Based on the foregoing, the City of Manhattan Beach requests that appropriate additional environmental analysis and Draft EIR updates and revisions be completed, and that the Draft EIR be recirculated for additional public review and comment before the District considers the EIR for certification or takes any action on the project. MBCH3-115

Please do not hesitate to contact us with any questions.

Very truly yours,

Ryan Heise FOR Anne McIntosh

Anne McIntosh
Director of Community Development
City of Manhattan Beach

Bill Brand
Mayor

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May 8, 2018

West Basin Municipal Water District
17140 South Avalon Boulevard, Suite 210
Carson, CA 90745
Patrick Shields, General Manager

Environmental Science Associates (EIR Preparation)
626 Wilshire Boulevard, Suite 1100
Los Angeles, California 90017
Eric Zigas, Project Director
Tom Barnes, Project Manager

The Mayor and City Council of the City of Redondo Beach appreciate the opportunity to review and comment on the Draft Environmental Impact Report (DEIR) for the Ocean Water Desalination Project. Official comments on the DEIR are attached to this letter. In addition to approving submittal of official comments, the City Council authorized the submission of this letter at a public meeting held on May 8, 2018.

The City of Redondo Beach (City) understands the importance of water reliability and has worked cooperatively with West Basin in testing and developing new technologies such as the full scale pilot desalination facility located at Sea Lab in Redondo Beach. While we understand that West Basin provides critically important water supplies to the area, we are not convinced that the development of a full scale production facility at either the El Segundo site or the Redondo Beach site is warranted at this time. RBCH-1

Specifically, it is our opinion that desalination is an energy intensive process with a significant carbon footprint and other marine life impacts. As such, it should only be utilized when other options for water reclamation, recycling, storm water capture, infiltration and conservation have been exhausted.

The City values the use and availability of reclaimed and recycled water and is often frustrated by the lack of available connections to the system. The significant upfront costs to end users except those of highest use volume is a substantial deterrent to broader usage. It is our belief that West Basin should provide recycled water to every business and residence in Redondo Beach, and the service area along with funding additional significant water conservation programs before embarking on a full scale desalination operations. RBCH-2

While it is easy to say that avenues for recycling and conservation are largely exhausted through your current efforts that recycle and distribute approximately 40 MGD of Hyperion water for golf courses, cooling towers and refineries, this ignores plentiful supplies of over 250 MGD of nearby discharge water that could be put to beneficial use.

There are also opportunities to change laws, ordinances, regulations and standards to not only allow, but to require direct use of recycled water for all non-potable uses. We believe that residents and businesses in the South Bay would broadly support new rules and legislation to advance sustainability goals. RBCH-3

Further, we find the consideration of an alternative facility at the AES Generating Station in Redondo Beach to be contrary to all current efforts underway to deindustrialize the City's Waterfront and develop parkland and other coastal commercial resident and visitor serving uses. The existing facility is currently being offered for sale by AES for nonindustrial development, and the City is working to participate in the sale and development process by offering to purchase some or all of the site. The City has been successful in supporting legislation that would provide funding for parkland development, and has begun the process of forming an Enhanced Infrastructure Finance District (EFID) in cooperation with the County of Los Angeles to provide ongoing funding to improve and transform this blighted industrial facility. RBCH-4

Due to all the concerns noted above, and after considering all of the facts and information in the record, the City of Redondo Beach opposes the construction of desalination facilities at both the El Segundo and the Redondo Beach locations. RBCH-5

We look forward to your consideration and response to our comments on the DEIR attached hereto as Exhibit A. RBCH-6

Sincerely,

William C. Brand

CC: City Council
Joe Hoefgen, City Manager

Exhibit "A"

Official City Comments on West Basin Ocean Water Desalination Facility Draft Environmental Impact Report

The City of Redondo Beach appreciates the opportunity to comment on Draft Environmental Impact Report (DEIR) (SCH XXXXXXXXX) for the Ocean Water Desalination Project. After reviewing the project and the alternatives studied in the DEIR, the City respectfully submits the following comments:

1. The DEIR fails to adequately study the potential for conservation, expanded wastewater recycling, storm water capture, infiltration and brackish groundwater desalting to reduce or eliminate the need for the proposed facility. An analysis of the potential for these alternatives to reduce or eliminate the need for the project should be included in the DEIR. Page 2-17 discusses the need for the project and states that expansion of reclaimed water from 40 MGD to 70 MGD is being considered. This, and further expansion should be required prior to any desalination facility construction. RBCH-7

2. With respect to Mitigation Measure BIO-M-2, the impacts of the project on marine life through entrainment, turbidity, thermal change and other factors should be addressed with more specific mitigation measures where they are known to exist and can be feasibly implemented. For example, the Marine Research Center in Redondo Beach continues to replenish White Sea Bass and other species as they have done for years. This facility and its operations were initially developed as a mitigation measure for the San Onofre Nuclear Generating Station (SONGS), and the existing or expanded facility has the potential to provide additional mitigation for this project. Second, the California Coastal Commission has specified that almost 6 acres of wetlands need to be restored at the AES Generating Station. Specific mitigation contributions to these two efforts in proportion to the identified impacts should be considered and required. RBCH-8

3. Page 4-5- The related project No. 22 should be corrected to specify that the Waterfront project was approved by the City Council and is currently pending before the California Coastal Commission. The construction date would be 2019-2021. RBCH-9

4. Page 4-6- The related projects list No. 23 should be corrected to specify that the South Bay Galleria project was approved by the Planning Commission on April 19, 2018 and is on appeal to the City Council with 300 residential apartment units. The construction date would be 2020-2023. RBCH-10

5. Page 4-6-The related projects list No. 24 should specify the 1700 PCH project as 115 units. Construction would begin in 2019. RBCH-11

6. Page 4-6- The related project list No. 25 should be revised to show that the project is under construction. RBCH-12

7. Figure 3-5 shows a new conveyance feeder pipeline to be constructed within the Inglewood Avenue right of way from Marine Avenue to Manhattan Beach Boulevard. Within the City of Redondo Beach, this is the most heavily traveled and congested street segment in the community. Plans are currently underway to improve traffic conditions in coordination with the City of Lawndale. Any pipeline installation must be coordinated with this street improvement project. RBCH-13

8. The AES Redondo Beach Generating Station site is not a feasible alternative for study in the DEIR. The consideration of an alternative facility at this location is contrary to all current efforts underway to deindustrialize the City's Waterfront and develop parkland and other coastal commercial resident and visitor serving uses. The existing facility is currently being offered for sale by AES for nonindustrial development, and the City is working to participate in the sale and development process by offering to purchase some or all of the facility. The City has been successful in supporting legislation that would provide funding for parkland development, and has begun the process of forming an Enhanced Infrastructure Finance District (EFID) in cooperation with the County of Los Angeles to provide ongoing funding to improve and transform this blighted industrial facility. The City's General Plan contains clear policies to plan for the reuse of the site for nonindustrial purposes at the end of the useful life of the Generating Station. RBCH-14

Thank you again for the consideration of our comments.

COUNTY OF LOS ANGELES
DEPARTMENT OF PARKS AND RECREATION
"Parks Make Life Better!"
John Wicker, Director Norma E. Garcia, Chief Deputy Director

May 24, 2018

Ms. Zita Yu, PhD, PE
Program Manager
West Basin Municipal Water District
17140 South Avalon Boulevard
Carson, CA 90746

Dear Ms. Yu:

NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE OCEAN WATER DESALINATION PROJECT

Thank you for the opportunity to review the Draft Environmental Impact Report (EIR) for the West Basin Ocean Water Desalination Project (project) which consists of the construction of an ocean water desalination facility, an ocean water intake system and brine discharge system, and a desalinated water conveyance system. The Draft EIR has been reviewed for potential impacts on facilities operated and maintained by the Los Angeles County Department of Parks and Recreation (DPR). One of the three alternative sites for the development of a regional pump station is a DPR facility known as the Chester Washington Golf Course (Golf Course) at 1930 West 120th Street., Los Angeles, CA 90047

The Golf Course is an 18-hole facility located in the unincorporated community of West Athen-Westmont's and serves as one of the largest green spaces in the area. The Golf Course is public, but there are fees to use the course or to hold events at the facility. The Golf Course is bordered to the south by El Segundo Boulevard, to the east by Western Avenue, to the west by Van Ness Avenue, and to the north by a rail corridor operated by Southern Pacific Rail. LADPR-1

The Draft EIR for the project has been reviewed for the potential impacts to the Golf Course. The document should explain how the proposed 5,000-square-foot site would be acquired, accessed and used. Please provide more details on the regional pump station building and accessory structures. The DEIR must be revised to include details on the construction and operation of the regional pump station, or a supplemental document should be prepared at a later date in order for the public and decision-makers to be fully apprised of the project's potential environmental impacts. If the Golf Course site was selected for the development of the regional pump station, the project may

have the following impacts: LADPR-1

Park Preservation Act
Public accessible green space is extremely limited in the community of West Athens-Westmont. The Golf Course is one of the largest green spaces in the area. Construction of a regional pump station on park property may have implications with respect to the Park Preservation Act by reducing the amount of green space available for public enjoyment. Per the Park Preservation Act, compensation would be required to off-set the loss of park land/open space. LADPR-2

Historic Resources
DPR has prepared a cultural assessment for the Golf Course (see enclosed), but it has not been filed with the South Central Coastal Information Center. This information should be reviewed and included in the cultural resources analysis if the Golf Course is selected for the project. The entire Golf Course and its buildings are eligible for the California Register of Historic Resources. Please provide DPR a copy of any archaeological report that is generated from monitoring work performed on the Golf Course property. LADPR-3

Golf Course Reconfiguration
The project may necessitate narrowing and reconfiguration of the hole adjacent to Van Ness Avenue, as well as eliminating a practice pitching area adjacent to the maintenance yard. The project may also have the potential of removing several ornamental trees. Trees that are being removed should be replaced on-site and the project proponent should coordinate with DPR on the type and number of trees to be replaced. LADPR-4

Aesthetics and Maintenance Yard Access
Construction and operation of the proposed project may create an eyesore on the golf course. The project proponent should coordinate with DPR on the design of the facility. Construction activities for the proposed project may also affect the access to the Golf Course maintenance area. The project proponent should coordinate with the Golf Course operator to develop safety measures for the construction and on-going operations of the pump station. LADPR-5

Marvin Braude Bicycle Path
Project Description, Page 3-41: Please revise the second-to-last row regarding "L.A. County Parks." Per the County's "Bicycle Master Plan", the Marvin Braude Bicycle Path is maintained by Los Angeles County Department of Public Works, and this would be the correct agency to request an encroachment permit, not DPR. LADPR-6

Recreation, Page 5.14-6: Revise eighth bullet point to read as follows: "Regional Pump Station Optional Site 5, which is sited within the westernmost edge of the Chester LADPR-7

Washington Golf Course in unincorporated Los Angeles County."

LADPR-7

Thank you for including this Department in the review of this document. For golf operations inquiries, please contact Mr. Jorge Badel at (626)821-4649 or jbadel@parks.lacounty.gov. For any other inquiries, please contact Ms. Jui Ing Chien of my staff at (626) 588-5317 or jchien@parks.lacounty.gov

LADPR-8

Sincerely,

Kathline J. King, AICP
Chief of Planning

KK:JIC:jic

Enclosure

c: Parks and Recreation (B. Ruiz-Hoffmann, J. Badel, C. Lau, L. Barocas, B. Moscardini, A. Davies, G. Mason, J. Chien)

Photo Credit: Sapphos Environmental, Inc. 2016

Historical Resource Evaluation for Chester Washington Golf Course

March 2018

Prepared for:
County of Los Angeles
Department of
Parks and Recreation

Prepared by:
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, California 91107

EXECUTIVE SUMMARY

Sapphos Environmental, Inc. has determined that Chester Washington Golf Course and its structures meet the criteria to be treated as a historical resource pursuant to Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines. The setting, buildings, and structures retain sufficient historic integrity and meet the criteria for listing in the California Register of Historical Resources (CRHR) and County of Los Angeles Register of Landmarks and Historic Districts (County Register) as a historic district for its association with the integration of golf courses pursuant to Criterion 1, and connection with African-American activists and golfers Maggie Hathaway, Charles Sifford, and Ted Rhodes pursuant to CRHR and County Register Criterion 2. Although named after newspaper magnate Chester Washington, he spent little time in the park; therefore, the park does not qualify pursuant to Criterion 2. The period of significance is from 1954 to 1967 when the golf course was constructed and notable African-American golfers were active at the site.

Chester Washington Golf Course is a property with exceptional historical significance as the site of an important political and cultural event in the history of the African-American golfers in the state of California. Originally named the La Avenida Golf Course, then-known as the Western Avenue Golf Course, the facility served as the first major golf facility to be integrated after racial discrimination. Previously hosting a Caucasian-only golf club, Western Avenue Golf Course was forced to diversify their golf course, opening it to minority players after the County of Los Angeles purchased it. The golf course later served as a base for many professional African-American golfers. The golf course was renamed in honor of newspaper magnate Chester L. Washington in 1982; Washington was important to the community but not active at the golf course. A number of incredibly notable African-American activists and golfers used Chester Washington Golf Course as a location to force social change. Maggie Hathaway, a noted civil rights advocate, brought attention to the Western Avenue Women's Golf Club when they rejected her bid for membership because she was black. Hathaway fought until the club was exiled from the golf course, formed her own minority golf club, and advocated for an integrated golf course. African-American golfers began to pour into the Western Avenue Golf Course, including notable African-American golfers such as Charles "Charlie" Sifford, Ted Rhodes, and Joe Louis. Many of these golfers were involved at the golf course during the height in their careers, and lauded the facility's inclusive atmosphere.

The determination was made by Sapphos Environmental, Inc. (Ms. Alexandra Madsen) who meets the Secretary of the Interior's *Professional Qualification Standards* for History and Architectural History. The determination was based on a review of published and unpublished literature and a site investigation in 2016. In addition to the significance evaluation, a review of the record search was conducted to ensure that any recorded archaeological sites within or near Chester Washington Golf Course were considered. One archaeological study has been conducted within the golf course boundaries. Six archaeological studies have been conducted exclusively within the 0.25-mile buffer zone. No archaeological resources, as defined in Section 21083.2 of the Public Resource Code, have been previously identified within the park boundaries or 0.25-mile buffer zone.

Although a record search was completed, a Phase I Pedestrian Survey to assess the presence or absence of archaeological resources was not completed. Generally, in existing developed golf courses, native soils will be several feet below grade due to prior excavation and grading activities that were conducted for constructing buildings and structures, irrigation, and landscaping. Projects that can be reviewed pursuant to a CEQA Categorical Exemption would not likely create an unusual circumstance with regard to archaeological resources unless a project requires grading and excavation of native soils not disturbed during construction, maintenance, and operation of the golf course. Any work that involves earth-moving activity in previously undisturbed native soils should be monitored by, at minimum, workers that have received cultural resource training pursuant to a cultural resources management plan and worker education and awareness program.

Photo Credit: Sapphos Environmental, Inc. 2016

Historical Resource Evaluation for Chester Washington Golf Course

March 2018

Prepared for:
County of Los Angeles
Department of
Parks and Recreation

Prepared by:
Sapphos Environmental, Inc.
430 North Halstead Street
Pasadena, California 91107

EXECUTIVE SUMMARY

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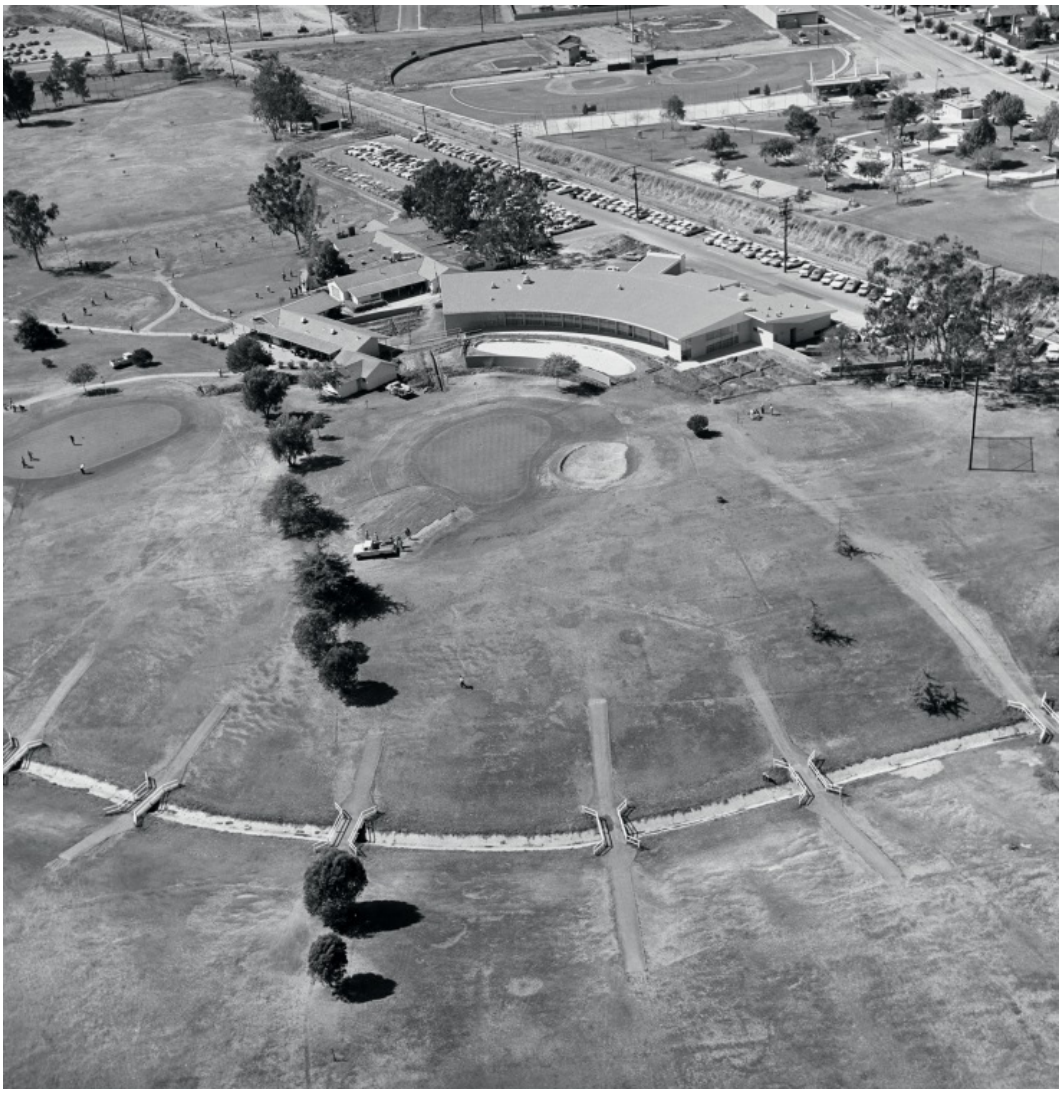

Western Avenue Golf Course, Later Renamed Chester Washington Golf Course (1965)
SOURCE: *Los Angeles County CEO Photo Unit, #33270, 1965*

TABLE OF CONTENTS

FIGURES ***FOLLOWS PAGE***

APPENDICES

SECTION 1.0
PROPOSED PROJECT

The County of Los Angeles Department of Parks and Recreation requested an evaluation of Chester Washington Golf Course to determine if this property qualifies for treatment as a historical resource as defined in Section 15064.5(a) the California Environmental Quality Act (CEQA) Guidelines. This evaluation will be used to inform advance planning, planning and design, and ongoing operation and maintenance activities at Chester Washington Golf Course. At the time of preparation of this report in 2017, there were no specific capital improvements under consideration for the facility.

SECTION 2.0
LOCATION

Chester Washington Golf Course is located in West Athens, a census-designated place within the City of Los Angeles in Los Angeles County, California. Chester Washington Golf Course is located in the Second Supervisorial District of Los Angeles County, approximately 14 miles south of the Los Angeles Civic Center (Figure 1, *Regional Vicinity Map, Chester Washington Golf Course*. The golf course address is 1818 Charlie Sifford Drive, Los Angeles, California 90047. The golf course occupies approximately 125 (125.4) acres on two parcels owned by the County of Los Angeles (AINs 4057-032-901 and 4057-032-900). Chester Washington Golf Course is located within the U.S. Geological Survey (USGS) 7.5-minute series Inglewood topographic quadrangle in Township 3 South, Range 14 West, Section 11 (Figure 2, *Topographic Map, Chester Washington Golf Course*).

The golf course is located in a transitional area between commercial and residential land uses; there are commercial land uses to the west, and single-family residences to the north, east, and south. The golf course is bounded to the north by Charlie Sifford Drive, to the east by single-family residences and Henry Clay Middle School on S. Western Avenue, to the south by single-family and multi-family residences on El Segundo Boulevard, and to the west by commercial buildings on Van Ness Avenue. Chester Washington Golf Course can be reached from Interstate 110 (I-110), take exit 13 towards El Segundo Boulevard. Travel along El Segundo Boulevard for 12 miles, turn right onto Normandie Avenue, turn left onto West 120 Street, and continue straight to Charlie Sifford Drive. Continue on Charlie Sifford Drive for 0.3 mile to the golf course entrance on the left.

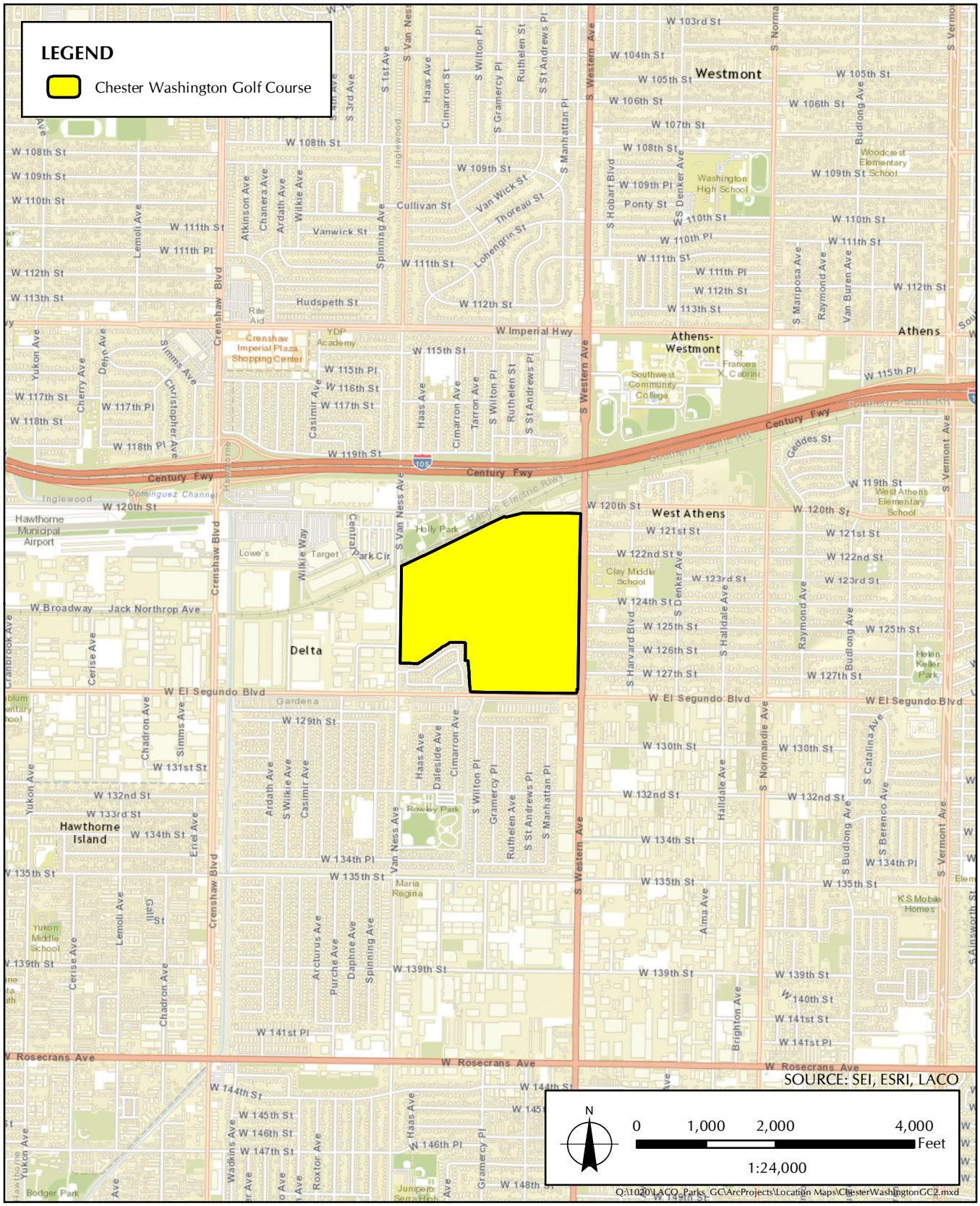

FIGURE 1

Regional Vicinity Map, Chester Washington Golf Course

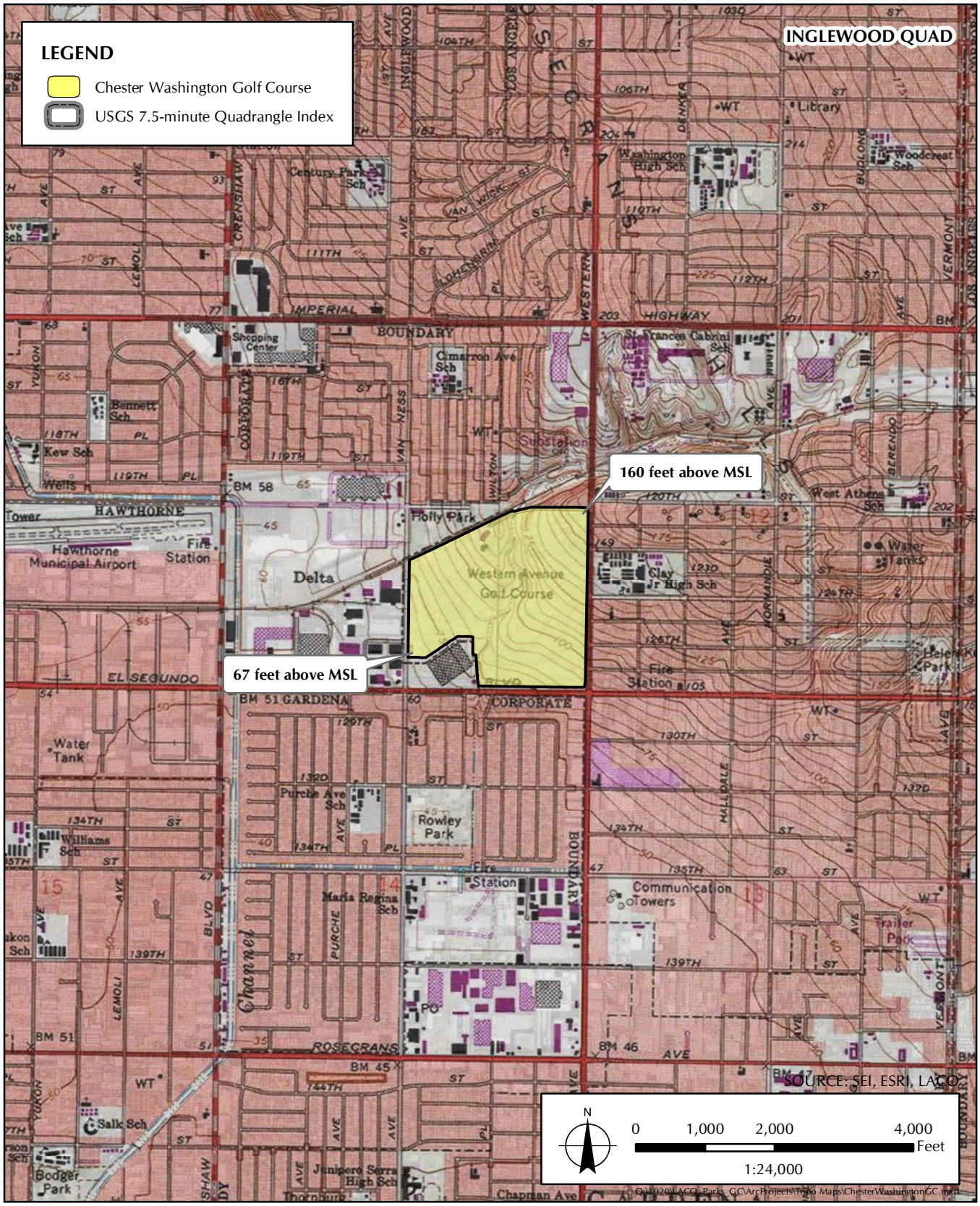

FIGURE 2

Topographic Map, Chester Washington Golf Course

Chester Washington Golf Course is a public golf course serving the communities of West Athens, Westmont, and Hawthorne.

3.1 TOPOGRAPHY AND GEOLOGY

Chester Washington Golf Course is located in the Coastal Plain of the Los Angeles Central Basin. The Coastal Plain region is characterized by a series of mountain ranges and northwest trending sediment-filled valleys, subparallel to faults branching from the San Andreas Fault. Holocene alluvium forms the natural foundation material underlying the Los Angeles Coastal Plain. The alluvium is typically loose, well drained, moderately sorted, highly permeable sand, gravel, and silt which may be up to 15 feet thick where it overlies bedrock and Pleistocene alluvium. This alluvium is generally fine- to medium- or coarse-grained sand and silty sand with local gravels and clays. Generally, engineering properties range from poor to good; general design values have been developed for the various classes of materials.

Chester Washington Golf Course is gently sloping with elevations ranging from approximately 67 feet above mean sea level (msl) at the southwest corner of the park to 160 feet above msl at the northeast corner of the park.

3.2 SETTING AND LANDSCAPE

Chester Washington Golf Course is an approximately 125-acre community golf course that is 100 percent developed. The golf course was originally constructed between 1926 and 1965 and includes a parking area, hardscaping, a picnic area, and walkways.

Landscape treatments, including lawn areas, shrubs, ornamental tree plantings, and two man-made lakes compose roughly 90 percent (112 acres) of the golf course. The golf course contains a number of mature trees including the following non-native trees: Afghan pine (*Pinus elderica*), Chinese elm (*Ulmus parvifolia*), Deodar cedar (*Cedrus deodara*), fern pine (*Afrocarpus falcatus*), California peppertree (also known as Peruvian peppertree; *Schinus molle*), red river gum (*Eucalyptus camaldulensis*), southern magnolia (*Magnolia grandiflora)*, and laurel fig (*Ficus microcarpa*). Mature trees are complemented by grass fields and areas planted with non-native shrubs. The remaining portions of the golf course include building and paved areas.

3.3 BUILDINGS AND STRUCTURES

Chester Washington Golf Course includes banquet facilities, cart rentals, club rental, cocktail lounge, coffee shop, driving range, golf instruction, pro shop, a practice putting green, and a practice chipping green (Table 3.3-1, *Buildings and Structures;* Figure 3, *Existing Conditions Map, Chester Washington Golf Course*).

TABLE 3.3-1
BUILDINGS AND STRUCTURES

Building/Structure	Area (Sq. Ft.)[1]
Clubhouse	16,669
Gazebo	1,147
Pro Shop	4,270
Plaque	N/A
Storage Shed	128
Maintenance Shed	4,418
Comfort Station No. 1	189
Bridge	27
Comfort Station No. 2	1,442
Concession Stand	1,142
Well House	110
Pump House	691

There are 12 buildings, structures, and features in Chester Washington Golf Course. The buildings, structures, and features that still exist were constructed over a 50+-year period; earlier structures built between 1926 and 1957 were demolished when the County purchase the golf course. Five of these features—the clubhouse, pro shop, bridge, comfort station No. 2, and the concession stand—date to the historic period and were carried forward for detailed evaluation. The gazebo, plaque, storage shed, maintenance shed, comfort station No. 1, well house, and pump house are less than 50 years of age and/or utilitarian or mass produced, and therefore, are not eligible for listing in the National Register of Historic Places, California Register of Historical Resources, or County of Los Angeles Register of Landmarks and Historic Districts pursuant to Criteria A/1, B/2, C/3, or D/4.

[1] Square footages were derived from the Countywide Building Outlines data located on the LACO GIS Data Portal and/or from aerial imagery analysis. Available at: http://egis3.lacounty.gov/dataportal/2011/04/28/countywide-building-outlines/

FIGURE 3

Existing Conditions Map, Chester Washington Golf Course

Plaque

Also located at the golf course is a plaque dedicated to Charlie Sifford (Figure 4, *View of Plaque, Chester Washington Golf Course*). The plaque memorializes Charlie Sifford, the first African-American to play in the Professional Golfers' Association (PGA) tour. Sifford frequented Chester Washington Golf Course, which was a refuge for African-American golfers in the Los Angeles area.

Figure 4. View of Plaque, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

Gazebo

The gazebo is located next to the golf course clubhouse and is commonly used in weddings. This pre-fabricated gazebo has a shingle-clad octagonal roof with exposed rafter tails and is supported by columns with decorative braces. Measuring approximately 1,147 square feet, the gazebo was likely installed in the first decade of the 2000s (Figure 5, *View of Gazebo, Chester Washington Golf Course*).

Figure 5. View of Gazebo, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

Storage Shed

Used to hold a golf ball dispensing machine, the prefabricated storage shed is located near the putting greens by the pro shop. A gable roof, board siding, and a rectangular floorplan define this 128-square-foot building (Figure 6, *View of Storage Shed, Chester Washington Golf Course*). The building has a vent below the roof to provide passive air flow. The storage shed was likely installed in the first decade of the 2000s.

Figure 6. View of Storage Shed, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

Maintenance Shed

Located in the southwestern region of the park, the maintenance shed is situated near comfort station No. 1. It has a rectangular floor plan, low-pitch gable roof, and wood siding with large, wood barn-style sliding doors that provide an accessible entrance for vehicles. Measuring 4,418 square feet, the maintenance shed was likely constructed circa 1965 but is utilitarian in nature (Figure 7, *View of Maintenance Shed Southern Façade, Chester Washington Golf Course*). Casement windows covered in wire caging line the eastern face of the building (Figure 8, *View of Maintenance Shed Eastern Side, Chester Washington Golf Course*). The building has undergone numerous renovations including the replacement of windows and doors, and is in general disrepair; therefore, it does not retain integrity.

Figure 7. View of Maintenance Shed Southern Façade, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

Figure 8. View of Maintenance Shed Eastern Side, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

Comfort Station No. 1

Constructed of concrete masonry units (CMUs) and located in the southwestern region of the golf course, comfort station No. 1 has a rectangular floor plan measuring 189 square feet and a side-gable roof. Two metal doors lead to separate entrances of the facility. The comfort station was constructed circa 2000 (Figure 9, *View of Comfort Station No. 1, Chester Washington Golf Course*).

Figure 9. View of Comfort Station No. 1, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

Well House

The 110-square-foot well house was likely built in 1992 and is located in the northeastern region of the golf course near the pump house. It is constructed of wood and has a shingle-clad gable roof with barge board (Figure 10, *View of Well House, Chester Washington Golf Course*).

Figure 10. View of Well House, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

Pump House

The present pump house was constructed in 1992 and measures 691 square feet (Figure 11, *Design for Irrigation Pump House, Chester Washington Golf Course*). It has a rectangular floor plan, shingle-clad gable roof, and is constructed of CMUs (Figure 12, *View of Pump House, Chester Washington Golf Course*).

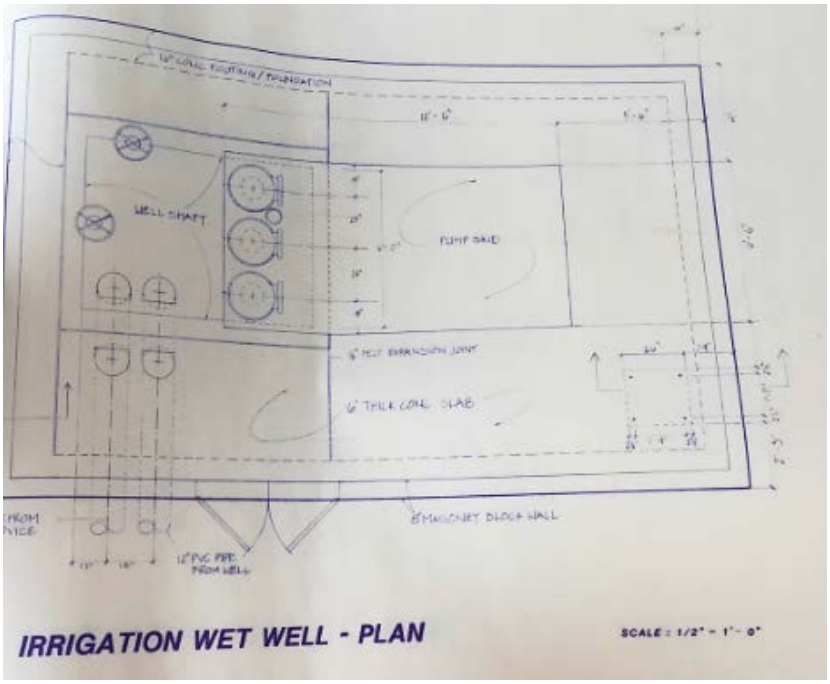

Figure 11. Design for Irrigation Pump House, Chester Washington Golf Course
SOURCE: *County of Los Angeles Department of Parks and Recreation, 1992*

Figure 12. View of Pump House, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

SECTION 4.0
REGULATORY FRAMEWORK

This section identifies applicable federal statutes, ordinances, or policies that govern the conservation and protection of historical resources that must be considered during the decision-making process for any undertaking with the potential to affect historical resources.

4.1 FEDERAL

National Historic Preservation Act

The National Historic Preservation Act (NHPA) (Public Law 89-665; 16 U.S.C. 470 et seq.) is legislation intended to preserve historical and archaeological sites in the United States of America. The act created the National Register of Historic Places (NRHP), the list of National Historic Landmarks, and the State Historic Preservation Offices.

Evaluation of a Property's Significance

To be listed in the NRHP, a property must not only be shown to be significant under NRHP criteria, but it also must have integrity. The evaluation of integrity is sometimes a subjective judgment, but it must always be grounded in an understanding of a property's physical features and how they relate to its significance.[1] The quality of significance is present in districts, sites, buildings, structures, and objects that possess integrity and:

A. are associated with events that have made a significant contribution to the broad patterns of our history; or
B. are associated with the lives of significant persons in our past; or
C. embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. have yielded or may be likely to yield, information important in history or prehistory.[2]

Evaluation of a Property's Integrity

Historic properties either retain integrity (that is, convey their significance) or they do not. Within the concept of integrity, the NRHP criteria recognize seven aspects or qualities that, in various combinations, define integrity:[3]

Location: Location is the place where the historic property was constructed or the place where the historic event occurred.

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1 National Park Service. *National Register Bulletin 15, "How to Evaluate the Integrity of a Property."* Available at http://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_8.htm#seven aspects

2 National Park Service. *National Register Bulletin 15, "How to Apply the National Criteria for Evaluation."* Available at http://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_2.htm

3 National Park Service. *National Register Bulletin 15, "How to Evaluate the Integrity of a Property."* Available at http://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_8.htm#seven aspects

Design: Design is the combination of elements that create the form, plan, space, structure, and style of a property.

Setting: Setting is the physical environment of a historic property.

Materials: Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.

Workmanship: Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.

Feeling: Feeling is a property's expression of the aesthetic or historic sense of a particular period of time.

Association: Association is the direct link between an important historic event or person and a historic property.

To retain historic integrity, a property will always possess several, and usually most, of the aspects. The retention of specific aspects of integrity is paramount for a property to convey its significance. Determining which of these aspects are most important to a particular property requires knowing why, where, and when the property is significant.[4]

4.2 STATE

California Environmental Quality Act

Pursuant to the California Environmental Quality Act (CEQA), a historical resource is a resource listed in, or eligible for listing in, the California Register of Historical Resources (CRHR) (Public Resources Code [PRC], Sections 21083.2 and 21084.1).[5,6] In addition, resources included in a local register of historical resources or identified as significant in a local survey conducted in accordance with State guidelines are also considered historical resources under CEQA unless a preponderance of facts demonstrates otherwise. According to CEQA, the fact that a resource is not listed in, or determined eligible for listing in, the CRHR or is not included in a local register or survey shall not preclude a Lead Agency, as defined by CEQA, from determining that the resource may be a historical resource as defined in California PRC Section 5024.1.

Historical resources (buildings, structures, or archaeological resources) are considered part of the environment and are subject to review under CEQA. A proposed project that may cause a substantial adverse effect on the significance of a historical resource is a project that may have a significant effect on the environment.

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4 National Park Service. *National Register Bulletin 15, "How to Evaluate the Integrity of a Property."* Available at http://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_8.htm#seven aspects

5 *California Public Resources Code*, Division 13, Section 21083.2.

6 *California Public Resources Code*, Division 13, Section 21084.1.

California Register of Historical Resources Program

Created in 1992 and implemented in 1998, the CRHR is a State government program to be used by State and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change (PRC Section 5024.1[a]).[7] Certain properties, including those listed in, or formally determined eligible for listing in, the NRHP and California Historical Landmarks (CHL) numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the CPHI program, identified as significant in historical resources surveys, or designated by local landmarks programs may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria (PRC Section 5024.1[c]):[8]

> **Criterion 1:** It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
>
> **Criterion 2:** It is associated with the lives of persons important in our past.
>
> **Criterion 3:** It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
>
> **Criterion 4:** It has yielded, or may be likely to yield, information important in history or prehistory. Resources nominated to the CRHR must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance.[9]

It is possible that a resource whose integrity does not satisfy NRHP criteria may still be eligible for listing in the CRHR. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data.[10] Resources that have achieved significance within the past 50 years may be also eligible for inclusion in the CRHR provided that enough time has lapsed to obtain a scholarly perspective on the events or individuals associated with the resource.[11]

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7 *California Public Resources Code*, Section 5024.1.

8 *California Public Resources Code*, Section 5024.1.

9 Office of Historic Preservation. 14 March 2006. "Technical Assistance Bulletin 6: California Register and National Register, A Comparison (for Purposes of Determining Eligibility for the California Register)." Available at: http://www.ohp.parks.ca.gov

10 Office of Historic Preservation. 4 September 2002. "Technical Assistance Series #3, California Register of Historical Resources: Questions and Answers." Available at: http://www.ohp.parks.ca.gov

11 Office of Historic Preservation. 14 March 2006. "Technical Assistance Bulletin 6: California Register and National Register, A Comparison (for Purposes of Determining Eligibility for the California Register)." Available at: http://www.ohp.parks.ca.gov

Public Resources Code, Section 5097.5

Public Resources Code, Section 5097.5 defines a misdemeanor as the unauthorized disturbance or removal of archaeological, historic, or paleontological resources located on public lands.

4.3 LOCAL

County of Los Angeles Historic Preservation Ordinance *(Title 22 – Planning and Zoning of the Los Angeles County Code, Part 29 of Chapter 22.52)*

22.52.3010 Purpose

The County of Los Angeles Historic Preservation Ordinance has seven established basic purposes:

A. Enhance and preserve the distinctive historic, architectural, and landscape characteristics which represent the County's cultural, social, economic, political, and architectural history.
B. Foster community pride in the beauty and noble accomplishments of the past as represented by the County's historic resources.
C. Stabilize and improve property values, and enhance the aesthetic and visual character and environmental amenities of the County's historic resources.
D. Recognize the County's historic resources as economic assets.
E. Encourage and promote the adaptive reuse of the County's historic resources.
F. Promote the County as a destination for tourists and as a desirable location for businesses.
G. Specify significance criteria and procedures for the designation of landmarks and Historic Districts, and provide for the ongoing preservation and maintenance of landmarks and Historic Districts.

22.52.3060 Criteria for Designation of Landmarks and Historic Districts

A. Property which is more than 50 years of age may be designated as a landmark if it satisfies one or more of the following criteria:
    1. It is associated with events that have made a significant contribution to the broad patterns of the history of the nation, State, County, or community.
    2. It is associated with the lives of persons who are significant in the history of the nation, State, County, or community.
    3. It embodies the distinctive characteristics of a type, architectural style, period, or method of construction; or represents the work of an architect, designer, engineer, or builder whose work is of significance to the nation, State, County, or community; or possesses artistic values of significance to the nation, State, County, or community.
    4. It has yielded, or may be likely to yield, information important locally in prehistory or history.
    5. It is listed or has been formally determined eligible by the National Park Service for listing on the National Register of Historic Places, or is listed or has been determined eligible by the State Historical Resources Commission for listing on the California Register of Historical Resources.
    6. It is one of the largest or oldest trees of the species located in the County.

7. It is a tree, plant, landscape, or other natural land feature having historical significance due to an association with a historic event, person, site, street, or structure, or because it is a defining or significant outstanding feature of a neighborhood.

B. Property less than 50 years of age may be designated as a landmark if it meets one or more of the criteria set forth in Section 22.52.3060.A, above, and exhibits exceptional importance.

C. The interior space of a property, or other space held open to the general public, including but not limited to a lobby, may itself be designated as a landmark or included in the landmark designation of a property if the space is more than 50 years of age and satisfies one or more of the criteria set forth in Subsection A, above, or if the space is less than 50 years of age and satisfies the requirements of Section 22.52.3060.B, above.

SECTION 5.0
METHODS

A thorough inventory and evaluation was undertaken to determine if Chester Washington Golf Course, or any of the related structures or buildings constitute as a historical resource pursuant to Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines; that is, whether it is listed in, has been determined eligible for listing in, or appears to meet the criteria for listing in the National Register of Historic Places, California Register of Historical Resources, and/or County of Los Angeles Register of Landmarks and Historic Districts.

This evaluation was performed by Sapphos Environmental, Inc. (Ms. Alexandra Madsen and Ms. Carrie Chasteen), who meets the Secretary of the Interior's *Professional Qualification Standards* for History and Architectural History (Appendix A*, Resumes of Key Personnel*).

The determination of eligibility for consideration as a historical resource was based on:

- Evaluation of historic photographs and Sanborn maps;
- Consideration of reasonably available published and unpublished literature, including newspaper articles, other primary sources, and secondary sources provided by the County of Los Angeles (County) and Sapphos Environmental, Inc.;
- Compilation of land use and land ownership data;
- Review of records available through the California Historical Resources Inventory System (CHRIS), accessed at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton on October 27, 2015; and
- Surveys of the golf course, appurtenant structures and buildings, and landscape on September 7, 2016.

5.1 RECORD SEARCH

Sapphos Environmental, Inc. submitted a request for a record search of Chester Washington Golf Course to the SCCIC on September 18, 2015. The record search was submitted to obtain known cultural sites either on or within the area, and previous studies conducted within the 0.25-mile boundary of the Chester Washington Golf Course property.

Sapphos Environmental, Inc. reviewed seven cultural resource surveys and reports in addition to two sets of 1:62,500 topographic maps (Appendix B, *Record Search Results, Chester Washington Golf Course*):

- U.S. Geological Survey. 1896 Topographic Map. Redondo, CA.
- U.S. Geological Survey. 1944 Topographic Map. Redondo, CA.

5.2 EVALUATION OF HISTORICAL PHOTOGRAPHS AND MAPS

Sapphos Environmental, Inc. reviewed archival research, planning documentation, and historical photos of the golf course and its buildings, which was provided by the County of Los Angeles Department of Parks and Recreation (County Department) from their archival files:

- Eleven (11) historical photos dated 1964 or 1965 from the County CEO Photo Unit
- Twenty-six (26) historical photos dated 1958, 1962, or 1965 from the County Department of Public Works
- One hundred twenty-six (126) general photos dated 2010 and 2012, and one (1) undated historical photo from the County Department

Sapphos Environmental, Inc. also included a review of eight sets of 1:24,000 topographic maps:

- U.S. Geological Survey. 1924 Topographic Map. Inglewood, CA.
- U.S. Geological Survey. 1930 Topographic Map. Inglewood, CA.
- U.S. Geological Survey. 1948 Topographic Map. Inglewood, CA.
- U.S. Geological Survey. 1950 Topographic Map. Inglewood, CA.
- U.S. Geological Survey. 1952 Topographic Map. Inglewood, CA.
- U.S. Geological Survey. 1964 Topographic Map. Inglewood, CA.
- U.S. Geological Survey. 1972 Topographic Map. Inglewood, CA.
- U.S. Geological Survey. 1981 Topographic Map. Inglewood, CA.

5.3 CONSIDERATION OF PUBLISHED AND UNPUBLISHED LITERATURE

Sapphos Environmental, Inc. conducted further research in the Los Angeles County Historical Society's archival section. Sapphos Environmental, Inc. considered additional information available in published literature and was supplemented with online research. Chester Washington Golf Course staff shared their knowledge of the history of the golf course; information provided by staff for the period pre-dating their tenure was validated through primary and secondary source material (Appendix C, *Sapphos Environmental, Inc. Resources*).

The County Department also provided extensive resources from their files for consideration in the evaluation of Chester Washington Golf Course (Appendix D, *County of Los Angeles Department of Parks and Recreation Sources*):

- Articles from two (2) local newspapers
- Five (5) unpublished documents
- Three (3) memoranda
- One (1) published document

5.4 SITE VISIT

Sapphos Environmental, Inc. (Ms. Madsen and Ms. Chasteen) conducted a site inspection on September 7, 2016. The purpose of the site visit was to evaluate the integrity of the setting, buildings, and structures that date to the original construction of the golf course and subsequent rehabilitation and adaptive reuse of selected structures, replacement structures, and key landscape elements were documented using GPS points for comparison with plans and specification. This information was used to characterize original materials versus those buildings and structures that have been subject to modification. County Department staff shared their knowledge of the history of the golf course, and accompanied Ms. Madsen and Ms. Chasteen on a tour of the golf course. Photographic documentation was conducted by Ms. Chasteen.

SECTION 6.0
RESULTS

This section of the report describes the results of the record search for surveys related to archaeological and historic resources that have been conducted within the Chester Washington Golf Course boundaries and/or 0.25-mile buffer zone, and archaeological and historical resources recorded as a result of those surveys. This section also provides a historic context for the development of golf and golf courses in the United States and Los Angeles, California. This section then specifically describes the results of the evaluation of the extant resources that was undertaken to assess their eligibility for being treated as a historical resource pursuant to Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines.

6.1 ARCHAEOLOGICAL RESOURCES

Upon receiving the record search on October 27, 2015, Sapphos Environmental, Inc. reviewed the data in order to obtain information regarding any cultural sites located within the Chester Washington Golf Course boundaries or 0.25-mile buffer zone. The search was conducted in Township 3 South, Range 14 West, Section 11 within the U.S. Geological Survey (USGS) 7.5-minute series Inglewood topographic quadrangle.

The results of the record search conducted at the South Central Coastal Information Center (SCCIC) indicate that one archaeological study has been conducted within the golf course boundaries, and six archaeological studies have been conducted exclusively within the 0.25-mile buffer zone (Table 6.1-1, *Previous Archaeological Surveys and Reports within the Study Area*). No unique archaeological resources, as defined in Section 21083.2 of the Public Resource Code, have been identified within or near Chester Washington Golf Course.

TABLE 6.6-1
PREVIOUS ARCHAEOLOGICAL SURVEYS AND REPORTS WITHIN THE AREA

Report No.	Year	Report Title	Report Type	Within Property	Within 0.25-Mile Buffer	Authors
LA-00078	1975	Evaluation of the Archaeological Resources and Potential Impact of the Proposed Construction of Route 105 Freeway from El Segundo to Norwalk	Archaeological, Field Study		X	Rosen, Martin D. University of California, Los Angeles Archaeological Survey
LA-02904	1993	Draft Report a Phase I Cultural Resources Literature Search for the West Basin Water Reclamation Project	Literature Search	X		Stickel, Gary E. Environmental Research Archaeologists

TABLE 6.6-1
PREVIOUS ARCHAEOLOGICAL SURVEYS AND REPORTS
WITHIN THE AREA, *Continued*

Report No.	Year	Report Title	Report Type	Within Property	Within 0.25-Mile Buffer	Authors
LA-02950	1992	Consolidation Report: Cultural Resource Studies for the Proposed Pacific Pipeline Project	Archaeological, Field Study		X	Peak & Associates, Inc.
LA-04836	2000	Phase I Archaeological Survey Along Onshore Portions of the Global West Fiber Optic Cable Project	Archaeological, Field Study		X	Science Applications International Corporation
LA-08255	2006	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and II	Archaeological, Field Study, Monitoring, Other Research		X	Arrington, Cindy and Nancy Sikes SWCA Environmental Consultants Inc.
LA-11150	2003	West Basin Municipal District Harbor/ South Bay Water Recycling Project	Archaeological, Field Study		X	Maxwell, Pamela U.S. Army Corps of Engineers
LA_11973	2011	Crenshaw/LAX Transit Corridor Project Final Environmental Impact Report (EIR)/Final Environmental Impact Statement (EIS)	Management/ Planning		X	Metro

LA-00078: In 1975, the University of California, Los Angeles conducted an archaeological field study in support of the proposed construction of the Route 105 Freeway from El Segundo to Norwalk. The assessment did not include the park boundary but did include the 0.25-mile buffer zone. The archaeological investigation yielded negative findings in the 0.25-mile buffer zone.

LA-02904: In 1993, Environmental Research Archaeologists conducted a literature search in support of the West Basin Water Reclamation Project. The assessment included the park boundary and the 0.25-mile buffer zone. The archaeological investigation yielded negative findings in the park boundary and the 0.25-mile buffer zone.

LA-02950: In 1992, Peak & Associates conducted an archaeological field study in support of the proposed Pacific Pipeline Project. The assessment included the 0.25-mile buffer zone. The archaeological investigation yielded 22 findings; however, the resources are located outside of the 0.25-mile buffer zone.

LA-04836: In 2000, Science Applications International Corporation conducted an archaeological field study in support of the Global West Fiber Optic Cable Project. The assessment included the 0.25-mile buffer zone. The archaeological investigation yielded negative findings in the 0.25-mile buffer zone.

LA-08255: In 2006, SWCA conducted an archaeological field study, monitoring, and other research in support of the Qwest Network Construction Project. The assessment included the 0.25-mile buffer zone. The archaeological investigation yielded negative findings in the 0.25-mile buffer zone.

LA-11150: In 2003, the U.S. Army Corps of Engineers conducted an archaeological field study in support of the South Bay Water Recycling Project. The assessment included the 0.25-mile buffer zone. The archaeological investigation yielded 22 findings; however, the resources are located outside of the 0.25-mile buffer zone.

LA-11973: In 2011, Metro conducted management/planning research in support of the Crenshaw/LAX Transit Corridor Project Final Environmental Impact Report (EIR). The assessment included the 0.25-mile buffer zone. The archaeological investigation yielded negative findings in the 0.25-mile buffer zone.

Although a record search was completed, a Phase I Pedestrian Survey to assess the presence or absence of archaeological resources was not completed. Generally, in existing developed parks or golf courses, native soils will be several feet below grade due to prior excavation and grading activities that were conducted for constructing buildings and structures, irrigation, and landscaping. Projects that can be reviewed pursuant to a CEQA Categorical Exemption would not likely create an unusual circumstance with regard to archaeological resources unless a project requires grading and excavation of native soils not disturbed during construction, maintenance, and operation of the park or golf course. Any work that involves earth-moving activity in previously undisturbed native soils should be monitored by, at minimum, workers that have received cultural resource training pursuant to a cultural resources management plan and worker education and awareness program.

6.2 HISTORIC RESOURCES

Sapphos Environmental, Inc. reviewed the data obtained through a record search to identify historic resources located on or within a 0.25-mile radius of Chester Washington Golf Course.

The results of the record search conducted at the SCCIC indicate that no historic studies have previously been conducted within the golf course boundary or 0.25-mile buffer zone. One historic resource has been identified near Chester Washington Golf Course (Table 6.2-1, *Previously Recorded Historic Resources within the Study Area;* Figure 13, *Previously Recorded Historic Resources Map, Chester Washington Golf Course*).

TABLE 6.2-1
PREVIOUSLY RECORDED HISTORIC RESOURCES
WITHIN THE STUDY AREA

Primary or Property Number	Trinomial	Description	Within Property	Within 0.25-Mile Buffer	Attribute Codes	Resource Type
P-19-177423		1727 W 130th Street; The Howard House		X	HP6; Commercial Building	Building

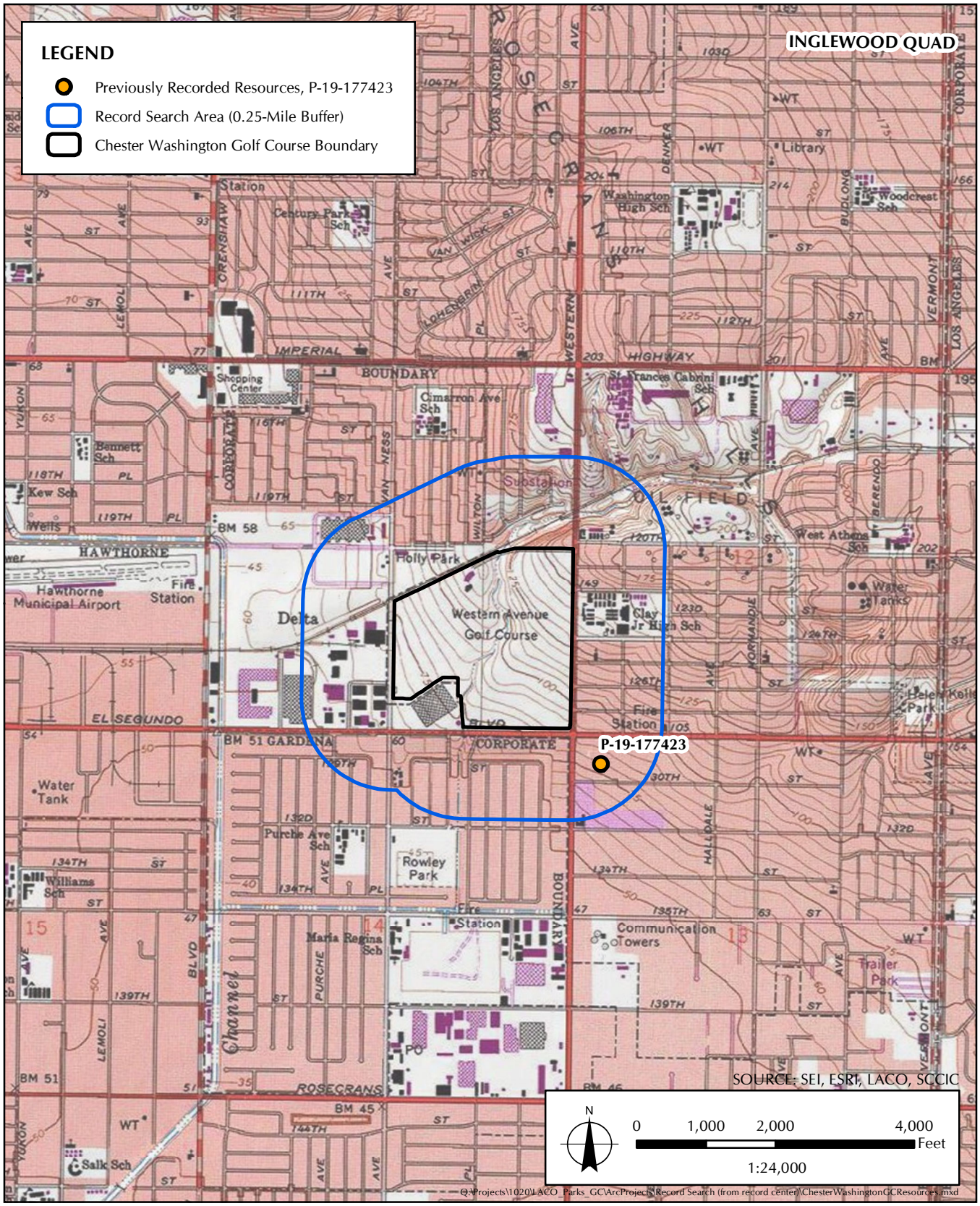

FIGURE 13

Previously Recorded Historic Resources Map, Chester Washington Golf Course

P-19-177423: This resource is a circa 1926 1.5-story commercial building. It has a flat roof, stucco exterior, and square footprint. Its commercial function is visible in the loading dock along its south façade. It is located along W. 130th Street. It appears to be eligible for local listing in the County of Los Angeles Register of Landmarks and Historic Districts (County Register; 5S2). It was not found eligible for listing in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR).

In 2012, Atkins previously found the clubhouse and pro shop ineligible for listing in the CRHR for its architecture pursuant to Criterion 3.[1] Atkins did not evaluate the buildings for other criteria, nor did they evaluate for eligibility for listing on the County Register.

6.3 HISTORY

Golf

According to the International Golf Federation, the game, or sport, of golf is believed to have evolved over more than 2,000 years. Evidence of the Romans engaging in the game of *paganica*, a game involving hitting a stuffed leather ball with a bent stick, date to 100 years before present (bp).[2] A game similar to golf involving a ball and clubs, called *chuiwa an,* was played in China during the Song Dynasty.[3]

The modern game of golf was founded in Scotland during the 15th century and the first golf course was located in St. Andrews, constructed in 1552. The game expanded in popularity in Great Britain in the 1500s and 1600s. In the early 17th century, the game was not organized with a standard golf course layout or rules.[4] Although golf was played across income classes, there was a wide variety in the application. The Honourable Company of Edinburgh Golfers is credited with establishing the first rules of golf in 1744.[5]

The earliest known country club include Blackheath, a 7-hole golf course, located near London and established in 1608; and Saint Andrews Royal and Ancient Club, established in Scotland in 1754. Shortly thereafter, the golf course at Saint Andrews was reduced from 22 holes to 18 holes, setting the standard for recognized format for the game throughout the world. The first country club created exclusively for women, The Ladies Club of St. Andrews, Scotland was formed in 1867.[6]

In 1792, the game of golf made its way to the United States.[7] Golf had become popular throughout the world, and courses spread throughout the nation. One of the first noted golf course designers in

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1 Harris, Brandy and Kelley Russell (Atkins). Letter to Joan Rupert (County). "CRHP Eligibility Assessment of the Chester L. Washington Golf Course Clubhouse." 13 August 2012. *Memorandum.*

2 "History of Golf." International Golf Federation. Available at: http://www.igfgolf.org/about-golf/history/

3 "History of Golf." International Golf Federation. Available at: http://www.igfgolf.org/about-golf/history/

4 "History of the Game of Golf, Including Its Origins." The People History. Available at: http://thepeoplehistory.com/golfhistory.html

5 "History of the Game of Golf, Including Its Origins." The People History. Available at: http://thepeoplehistory.com/golfhistory.html

6 "History of Women's Golf." Women's Golf and Travel Concierge. Available at: http://womensgolfandtravel.com/history-womens-golf/

7 "History of Golf." International Golf Federation. Available at: http://www.igfgolf.org/about-golf/history/

the United States was William Flynn (1890–1944). Flynn's noted courses are primarily located in Ohio.[8]

Golf in the United States

Recently found documents have revealed that the first export of golf clubs from Scotland occurred on June 29, 1739, on the vessel, *Carolina*. The clubs were sold to William Wallace, a business man in Charleston, South Carolina for 1 pound, 18 shillings.[9] In 1744, Georgia shipping records further document the arrival of golf equipment from Scotland. The first account of a country club in the United States was the South Carolina Golf Club of Charleston, founded in 1786 at Harleston Green on the Charleston Peninsula.[10,11] However, it no longer exists. Although the Savannah Golf Club in Savannah, Georgia claims to be the oldest country club in the United States, established sometime during 1794–1795; it only dates back to 1899.[12]

Early American golf courses were crude constructions. In the late 19th century, however, well-manicured 9-hole courses with intelligent layouts began to replace the original courses. At that time, most of the early well-known courses were located on the east coast. As golf increased in popularity, so did the courses and societies, spreading to the west coast by 1884.

Ten years later, Newport Golf Club (Newport, Rhode Island) and St. Andrew's Golf Club (Yonkers, New York) hosted self-labeled national championships; both in which Charles Blair Macdonald placed as runner-up. Convinced that both societies did not hold the authority to conduct a true national championship, Macdonald sought out a governing body to organize a recognized amateur championship and create a written set of rules. Subsequently, the U.S. Golf Association (USGA), initially called the Amateur Golf Association of the Unites States, was officially formed on December 22, 1894 in New York City. Nearly 10 months later, the inaugural U.S. Amateur Championship took place at Newport Golf Club. A day later, the Newport Golf Club then hosted the inaugural U.S. Open. A few weeks after the U.S. Open, the inaugural U.S. Women's Amateur was conducted at Meadow Brook Club in Hempstead, New York.[13]

On January 17, 1916, department store magnate Rodman Wanaker gathered a number of golf professionals and leading amateur players with the belief that golf professionals could enhance equipment sales if they formed an association. As a result, the Professional Golfers Association of America (PGA) was formed on April 10, 1916 in New York City with 35 charter members. In October of that same year, the PGA held the first PGA Championship at Siwanoy Country Club in

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8 "Famous Golf Course Architects." Hurdzan Golf. Available at: http://hurdzangolf.com/famous-golf-course-architects/

9 Braswell, Tommy. 1 December 2014. "Rewriting History: Golf Arrives in America even earlier than thought at Charleston." *The Post and Courier* (Charleston, SC).

10 Rose, M. L. 19 October 2013. "Early History of Golf in the United States." Available at: http://www.livestrong.com/article/381590-early-history-of-golf-in-the-united-states/

11 Braswell, Tommy. 1 December 2014. "Rewriting History: Golf Arrives in America even earlier than thought at Charleston." *The Post and Courier* (Charleston, SC).

12 Laird, Neil, ed. 31 January 2014. "New World: Oldest Golf Clubs and Courses." Available at: http://www.scottishgolfhistory.org/news/oldest-golf-clubs-courses-america/

13 Shefter, David, United States Golf Association. 30 November 2014. "Celebrating 120 Years of the USGA (Part 1): 1894–1924." Available at: http://www.usga.org/content/usga/home-page/articles/2014/12/celebrating-120-years-of-the-usga-part-1-a-nation-is-introduced-to-golf-21474873960.html

Bronxville, New York.[14] The following year, the Women's Tournament Committee of the USGA was founded and later became the Women's Committee of the USGA in 1934.[15]

Thirty four years later, the PGA established the PGA Tour in December 1968 as a separate organization for tour players. The PGA Tour hosts 47 events annually and hosts three tours: the PGA Tour, the Champions Tour for professionals over the age of 50, and the Web.com Tour for professionals who have not qualified for their Tour card or did not advance to remain on the Tour.[16]

In 1944, the Women's Professional Golf Association WPGA was founded and later replaced by the Ladies Professional Golf Association (LPGA) in 1950.[17,18] The LPGA hosts the LPGA Tour which includes tournaments in 30+ countries.[19]

There are now approximately 15,500 public and private golf courses in the United States and an estimated 25.7 million golfers.[20]

Golf in Los Angeles, California

In 1897, a volunteer association, the Los Angeles Golf Club, leased a 16-acre lot at Pico and Alvarado Streets, becoming the first golf course in Southern California. The 9-hole course was designed by the club founders, Joe Satori and Ed Tufts. The clubhouse, named "The Windmill Links" was converted from an abandoned windmill. As the popularity of golf grew, the Windmill Links quickly became overcrowded and a new site for a larger clubhouse was chosen in 1898 at Hobart and 16th Streets, known as Pico Heights. The clubhouse, named "The Convent Links" after the nearby convent, quickly became overcrowded again and was transported to the northeast corner of Pico and Western Avenues, where it was expanded to an 18-hole course. On May 30, 1911, The Convent Links was relocated for the final time to Beverly Hills, consisting of a 36-hole course and tennis courts.[21]

On July 29, 1899, the Southern California Golf Association (SCGA) was founded

> *"to promote interest in the game of golf; the protection of the mutual interest of its members; to establish and enforce uniformity in the rules of the game by creating a*

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14 "PGA of America History – 1916–1919." Professional Golfers Association. Available at: http://www.pga.com/pga-america/pga-feature/pga-america-history-1916-1919

15 "History of Women's Golf." Women's Golf and Travel Concierge. Available at: http://womensgolfandtravel.com/history-womens-golf/

16 Moehring, Keith, PR 20/20, Cleveland, OH. 18 February 2009. "The Difference Between the PGA of America and PGA Tour." *70th Senior PGA Championship Blog*. Available at: https://seniorpga2009.wordpress.com/2009/02/18/the-difference-between-the-pga-of-america-and-pga-tour/

17 "History of Women's Golf." Women's Golf and Travel Concierge. Available at: http://womensgolfandtravel.com/history-womens-golf/

18 "LPGA Teaching and Club Professionals: A History." Ladies Professional Golf Association. Available at: http://www.lpga.com/tcp/historytcp.aspx

19 "About LPGA." Ladies Professional Golf Association. Available at: http://www.lpga.com/about-lpga

20 Gole, Thomas. 2012. "By the Numbers: USA Golfers and Golf Courses." Available at: http://golf-info-guide.com/golf-tips/golf-in-the-usa/by-the-numbers-usa-golfers-and-golf-courses/

21 "Club History." The Los Angeles Country Club. Available at: https://www.thelacc.org/Default.aspx?p=DynamicModule&pageid=362588&ssid=272141&vnf=1

representative authority, its executive committee, to be a Court of Reference as a final authority in matters of controversy; to establish a uniform system of handicapping; to decide on what links the amateur, open and ladies' championships of Southern California, and such other championships, as may be decided upon by the executive committee, shall be played."[22]

The association included representatives from five country clubs – Los Angeles, Pasadena, Redlands, Riverside Polo & Golf, and Santa Monica. Only the Los Angeles Country Club and Redlands Country Club remain today; Riverside Polo & Golf eventually became The Victoria Club which is a current member.[23]

The following year, the City of Los Angeles opened the Riverside Golf Course at Griffith Park, the first municipal golf course in the nation.[24]

Considered the "golden age" of golf course design, the 1920s saw the opening of Los Angeles courses including Rancho Park, Wilshire, and Hillcrest among others. Notably, three of Los Angeles' most legendary courses were created in four years' time by George C. Thomas, Jr., a former fighter pilot and botanist who considered golf course architecture a hobby.[25] In 1927, at the behest of SCGA President Edward B. Tufts, the Los Angeles Chamber of Commerce established the Los Angeles Open which remains as the nation's oldest civic-sponsored event.[26]

Many private golf courses in Los Angeles County built during the early 20th century faced difficult economic hardship during the Great Depression.[27] The County of Los Angeles (County) acquired several facilities during this era in addition to municipally built facilities. The Board of Retirement of the Los Angeles County Employees Retirement Association (LACERA) played a role in the purchase and development of many of the golf courses that are owned by the Department. In 1949, a bill signed by California Governor Earl Warren permitted retirement associations to invest up to 25 percent of existing retirement funds in public works. Public works financed by LACERA included county administrative buildings and other facilities, and would later include golf courses in 1965. At the Department's recommendation, the Los Angeles County Board of Supervisors authorized negotiations with LACERA for the purchase of two existing private courses, in addition to sites of five planned courses and their early developments.[28]

At the time of this evaluation, *Golf Club Atlas* recognizes the following as the 10 most notable golf courses in Los Angeles County: [29]

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22 "SCGA History, Part 1: 1899–1919, Chapter 3: Founding the SCGA." Southern California Golf Association. Available at: http://www.scga.org/about/scga-history/part-1

23 "SCGA History." Southern California Golf History. Available at: http://www.scga.org/about/scga-history

24 "Los Angeles Sports History." Los Angeles Almanac. Available at: http://www.laalmanac.com/sports/sp18.htm

25 Tingle, Steven. 7 August 2015. "A Long Drive Down Memory Lane." *C-Suite Quarterly*, Calabasas, CA. Available at: http://csq.com/2015/08/golf-in-los-angeles-a-long-drive-down-memory-lane/#.VqqaxvkrJph

26 "SCGA History, Part 2: 1920–1939, Chapter 3: Professional Gold and National Tournaments Arrive." Southern California Golf Association. Available at: http://www.scga.org/about/scga-history/part-2

27 "All Los Angeles Golf Courses." GolfNow Solutions. Available at: https://www.golfnow.com/losangeles/courses/all-courses

28 "7 New Public Course for L.A. County." Golfdom. October/November 1965. Volume 39, No. 10: 123-124. Available here: http://archive.lib.msu.edu/tic/golfd/article/1965oct123.pdf

29 Harshbarger, Dave. "Dynamic Map of Course Profiles." Available at: "http://golfclubatlas.com/best-of-golf/gca-fusion-tables/

- Woodland Hills Golf Course
- Riviera Country Club
- Bel Air Country Club
- Lakeside Golf Club
- Wilshire Country Club
- Oakmont Country Club
- Annandale Golf Club
- San Gabriel Country Club
- Hacienda Golf Club
- Meadowlark Golf Club

In a 2013 survey, three additional Los Angeles area golf courses were recognized as among the best Southern California public golf courses: [30]

- Angeles National Golf Club
- Trump National Golf Club
- Arroyo Seco Golf Course
- Rancho Park Golf Course
- De Bell Golf Course

As of 2016, the County oversees a total of 19 public golf courses available to all Angelinos and visitors.

South Los Angeles

The Gabrielino tribe of Native Americans occupied the entire Los Angeles Basin and the San Fernando Valley, including the watersheds of the San Gabriel, Santa Ana, and Los Angeles Rivers. They also inhabited the offshore islands of San Clemente, Santa Catalina, and San Nicolas.[31] The Gabrielino were one of two of the wealthiest, most powerful and most populous native groups in Southern California. Their influence spread as far north as the San Joaquin Valley, as far east as the Colorado River, and south as far as Baja California.[32]

The Gabrielino occupied small villages. They were traditionally coastal hunters and gatherers who exploited native plants and animals. The high desert woodlands, the chaparral and the coastal areas of Southern California provided the Gabrielino with a rich and abundant diet including acorn, pine nut, small game, deer, and quail. Marine mammals and shellfish were also an important part of the diet, mainly among the coastal population.[33]

The Gabrielino were assimilated into the Spanish mission system during the 18th and 19th centuries. Spanish reports estimate that village populations ranged between 50 and 200

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30 Peterson, Elizabeth. 17 June 2013. "Best Public Golf Courses in Southern California." Available at: http://losangeles.cbslocal.com/top-lists/best-public-golf-courses-los-angeles/

31 Kroeber, A.L. 1952. *Handbook of the Indians of California*. New York, NY: Dover Publications, Inc.

32 Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians*, Vol. 8, ed. R.F. Heizer. Washington, D.C.: Smithsonian Institution.

33 McCawley, W. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*. Banning, CA: Malki Museum Press.

inhabitants. As many as 50 to 100 villages existed during the late 18th century in the San Fernando Valley and Los Angeles Basin.[34]

Spanish influence in the area occurred in 1542, when Juan Cabrillo arrived in the area. Then, in 1769, Gaspar de Portola led an expedition across Southern California with Catholic monks Junipero Serra and Juan Crespi. Portola named a river they crossed "El Río de Nuestra Señora la Reina de los Ángeles de Porciúncula," "The River of Our Lady the Queen of the Angels of the Porciúncula ("little portion"). In 1781, the pueblo of Los Angeles was founded 10 miles from Mission San Gabriel Arcangel to reinforce Spanish control of the area. In 1784, the governor awarded Spanish soldier Juan Jose Dominguez a land grant of 75,000 acres, known as the Rancho San Pedro, which encompassed present-day Carson.[35]

Mexico gained independence from Spain in 1821, contributing to the continuing decline of Spanish influence in the area. Two years later, Juan Jose Dominguez's nephew and heir, Cristobal Dominguez, was re-granted the land. In 1850, Los Angeles was incorporated as a city, but its isolated communities located all across the coastal plain continued the rancho and hacienda lifestyle.[36]

In 1876, the Southern Pacific Railroad completed its line to Los Angeles and started a period of expansion in the city. Oil was discovered in 1892, and by 1923 Los Angeles was supplying one-quarter of the world's oil. Even more important to the city's growth was water. In 1913, William Mulholland completed the Los Angeles Aqueduct that assured the city's growth.[37]

Residential development in South Los Angeles began in the 1920s when large housing tracts of single-family homes were constructed on subdivided land including the Goodyear Tract by Goodyear Tire which was built around the Goodyear factory for workers to live.[38] The term 'South Central' came about in the 1920s as a place name for the growing concentration of black-owned business on Central Avenue.[39] Los Angeles may have had more opportunity for immigrants and African-Americans but segregation and restrictive deed covenants were still upheld in the city. African-Americans, Mexicans, Jews, and other minorities were restricted to live in certain neighborhoods.

The African-American community in Los Angeles was first centered at 5th Street and Central Avenue in downtown Los Angeles. The community was pushed south, down Central Avenue as the city of Los Angeles expanded, and the population grew and neighborhood segregation zoning changed. In the 1940s, a large influx of African-Americans moved to Los Angeles from the southern United States for the affordable tract homes, new jobs in war manufacturing, and to escape Jim Crow laws of the Deep South. The thriving culture of nightclubs, theaters, and other shared

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34 Bean, L.J., and C.R. Smith. 1978. "Gabrielino." In *Handbook of North American Indians*, Vol. 8, ed. R.F. Heizer. Washington, DC: Smithsonian Institution.

35 "Carson: Frequently Asked Questions." County of Los Angeles Public Library. Accessed November 2017. Available at: http://www.colapublib.org/history/carson/faq.html#q1

36 "Early History of Los Angeles." South Central History. Accessed April 2016. Available at: http://www.southcentralhistory.com/early-history-of-los-angeles.php

37 South Central History. Accessed April 2016. "Crack Epidemic?" Available at: http://www.southcentralhistory.com/crack-epidemic.php

38 The Goodyear Factory was deemed eligible for the NRHP in 1981.

39 Jimenez y West; Christopher D.; Matthew W. Roth; Alison R. Jefferson; and Morgan P. Yates. 2006. *Intersections of South Central: People and Places in Historic Contemporary Photographs*. Automobile Club of Southern California.

community venues that had already flourished along the Central Avenue corridor expanded briefly during this time, and contributed to American jazz culture. However, racial violence against African-Americans in South Los Angeles followed the Supreme Court ban of racially restrictive covenants in 1948, a decision that allowed expansion of the areas blacks were allowed to live in.[40]

Membership in youth gangs and car clubs such as the "Low Riders," the "Slausons," and "Blood Alley" increased as a means to help defend neighborhoods during the 1950s; these clubs formed an alliance during the Watts Rebellion of August 1965. The decade also began a targeted increase in the availability of drugs that began to impact families and neighborhoods across South Los Angeles significantly,[41] along with a series of manufacturing and retail closures; divestment by financial institutions; a diminished number of family-owned businesses; degradation of public schools in the area; and eventual urban decay. This process accelerated in the 1960s and 1970s during the deindustrialization of southern Los Angeles, but the neighborhoods of South Los Angeles, Watts, and Inglewood have remained predominantly African-American communities and challenges continue to be addressed. [42]

Chester Washington Golf Course

The land that is now Chester Washington Golf Course was part of a 1,500-acre ranch owned by the O.T. Johnson Corporation from the early 20th century.[43] O.T. Johnson allotted 120 acres for a golf course in the area, and the course was designed by John Dunn.[44] No information is available on John Dunn or any other architects or designers who may have been associated with the development of the golf course. Landscaping began in 1926 and grass, likely in the form of grass seed, for the golf course was transported from the state of Washington in refrigerated sacks. On March 11, 1928, the golf course officially opened as the La Avenida Golf Course. The Avenida Golf Club was organized in 1930 by 15 golfers who voted William Hunter president.[45]

In 1931, the name of the golf course was changed to Western Avenue Golf Course, and by 1953 there were over 300 members of the golf club. At this time, the golf course mostly had a number of smaller buildings; a 1930 historical aerial shows a smattering of small buildings with square footprints (Figure 14, *Historical Aerial of Western Avenue Public Golf Course* [*1930*]). One of these buildings likely survived to the 1960s, as seen in a 1965 aerial photograph, but was demolished at an unknown date (Figure 15, *Aerial of Golf Course Depicting Demolished Building* [*1965*]).

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40 *Darden, Joe T. 1995."Black Residential Segregation Since the 1948 Shelley v. Kraemer Decision." Journal of Black Studies.*

41 Fagan, J.E. 1993. "The political economy of drug dealing among urban gangs." In *Drugs and Community,* Charles C. Thomas, pp. 19–54.

42 Scott, Allen J.*, South-Central Los Angeles: Anatomy of an Urban Crisis.* Los Angeles, CA: Lewis Center, Graduate School of Architecture and Urban Planning, University of California Los Angeles.

43 Jackson, Philip. Letter to Ray Dortch. "History and Prior Golf Promotion Program Designed for Western Avenue Golf Course1974." 17 January 1978.

44 Wexler, Daniel. "History in the Making." 9 April 2007. *Los Angeles Times. http://www.latimes.com/sports/la-sp-history9apr09-story.html*

45 Jackson, Philip. Letter to Ray Dortch. "History and Prior Golf Promotion Program Designed for Western Avenue Golf Course1974." 17 January 1978.

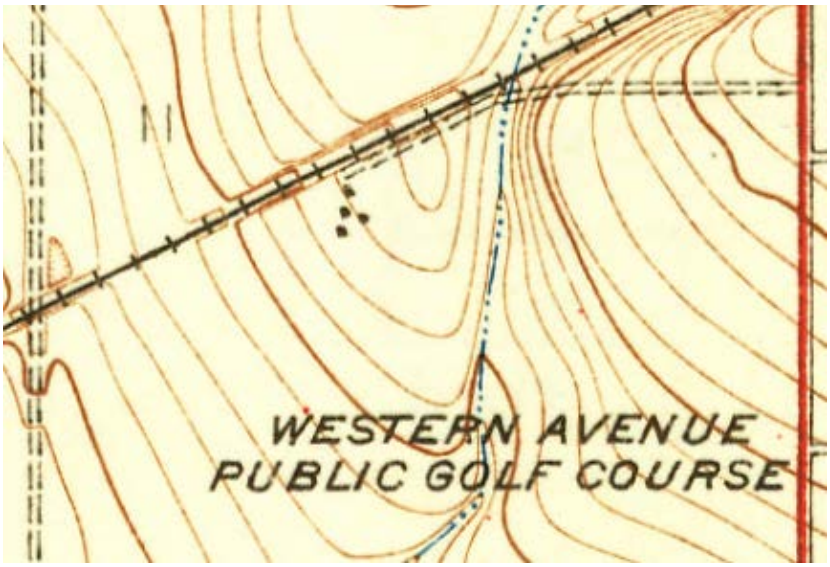

Figure 14. Historic Aerial of Western Avenue Public Golf Course (1930)
SOURCE: *U.S. Geological Survey, 7.5-minute Inglewood Topographic Quadrangle, 1930*

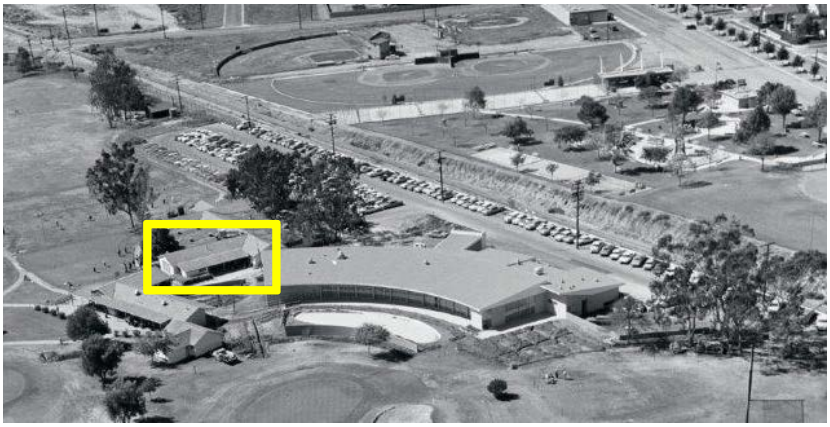

Figure 15. Aerial of Golf Course Depicting Demolished Building (1965)
SOURCE: *County of Los Angeles Department of Parks and Recreation, 1965*

Golf, like many other sports in America, was originally integrated before a "Caucasian-only" clause was adopted. The first African-American to play golf was John Shippen Jr., who competed in the 1896 Second U.S. open at Shinnecock Hills, in which he registered as Native American.[46] Although other tournament competitors originally protested his participation, PGA members eventually relented and played alongside him. Shippen played in six U.S. Opens, finishing in fifth place in 1896 and 1902 before retiring in 1924. The PGA "Caucasian-only" clause was adopted in 1934. The United Golf Association, formed by Robert Hawkins, ultimately established a tour for players excluded from PGA events.[47]

[46] Denney, Bob. "John Shippen Jr.: African American Pioneer; first American-born golf professional." 2 February 2015. *Professional Golfers Association. http://www.pga.com/news/pga/john-shippen-jr-first-African American-golf-professional*

[47] "Timeline of African American achievements in golf." 4 February 2011. *Professional Golfers Association. http://www.pga.com/timeline-African American-achievements-in-golf*

The year 1948 was a time for many firsts in American golf. One occurred at Western Avenue Golf Course during the June 21, 1948 tournament, which marked the first time in the west that women were able to compete in an open tournament with male golfers.[48] That same year, African-American golfers Teddy Rhodes, Bill Spiller, and Madison Gunter sued their way into the U.S. Open, claiming their livelihoods were being denied by the PGA based on race.[49] The PGA agreed to invite them to their top tournaments and the lawsuit was dropped. Rhodes fought his way into 69 PGA events, and began a crusade against racism in professional golf that would burn through Western Avenue Golf Course.

One reason the Western Avenue Golf Course became so embroiled in the integration of golf in Los Angeles is because of its change in ownership. In 1953, the Western Avenue Golf Course came under threat of real estate subdivision. County Supervisor Kenneth Hahn argued that the golf course should be saved and the County shortly thereafter acquired it in 1954.[50]

Controversy surrounded the Western Avenue Golf Course in 1955, when Maggie Hathaway, an African-American social activist, applied for membership to the course's Women's Golf Club.[51] The Caucasian-only group denied her application and Hathaway brought up the matter with Supervisor Kenneth Hahn.[52] Hathaway argued that the association was not allowed to discriminate based on race when practicing on County-owned land, which she and other minorities paid taxes to help maintain. Hahn agreed, and the group was expelled from the golf course. He extended the ban throughout the County, forcing all-white golf groups to diversify and admit people of color golfers.[53] A nondiscrimination clause was added to County Department facilities contracts:

> *Concessionaire agree that he shall not make any discrimination, distinction, or restriction on account of color, race, religion, ancestry, or national origin contrary to the provisions of Section 51 of the Civil Code of the State of California which is incorporated herein by reference as if set forth here at in full.*[54]

Western Avenue Golf Course became integrated and many notable African-American golfers, such as Charles Sifford, consecutively and consistently practiced at the golf course during the height of their careers.

In 1955, Charles "Charlie" Sifford and Ted Rhodes were the first African-American golfers to play at the Gardena Valley Open Golf Tournament held at Western Avenue Golf Course.[55] Sifford was the first African-American to be admitted on a PGA Tour, joining the 1960 season. He won the 1967 Greater Hartford Open Invitational, the 1969 Los Angles Open, and the 1975 PGA Seniors' Championship.[56] In 2004, Sifford was the first African-American to be enshrined in the World Golf

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48 "Male and Female Golf Meet Scheduled Here June 21st." 17 June 1948. *Los Angeles Sentinel.*

49 Lewis, Jason. "Black History Month: The First Black Golfers." 3 February 2012. *Los Angeles Sentinel. https://lasentinel.net/black-history-month-the-first-black-golfers.html*

50 County of Los Angeles Department of Parks and Recreation. "Annual Report: Fiscal Year." June 30, 1954. Board of Supervisors

51 Clark, Libby. "A 'Taste' of History- A Remembrance." 10 April 2003. *Los Angeles Sentinel.*

52 Dailey, John. "Divot Diggings: Maggie's Struggle Not a Piece of Cake." 27 October 1994. *Los Angeles Sentinel.*

53 Clark, Libby. "A 'Taste' of History- A Remembrance." 10 April 2003. *Los Angeles Sentinel.*

54 Dailey, John. "Divot Diggings: Maggie's Struggle Not a Piece of Cake." 27 October 1994. *Los Angeles Sentinel.*

55 "Ted Rhodes, Charles Sifford Will Play in Golf Meet Here." 17 November 1955. *Los Angeles Sentinel.*

56 "Timeline of African American achievements in golf." 4 February 2011. *Professional Golfer's Association. http://www.pga.com/timeline-African American-achievements-in-golf*

Hall of Fame. In 2015, President Barack Obama honored him with the nation's highest civilian honor, the Presidential Medal of Freedom.[57] Sifford was recognized for his success at the golf course in 2015, when 120th Street was changed to Charlie Sifford Drive in his honor. His son, Charles Sifford Jr., accepted a duplicate of the street sign from County Supervisor Mark Ridley-Thomas (Figure 16, *County Supervisor Mark Ridley-Thomas and Charles Sifford Jr. at Dedication of Charlie Sifford Drive;* Figure 17, *View of Charles Sifford Plaque, Chester Washington Golf Course*).[58]

Figure 16. County Supervisor Mark Ridley-Thomas and Charles Sifford Jr. at Dedication of Charlie Sifford Drive
SOURCE: *Los Angeles Wave Newspapers, 2015*

[57] Wanlass, Don. "Sports Digest: Street Renamed in honor of Charlie Sifford." 20 August 2015. *Los Angeles Wave*. *http://wavenewspapers.com/sports-digest-street-renamed-in-honor-of-charlie-sifford/*

[58] Taylor, Barbara. "Charlie Sifford Gets a Los Angeles County Street Named in His Honor." August 2015. African American Golfer's Digest. http://www.africanamericangolfersdigest.com/charlie-sifford-gets-a-los-angeles-county-street-named-in-his-honor/

Figure 17. View of Charles Sifford Plaque, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

Ted Rhodes, the player that sued his way into the U.S. Open in 1948, was another notable golfer that frequented Western Avenue Golf Course. Rhodes was recognized as the first African-American professional golfer, and went on to mentor Charlie Sifford. Debbie Rhodes, his daughter, remarked of the golf course: "It is not often as blacks that we get to talk about a place of fond memories and lasting friendships. Where black golfers got a start at making a name for themselves. This is what Chester Washington Golf Course (formerly Western Avenue Golf Course) meant to my father [Ted Rhodes]."[59]

Other notable African-American golfers who practiced at the golf course on a regular basis include: Alton Duhon, Charlie Lee, Bill Spiller, Jim Brown, and heavy-weight boxer Joe Louis.[60]

In 1956, construction began on the original clubhouse, now the pro shop, which was completed by 1958. In the early 1960s, much of the golf course landscaping was redesigned, and six bridges were constructed. A clubhouse was designed by Nielsen, Moffatt & Wolverton in 1963 and constructed in 1965. Nielsen, Moffatt & Wolverton were located out of Los Angeles and designed a number of hospitals, medical centers, and post offices.[61]

In March of 1972, the Minority Associated Golfers, with entertainment by the Jackson Five, dedicated the Junior Golfers Green. The event was notable for the musical group's surprise visit, in which the five singers and their baby brother Jackson doled out autographs.[62]

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59 Dailey, John. "Washington Golf Course: Back to the Future." 26 June 1986. *Los Angeles Sentinel*.

60 Wexler, Daniel. "History in the Making." 9 April 2007. *Los Angeles Times*. *http://www.latimes.com/sports/la-sp-history9apr09-story.html*

61 "Nielsen, Moffatt & Wolverton." 1970. *American Architects Directory*.

62 Maggie Hathaway, "Tee Time: Jackson 5 Signs Charter," 16 March 1972, pg. B3.

The golf course was renamed after newspaper magnate Chester L. Washington in 1982, a year before Washington's death. Chester L. Washington was an African-American newspaper magnate who started his career in Pittsburgh, Pennsylvania. After moving to Los Angeles, Washington served as the first African-American editor for the *Los Angeles Mirror-News* before taking a position as the editor of the *Los Angeles Sentinel,* the city's oldest black-owned weekly newspaper. In 1966, he bought the *Central News* and *Southwest News,* two weekly newspapers in South Los Angeles. Washington went on to purchase the five weekly *Wave* newspapers in 1971, eventually creating the 13-newspaper *Central News-Wave Publications.*[63]

6.4 CHRONOLOGY

This section examines the construction and design history of the Chester Washington Golf Course and its buildings as seen Section 6.5, *Significance Evaluation*.

1. **1926**
   O.T. Simpson set aside 120 acres for a golf course; John Dunn designed the landscaping.[64]

2. **March 11, 1928**
   The golf course officially opened as the La Avenida Golf Course.[65]

3. **1930**
   Local golfers organized the Avenida Golf Club.[66]

4. **1931**
   The golf course was renamed Western Avenue Golf Course.[67]

5. **January 1954**
   The County acquired Western Avenue Golf course.[68]

6. **August 16, 1955**
   F.R. Dobric and L.A. Calif completed drawings for a dining room addition to the existing building at Western Avenue Golf Course.[69]

7. **October 1956**
   Schroeder completed a floor plan design for the pro shop (original clubhouse) at the golf course.[70]

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63 Hernandez, Marita. "Head of Black-Owned Newspaper Chain Dies." 1 September 1983. *Los Angeles Times*.

64 Wexler, Daniel. "History in the Making." 9 April 2007. *Los Angeles Times*. *http://www.latimes.com/sports/la-sp-history9apr09-story.html*

65 Jackson, Philip. Letter to Ray Dortch. "History and Prior Golf Promotion Program Designed for Western Avenue Golf Course1974." 17 January 1978.

66 Jackson, Philip. Letter to Ray Dortch. "History and Prior Golf Promotion Program Designed for Western Avenue Golf Course1974." 17 January 1978.

67 Jackson, Philip. Letter to Ray Dortch. "History and Prior Golf Promotion Program Designed for Western Avenue Golf Course1974." 17 January 1978.

68 County of Los Angeles Department of Parks and Recreation. "Annual Report: Fiscal Year." June 30, 1954. Board of Supervisors

69 F.R. Dobric and L.A. Calif. "Interior Elevations and Details: Dining Room Addition to Existing Unit at Western Avenue Golf Course." 16 August 1955. Sheet No. 2

8. **January 18, 1957**
H. L. Architects completed designs for a concession stand and comfort station No. 2.[71]

9. **November 12–15 1959**
Mayor Adams W. Bolton of Gardena proclaimed Kiwanis Tournament Days.[72]

10. **February 1960**
Builders completed the pro shop (original clubhouse).[73]

11. **December 1960**
R.W.R. designed a tree planting program for the golf course.[74]

12. **December 1961**
Fernan and Barry at the County Department of Engineering designed pedestrian bridges.[75]

13. **December 1963**
Nielsen, Moffatt & Wolverton designed the current golf course clubhouse.[76]

14. **October 1, 1969**
R.W.S. completed air conditioning additions to the golf course buildings.[77]

March 5, 1972

15. Junior Golfers Green dedicated by Minority Associated Golfers, Maggie Hathaway, President; Kenneth Hahn, Supervisor; with dedication ceremonies by the Jackson Five.[78]

16. **August 1974**
G.L. Polon completed drainage improvements for the golf course.[79]

17. **November 1977**
Electrical plot plan for the driving range lighting was completed.[80]

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[70] Schroeder. Department of the County Engineer. "Floor Plan: New Clubhouse at Western Avenue Golf Course." October 1956. Sheet No. 3. Work Order No. 8818—05.

[71] H.H. Department of County Engineer. "Concession Stand for Parks and Recreation at Western Ave Golf Course." 18 January 1957. Sheet No. 2.

[72] Jackson, Philip. Letter to Ray Dortch. "History and Prior Golf Promotion Program Designed for Western Avenue Golf Course1974." 17 January 1978.

[73] Schroeder. Department of the County Engineer. "Floor Plan: New Clubhouse at Western Avenue Golf Course." October 1956. Sheet No. 3. Work Order No. 8818—05.

[74] R.W.R. Department of County Engineer. "Tree Planting Program: Western Ave Golf Course." December 1960. Sheet No. 3.

[75] Barry and Fernana. Department of County Engineer. "Pedestrian Bridges at Western—Ave Golf Course." December 1961. Sheet No. 1. Work Order No. 8818—20.

[76] Nielsen, Moffatt and Wolverton Architects and Engineers. "Golf Course Clubhouse: Western Avenue Golf Course." December 1963. Sheet No. C-1. Spec. No. 2270.

[77] Levine and McCain Consulting Engineers. "Air Conditioning Addition to Western Avenue Golf Course Clubhouse." 12 December 1968. Cover Sheet.

[78] Maggie Hathaway, "Tee Time: Jackson 5 Signs Charter," 16 March 1972, *Los Angeles Sentinel,* pg. B3.

[79] G.L. Polon. Department of the County Engineer. "Western Ave Golf Course Drainage Improvements." August 1974.

[80] Architect. "Western Avenue Golf Course Driving Range Lighting." November 1977.Work Order No. 4101—82.

18. **January 1982**
County Board voted to rename Western Avenue Golf Course as Chester L. Washington Golf Course.[81]

19. **March 18, 1982**
County Board dedicated Chester L. Washington Golf Course.[82]

20. **August 8, 1988**
County Department of Facilities management approved the design for general improvements at Chester Washington Golf Course.[83]

21. **May 12, 1992**
Designed plan for waterscape system construction details was completed.[84]

22. **November 14, 1995**
Designer completed golf cart storage addition to the clubhouse.[85]

23. **2004**
Charles Sifford was the first African-American to be listed in the World Golf Hall of Fame.[86]

24. **2012**
Exterior rectangular turquoise accent tiles on the clubhouse were removed and replaced with stucco.

25. **September 2012**
The pro shop front entry underwent renovation.[87]

26. **March 2013**
The clubhouse interior was renovated; interior of the pro shop was redesigned. [88]

27. **August 16, 2015**
120th Street was renamed in honor of Charles Sifford.

28. **2015**
President Obama awarded Charles Sifford the Presidential Medal of Freedom.[89]

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81 "Golf Course renamed." 20 January 1982. *Wave Newspapers*.

82 County of Los Angeles Department of Parks and Recreation. "Dedication: Chester L. Washington Golf Course." March 18, 1982. Pamphlet.

83 Los Angeles County Facilities Management Department and Department of Parks and Recreation. August 8, 1988. "Chester Washington Golf Course Improvements: Phase II."

84 O.D.R. "Waterscape System Construction Details." 12 May 1992.

85 City of Pasadena. "Proposed Cart Storage Addition for American Golf Corp. Chester Washington Golf Course." 14 November 1995.

86 Wanlass, Don. "Sports Digest: Street Renamed in honor of Charlie Sifford." 20 August 2015. *Los Angeles Wave*. *http://wavenewspapers.com/sports-digest-street-renamed-in-honor-of-charlie-sifford/*

87 Golf Course Renovation Log. On file with the County.

88 Golf Course Renovation Log. On file with the County.

89 Wanlass, Don. "Sports Digest: Street Renamed in honor of Charlie Sifford." 20 August 2015. *Los Angeles Wave*. *http://wavenewspapers.com/sports-digest-street-renamed-in-honor-of-charlie-sifford/*

6.5 SIGNIFICANCE EVALUATION

Buildings and Structures

Chester Washington Golf Course includes four buildings and one structure that were evaluated to assess the eligibility of the facility in relation to making a determination regarding the eligibility of the golf course as a whole for listing in the NRHP, CRHR, or County Register. There is a total of approximately 23,550 square feet in the buildings and structures evaluated (Table 6.5-1, *Buildings and Structures Evaluated*; Figure 18, *Significance Evaluation Map, Chester Washington Golf Course*).

TABLE 6.5-1
BUILDINGS AND STRUCTURES EVALUATED

Building/Structure	Construction Year	Alteration Year	Demolition Year	Architect(s)	Builder(s)	Area (Sq. Ft.)	No. of Stories	Contributing	Non-Contributing	Historic District or Contributing Element	Period of Significance
Clubhouse	1965	2012/2013	N/A	Nielsen-Moffatt and Wolverton	LA-KE Construction Company	16,669	2	X		Contributing Element	1965
Pro Shop	1957–58	2012/2013	N/A	Schroeder (County Engineer)	Unknown	4,270	1	X		Contributing Element	1957–58
Bridge	1962	N/A	N/A	Fernan and Barry (County Engineers)	Unknown	27	N/A	X		Contributing Element	1962
Comfort Station No. 2	1957	N/A	N/A	H. L. Architects	Unknown	1,442	1	X		Contributing Element	1957
Concession Stand	1957	N/A	N/A	H. L. Architects	Unknown	1,142	1	X		Contributing Element	1957

FIGURE 18

Significance Evaluation Map, Chester Washington Golf Course

Clubhouse

Designed in 1962 and built in 1965, the 16,669-square-foot clubhouse is a Mid-Century Modern-style building (Figure 19, *Design Plan for Clubhouse* [*1962*]*, Chester Washington Golf Course;* Figure 20, *Construction of Clubhouse* [*1965*]*, Chester Washington Golf Course*). The clubhouse was designed by Los Angeles-based architects Nielsen, Moffatt & Wolverton in 1962, and built by LA-KE Construction Company in 1965.

Figure 19. Design Plan for Clubhouse (1962), Chester Washington Golf Course
SOURCE: *Los Angeles County Department of Public Works, 1962*

Figure 20. Construction of Clubhouse (1965), Chester Washington Golf Course
SOURCE: *Los Angeles County Department of Public Works, 1965*

The clubhouse has a complex, horseshoe-shaped floor plan, flat roof, and stuccoed exterior. A projecting concrete porte-cochere provides a symmetrical compliment to the otherwise low and unassuming façade. This entrance, originally a lighter color and adorned in selected locations with turquoise tiles, has been heavily altered in the past few years, and is missing much of its original historic fabric. Additionally, rough-hewn stone veneer was added to the median and entrance surround during this alteration (Figure 21, *View of Altered Clubhouse, Chester Washington Golf Course*).

Figure 21. View of Altered Clubhouse, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

The southeastern façade is concave and curved with large, floor-to-ceiling windows. A deep, projecting overhang accentuates the curvilinear form of the building. Turquoise tile was removed in the 2012/2013 renovation (Figure 22, *View of Clubhouse Southeastern Façade, Chester Washington Golf Course, 2010*; Figure 23, *View of Clubhouse Southeastern Façade, Chester Washington Golf Course*, 2016).

Figure 22. View of Clubhouse Southeastern Façade, Chester Washington Golf Course, 2010
SOURCE: *County of Los Angeles Department of Parks and Recreation, 2010*

Figure 23. View of Clubhouse Southeastern Façade, Chester Washington Golf Course, 2016
SOURCE: *Sapphos Environmental, Inc., 2016*

Atkins previously found the clubhouse ineligible for listing in the CRHR for its architecture pursuant to Criterion 3.[90] The clubhouse lost some of its integrity after a 2012/2013 renovation, in which some of the entrance's original historic fabric was removed. However, removal of the historic tile, paint, and added rock veneer alterations are reversible which is in keeping with the Secretary of the Interior's *Standards for the Treatment of Historic Properties*. Moreover, although the building has lost some integrity, it retains sufficient integrity with its general form and historic fabric to convey significance and reflect its history of hosting notable events and people. Therefore, it contributes to a potential historic district and is eligible for listing in the CRHR and County Register pursuant to Criteria 1 and 2 for its connection with the integration of golf courses in Los Angeles and association with notable African-American golfers Charlie Sifford, Maggie Hathaway, and Ted Rhodes among others. The pro shop as an individual resource does not sufficiently convey an association with significant events and persons to rise to the threshold for listing in the NRHP, CRHR, or County Register pursuant to any criteria.

Pro Shop

The 4,270-square-foot pro shop was designed in 1956 and is situated in the north-central region of the golf course (Figure 24, *Design of Original Clubhouse, Chester Washington Golf Course*). It has an 'L'-shaped floor plan and a cross-gable roof with a projecting awning upheld by columns (Figure 25, *View of Pro Shop* [*1958*]*, Chester Washington Golf Course*).

[90] Harris, Brandy and Kelley Russell (Atkins). Letter to Joan Rupert (County). "CRHP Eligibility Assessment of the Chester L. Washington Golf Course Clubhouse." 13 August 2012. *Memorandum*.

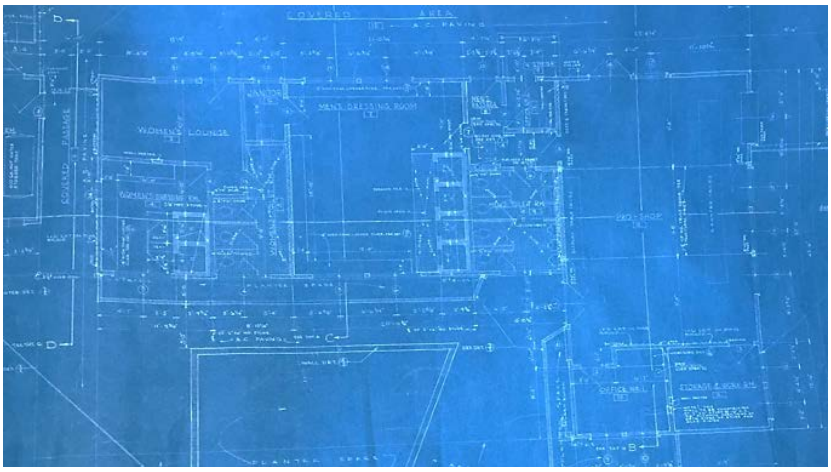

Figure 24. Design of Original Clubhouse, Chester Washington Golf Course
SOURCE: *County of Los Angeles Department of Parks and Recreation, 1956*

Figure 25. View of Pro Shop (1958), Chester Washington Golf Course
SOURCE: *Los Angeles County Department of Public Works, 1958*

Wood siding clads the exterior, and single- and double-light casement windows line the south and west facades of the building (Figure 26, *Northeast Facing View of Pro Shop, Chester Washington Golf Course*). A large concession window that opens to the pro shop's office is located in the southwest corner of the building. The pro shop was designed by County Engineer Schroeder and completed between 1957 and 1958.

Figure 26. Northeast Facing View of Pro Shop, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

Atkins previously found the pro shop ineligible for listing in the CRHR for its architecture pursuant to Criterion C/3.[91] However, the pro shop retains its integrity and has not been evaluated for listing in the NRHP or County Register or for listing in the CRHR pursuant to Criteria A/1, B/2, or D/4.

The pro shop has not undergone heavy renovations or changes and retains its integrity. The pro shop was one building that facilitated the use of the golf course for African-American players. Therefore, it contributes to a potential historic district and is eligible for listing in the CRHR and County Register pursuant to Criteria 1 and 2 for its connection with the integration of golf courses in Los Angeles and association with notable African-American golfers Charles Sifford, Maggie Hathaway, and Ted Rhodes among others. The pro shop does not convey this significance as an individual resource sufficiently to merit listing in the NRHP, CRHR, or County Register pursuant to any criteria.

Bridge

The original bridge located at the golf course is evident in a 1958 photograph (Figure 27, *View of Original Bridge* [*1958*]*, Chester Washington Golf Course*). However, the golf course grounds underwent a major reconfiguration in 1962, and new bridges were constructed to make different regions of the golf course more accessible.[92]

[91] Harris, Brandy and Kelley Russell (Atkins). Letter to Joan Rupert (County). "CRHP Eligibility Assessment of the Chester L. Washington Golf Course Clubhouse." 13 August 2012. *Memorandum.*

[92] Barry and Fernana. Department of County Engineer. "Pedestrian Bridges at Western—Ave Golf Course." December 1961. Sheet No. 1. Work Order No. 8818—20.

Figure 27. View of Original Bridge (1958), Chester Washington Golf Course
SOURCE: *Los Angeles County Department of Public Works, 1958*

One of the six bridges built at this time appears to remain standing near the grove of Eucalyptus trees (Figure 28, *Aerial View of Bridges* [*1965*; *Existing Bridge Outlined*]*, Chester Washington Golf Course*). This structure is located in the north-central region of the golf course (Figure 29, *View of Bridge Facing East, Chester Washington Golf Course*). The bridge is constructed of concrete with metal railings that project outward at each edge.

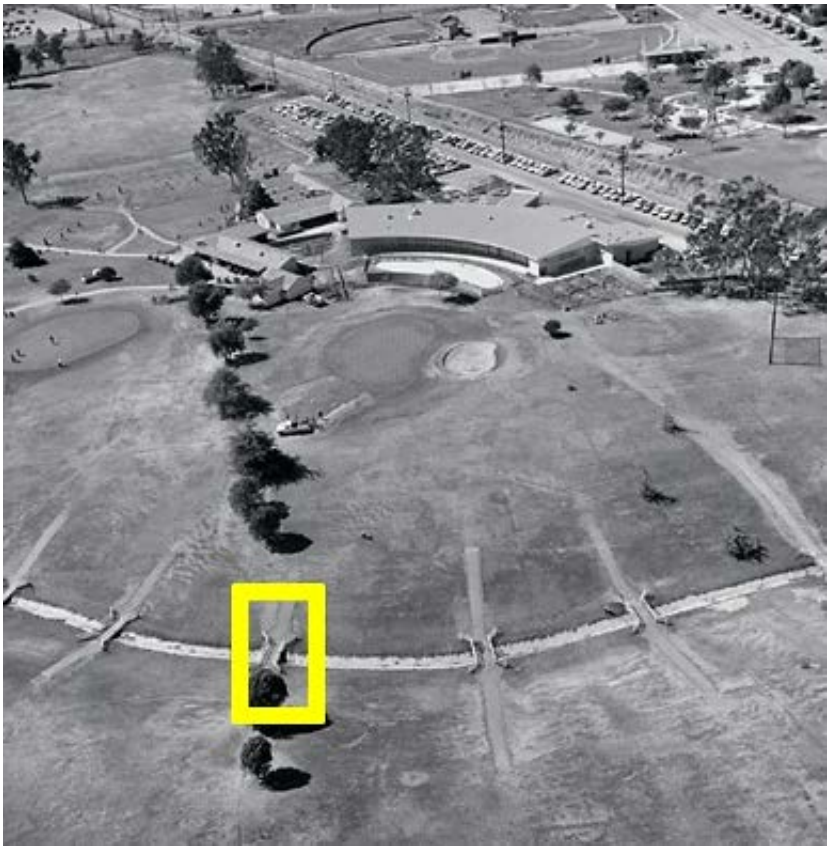

Figure 28. Aerial View of Bridges (1965) (Existing Bridge Outlined), Chester Washington Golf Course
SOURCE: *County of Los Angeles Department of Parks and Recreation, 1965*

Figure 29. View of Bridge Facing East, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

The bridge has not undergone heavy renovations or changes and retains its integrity. The bridge is the last remaining of six structures from the 1962 landscaping of the golf course. Therefore, it contributes to a potential historic district and is eligible for listing in the CRHR and County Register pursuant to Criteria 1 and 2 for its connection with the integration of golf courses in Los Angeles and association with notable African-American golfers Charles Sifford, Maggie Hathaway, and Ted Rhodes among others. The bridge does not convey this significance as an individual resource sufficiently to merit listing in the NRHP, CRHR, or County Register pursuant to any criteria.

Comfort Station No. 2

Located in the southwestern corner of the golf course, comfort station no. 2 was likely constructed in 1957 alongside the concession stand (Figure 30, *View of Comfort Station No. 2, Chester Washington Golf Course*). Comfort station No. 2 measures 1,442 square feet and has a rectangular floor plan. Constructed of concrete masonry units (CMUs) the building has a raised, low-pitched gable roof with a central concrete ridge pole and exposed rafter tails. Projecting CMUs on each corner imitate quoins. Entrances flank each end of the building. H.L. Architects likely designed the comfort station.

Figure 30. View of Comfort Station No. 2, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

Comfort station No. 2 has not undergone heavy renovations or changes and retains its integrity. Therefore, it contributes to a potential historic district and is eligible for listing in the CRHR and County Register pursuant to Criteria 1 and 2 for its connection with the integration of golf courses in Los Angeles and association with notable African-American golfers Charles Sifford, Maggie Hathaway, and Ted Rhodes among others. Comfort station No. 2 does not convey this significance as an individual resource sufficiently to merit listing in the NRHP, CRHR, or County Register pursuant to any criteria.

Concession Stand

The Mid-Century Modern-style concession stand was designed and constructed in 1957 of CMUs (Figure 31, *Design for Concession Stand* [*1957*]*, Chester Washington Park*). With a square footprint, the concession stand's complex shape is created from its slightly slanted flat asymmetrical roof situated to project over each secondary façade of the building, rather than the typical corners (Figure 32, *View of Concession Stand, Chester Washington Golf Course*). Exposed ridge poles hold the roof and accentuate the building's abstracted form. Projecting metal sheaves create counters below concession windows. The concession stand was constructed by H.L. Architects.

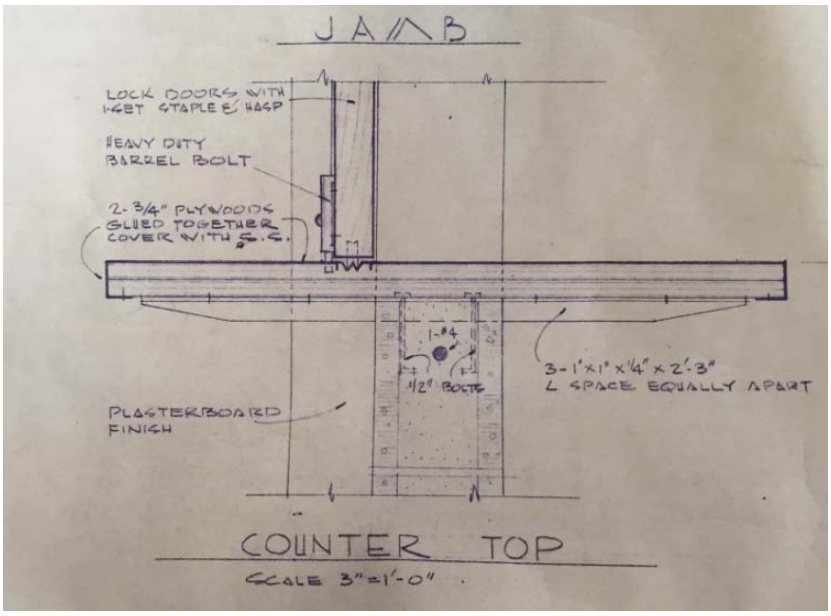

Figure 31. Design for Concession Stand (1957), Chester Washington Park
SOURCE: *County of Los Angeles Department of Parks and Recreation, 1957*

Figure 32. View of Concession Stand, Chester Washington Golf Course
SOURCE: *Sapphos Environmental, Inc., 2016*

The concession stand has not undergone heavy renovations or changes and retains its integrity. Therefore, it contributes to a potential historic district and is eligible for listing in the CRHR and County Register pursuant to Criteria 1 and 2 for its connection with the integration of golf courses in Los Angeles and association with notable African American golfers Charles Sifford, Maggie Hathaway, and Ted Rhodes among others. The concession stand does not convey this significance as an individual resource sufficiently to merit listing in the NRHP, CRHR, or County Register pursuant to any criteria.

Fairways and Greens

Chester Washington Golf Course was opened in 1928 as the La Avenida Golf Course, although landscaping began in 1926. The areas of play were originally part of a 1,500 acre ranch owned by the O.T. Johnson Corporation from the early 20th century.[93] O.T. Johnson allotted 120 acres for a golf course in the area, and the course was designed by John Dunn.[94] It was acquired by the County in 1954 (Figure 33, *View of Areas of Play* [*1958*]*, Chester Washington Golf Course*).

Figure 33. Views of Areas of Play (1958), Chester Washington Golf Course
SOURCE: *Los Angeles County Department of Public Works, 1958*

The areas of play have been subject to multiple modifications. In 1961, Fernan and designed pedestrian bridges, only one of which still exists.[95] In 1974, G.L. Polon completed drainage improvements for the golf course.[96] Electrical plot plan for driving range lighting was completed in 1977.[97] In 1988, County Department and Department of Facilities management approved design for general improvements at Chester Washington Golf Course.[98] The golf course saw a new waterscape system in 1992.[99] The landscaping of the greens has been replaced over the course of time due to the natural senescence cycles of plants. Therefore, excluding the bridge, it is not eligible for listing in the NRHP, CRHR and County Register pursuant to Criteria A/1, B/2, C/3, or D/4.

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93 Jackson, Philip. Letter to Ray Dortch. "History and Prior Golf Promotion Program Designed for Western Avenue Golf Course1974." 17 January 1978.

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95 Barry and Fernana. Department of County Engineer. "Pedestrian Bridges at Western—Ave Golf Course." December 1961. Sheet No. 1. Work Order No. 8818—20.

96 G.L. Polon. Department of the County Engineer. "Western Ave Golf Course Drainage Improvements." August 1974.

97 Architect. "Western Avenue Golf Course Driving Range Lighting." November 1977.Work Order No. 4101—82.

98 Los Angeles County Facilities Management Department and Department of Parks and Recreation. August 8, 1988. "Chester Washington Golf Course Improvements: Phase II."

99 O.D.R. "Waterscape System Construction Details." 12 May 1992.

Chester Washington Golf Course

Chester Washington Golf Course is a property with exceptional historical significance as the site of an important political and cultural event in the history of the African-American golfers in the state of California. Originally the La Avenida Golf Course, then the Western Avenue Golf Course, the facility served as the first major golf course to be integrated after racial discrimination leading into the 1950s. Previously hosting a Caucasian-only golf club, Western Avenue Golf Course was forced to diversify their golf course, opening it to players of color after the County purchased it. The golf course later served as a home field for many professional African-American golfers. Therefore, Chester Washington Golf Course is eligible for listing as a potential historic district in the CRHR and County Register pursuant to Criteria 1 for its association with the integration of minority golf players in the Los Angeles region.

A number of incredibly notable African-American activists and golfers forced social change at Chester Washington Golf Course. Maggie Hathaway, a noted civil rights advocate, brought attention to the Western Avenue Women's Golf Club when they rejected her bid for membership because she was black. Hathaway fought until the club was exiled from the golf course, formed her own people of color-inclusive golf club, and advocated for an integrated golf course. African-American golfers began to pour into the Western Avenue Golf Course, including notable African-American golfers such as Charlie Sifford, Ted Rhodes, and Joe Louis. Many of these golfers were involved at the golf course during the height in their careers, and lauded the facility's inclusive atmosphere. Therefore, Chester Washington Golf Course is eligible for listing as a potential historic district in the CRHR and County Register pursuant to Criteria 2 for its connection with a number of notable local and national African-American golfers that broke the previously restricted sport and paved the way for later sportsmen like Tiger Woods.

Chester Washington Golf Course was not designed by a master architect, and is not noted for its landscape design or for its unique landscape features. The concept of the design is utilitarian in execution, and does not reflect a historic trend or school of thought. Rather, Chester Washington Golf Course is a common example of this resource type. Therefore, Chester Washington Golf Course does not embody the distinctive characteristics of a type, period, or method of construction. The golf course, inclusive of the appurtenant buildings, facilities, and landscape, is not eligible for listing in the NRHP, CRHR, or County Register pursuant to Criterion C/3.

Chester Washington Golf Course was constructed using common and utilitarian materials and does not have the potential to yield information regarding local building traditions and methods. Therefore, Chester Washington Golf Course, inclusive of the appurtenant buildings, facilities, and landscape, is not eligible for listing in the NRHP, CRHR, or County Register pursuant to Criterion D/4.

Much of Chester Washington Golf Course has not been altered since the construction of the clubhouse in 1965; only the clubhouse itself has undergone renovation. Therefore, the setting, buildings, and structures retain sufficient historic integrity and meet the criteria for listing as a historic district because of their association with the integration of Los Angeles golfing communities and with notable African-American golfers in the CRHR and County Register pursuant to Criteria 1 and 2. The period of significance is from 1954 to 1967 when the golf course was constructed and notable African-American golfers were active at the site.

SECTION 7.0
CONCLUSION

Chester Washington Golf Course, inclusive of the appurtenant buildings and structures, meets the criteria to be treated as a historical resource pursuant to Section 15064.5(a) of the California Environmental Quality Act (CEQA) Guidelines. The setting, buildings, and structures retain sufficient historic integrity and meet the criteria for listing as a historic district for their association with integrated golfing and notable African-American golfers and activists including Maggie Hathaway, Charles "Charlie" Sifford, and Ted Rhodes (Appendix E, *DPR 523 Forms*). Chester Washington Golf Course is eligible for listing on the California Register of Historical Resources and the County of Los Angeles Register of Landmarks and Historic Districts.

In general, the resources at Chester Washington Golf Course are significant for their association with an event and people, not for their architecture, yet still need to be protected as they contribute to the conveyance of that significance. In general, the structure and building resources found significant at Chester Washington Golf Course can be preserved with common methods of careful maintenance, but may also benefit by guidance from the Secretary of the Interior's *Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Building*s and related U.S. National Park Service *Preservation Briefs Nos. 1, 4, 6, 15,* and *47* (Appendix F, *National Park Service Preservation Briefs*).[1]

In addition to the significance evaluation, a review of the record search was conducted to ensure that any recorded archaeological sites within or near Chester Washington Golf Course was considered. One archaeological study has been conducted within the golf course boundaries. Six archaeological studies have been conducted exclusively within the 0.25-mile buffer zone. No unique archaeological resources, as defined in Section 21083.2 of the Public Resource Code, have been identified within or near Chester Washington Golf Course.

Although a record search was completed, a Phase I Pedestrian Survey to assess the presence or absence of archaeological resources was not completed. Generally, in existing developed parks or golf courses, native soils will be several feet below grade due to prior excavation and grading activities that were conducted for constructing buildings and structures, irrigation, and landscaping. Projects that can be reviewed pursuant to a CEQA Categorical Exemption would not likely create an unusual circumstance with regard to archaeological resources unless a project requires grading and excavation of native soils not disturbed during construction, maintenance, and operation of the park or golf course. Any work that involves earth-moving activity in previously undisturbed native soils should be monitored by, at minimum, workers that have received cultural resource training pursuant to a cultural resources management plan and worker education and awareness program.

Currently, Los Angeles County has a limited number of open spaces; therefore, effective planning and the salvage of historical resources are crucial. Based on this evaluation, it is anticipated that future renovations proposed by the County of Los Angeles Department of Parks and Recreation would not result in impacts to historical resources with implementation of the previously identified *Preservation Briefs* in accordance with the Secretary of the Interior's *Standards for the Treatment of Historic Properties*.

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APPENDIX A

RESUMES OF KEY PERSONNEL

Sapphos environmental inc.

Marie C. Campbell, MA

Principal

Certified Wetland Delineator

MA, Geography, Geomorphology/ Biogeography, UCLA

- *Ensure technical and procedural adequacy pursuant to NEPA, CEQA, and other federal, state, and local statutes and regulations*
- *Agency coordination*
- *Coordination with special interests*
- *Identify opportunities for issue resolution*
- *Public outreach*
- *Quality assurance / quality control*

Years of Experience: 30+

Relevant Experience:

- *SCAG 2015 RTP/SCS PEIR*
- *Union Station Master Plan PEIR*
- *Martin Luther King Jr. Medical Center Campus EIR*
- *St. John's Wellness Center EA*
- *Arroyo Seco Master Plan EIR/CE*
- *Grand Avenue Realignment and Music Center Improvement Project EIR/CE*
- *Plaza de Cultura y Artes EIR/CE*
- *Hollywood Bowl Acoustical Shell Replacement Project EIR*
- *KROC Community Center EIR*
- *Kenneth Hahn Regional Park Ballfield Complex EIR*
- *Rehabilitation and Adaptive Reuse of Boddy House Garage CE*
- *Bosque del Rio Hondo MND/EA*
- *College Park Mixed Use EIR*
- *China Shipping Yard EIS/EIR*
- *ROEN Development Section 8 Housing CE*
- *Marina del Rey Affordable Housing Policy MND*
- *County Ordinance to Ban Single-use Carryout Plastic Bags EIR and Subsequent Addendum EIRs for five cities*
- *Bellingham School and 4th Avenue School EIRs*

Ms. Marie Campbell, owner of Sapphos Environmental, Inc., is an environmental compliance specialist with more than 30 years of experience in managing environmental documents prepared pursuant to National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) for projects involving complex community development and infrastructure issues. Ms. Campbell has served as the principal-in-charge for a wide range of other projects including transportation, community development, and healthcare projects.

Ms. Campbell serves as the principal-in-charge providing strategic environmental compliance oversight and quality assurance for the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy Program EIR, a comprehensive document that evaluates transportation improvement projects and land use patterns for six counties and 191 cities in the SCAG region. Ms. Campbell serves in a comparable capacity for LA Metro's Union Station Master Plan EIR and the Doran Grade Street Separator SE/CE. She has also provided environmental compliance services for the Crenshaw/LAX and Regional Connector transit corridor projects, including SWPPP oversight, archaeological and paleontological monitoring, evaluation of historic structures, and noise and vibration monitoring.

Having started her career as an Environmental Compliance Specialist with the U.S. Army Corps of Engineers, she has an extensive background in NEPA, as well as CEQA, and has overseen documents for a variety of community development projects, including mixed use projects, schools, community facilities, and parks. She served as the project manager for the College Park Mixed-Use project EIR, Keeler Dunes Dust Control Project EA/EIR, the Plaza de Culture y Artes EIR/CE, the KROC Community Center EIR, Lennox Section 8 housing CE, and the Music Center Annex CE. Many of these community development projects have involved rights-of-way on federal lands, or the use of federal funds, including the Department of Housing and Urban Development, Federal Highway Administration, and Federal Railroad Administration. She has served as project manager for the Arroyo Seco Master Plan EIR, the Grand Avenue Realignment Project EIR/CE, the Hollywood Bowl EIR, the Kenneth Hahn Regional Park EIR, and the Bosque del Rio Hondo MND/EA. For each of these projects, Ms. Campbell directed the organization and scope of the environmental analysis, provided quality assurance for written work products, conducted the public outreach meetings, agency coordination, and made public presentations before the respective decision-making body.

She served as the principal-in-charge for the Martin Luther King Jr. Medical Center EIR to facilitate reopening of an interim Outpatient Hospital and construction of the Multi-Service Ambulatory Care Center, in the wake of a controversial closure of the facility that left a large area of south central Los Angeles with compromised accessibility to healthcare, particularly emergency medical services. She served in a comparable capacity for the St. John's Wellness Center EA and the Long Beach Memorial Medical Center EIR.

Ms. Campbell is recognized by the LA Bar Association as an expert witness for NEPA and CEQA. The majority of projects for which environmental compliance documentation has been prepared have not involved litigation; however, in each of the 13 cases (on 11 projects) that were litigated, Sapphos Environmental, Inc.'s client prevailed and was able to proceed with the project as analyzed. She serves on the board of the National Association of Environmental Professionals and the California Association of Environmental Professionals.

Sapphos environmental inc.

Carrie E. Chasteen, MS, BA

Senior Historic Resource Specialist

MS, Historic Preservation, School of the Art Institute of Chicago, Chicago, IL

BA, History and Political Science, University of South Florida, Tampa, FL

Phi Alpha Theta historical honor society

- *Cultural resources management and legal compliance*
- *History of California*
- *Identification and evaluation of the built environment*
- *Historic American Building Survey (HABS) and Engineering Record (HAER) documentation*
- *Historic Property Survey Reports (HPSRs)*
- *Historical Resources Evaluation Reports (HRERs)*

Years of Experience: 15+

Relevant Experience

- *Certified Oregon Transportation Investment Act (OTIA) III CS3 Technical Lead*
- *Historic Preservation Commissioner, City of Pasadena, CA*
- *Historic consultant for the Shangri La Hotel renovation project, Santa Monica, CA*
- *Principal Architectural Historian for the Interstate 10 (I-10) Corridor Project*
- *HABS/HAER documentation for Mission Control at NASA JPL in Pasadena, CA*

Ms. Carrie Chasteen has more than 15 years of experience in the field of cultural resources management and the built environment, including project management, agency coordination, archival research, managing large surveys, preparation of Environmental Impact Statement / Environmental Impact Report (EIS/EIR) sections, peer review, and regulatory compliance. She meets and exceeds the Secretary of the Interior's *Professional Qualification Standards* in the fields of History and Architectural History.

Ms. Chasteen has served as Principal Investigator / Principal Architectural Historian on projects in Kern, San Bernardino, Riverside, Ventura, Los Angeles, Orange, Imperial, and San Diego Counties in Southern California. She has extensive experience with the California Office of Historic Preservation, the California Department of Transportation (Caltrans), San Bernardino Associated Governments (SANBAG), Los Angeles County Department of Parks and Recreation, the City of Los Angeles, and various other State, county, and local government agencies.

Ms. Chasteen served as the historic consultant for the design team for the renovation of the Shangri La Hotel, Santa Monica, California, which won a historic preservation award from the Santa Monica Conservancy. For the Shangri La Hotel project, Ms. Chasteen documented and ranked the character-defining features of the building and structures on the property; reviewed plans for consistency with the Secretary of the Interior's *Standards for the Treatment of Historic Properties;* assisted with developing creative solutions to meet the objectives of updating the hotel amenities while maintaining the historic character of the building; assisted with the entitlement process including presentations before the Planning Commission; and prepared Historic American Building Survey (HABS) documentation of the linoleum flooring which was set in unique patterns per room throughout the entire building. Additional experience includes serving as Principal Architectural Historian for the Interstate 10 (I-10) Corridor Project. For this project, Ms. Chasteen prepared a Historic Property Survey Report (HPSR), Historical Resources Evaluation Report (HRER), and a Finding of No Adverse Effect with Non-Standard Conditions (FNAE). As part of the FNAE, she conducted agency consultation with the Cities of Redlands, Upland, and Ontario, and with other interested parties including regional historical societies. Ms. Chasteen has also prepared Historic American Buildings Survey / Historic American Engineering Record (HABS / HAER) documentation for the former Caltrans District 7 headquarters building and the Space Flight Operations Facility, commonly referred to as Mission Control, a National Historic Monument, at the Jet Propulsion Laboratory (JPL) in Pasadena.

Ms. Chasteen is a member of the Society of Architectural Historians, National Trust for Historic Preservation, California Preservation Foundation, and Pasadena Heritage. Ms. Chasteen is also a Historic Preservation Commissioner for the City of Pasadena.

Sapphos environmental inc.

Alexandra I. Madsen, MA, BA

Senior Architectural Historian

MA, Art History, University of Texas at Austin, Austin, TX

BA (Magna Cum Laude), History, Saint Anselm College, Manchester, NH

- *Cultural resources management and legal compliance*
- *Identification and evaluation of the built environment*
- *Archival documentation*
- *Historic preservation consultation*
- *Secretary of the Interior's* Standards for the Treatment of Historic Properties
- *CEQA cultural resources analysis*

Years of Experience: 5+

Relevant Experience

- *Los Angeles County Department of Parks and Recreation Series 523 forms*
- *Los Angeles Unified School District Design Review Reports*
- *Historic American Buildings Survey Report and Pamphlet*
- *Historic Evaluations*

Ms. Alexandra Madsen, Senior Architectural Historian for Sapphos Environmental, Inc., has over five years of experience in the field of cultural resource management including experience in historic institutions, museums, and firms. Ms. Madsen has a Master's Degree in Art History from the University of Texas at Austin, where she focused on built environments. She meets and exceeds the Secretary of the Interior's *Professional Qualification Standards* in History and Architectural History.

Ms. Madsen has experience in completing cultural resources reports and in evaluating properties under federal, State, and local criteria. She has surveyed, conducted research on, and evaluated over 20 Los Angeles County Parks. This work includes archival research, identification and evaluation reports, and Department of Parks and Recreation (DPR) Series 523 Forms. Ms. Madsen has also evaluated educational institutions for the Los Angeles Unified School District (LAUSD) as well as individual residential and commercial properties for various cities. This work required preparation of reports to demonstrate compliance with the Secretary of the Interior's *Standards for the Treatment of Historic Properties* (*Standards*), preparation of DPR 523 series forms, and in some cases scoping for Environmental Impact Reports (EIR). She has worked on historic projects located in Los Angeles, Orange, and Kern Counties. She is experienced with the Secretary of the Interior's *Standards* and CEQA compliance.

Ms. Madsen comes from a background specializing in historical and pre-historical artifacts and resources. She has worked in research, curatorial, collections management, and educational capacities. As a senior student assistant at the UT Dolphe Briscoe Center for American History, curatorial assistant at Gunn Memorial Historical Museum, and research intern at the Institute for American Indian Studies, Ms. Madsen was responsible for collections management and archival work. Moreover, she has participated in archaeological excavations in Italy and Connecticut.

Ms. Madsen is a member of the National Trust for Historic Preservation, California Preservation Foundation, L.A. Conservancy, Pasadena Heritage, and Highland Park Heritage Trust.

Sapphos environmental inc.

Donald M. Faxon, MA, BS

Architectural Historian
Preservation Specialist

MA, Historic Preservation, Savannah College of Art & Design, Savannah, GA

BS, Public Communications, Boston University, Boston, MA

- *Cultural resources management and legal compliance*
- *History of California*
- *Identification and evaluation of the built environment*
- *Archival documentation*
- *Historic preservation consultation*
- *Historic treatment planning, monitoring, and management.*
- *ADA assessment*
- *Historic structure reports and conditions assessment*
- *Scientific materials evaluation*
- *Architectural history*

Years of Experience: 25 +

- *Society of Architectural Historians*
- *Former Cultural Heritage Commissioner, City of Sierra Madre*
- *Sigma Pi Kappa Historic Preservation Fellowship*
- *Former Historical Architect at a State Historic Preservation Office (SHPO)*
- *Section 106 reports*

Donald M. Faxon has professional experience as both an Architectural Historian and Architectural Preservation Specialist. He served as Senior Historical Architect at a state office of historic preservation (SHPO) and as a city Cultural Heritage Commissioner; and has worked for the National Park Service and the National Trust for Historic Preservation. He has explained, interpreted, applied, and/or enforced the Secretary of the Interior's Standards in positions on both coasts. His experience includes providing inventory, significance evaluations, re-use studies, and interpretation options. He also provides architectural technical expertise in design review, visual and scientific condition assessments, preservation and conservation treatments, historic structure reports, project monitoring, compatible integration design for code required elements, and accessibility planning for the disabled. Additional skills include architectural project planning and monitoring. He has prepared technical reports for historical built environment resources to satisfy compliance requirements under CEQA, Section 106, and local ordinances.

Mr. Faxon has more than 25 years of experience as a historic preservation professional on projects involving a wide variety of building, structure and landscape styles and types, including agricultural, maritime, industrial, residential, commercial, transportation, civic, religious, entertainment, and military related resources.

Mr. Faxon's selected project experience includes:

- Secretary of the Interior's Standards Conformance Review for Los Angeles Unified School District's Lincoln High School HVAC Project.
- Evaluation and recommendations for properties owned by the Preservation Society of Newport County (The Newport Mansions) for Americans with the Disabilities Act (ADA) accessibility, Newport, RI.
- Secretary of the Interior's Standards evaluation of "Old State House" buildings and other properties owned by the State Government of Rhode Island for repair, restoration, and ADA accessibility, Providence, RI, including design recommendations and implementation.
- Evaluation of the state-owned Veteran's Auditorium in Providence, RI for ADA accessibility.
- Evaluations and historic contexts for multiple County parks for the Los Angeles Department of County Parks and Recreation, including assessment for the NRHP, SRHP, and County Register.
- Cultural Resource Management Plan research and preparation for the Los Angeles Department of County Parks and Recreation.
- CEQA evaluation of historical significance and design review of a proposed rehabilitation, San Luis Obispo, CA.
- Administration and monitoring of Congressionally-funded seismic disaster grant projects at Castle Green Apartments, Pasadena, CA; Shrine Auditorium, 665 Western Boulevard, Los Angeles, CA; and Case Study House Number 18, 199 Chautauqua Blvd, Pacific Palisades, CA.
- Field evaluations and recommendations for endangered properties at Rocky Mountain National Park, CO.

APPENDIX B

*RECORD SEARCH RESULTS, CHESTER WASHINGTON GOLF COURSE**

*Appendix B, *Record Search Results, Chester Washington Golf Course* has been provided to the County of Los Angeles as a separate .ZIP file.

Appendix B, *Record Search Results, Chester Washington Golf Course* ("Submitted Record") is designated confidential and must be managed as confidential, pursuant to California Government Code § 6254(r). The Submitted Record must be managed as confidential information by the County of Los Angeles to protect cultural resources from risk that the information could be used to loot, vandalize, or otherwise damage sensitive cultural, archaeological, or paleontological resources. The Submitted Record contains sensitive information related to cultural, archaeological or historical objects, structures, landscapes, resources, sacred places, or sites of concern to local Native Americans or other ethnic groups, or resources or objects described in California Public Resources Code §§ 5097.9 or 5097.993. The Submitted Record may not be released to the public. The submitted record is provided to the County, limited to use by those in a "need to know" position for use in ongoing operations and maintenance activities, and advance planning effort.

APPENDIX C

*SAPPHOS ENVIRONMENTAL, INC. SOURCES**

*Appendix C, *Sapphos Environmental, Inc. Sources* has been provided to the County of Los Angeles as a separate .ZIP file.

APPENDIX D

COUNTY OF LOS ANGELES DEPARTMENT OF PARKS AND RECREATION SOURCES

REFERENCE MATERIALS*

- ”Golf Course renamed.” 20 January 1982. Inglewood Hawthorne Wave (Los Angeles, CA). (C Washington Golf-1.pdf, pg. 1-2)
- American Architects Directory. 1970. “Nielsen.” (Nielsen, Moffatt, Wolverton.pdf)
- Chester Washington Golf Course fact sheet. (doc20160907140721.pdf)
- County of Los Angeles Department of Parks and Recreation. 18 March 1982. Chester L. Washington Golf Course Dedication program. (Los Angeles, CA). (C Washington Golf-1.pdf, pg. 3)
- County of Los Angeles Department of Parks and Recreation. 30 November 1967. “Screen Actor to Star as Professional Golfer.” (C Washington Golf-1.pdf, pg. 13)
- County of Los Angeles Department of Parks and Recreation. n.d. “Landscaping of Western Avenue Center Islands Starts.” (C Washington Golf-1.pdf, pg. 14)
- County of Los Angeles Department of Parks and Recreation. n.d. Chester Washington Golf Course timeline and history. (Western Avenue Golf.pdf)
- Harris, Brandy and Kelley Russell, Atkins. 13 August 2012. Memo to Joan Rupert, County of Los Angeles Department of Parks and Recreation. Subject: CRHP Eligibility Assessment of the Chester L. Washington Golf Course Clubhouse, Los Angeles, Los Angeles County, California. (Chester_Washington_Clubhouse_Memorandum.pdf)
- Hathaway, Maggie. 6 April 1972. “Tee Time: Junior Putting Green.” *Los Angeles Sentinel*. (C Washington Golf-1.pdf, pg. 12)
- Jackson, Philip. 17 January 1978. Memo to Ray Dortch. Subject: History and Prior Golf Promotion Program Designed for Western Avenue Golf Course 1974. (C Washington Golf-1.pdf, pg. 5)
- Nielsen Sr, Riender.pdf
- San Pedro Chamber of Commerce Civic Affairs Committee. 9 January 1967. “Progress and This is Only the Beginning.” (C Washington Golf-1.pdf, pg. 17)
- Woods, Charles A. 29 May 1967. Memo to E.R. Haines. Subject: Beautification of Center Island on Western Avenue in San Pedro. (C Washington Golf-1.pdf, pg. 15)

PHOTOGRAPHIC MATERIALS*

- Eleven (11) historical photos dated 1964 or 1965 from the Los Angeles County CEO Photo Unit
- Twenty-six (26) historical photos dated 1958, 1962, or 1965 from the Los Angeles County Department of Public Works
- One hundred twenty-six (126) general photos dated 2010 and 2012, and one (1) undated historical photo from the County of Los Angeles Department of Parks and Recreation

**Additional files were pulled from the County of Los Angeles Department of Parks and Recreation Chester Washington Golf Course archives.*

APPENDIX E

DPR 523 FORMS

***Resource Name or #** (Assigned by recorder)**:** Chester Washington Golf Course

D1. Historic Name: La Avenida Golf Course; Western Avenue Golf Course
D2. Common Name: Chester Washington Golf Course

***D3. Detailed Description** (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.):

Chester Washington Golf Course is located in West Athens, a census-designated area of Los Angeles located in the Second Supervisorial District of Los Angeles County. Chester Washington Golf Course is located in the Coastal Plain of the Los Angeles Central Basin. (*See Continuation Sheet page 4*)

***D4. Boundary Description** (Describe limits of district and attach map showing boundary and district elements.):

The golf course is located in a transitional area between commercial and residential land uses; there are commercial land uses to the west, and single-family residences to the north, east, and south. The golf course is bounded to the north by Charlie Sifford Drive, to the east by single-family residences and Henry Clay Middle School on S. Western Avenue, to the south by single-family and multi-family residences on El Segundo Boulevard, and to the west by commercial buildings on Van Ness Avenue.

***D5. Boundary Justification:**
The park occupies approximately 125 acres on two parcels owned by the county of Los Angeles (AINs 4057-032-901 and 4057-032-900).

D6. Significance: Theme: County Golf Course **Area**: West Athens
Period of Significance: 1954–1967 **Applicable Criteria**: 1, 2
(Discuss district's importance in terms of its historical context as defined by theme, period of significance, and geographic scope. Also address the integrity of the district as a whole.)

The land that is now Chester Washington Golf Course was part of a 1,500-acre ranch owned by the O.T. Johnson Corporation from the early 20th century. O.T. Johnson allotted 120 acres for a golf course in the area, and the course was designed by John Dunn.[1] No information is available on John Dunn or any other architects or designers who may have been associated with the development of the golf course. Landscaping began in 1926 and grass, likely in the form of grass seed, for the golf course was transported from the state of Washington in refrigerated sacks. (*See Continuation Sheet page 4*)

***D7. References** (Give full citations including the names and addresses of any informants, where possible)**:**

See Continuation Sheet page 8.

***D8. Evaluator:** Alexandra Madsen

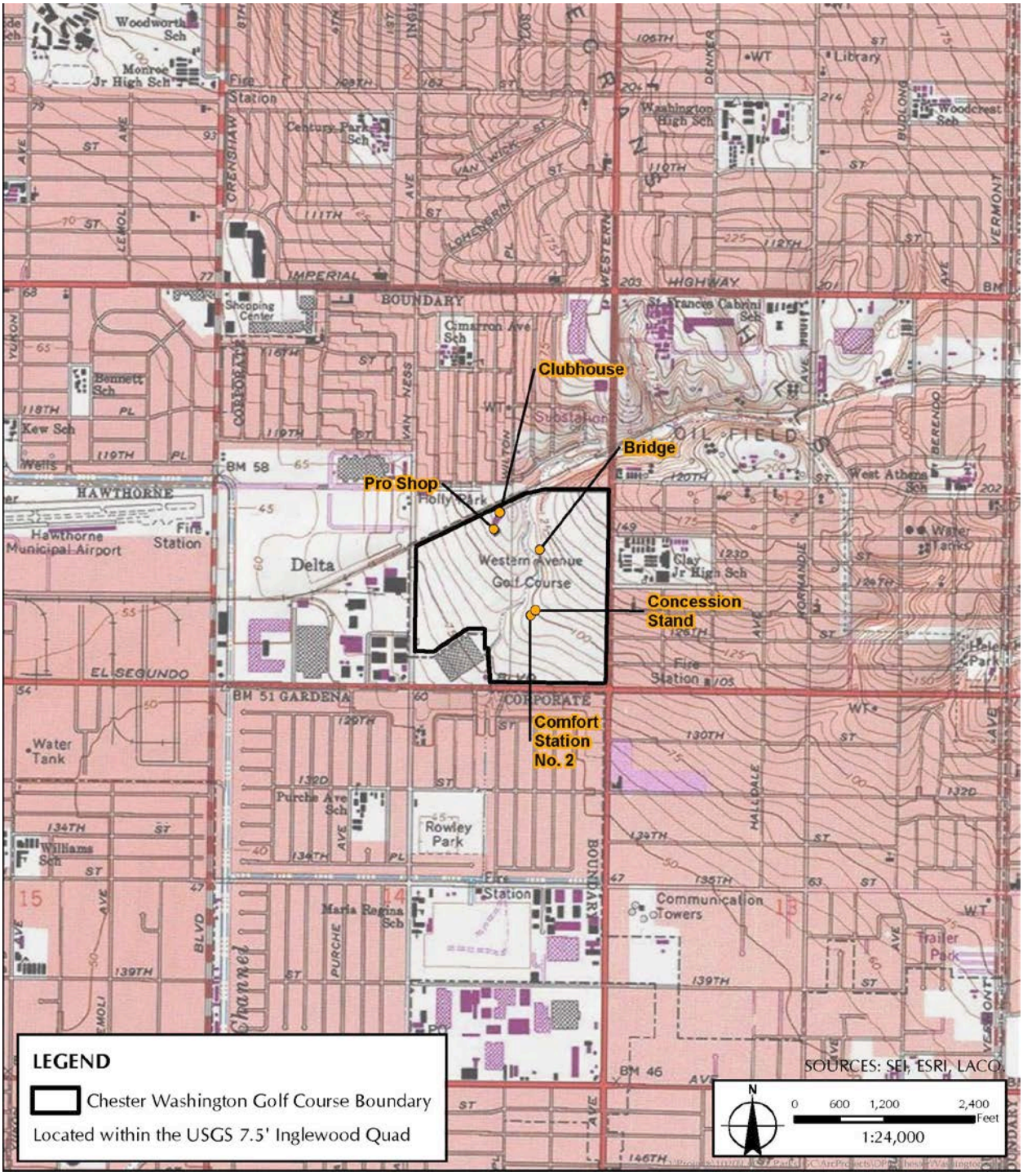
Date: February 14, 2017

Affiliation and Address:
Sapphos Environmental, Inc.
430 North Halstead Avenue
Pasadena, California 91107

[1] Wexler, Daniel. "History in the Making." 9 April 2007. *Los Angeles Times. http://www.latimes.com/sports/la-sp-history9apr09-story.html*

State of California — Natural Resources Agency	Primary #
DEPARTMENT OF PARKS AND RECREATION	HRI#
LOCATION MAP	Trinomial

Page 2 **of** 19 ***Resource Name or #** (Assigned by recorder)**:** Chester Washington Golf Course
***Map Name:** Inglewood ***Scale:** 1:24,000 ***Date of map:** 1981



State of California — Natural Resources Agency	Primary #
DEPARTMENT OF PARKS AND RECREATION	HRI#
SKETCH MAP	Trinomial

Page 3 **of** 19 ***Resource Name or #** (Assigned by recorder)**:** Chester Washington Golf Course
Drawn by: Sara Nava ***Date of map:** January 9, 2017
Sketch Map:

DPR 523K (Rev. 1/1995)(Word 9/2013) NOTE: Include bar scale and north arrow.

***D3. Detailed Description:** (Continued from District Record page 1)

The Coastal Plain region is characterized by a series of mountain ranges and northwest trending sediment-filled valleys, subparallel to faults branching from the San Andreas Fault. Chester Washington Golf Course is gently sloping with elevations ranging from approximately 67 feet above mean sea level (msl) at the southwest corner of the park to 160 feet above msl at the northeast corner of the park. Chester Washington Golf Course is managed by the County of Los Angeles Department of Parks and Recreation.

D6. Significance: (*Continued from District Record page 1*)

On March 11, 1928, the golf course officially opened as the La Avenida Golf Course. The Avenida Golf Club was organized in 1930 by 15 golfers who voted William Hunter president.[2]

In 1931, the name of the golf course was changed to Western Avenue Golf Course, and by 1953 there were over 300 members of the golf club. At this time, the golf course mostly had a number of smaller buildings; a 1930 historical aerial shows a smattering of small buildings with square footprints. One of these buildings likely survived to the 1960s, as seen in a 1965 aerial photograph, but was demolished at an unknown date.

Golf, like many other sports in America, was originally integrated before a "Caucasian-only" clause was adopted. The first African-American to play golf was John Shippen Jr., who competed in the 1896 Second U.S. open at Shinnecock Hills, in which he registered as Native American.[3] Although other tournament competitors originally protested his participation, PGA members eventually relented and played alongside him. Shippen played in six U.S. Opens, finishing in fifth place in 1896 and 1902 before retiring in 1924. The PGA "Caucasian-only" clause was adopted in 1934. The United Golf Association, formed by Robert Hawkins, ultimately established a tour for players excluded from PGA events.[4]

The year 1948 was a time for many firsts in American golf. One occurred at Western Avenue Golf Course during the June 21, 1948 tournament, which marked the first time in the west that women were able to compete in an open tournament with male golfers.[5] That same year, African-American golfers Teddy Rhodes, Bill Spiller, and Madison Gunter sued their way into the U.S. Open, claiming their livelihoods were being denied by the PGA based on race.[6] The PGA agreed to invite them to their top tournaments and the lawsuit was dropped. Rhodes fought his way into 69 PGA events, and began a crusade against racism in professional golf that would burn through Western Avenue Golf Course. (*See Continuation Sheet page 5*)

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2 Jackson, Philip. Letter to Ray Dortch. "History and Prior Golf Promotion Program Designed for Western Avenue Golf Course1974." 17 January 1978.

3 Denney, Bob. "John Shippen Jr.: African American Pioneer; first American-born golf professional." 2 February 2015. *Professional Golfers Association. http://www.pga.com/news/pga/john-shippen-jr-first-African American-golf-professional*

4 "Timeline of African American achievements in golf." 4 February 2011. *Professional Golfers Association. http://www.pga.com/timeline-African American-achievements-in-golf*

5 "Male and Female Golf Meet Scheduled Here June 21st." 17 June 1948. *Los Angeles Sentinel.*

6 Lewis, Jason. "Black History Month: The First Black Golfers." 3 February 2012. *Los Angeles Sentinel. https://lasentinel.net/black-history-month-the-first-black-golfers.html*

D6. Significance: (*Continued from Continuation Sheet page 4*)

One reason the Western Avenue Golf Course became so embroiled in the integration of golf in Los Angeles is because of its change in ownership. In 1953, the Western Avenue Golf Course came under threat of real estate subdivision. County Supervisor Kenneth Hahn argued that the golf course should be saved and the County shortly thereafter acquired it in 1954.[7]

Controversy surrounded the Western Avenue Golf Course in 1955, when Maggie Hathaway, an African-American social activist, applied for membership to the course's Women's Golf Club.[8] The Caucasian-only group denied her application and Hathaway brought up the matter with Supervisor Kenneth Hahn.[9] Hathaway argued that the association was not allowed to discriminate based on race when practicing on County-owned land, which she and other minorities paid taxes to help maintain. Hahn agreed, and the group was expelled from the golf course. He extended the ban throughout the County, forcing all-white golf groups to diversify and admit people of color golfers.[10] A nondiscrimination clause was added to County Department facilities contracts:

> *Concessionaire agree that he shall not make any discrimination, distinction, or restriction on account of color, race, religion, ancestry, or national origin contrary to the provisions of Section 51 of the Civil Code of the State of California which is incorporated herein by reference as if set forth here at in full.*[11]

Western Avenue Golf Course became integrated and many notable African-American golfers, such as Charles Sifford, consecutively and consistently practiced at the golf course during the height of their careers.

In 1955, Charles "Charlie" Sifford and Ted Rhodes were the first African-American golfers to play at the Gardena Valley Open Golf Tournament held at Western Avenue Golf Course.12 Sifford was the first African-American to be admitted on a PGA Tour, joining the 1960 season. He won the 1967 Greater Hartford Open Invitational, the 1969 Los Angles Open, and the 1975 PGA Seniors' Championship.[13] (*See Continuation Sheet page 6*)

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7 County of Los Angeles Department of Parks and Recreation. "Annual Report: Fiscal Year." 30 June 1954. Board of Supervisors

8 Clark, Libby. "A 'Taste' of History- A Remembrance." 10 April 2003. *Los Angeles Sentinel.*

9 Dailey, John. "Divot Diggings: Maggie's Struggle Not a Piece of Cake." 27 October 1994. *Los Angeles Sentinel.*

10 Clark, Libby. "A 'Taste' of History- A Remembrance." 10 April 2003. *Los Angeles Sentinel.*

11 Dailey, John. "Divot Diggings: Maggie's Struggle Not a Piece of Cake." 27 October 1994. *Los Angeles Sentinel.*

12 "Ted Rhodes, Charles Sifford Will Play in Golf Meet Here." 17 November 1955. *Los Angeles Sentinel.*

13 "Timeline of African American achievements in golf." 4 February 2011. Professional Golfer's Association. Available at: http://www.pga.com/timeline-African American-achievements-in-golf

D6. Significance: (*Continued from Continuation Sheet page 5*)

In 2004, Sifford was the first African-American to be enshrined in the World Golf Hall of Fame. In 2015, President Barack Obama honored him with the nation's highest civilian honor, the Presidential Medal of Freedom.14 Sifford was recognized for his success at the golf course in 2015, when 120th Street was changed to Charlie Sifford Drive in his honor. His son, Charles Sifford Jr., accepted a duplicate of the street sign from County Supervisor Mark Ridley-Thomas.

Ted Rhodes, the player that sued his way into the U.S. Open in 1948, was another notable golfer that frequented Western Avenue Golf Course. Rhodes was recognized as the first African-American professional golfer, and went on to mentor Charlie Sifford. Debbie Rhodes, his daughter, remarked of the golf course: "It is not often as blacks that we get to talk about a place of fond memories and lasting friendships. Where black golfers got a start at making a name for themselves. This is what Chester Washington Golf Course (formerly Western Avenue Golf Course) meant to my father [Ted Rhodes]."[15]

Other notable African-American golfers who practiced at the golf course on a regular basis include: Alton Duhon, Charlie Lee, Bill Spiller, Jim Brown, and heavy-weight boxer Joe Louis.[16]

In 1956, construction began on the original clubhouse, now the pro shop, which was completed by 1958. In the early 1960s, much of the golf course landscaping was redesigned, and six bridges were constructed. A clubhouse was designed by Nielsen, Moffatt & Wolverton in 1963 and constructed in 1965. Nielsen, Moffatt & Wolverton were located out of Los An geles and designed a number of hospitals, medical centers, and post offices.[17]

In March of 1972, the Minority Associated Golfers, with entertainment by the Jackson Five, dedicated the Junior Golfers Green. The event was notable for the musical group's surprise visit, in which the five singers and their baby brother Jackson doled out autographs.[18]

The golf course was renamed after newspaper magnate Chester L. Washington in 1982, a year before Washington's death. Chester L. Washington was an African-American newspaper magnate who started his career in Pittsburgh, Pennsylvania. After moving to Los Angeles, Washington served as the first African-American editor for the *Los Angeles Mirror-News* before taking a position as the editor of the *Los Angeles Sentinel,* the city's oldest black-owned weekly newspaper. In 1966, he bought the *Central News* and *Southwest News,* two weekly newspapers in South Los Angeles. Washington went on to purchase the five weekly *Wave* newspapers in 1971, eventually creating the 13-newspaper *Central News-Wave Publications.*[19] (*See Continuation Sheet page 7*)

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[14] Wanlass, Don. "Sports Digest: Street Renamed in honor of Charlie Sifford." 20 August 2015. *Los Angeles Wave. http://wavenewspapers.com/sports-digest-street-renamed-in-honor-of-charlie-sifford/*

[15] Dailey, John. "Washington Golf Course: Back to the Future." 26 June 1986. *Los Angeles Sentinel.*

[16] Wexler, Daniel. "History in the Making." 9 April 2007. *Los Angeles Times. http://www.latimes.com/sports/la-sp-history9apr09-story.html*

[17] "Nielsen, Moffatt & Wolverton." 1970. *American Architects Directory.*

[18] Maggie Hathaway, "Tee Time: Jackson 5 Signs Charter," 16 March 1972, pg. B3.

[19] Hernandez, Marita. "Head of Black-Owned Newspaper Chain Dies." 1 September 1983. *Los Angeles Times.*

D6. Significance: (*Continued from Continuation Sheet page 6*)

Chester Washington Golf Course is a property with exceptional historical significance as the site of an important political and cultural event in the history of the African-American golfers in the state of California. Originally the La Avenida Golf Course, then the Western Avenue Golf Course, the facility served as the first major golf course to be integrated after racial discrimination leading into the 1950s. Previously hosting a Caucasian-only golf club, Western Avenue Golf Course was forced to diversify their golf course, opening it to players of color after the County purchased it. The golf course later served as a home field for many professional African-American golfers. Therefore, Chester Washington Golf Course is eligible for listing as a potential historic district in the CRHR and County Register pursuant to Criteria 1 for its association with the integration of minority golf players in the Los Angeles region. (*See Continuation Sheet page 7*)

A number of incredibly notable African-American activists and golfers forced social change at Chester Washington Golf Course. Maggie Hathaway, a noted civil rights advocate, brought attention to the Western Avenue Women's Golf Club when they rejected her bid for membership because she was black. Hathaway fought until the club was exiled from the golf course, formed her own people of color-inclusive golf club, and advocated for an integrated golf course. African-American golfers began to pour into the Western Avenue Golf Course, including notable African-American golfers such as Charlie Sifford, Ted Rhodes, and Joe Louis. Many of these golfers were involved at the golf course during the height in their careers, and lauded the facility's inclusive atmosphere. Therefore, Chester Washington Golf Course is eligible for listing as a potential historic district in the CRHR and County Register pursuant to Criteria 2 for its connection with a number of notable local and national African-American golfers that broke the previously restricted sport and paved the way for later sportsmen like Tiger Woods.

Chester Washington Golf Course was not designed by a master architect, and is not noted for its landscape design or for its unique landscape features. The concept of the design is utilitarian in execution, and does not reflect a historic trend or school of thought. Rather, Chester Washington Golf Course is a common example of this resource type. Therefore, Chester Washington Golf Course does not embody the distinctive characteristics of a type, period, or method of construction. The golf course, inclusive of the appurtenant buildings, facilities, and landscape, is not eligible for listing in the NRHP, CRHR, or County Register pursuant to Criterion C/3.

Chester Washington Golf Course was constructed using common and utilitarian materials and does not have the potential to yield information regarding local building traditions and methods. Therefore, Chester Washington Golf Course, inclusive of the appurtenant buildings, facilities, and landscape, is not eligible for listing in the NRHP, CRHR, or County Register pursuant to Criterion D/4.

Much of Chester Washington Golf Course has not been altered since the construction of the clubhouse in 1965; only the clubhouse itself has undergone renovation. Therefore, the setting, buildings, and structures retain sufficient historic integrity and meet the criteria for listing as a historic district because of their association with the integration of Los Angeles golfing communities and with notable African-American golfers in the CRHR and County Register pursuant to Criteria 1 and 2. The period of significance is from 1954 to 1967 when the golf course was constructed and notable African-American golfers were active at the site.

***D7. References:** (*Continued from District Record page 1*)

"Nielsen, Moffatt & Wolverton." 1970. *American Architects Directory.*

"Ted Rhodes, Charles Sifford Will Play in Golf Meet Here." 17 November 1955. *Los Angeles Sentinel.*

"Timeline of African American achievements in golf." 4 February 2011. *Professional Golfers Association. http://www.pga.com/timeline-African American-achievements-in-golf*

Clark, Libby. "A 'Taste' of History- A Remembrance." 10 April 2003. *Los Angeles Sentinel.*

County of Los Angeles Department of Parks and Recreation. 30 June 1954. "Annual Report: Fiscal Year." Board of Supervisors.

Dailey, John. 27 October 1994. "Divot Diggings: Maggie's Struggle Not a Piece of Cake." *Los Angeles Sentinel.*

Dailey, John. 26 June 1986. "Washington Golf Course: Back to the Future." *Los Angeles Sentinel.*

Denney, Bob. 2 February 2015. "John Shippen Jr.: African American Pioneer; first American-born golf professional." *Professional Golfers Association.* Available at: http://www.pga.com/news/pga/john-shippen-jr-first-African American-golf-professional

Hernandez, Marita. 1 September 1983. "Head of Black-Owned Newspaper Chain Dies." *Los Angeles Times.*

Jackson, Philip. 17 January 1978. "History and Prior Golf Promotion Program Designed for Western Avenue Golf Course1974." Letter to Ray Dortch.

Lewis, Jason. 3 February 2012. "Black History Month: The First Black Golfers." *Los Angeles Sentinel.* Available at: https://lasentinel.net/black-history-month-the-first-black-golfers.html

Taylor, Barbara. "Charlie Sifford Gets a Los Angeles County Street Named in His Honor." August 2015. African American Golfer's Digest. http://www.africanamericangolfersdigest.com/charlie-sifford-gets-a-los-angeles-county-street-named-in-his-honor/

Wanlass, Don. 20 August 2015. "Sports Digest: Street Renamed in honor of Charlie Sifford." *Los Angeles Wave.* Available at: http://wavenewspapers.com/sports-digest-street-renamed-in-honor-of-charlie-sifford/

Wexler, Daniel. 9 April 2007. "History in the Making." *Los Angeles Times.* Available at: http://www.latimes.com/sports/la-sp-history9apr09-story.html

State of California — Natural Resources Agency DEPARTMENT OF PARKS AND RECREATION **PRIMARY RECORD**	Primary # HRI # Trinomial NRHP Status Code 3CD Other Listings _____
Review Code _____ Reviewer:	Date:

 ***Resource Name or #** (Assigned by recorder)**:** Chester Washington Golf Course
P1. Other Identifier: Chester Washington Historic District

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

***a. County:** Los Angeles **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Inglewood **Date**: 1981 **T**30S**; R**14W**;___of___of Sec** 11;___**B.M.**

c. Address: 1818 Charlie Sifford Drive **City:** Los Angeles **Zip:** 90047

d. UTM (Give more than one for large and/or linear resources) **Zone:** 11**,** 378621.41 mE/ 3754166.77 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate):
Assessor's Parcel Nos.: 4057-032-901 and 4057-032-900

***P3a. Description** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): Of the 12 buildings, structures and objects located within Chester Washington Golf Course, the following 5 resources contribute to the Chester Washington Historic District: clubhouse, pro shop, bridge, comfort station No. 2, and concession stand. The following buildings and structures do not contribute to the Chester Washington Historic District: gazebo, plaque, storage shed, maintenance shed, comfort station No. 1, well house, and pump house.

***P3b. Resource Attributes** (List attributes and codes)**:** HP31 Urban Open Space

***P4. Resources Present:** ☒Building ☒Structure ☐Object ☐Site ☒District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo (view, date, accession #): View of pro shop, August 5, 2010

***P6. Date Constructed/Age and Source:**
☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
County of Los Angeles
500 W. Temple Street, Room 754
Los Angeles, CA 90012

***P8. Recorded by** (Name, affiliation, and address):
Alexandra Madsen
Sapphos Environmental, Inc.
430 N. Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** February 14, 2017

***P10. Survey Type** (Describe)**:** Intensive, CEQA Compliance

***P11. Report Citation** (Cite survey report and other sources, or enter "none")**:** Sapphos Environmental, Inc. 2017. Historic Evaluation for Chester Washington Golf Course.

Attachments: ☒ NONE ☐ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **PRIMARY RECORD**	Primary # HRI # Trinomial NRHP Status Code: 3CD; 5D3
Other Listings Review Code	Reviewer: Date:

Page 10 **of** 19 ***Resource Name or #** (Assigned by recorder)**:** Chester Washington Golf Course
P1. Other Identifier: Pro Shop

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**
***a. County:** Los Angeles **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad:** Inglewood **Date**: 1981 **T**30S**; R**14W**;__of__of Sec** 11;__**B.M.**
c. Address: 1818 Charlie Sifford Drive **City:** Los Angeles **Zip:** 90047
d. UTM (Give more than one for large and/or linear resources) **Zone:** 11**,** 378621.41 mE/ 3754166.77 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate):
Assessor's Parcel Nos.: 4057-032-901 and 4057-032-900

***P3a. Description** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): The 4,270-square-foot pro shop was designed in 1956 and is situated in the north-central region of the golf course. It has an 'L'-shaped floor plan and a cross-gable roof with a projecting awning upheld by columns. Wood siding clads the exterior, and single- and double-light casement windows line the south and west facades of the building. A large concession window that opens to the pro shop's office is located in the southwest corner of the building. The pro shop was designed by County Engineer Schroeder and completed between 1957 and 1958. (*See Continuation Sheet page 11*)

***P3b. Resource Attributes** (List attributes and codes)**:** HP6 commercial building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo (view, date, accession #): View of Pro Shop, September 7, 2016

***P6. Date Constructed/Age and Source:**
☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
County of Los Angeles
500 W. Temple Street, Room 754
Los Angeles, CA 90012

***P8. Recorded by** (Name, affiliation, and address): Alexandra Madsen
Sapphos Environmental, Inc.
430 N. Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** February 14, 2017

***P10. Survey Type** (Describe)**:** Intensive, CEQA Compliance

***P11. Report Citation** (Cite survey report and other sources, or enter "none")**:** Sapphos Environmental, Inc. 2017. Historic Evaluation for Chester Washington Golf Course.

Attachments: ☐ NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

***P3a. Description:** (*Continued from Primary Record page 10*)

Atkins previously found the pro shop ineligible for listing in the CRHR for its architecture pursuant to Criterion C/3.[1] However, the pro shop retains its integrity and has not been evaluated for listing in the NRHP or County Register or for listing in the CRHR pursuant to Criteria A/1, B/2, or D/4.

The pro shop has not undergone heavy renovations or changes and retains its integrity. The pro shop was one building that facilitated the use of the golf course for African-American players. Therefore, it contributes to a potential historic district and is eligible for listing in the CRHR and County Register pursuant to Criteria 1 and 2 for its connection with the integration of golf courses in Los Angeles and association with notable African-American golfers Charles Sifford, Maggie Hathaway, and Ted Rhodes among others. The pro shop does not convey this significance as an individual resource sufficiently to merit listing in the NRHP, CRHR, or County Register pursuant to any criteria.

[1] Harris, Brandy and Kelley Russell (Atkins). Letter to Joan Rupert (County). "CRHP Eligibility Assessment of the Chester L. Washington Golf Course Clubhouse." 13 August 2012. *Memorandum.*

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **PRIMARY RECORD**	Primary # HRI # Trinomial NRHP Status Code: 3CD; 5D3
Other Listings Review Code	Reviewer: Date:

Page 12 **of** 19 ***Resource Name or #** (Assigned by recorder)**:** Chester Washington Golf Course
P1. Other Identifier: Bridge
***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**
***a. County:** Los Angeles **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad:** Inglewood **Date**: 1981 **T**30S**; R**14W**;__of__of Sec** 11;__**B.M.**
c. Address: 1818 Charlie Sifford Drive **City:** Los Angeles **Zip:** 90047
d. UTM (Give more than one for large and/or linear resources) **Zone:** 11**,** 378621.41 mE/ 3754166.77 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate):
Assessor's Parcel Nos.: 4057-032-901 and 4057-032-900

***P3a. Description** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): The original bridge located at the golf course is evident in a 1958 photograph. However, the golf course grounds underwent a major reconfiguration in 1962, and new bridges were constructed to make different regions of the golf course more accessible.[1] One of the six bridges built at this time appears to remain standing near the grove of Eucalyptus trees. This structure is located in the north-central region of the golf course. The bridge is constructed of concrete with metal railings that project outward at each edge. (*See Continuation Sheet page 13*)

***P3b. Resource Attributes** (List attributes and codes)**:** HP19 Bridge

***P4. Resources Present:** ☐Building ☒Structure ☐Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo (view, date, accession #): View of Bridge, September 7, 2016

***P6. Date Constructed/Age and Source:**
☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
County of Los Angeles
500 W. Temple Street, Room 754
Los Angeles, CA 90012

***P8. Recorded by** (Name, affiliation, and address): Alexandra Madsen
Sapphos Environmental, Inc.
430 N. Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** February 14, 2017

***P10. Survey Type** (Describe)**:** Intensive, CEQA Compliance

***P11. Report Citation** (Cite survey report and other sources, or enter "none")**:** Sapphos Environmental, Inc. 2017. Historic Evaluation for Chester Washington Golf Course.

Attachments: ☐ NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

[1] Barry and Fernana. Department of County Engineer. "Pedestrian Bridges at Western–Ave Golf Course." December 1961. Sheet No. 1. Work Order No. 8818–20.

***P3a. Description:** (*Continued from Primary Record page 12*)

The bridge has not undergone heavy renovations or changes and retains its integrity. The bridge is the last remaining of six structures from the 1962 landscaping of the golf course. Therefore, it contributes to a potential historic district and is eligible for listing in the CRHR and County Register pursuant to Criteria 1 and 2 for its connection with the integration of golf courses in Los Angeles and association with notable African-American golfers Charles Sifford, Maggie Hathaway, and Ted Rhodes among others. The bridge does not convey this significance as an individual resource sufficiently to merit listing in the NRHP, CRHR, or County Register pursuant to any criteria.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **PRIMARY RECORD**	Primary # HRI # Trinomial NRHP Status Code: 3CD; 5D3
Other Listings Review Code	Reviewer: Date:

Page 14 **of** 19 ***Resource Name or #** (Assigned by recorder)**:** Chester Washington Golf Course
P1. Other Identifier: Comfort Station No. 2

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**

***a. County:** Los Angeles **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Inglewood **Date**: 1981 **T**30S**; R**14W**;__of__of Sec** 11;__**B.M.**

c. Address: 1818 Charlie Sifford Drive **City:** Los Angeles **Zip:** 90047

d. UTM (Give more than one for large and/or linear resources) **Zone:** 11**,** 378621.41 mE/ 3754166.77 mN

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate):
Assessor's Parcel Nos.: 4057-032-901 and 4057-032-900

***P3a. Description** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): Located in the southwestern corner of the golf course, comfort station no. 2 was likely constructed in 1957 alongside the concession stand. Comfort station No. 2 measures 1,442 square feet and has a rectangular floor plan. Constructed of concrete masonry units (CMUs) the building has a raised, low-pitched gable roof with a central concrete ridge pole and exposed rafter tails. Projecting CMUs on each corner imitate quoins. Entrances flank each end of the building. H.L. Architects likely designed the comfort station.(*See Continuation Sheet page 15*)

***P3b. Resource Attributes** (List attributes and codes)**:** HP4 ancillary building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo (view, date, accession #): View of Comfort Station No. 2, September 7, 2016

***P6. Date Constructed/Age and Source:**
☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
County of Los Angeles
500 W. Temple Street, Room 754
Los Angeles, CA 90012

***P8. Recorded by** (Name, affiliation, and address): Alexandra Madsen
Sapphos Environmental, Inc.
430 N. Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** February 14, 2017

***P10. Survey Type** (Describe)**:** Intensive, CEQA Compliance

***P11. Report Citation** (Cite survey report and other sources, or enter "none")**:** Sapphos Environmental, Inc. 2017. Historic Evaluation for Chester Washington Golf Course.

Attachments: ☐ NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

***P3a. Description:** (*Continued from Primary Record page 14*)

Comfort station No. 2 has not undergone heavy renovations or changes and retains its integrity. Therefore, it contributes to a potential historic district and is eligible for listing in the CRHR and County Register pursuant to Criteria 1 and 2 for its connection with the integration of golf courses in Los Angeles and association with notable African-American golfers Charles Sifford, Maggie Hathaway, and Ted Rhodes among others. Comfort station No. 2 does not convey this significance as an individual resource sufficiently to merit listing in the NRHP, CRHR, or County Register pursuant to any criteria.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **PRIMARY RECORD**	Primary # HRI # Trinomial NRHP Status Code: 3CD; 5D3
Other Listings Review Code	Reviewer: Date:

Page 16 **of** 19 ***Resource Name or #** (Assigned by recorder)**:** Chester Washington Golf Course
P1. Other Identifier: Concession Stand

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**
***a. County:** Los Angeles **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad:** Inglewood **Date**: 1981 **T**30S**; R**14W**;__of__of Sec** 11;__**B.M.**
c. Address: 1818 Charlie Sifford Drive **City:** Los Angeles **Zip:** 90047
d. UTM (Give more than one for large and/or linear resources) **Zone:** 11**,** 378621.41 mE/ 3754166.77 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate):
Assessor's Parcel Nos.: 4057-032-901 and 4057-032-900

***P3a. Description** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): The Mid-Century Modern-style concession stand was designed and constructed in 1957 of CMUs. With a square footprint, the concession stand's complex shape is created from its slightly slanted flat asymmetrical roof situated to project over each secondary façade of the building, rather than the typical corners. Exposed ridge poles hold the roof and accentuate the building's abstracted form. Projecting metal sheaves create counters below concession windows. The concession stand was constructed by H.L. Architects. (*See Continuation Sheet page 17*)

***P3b. Resource Attributes** (List attributes and codes)**:** HP6 commercial building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo (view, date, accession #): View of Concession Stand, September 7, 2016

***P6. Date Constructed/Age and Source:**
☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
County of Los Angeles
500 W. Temple Street, Room 754
Los Angeles, CA 90012

***P8. Recorded by** (Name, affiliation, and address): Alexandra Madsen
Sapphos Environmental, Inc.
430 N. Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** February 14, 2017

***P10. Survey Type** (Describe)**:** Intensive, CEQA Compliance

***P11. Report Citation** (Cite survey report and other sources, or enter "none")**:** Sapphos Environmental, Inc. 2017. Historic Evaluation for Chester Washington Golf Course.

Attachments: ☐ NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

***P3a. Description:** (*Continued from Primary Record page 16*)

The concession stand has not undergone heavy renovations or changes and retains its integrity. Therefore, it contributes to a potential historic district and is eligible for listing in the CRHR and County Register pursuant to Criteria 1 and 2 for its connection with the integration of golf courses in Los Angeles and association with notable African American golfers Charles Sifford, Maggie Hathaway, and Ted Rhodes among others. The concession stand does not convey this significance as an individual resource sufficiently to merit listing in the NRHP, CRHR, or County Register pursuant to any criteria.

State of California — The Resources Agency DEPARTMENT OF PARKS AND RECREATION **PRIMARY RECORD**	Primary # HRI # Trinomial NRHP Status Code: 3CD; 5D3
Other Listings Review Code	Reviewer: Date:

Page 18 **of** 19 ***Resource Name or #** (Assigned by recorder)**:** Chester Washington Golf Course
P1. Other Identifier: Clubhouse

***P2. Location:** ☐ **Not for Publication** ☒ **Unrestricted**
***a. County:** Los Angeles **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad:** Inglewood **Date**: 1981 **T**30S**; R**14W**;__of__of Sec** 11;__**B.M.**
c. Address: 1818 Charlie Sifford Drive **City:** Los Angeles **Zip:** 90047
d. UTM (Give more than one for large and/or linear resources) **Zone:** 11**,** 378621.41 mE/ 3754166.77 mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate):
Assessor's Parcel Nos.: 4057-032-901 and 4057-032-900

***P3a. Description** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries): Designed in 1962 and built in 1965, the 16,669-square-foot clubhouse is a Mid-Century Modern-style building. The clubhouse was designed by Los Angeles-based architects Nielsen, Moffatt & Wolverton in 1962, and built by LA-KE Construction Company in 1965. The clubhouse has a complex, horseshoe-shaped floor plan, flat roof, and stuccoed exterior. A projecting concrete porte-cochere provides a symmetrical compliment to the otherwise low and unassuming façade. This entrance, originally a lighter color and adorned in selected locations with turquoise tiles, has been heavily altered in the past few years, and is missing much of its original historic fabric. Additionally, rough-hewn stone veneer was added to the median and entrance surround during this alteration. (*See Continuation Sheet page 19*)

***P3b. Resource Attributes** (List attributes and codes)**:** HP6 commercial building

***P4. Resources Present:** ☒Building ☐Structure ☐Object ☐Site ☐District ☒Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo (view, date, accession #): View of Clubhouse, September 7, 2016

***P6. Date Constructed/Age and Source:**
☒Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
County of Los Angeles
500 W. Temple Street, Room 754
Los Angeles, CA 90012

***P8. Recorded by** (Name, affiliation, and address): Alexandra Madsen
Sapphos Environmental, Inc.
430 N. Halstead Street
Pasadena, CA 91107

***P9. Date Recorded:** February 14, 2017

***P10. Survey Type** (Describe)**:** Intensive, CEQA Compliance

***P11. Report Citation** (Cite survey report and other sources, or enter "none")**:** Sapphos Environmental, Inc. 2017. Historic Evaluation for Chester Washington Golf Course.

Attachments: ☐ NONE ☐ Location Map ☐ Sketch Map ☒ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

***P3a. Description:** (*Continued from Primary Record page 18*)

The southeastern façade is concave and curved with large, floor-to-ceiling windows. A deep, projecting overhang accentuates the curvilinear form of the building. Turquoise tile was removed in the 2012/2013 renovation. Atkins previously found the clubhouse ineligible for listing in the CRHR for its architecture pursuant to Criterion 3.[1] The clubhouse lost some of its integrity after a 2012/2013 renovation, in which some of the entrance's original historic fabric was removed. However, removal of the historic tile, paint, and added rock veneer alterations are reversible which is in keeping with the Secretary of the Interior's *Standards for the Treatment of Historic Properties*. Moreover, although the building has lost some integrity, it retains sufficient integrity with its general form and historic fabric to convey significance and reflect its history of hosting notable events and people. Therefore, it contributes to a potential historic district and is eligible for listing in the CRHR and County Register pursuant to Criteria 1 and 2 for its connection with the integration of golf courses in Los Angeles and association with notable African-American golfers Charlie Sifford, Maggie Hathaway, and Ted Rhodes among others. The pro shop as an individual resource does not sufficiently convey an association with significant events and persons to rise to the threshold for listing in the NRHP, CRHR, or County Register pursuant to any criteria.

[1] Harris, Brandy and Kelley Russell (Atkins). Letter to Joan Rupert (County). "CRHP Eligibility Assessment of the Chester L. Washington Golf Course Clubhouse." 13 August 2012. *Memorandum.*

APPENDIX F

*NATIONAL PARK SERVICE PRESERVATION BRIEFS**

*Appendix F, *National Park Service Preservation Briefs* has been provided to the County of Los Angeles as a separate .ZIP file.

Los Angeles Department of Water & Power

CUSTOMERS FIRST

June 25, 2018

Zita Yu, Ph.D., P.E.
West Basin Municipal Water District
17140 South Avalon Boulevard, Suite 210
Carson, CA 90745

Dear Dr Yu:

Subject: Comment Letter Regarding the Draft Environmental Impact Report for the Ocean Water Desalination Project

The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to review the Draft Environmental Impact Report (DEIR) for Ocean Water Desalination Project. The mission of LADWP is to provide clean, reliable water and power to the City of Los Angeles. In reviewing the DEIR, the LADWP has determined that the project may have impacts to power resources and respectfully submits the comment below. LADWP-1

Comment:
Figure 3-21 identifies Scattergood Generating Station as a potential laydown and parking area for the project. The LADWP does not have any space available at the Scattergood Generating Station and requests that this facility be removed from consideration as an off-site potential construction staging/laydown area. LADWP-2

For any questions regarding the above comments, please contact Mr. Brian Gonzalez of my staff at (213) 367-2612 or at brian.gonzalez@ladwp.com. LADWP-3

Sincerely,

Charles C. Holloway

Charles C. Holloway
Manager of Environmental Planning and Assessment

BG:ns
c: Brian Gonzalez

111 N. Hope Street, Los Angeles, California 90012-2607 Mailing Address: PO Box 51111, Los Angeles, CA 90051-5700
Telephone (213) 367-4211 ladwp.com

CITY OF LOS ANGELES
CALIFORNIA

WASTEWATER ENGINEERING SERVICES DIVISION
2714 MEDIA CENTER DRIVE
LOS ANGELES, CA 90065
FAX: (323) 342-6210
WWW.LACITYSAN.ORG

April 9, 2018

Zita Yu, Ph.D, P.E., Project Manager
West Basin Municipal Water District
Outside Company Department if Applicable
17140 South Avalon Boulevard
Carson, CA, 90746

Dear Ms. Yu,

OCEAN WATER DESALINATION PROJECT (SCH # 2015081087) – NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT

This is in response to your March 28, 2018 letter requesting a review of your proposed ocean water desalination facility located at 301 Vista Del Mar, El Segundo, CA. LA Sanitation, Wastewater Engineering Services Division (WESD) has reviewed the request and found the project to be in the Notice of Availability of a Draft Environmental Impact Report phase.

Based on the project location, we have determined the sewer infrastructure does not fall in the jurisdiction of the City of Los Angeles, and therefore do not offer further analysis. Should the project location change, please continue to send us information so we may determine if a sewer assessment is required in the future. LASAN-1

If you have any questions, please call Christopher DeMonbrun at (323) 342-1567 or email at chris.demonbrun@lacity.org LASAN-2

Sincerely,

Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation

CD/AP:al

c: Kosta Kaporis, LASAN
Christopher DeMonbrun, LASAN

THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA

Office of the General Manager

June 25, 2018

VIA EMAIL AND UPS

Ms. Zita Yu
West Basin Municipal Water District
17140 S. Avalon Blvd., Suite 210
Carson, CA 90746

Dear Ms. Yu:

West Basin Ocean Water Desalination Project
California Environmental Quality Act (CEQA)
Draft Environmental Impact Report (DEIR), SCH #2015081087

The Metropolitan Water District of Southern California (Metropolitan) reviewed the Draft Environmental Impact Report (DEIR) for the West Basin Municipal Water District's (West Basin) proposed West Basin Ocean Water Desalination Project (Proposed Project). The Proposed Project would construct a desalination facility to produce municipal drinking water from ocean water for distribution to West Basin's customers through either the installation of a new conveyance system or connection to Metropolitan's existing distribution system.

Metropolitan is a public agency and regional water wholesaler. It is comprised of 26 member public agencies, including West Basin, serving approximately 19 million people in portions of six counties in Southern California, including Los Angeles County. Metropolitan's mission is to provide its 5,200 square mile service area with adequate and reliable supplies of high-quality water to meet present and future needs in an environmentally and economically responsible way.

MWD-1

Construction of the full build-out of the Proposed Project would consist of the desalination facility, screened ocean intake, concentrate discharge system, and conveyance system to distribute the desalinated water to West Basin's Member Agencies and a connection to Metropolitan's existing distribution pipeline system. The Proposed Project would be built in two phases, with the initial or Local Project being designed to produce 20 million gallons per day (mgd) of potable water supply (Local Project) followed by a potential expansion to a larger project, which would produce up to 60 mgd (Regional Project). The DEIR analyzes the Local Project at the project level and the Regional Project at a program level as details concerning its design and operational characteristics are not yet determined and cannot be analyzed at this time at the level of detail required for a project-level analysis. West Basin staff have indicated that water produced by the Local Project would only integrate into West Basin's new water system

700 North Alameda Street, Los Angeles, California 90012● Mailing Address: Box 54153, Los Angeles●California 90054-0153 ● Telephone (213) 217-6000

and water produced by the Regional Project would integrate directly into Metropolitan's distribution system.

In partnership with local water agencies, Metropolitan is a statewide leader in implementing water conservation programs and developing progressive water resources such as wastewater recycling and groundwater recovery. Metropolitan alone has invested nearly $1.4 billion in these programs and resources, and our member agencies, including West Basin together have invested many more. Recent Metropolitan accomplishments include funding the replacement of almost 150 million square feet of turf with water-efficient landscapes, nearly tripling the Governor's drought response goal of 50 million square feet for all of California.

The severity of the State's recent drought, the extended dry period on the Colorado River, and the projected long-term impacts of climate change underscore the need for continued diversification of Southern California's water resource portfolio. Metropolitan's long-term Integrated Water Resources Plan (IRP) achieves diversification with an "all of the above" approach. This includes maintaining Colorado River Aqueduct supplies and restoring the reliability of the State Water Project, while also developing local climate-resilient supplies such as seawater desalination. The IRP established a regional goal of 2.4 million acre-feet in annual production from local supplies by the year 2040, a significant increase above production levels seen in recent years, which have been closer to 1.8 million acre-feet. Over the same time horizon, local planning agencies project Metropolitan's service area to grow by more than three million people. New projects such as the Proposed Project would help increase local supplies and reduce Southern California's reliance on imported water supplies to meet expected future demands.

MWD-1

In 2006, Metropolitan entered into a Seawater Desalination Program (SDP) agreement with West Basin to support the development of the Local Project component of the Proposed Project. Under the terms of the agreement, once all precedent conditions were met, including completion of environmental documentation and approval by Metropolitan's Board, Metropolitan would pay West Basin approximately $250 per acre-foot of municipal drinking water produced by the Proposed Project up to a maximum of 20,000 acre-feet per year. Metropolitan's technical assistance to West Basin included evaluating system distribution integration and water quality challenges as part of West Basin's Program Master Document completed in 2011.

Full details on the Regional Project's design and operational characteristics have not been determined at this time. Metropolitan will need to continue to work with West Basin during design of the Regional Project to address a number of significant engineering challenges that could arise should West Basin desire to connect and integrate into one or several of our local conveyance pipelines, including: available system capacity; winter demand levels; blending and

corrosion effects to our pipelines; increased turbidity or changes in bromide, temperature, alkalinity, hardness, pH, chloride-to-sulfate mass ratios, and corrosion indices; effects on system hydraulics; effects on existing operations such as possible reversal of existing flow and impacts to water deliveries and existing water treatment plant operations; effects on existing water quality metrics; and effects on system reliability and redundancy. Metropolitan does not have a policy enabling the integration of local supplies into its distribution system. Metropolitan staff would need to seek Board approval for any actions requesting integration into our system.

Additionally, Metropolitan owns and operates a number of large diameter pipelines within and adjacent to the West Basin service area (see Figure 3-5 in the DEIR). As depicted on the Figure, several of the Proposed Project's new conveyances may be located adjacent to Metropolitan's pipelines. To avoid potential conflicts with these and other Metropolitan facilities, Metropolitan requests that West Basin coordinate with Metropolitan's Substructures Team. Detailed prints of drawings of Metropolitan's pipelines, facilities, and rights-of-way may be obtained by calling the Substructures Team at (213) 217-6564. To assist West Basin in preparing plans which are compatible with Metropolitan's facilities and rights-of-way, a copy of the "Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easement of The Metropolitan Water District of Southern California" is enclosed.

MWD-1

We appreciate the opportunity to provide input to your planning process and we look forward to receiving future documentation and plans for this project. For further assistance, please contact Mr. Tom Napoli at (213) 217-6720.

Very truly yours,

Jennifer Harris

for

Deirdre Brand
Section Manager, Environmental Planning

TN:tn
SharePoint/West Basin Ocean Water Desalination Project DEIR – SCH #2015081087

Enclosures: (1) Planning Guidelines
(2) Map of Metropolitan Facilities in Project Vicinity

Guidelines for Developments in the Area of Facilities, Fee Properties, and/or Easements of The Metropolitan Water District of Southern California

1. Introduction

a. The following general guidelines should be followed for the design of proposed facilities and developments in the area of Metropolitan's facilities, fee properties, and/or easements.

b. We require that 3 copies of your tentative and final record maps, grading, paving, street improvement, landscape, storm drain, and utility plans be submitted for our review and written approval as they pertain to Metropolitan's facilities, fee properties and/or easements, prior to the commencement of any construction work.

2. Plans, Parcel and Tract Maps

The following are Metropolitan's requirements for the identification of its facilities, fee properties, and/or easements on your plans, parcel maps and tract maps:

a. Metropolitan's fee properties and/or easements and its pipelines and other facilities must be fully shown and identified as Metropolitan's on all applicable plans.

b. Metropolitan's fee properties and/or easements must be shown and identified as Metropolitan's with the official recording data on all applicable parcel and tract maps.

c. Metropolitan's fee properties and/or easements and existing survey monuments must be dimensionally tied to the parcel or tract boundaries.

d. Metropolitan's records of surveys must be referenced on the parcel and tract maps.

3. Maintenance of Access Along Metropolitan's Rights-of-Way

a. Proposed cut or fill slopes exceeding 10 percent are normally not allowed within Metropolitan's fee properties or easements. This is required to facilitate the use of construction and maintenance equipment, and provide access to its aboveground and belowground facilities.

b. We require that 16-foot-wide commercial-type driveway approaches be constructed on both sides of all streets crossing Metropolitan's rights-of-way. Openings are required in any median island. Access ramps, if necessary, must be at least 16-feet-wide. Grades of ramps are normally not allowed to exceed 10 percent. If the slope of an access ramp must exceed 10 percent due to the topography, the ramp must be paved. We require a 40-foot-long level area on the driveway approach to access ramps where the ramp meets the street. At Metropolitan's fee properties, we may require fences and gates.

c. The terms of Metropolitan's permanent easement deeds normally preclude the building or maintenance of structures of any nature or kind within its easements, to ensure safety and avoid interference with operation and maintenance of Metropolitan's pipelines or other facilities. Metropolitan must have vehicular access along the easements at all times for inspection, patrolling, and for maintenance of the pipelines and other facilities on a routine basis. We require a 20-foot-wide clear zone around all above-ground facilities for this routine access. This clear zone should slope away from our facility on a grade not to exceed 2 percent. We must also have access along the easements with construction equipment. An example of this is shown on Figure 1.

d. The footings of any proposed buildings adjacent to Metropolitan's fee properties and/or easements must not encroach into the fee property or easement or impose additional loading on Metropolitan's pipelines or other facilities therein. A typical situation is shown on Figure 2. Prints of the detail plans of the footings for any building or structure adjacent to the fee property or easement must be submitted for our review and written approval as they pertain to the pipeline or other facilities therein. Also, roof eaves of buildings adjacent to the easement or fee property must not overhang into the fee property or easement area.

e. Metropolitan's pipelines and other facilities, e.g. structures, manholes, equipment, survey monuments, etc. within its fee properties and/or easements must be protected from damage by the easement holder on Metropolitan's property or the property owner where Metropolitan has an easement, at no expense to Metropolitan. If the facility is a cathodic protection station it shall be located prior to any grading or excavation. The exact location, description and way of protection shall be shown on the related plans for the easement area.

4. Easements on Metropolitan's Property

a. We encourage the use of Metropolitan's fee rights-of-way by governmental agencies for public street and utility purposes, provided that such use does not interfere with Metropolitan's use of the property, the entire width of the property is accepted into the agency's public street system and fair market value is paid for such use of the right-of-way.

b. Please contact the Director of Metropolitan's Right of Way and Land Division, telephone (213) 250-6302, concerning easements for landscaping, street, storm drain, sewer, water or other public facilities proposed within Metropolitan's fee properties. A map and legal description of the requested easements must be submitted. Also, written evidence must be submitted that shows the city or county will accept the easement for the specific purposes into its public system. The grant of the easement will be subject to Metropolitan's rights to use its land for water pipelines and related purposes to the same extent as if such grant had not been made. There will be a charge for the easement. Please note that, if entry is required on the property prior to issuance of the easement, an entry permit must be obtained. There will also be a charge for the entry permit.

5. Landscaping

Metropolitan's landscape guidelines for its fee properties and/or easements are as follows:

a. A green belt may be allowed within Metropolitan's fee property or easement.

b. All landscape plans shall show the location and size of Metropolitan's fee property and/or easement and the location and size of Metropolitan's pipeline or other facilities therein.

c. Absolutely no trees will be allowed within 15 feet of the centerline of Metropolitan's existing or future pipelines and facilities.

d. Deep-rooted trees are prohibited within Metropolitan's fee properties and/or easements. Shallow-rooted trees are the only trees allowed. The shallow-rooted trees will not be permitted any closer than 15 feet from the centerline of the pipeline, and such trees shall not be taller than 25 feet with a root spread no greater than 20 feet in diameter at maturity. Shrubs, bushes, vines, and ground cover are permitted, but larger shrubs and bushes should not be planted directly over our pipeline. Turf is acceptable. We require submittal of landscape plans for Metropolitan's prior review and written approval. (See Figure 3).

e. The landscape plans must contain provisions for Metropolitan's vehicular access at all times along its rights-of-way to its pipelines or facilities therein. Gates capable of accepting Metropolitan's locks are required in any fences across its rights-of-way. Also, any walks or drainage facilities across its access route must be constructed to AASHTO H-20 loading standards.

f. Rights to landscape any of Metropolitan's fee properties must be acquired from its Right of Way and Land Division. Appropriate entry permits must be obtained prior to any entry on its property. There will be a charge for any entry permit or easements required.

6. Fencing

Metropolitan requires that perimeter fencing of its fee properties and facilities be constructed of universal chain link, 6 feet in height and topped with 3 strands of barbed wire angled upward and outward at a 45 degree angle or an approved equal for a total fence height of 7 feet. Suitable substitute fencing may be considered by Metropolitan. (Please see Figure 5 for details).

7. Utilities in Metropolitan's Fee Properties and/or Easements or Adjacent to Its Pipeline in Public Streets

Metropolitan's policy for the alinement of utilities permitted within its fee properties and/or easements and street rights-of-way is as follows:

a. Permanent structures, including catch basins, manholes, power poles, telephone riser boxes, etc., shall not be located within its fee properties and/or easements.

b. We request that permanent utility structures within public streets, in which Metropolitan's facilities are constructed under the Metropolitan Water District Act, be placed as far from our pipeline as possible, but not closer than 5 feet from the outside of our pipeline.

c. The installation of utilities over or under Metropolitan's pipeline(s) must be in accordance with the requirements shown on the enclosed prints of Drawings Nos. C-11632 and C-9547. Whenever possible we request a minimum of one foot clearance between Metropolitan's pipe and your facility. Temporary support of Metropolitan's pipe may also be required at undercrossings of its pipe in an open trench. The temporary support plans must be reviewed and approved by Metropolitan.

d. Lateral utility crossings of Metropolitan's pipelines must be as perpendicular to its pipeline alinement as practical. Prior to any excavation our pipeline shall be located manually and any excavation within two feet of our pipeline must be done by hand. This shall be noted on the appropriate drawings.

e. Utilities constructed longitudinally within Metropolitan's rights-of-way must be located outside the theoretical trench prism for uncovering its pipeline and must be located parallel to and as close to its rights-of-way lines as practical.

f. When piping is jacked or installed in jacked casing or tunnel under Metropolitan's pipe, there must be at least two feet of vertical clearance between the bottom of Metropolitan's pipe and the top of the jacked pipe, jacked casing or tunnel. We also require that detail drawings of the shoring for the jacking or tunneling pits be submitted for our review and approval. Provisions must be made to grout any voids around the exterior of the jacked pipe, jacked casing or tunnel. If the piping is installed in a jacked casing or tunnel the annular space between the piping and the jacked casing or tunnel must be filled with grout.

g. Overhead electrical and telephone line requirements:

1) Conductor clearances are to conform to the California State Public Utilities Commission, General Order 95, for Overhead Electrical Line Construction or at a greater clearance if required by Metropolitan. Under no circumstances shall clearance be less than 35 feet.

2) A marker must be attached to the power pole showing the ground clearance and line voltage, to help prevent damage to your facilities during maintenance or other work being done in the area.

3) Line clearance over Metropolitan's fee properties and/or easements shall be shown on the drawing to indicate the lowest point of the line under the most adverse conditions including consideration of sag, wind load, temperature change, and support type. We require that overhead lines be located at least 30 feet laterally away from all above-ground structures on the pipelines.

4) When underground electrical conduits, 120 volts or greater, are installed within Metropolitan's fee property and/or easement, the conduits must be incased in a minimum of three inches of red concrete. Where possible, above ground warning signs must also be placed at the right-of-way lines where the conduits enter and exit the right-of-way.

h. The construction of sewerlines in Metropolitan's fee properties and/or easements must conform to the California Department of Health Services Criteria for the Separation of Water Mains and Sanitary Services and the local City or County Health Code Ordinance as it relates to installation of sewers in the vicinity of pressure waterlines. The construction of sewerlines should also conform to these standards in street rights-of- way.

i. Cross sections shall be provided for all pipeline crossings showing Metropolitan's fee property and/or easement limits and the location of our pipeline(s). The exact locations of the crossing pipelines and their elevations shall be marked on as-built drawings for our information.

j. Potholing of Metropolitan's pipeline is required if the vertical clearance between a utility and Metropolitan's pipeline is indicated on the plan to be one foot or less. If the indicated clearance is between one and two feet, potholing is suggested. Metropolitan will provide a representative to assists others in locating and identifying its pipeline. Two-working days notice is requested.

k. Adequate shoring and bracing is required for the full depth of the trench when the excavation encroaches within the zone shown on Figure 4.

l. The location of utilities within Metropolitan's fee property and/or easement shall be plainly marked to help prevent damage during maintenance or other work done in the area. Detectable tape over buried utilities should be placed a minimum of 12 inches above the utility and shall conform to the following requirements:

1) Water pipeline: A two-inch blue warning tape shall be imprinted with:

"CAUTION BURIED WATER PIPELINE"

2) Gas, oil, or chemical pipeline: A two-inch yellow warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

3) Sewer or storm drain pipeline: A two-inch green warning tape shall be imprinted with:

"CAUTION BURIED _____ PIPELINE"

4) Electric, street lighting, or traffic signals conduit: A two-inch red warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

5) Telephone, or television conduit: A two-inch orange warning tape shall be imprinted with:

"CAUTION BURIED _____ CONDUIT"

m. Cathodic Protection requirements:

1) If there is a cathodic protection station for Metropolitan's pipeline in the area of the proposed work, it shall be located prior to any grading or excavation. The exact location, description and manner of protection shall be shown on all applicable plans. Please contact Metropolitan's Corrosion Engineering Section, located at Metropolitan's F. E. Weymouth Softening and Filtration Plant, 700 North Moreno Avenue, La Verne, California 91750, telephone (714) 593-7474, for the locations of Metropolitan's cathodic protection stations.

2) If an induced-current cathodic protection system is to be installed on any pipeline crossing Metropolitan's pipeline, please contact Mr. Wayne E. Risner at (714) 593-7474 or (213) 250-5085. He will review the proposed system and determine if any conflicts will arise with the existing cathodic protection systems installed by Metropolitan.

3) Within Metropolitan's rights-of-way, pipelines and carrier pipes (casings) shall be coated with an approved protective coating to conform to Metropolitan's requirements, and shall be maintained in a neat and orderly condition as directed by Metropolitan. The application and monitoring of cathodic protection on the pipeline and casing shall conform to Title 49 of the Code of Federal Regulations, Part 195.

4) If a steel carrier pipe (casing) is used:

(a) Cathodic protection shall be provided by use of a sacrificial magnesium anode (a sketch showing the cathodic protection details can be provided for the designers information).

(b) The steel carrier pipe shall be protected with a coal tar enamel coating inside and out in accordance with AWWA C203 specification.

n. All trenches shall be excavated to comply with the CAL/OSHA Construction Safety Orders, Article 6, beginning with Sections 1539 through 1547. Trench backfill shall be placed in 8-inch lifts and shall be compacted to 95 percent relative compaction (ASTM D698) across roadways and through protective dikes. Trench backfill elsewhere will be compacted to 90 percent relative compaction (ASTM D698).

o. Control cables connected with the operation of Metropolitan's system are buried within streets, its fee properties and/or easements. The locations and elevations of these cables shall be shown on the drawings. The drawings shall note that prior to any excavation in the area, the control cables shall be located and measures shall be taken by the contractor to protect the cables in place.

p. Metropolitan is a member of Underground Service Alert (USA). The contractor (excavator) shall contact USA at 1-800-422-4133 (Southern California) at least 48 hours prior to starting any excavation work. The contractor will be liable for any damage to Metropolitan's facilities as a result of the construction.

8. Paramount Right

Facilities constructed within Metropolitan's fee properties and/or easements shall be subject to the paramount right of Metropolitan to use its fee properties and/or easements for the purpose for which they were acquired. If at any time Metropolitan or its assigns should, in the exercise of their rights, find it necessary to remove any of the facilities from the fee properties and/or easements, such removal and replacement shall be at the expense of the owner of the facility.

9. Modification of Metropolitan's Facilities

When a manhole or other of Metropolitan's facilities must be modified to accommodate your construction or reconstruction, Metropolitan will modify the facilities with its forces. This should be noted on the construction plans. The estimated cost to perform this modification will be given to you and we will require a deposit for this amount before the work is performed. Once the deposit is received, we will schedule the work. Our forces will coordinate the work with your contractor. Our final billing will be based on actual cost incurred, and will include materials, construction, engineering plan review, inspection, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount.

10. Drainage

a. Residential or commercial development typically increases and concentrates the peak storm water runoff as well as the total yearly storm runoff from an area, thereby increasing the requirements for storm drain facilities downstream of the development. Also, throughout the year water from landscape irrigation, car washing, and other outdoor domestic water uses flows into the storm drainage system resulting in weed abatement, insect infestation, obstructed access and other problems. Therefore, it is Metropolitan's usual practice not to approve plans that show discharge of drainage from developments onto its fee properties and/or easements.

b. If water must be carried across or discharged onto Metropolitan's fee properties and/or easements, Metropolitan will insist that plans for development provide that it be carried by closed conduit or lined open channel approved in writing by Metropolitan. Also the drainage facilities must be maintained by others, e.g., city, county, homeowners association, etc. If the development proposes changes to existing drainage features, then the developer shall make provisions to provide for replacement and these changes must be approved by Metropolitan in writing.

11. Construction Coordination

During construction, Metropolitan's field representative will make periodic inspections. We request that a stipulation be added to the plans or specifications for notification of Mr. _____ of Metropolitan's Operations Services Branch, telephone (213) 250-____, at least two working days prior to any work in the vicinity of our facilities.

12. Pipeline Loading Restrictions

a. Metropolitan's pipelines and conduits vary in structural strength, and some are not adequate for AASHTO H-20 loading. Therefore, specific loads over the specific sections of pipe or conduit must be reviewed and approved by Metropolitan. However, Metropolitan's pipelines are typically adequate for AASHTO H-20 loading provided that the cover over the pipeline is not less than four feet or the cover is not substantially increased. If the temporary cover over the pipeline during construction is between three and four feet, equipment must restricted to that which

imposes loads no greater than AASHTO H-10. If the cover is between two and three feet, equipment must be restricted to that of a Caterpillar D-4 tract-type tractor. If the cover is less than two feet, only hand equipment may be used. Also, if the contractor plans to use any equipment over Metropolitan's pipeline which will impose loads greater than AASHTO H-20, it will be necessary to submit the specifications of such equipment for our review and approval at least one week prior to its use. More restrictive requirements may apply to the loading guideline over the San Diego Pipelines 1 and 2, portions of the Orange County Feeder, and the Colorado River Aqueduct. Please contact us for loading restrictions on all of Metropolitan's pipelines and conduits.

b. The existing cover over the pipeline shall be maintained unless Metropolitan determines that proposed changes do not pose a hazard to the integrity of the pipeline or an impediment to its maintenance.

13. Blasting

a. At least 20 days prior to the start of any drilling for rock excavation blasting, or any blasting, in the vicinity of Metropolitan's facilities, a two-part preliminary conceptual plan shall be submitted to Metropolitan as follows:

b. Part 1 of the conceptual plan shall include a complete summary of proposed transportation, handling, storage, and use of explosions.

c. Part 2 shall include the proposed general concept for blasting, including controlled blasting techniques and controls of noise, fly rock, airblast, and ground vibration.

14. CEQA Requirements

a. When Environmental Documents Have Not Been Prepared

1) Regulations implementing the California Environmental Quality Act (CEQA) require that Metropolitan have an opportunity to consult with the agency or consultants preparing any environmental documentation. We are required to review and consider the environmental effects of the project as shown in the Negative Declaration or Environmental Impact Report (EIR) prepared for your project before committing Metropolitan to approve your request.

2) In order to ensure compliance with the regulations implementing CEQA where Metropolitan is not the Lead Agency, the following minimum procedures to ensure compliance with the Act have been established:

a) Metropolitan shall be timely advised of any determination that a Categorical Exemption applies to the project. The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

b) Metropolitan is to be consulted during the preparation of the Negative Declaration or EIR.

c) Metropolitan is to review and submit any necessary comments on the Negative Declaration or draft EIR.

d) Metropolitan is to be indemnified for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

b. <u>When Environmental Documents Have Been Prepared</u>

If environmental documents have been prepared for your project, please furnish us a copy for our review and files in a timely manner so that we may have sufficient time to review and comment. The following steps must also be accomplished:

1) The Lead Agency is to advise Metropolitan that it and other agencies participating in the project have complied with the requirements of CEQA prior to Metropolitan's participation.

2) You must agree to indemnify Metropolitan, its officers, engineers, and agents for any costs or liability arising out of any violation of any laws or regulations including but not limited to the California Environmental Quality Act and its implementing regulations.

15. <u>Metropolitan's Plan-Review Cost</u>

a. An engineering review of your proposed facilities and developments and the preparation of a letter response

giving Metropolitan's comments, requirements and/or approval that will require 8 man-hours or less of effort is typically performed at no cost to the developer, unless a facility must be modified where Metropolitan has superior rights. If an engineering review and letter response requires more than 8 man-hours of effort by Metropolitan to determine if the proposed facility or development is compatible with its facilities, or if modifications to Metropolitan's manhole(s) or other facilities will be required, then all of Metropolitan's costs associated with the project must be paid by the developer, unless the developer has superior rights.

b. A deposit of funds will be required from the developer before Metropolitan can begin its detailed engineering plan review that will exceed 8 hours. The amount of the required deposit will be determined after a cursory review of the plans for the proposed development.

c. Metropolitan's final billing will be based on actual cost incurred, and will include engineering plan review, inspection, materials, construction, and administrative overhead charges calculated in accordance with Metropolitan's standard accounting practices. If the cost is less than the deposit, a refund will be made; however, if the cost exceeds the deposit, an invoice will be forwarded for payment of the additional amount. Additional deposits may be required if the cost of Metropolitan's review exceeds the amount of the initial deposit.

16. Caution

We advise you that Metropolitan's plan reviews and responses are based upon information available to Metropolitan which was prepared by or on behalf of Metropolitan for general record purposes only. Such information may not be sufficiently detailed or accurate for your purposes. No warranty of any kind, either express or implied, is attached to the information therein conveyed as to its accuracy, and no inference should be drawn from Metropolitan's failure to comment on any aspect of your project. You are therefore cautioned to make such surveys and other field investigations as you may deem prudent to assure yourself that any plans for your project are correct.

17. Additional Information

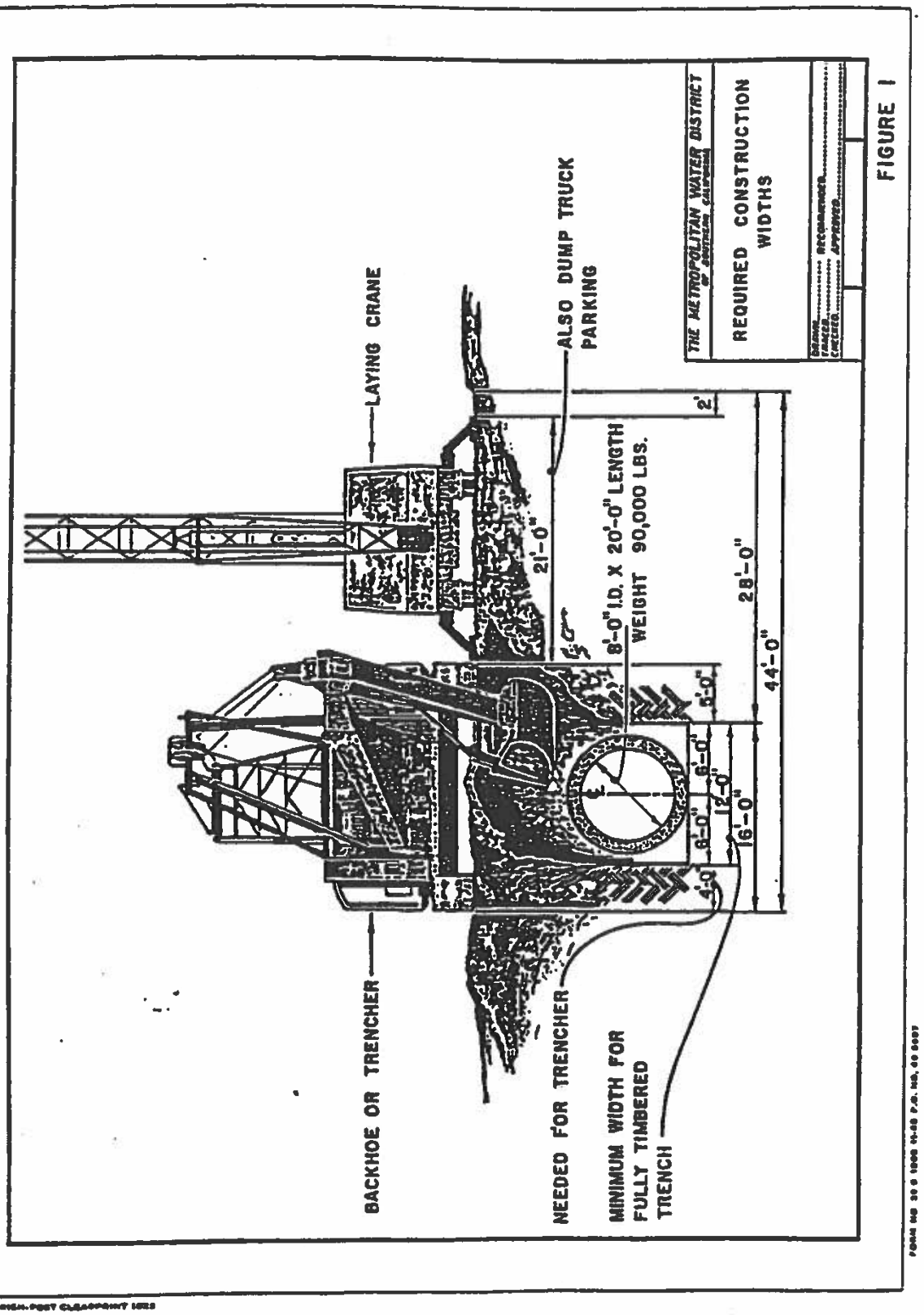
Should you require additional information, please contact:

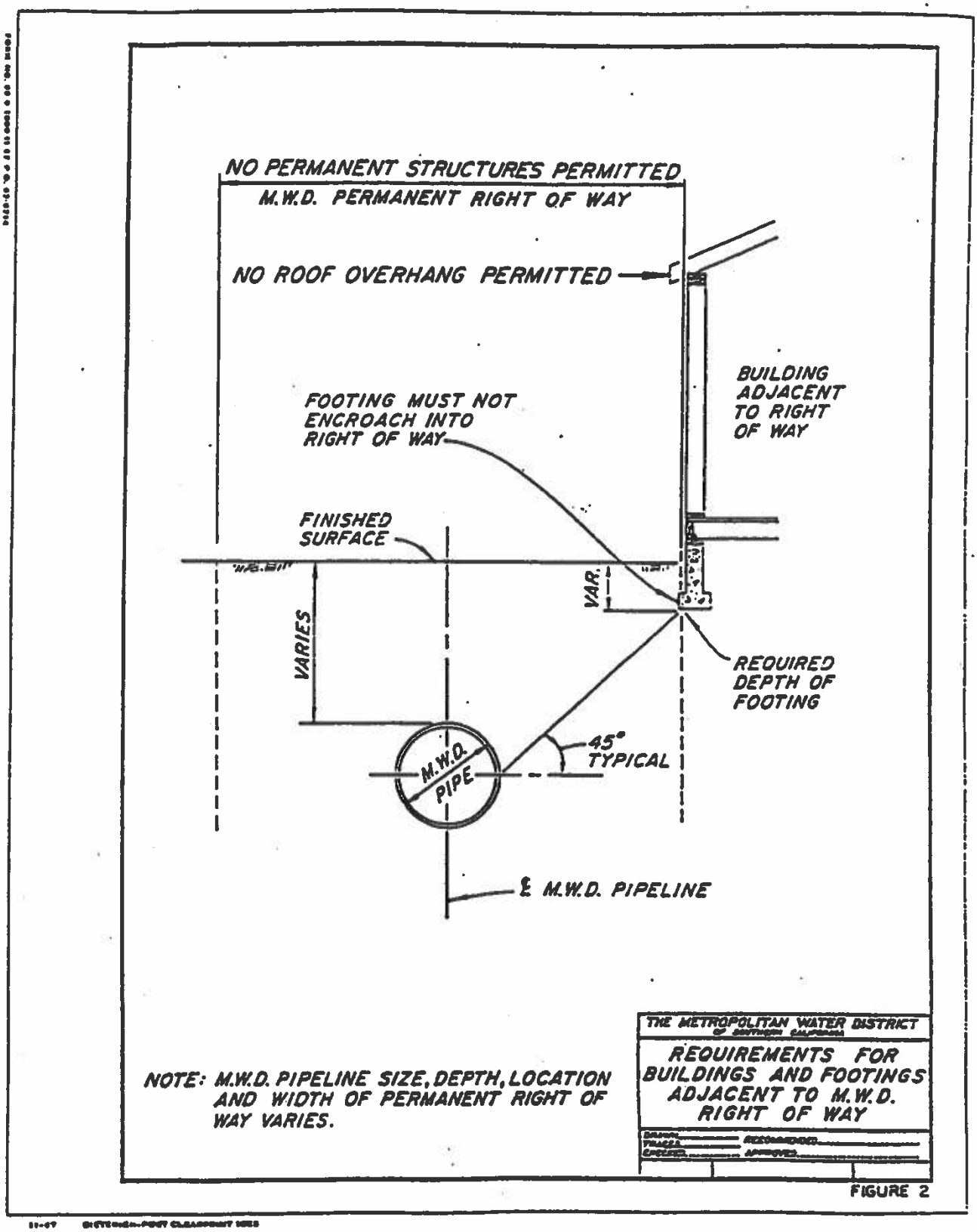
Civil Engineering Substructures Section
Metropolitan Water District
of Southern California
P.O. Box 54153
Los Angeles, California 90054-0153
(213) 217-6000

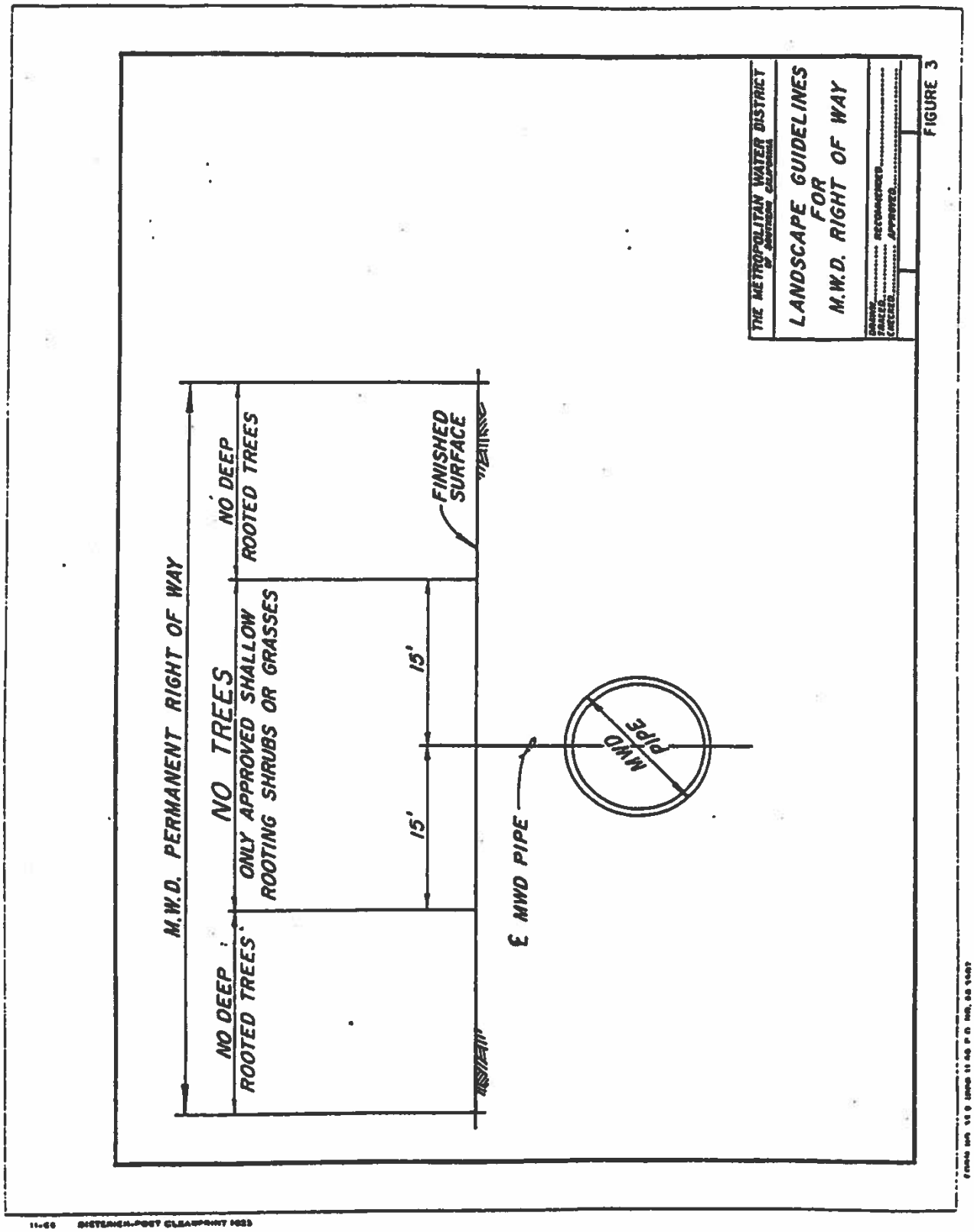
JEH/MRW/lk

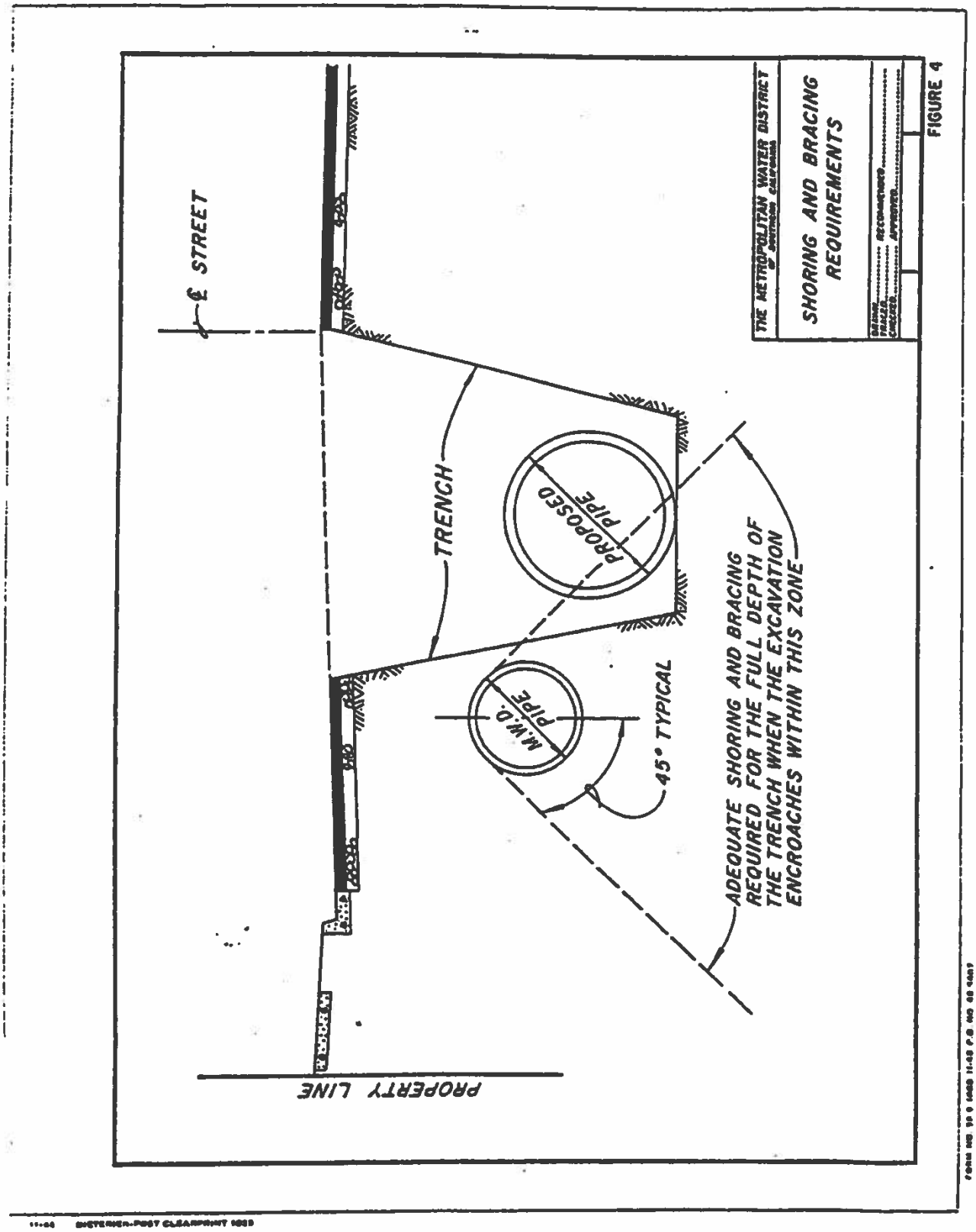
Rev. January 22, 1989

Encl.


THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA
REQUIRED CONSTRUCTION WIDTHS
DRAWN
TRACED
CHECKED
REQUIRED
APPROVED
FIGURE 1
LAYING CRANE
ALSO DUMP TRUCK PARKING
21'-0"
8'-0" I.D. X 20'-0" LENGTH
WEIGHT 90,000 LBS.
2'
28'-0"
44'-0"
5'-0"
6'-0"
12'-0"
16'-0"
8'-0"
4'-0"
BACKHOE OR TRENCHER
NEEDED FOR TRENCHER
MINIMUM WIDTH FOR FULLY TIMBERED TRENCH


NO PERMANENT STRUCTURES PERMITTED
M.W.D. PERMANENT RIGHT OF WAY
NO ROOF OVERHANG PERMITTED
BUILDING ADJACENT TO RIGHT OF WAY
FOOTING MUST NOT ENCROACH INTO RIGHT OF WAY
FINISHED SURFACE
VAR.
VARIES
REQUIRED DEPTH OF FOOTING
45° TYPICAL
M.W.D. PIPE
℄ M.W.D. PIPELINE
NOTE: M.W.D. PIPELINE SIZE, DEPTH, LOCATION AND WIDTH OF PERMANENT RIGHT OF WAY VARIES.
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
REQUIREMENTS FOR BUILDINGS AND FOOTINGS ADJACENT TO M.W.D. RIGHT OF WAY
FIGURE 2


M.W.D. PERMANENT RIGHT OF WAY
NO TREES
NO DEEP ROOTED TREES
ONLY APPROVED SHALLOW ROOTING SHRUBS OR GRASSES
NO DEEP ROOTED TREES
FINISHED SURFACE
15'
15'
℄ MWD PIPE
MWD PIPE
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
LANDSCAPE GUIDELINES FOR M.W.D. RIGHT OF WAY
DRAWN
TRACED
CHECKED
RECOMMENDED
APPROVED
FIGURE 3


℄ STREET
TRENCH
PROPOSED PIPE
M.W.D. PIPE
45° TYPICAL
ADEQUATE SHORING AND BRACING REQUIRED FOR THE FULL DEPTH OF THE TRENCH WHEN THE EXCAVATION ENCROACHES WITHIN THIS ZONE
PROPERTY LINE
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
SHORING AND BRACING REQUIREMENTS
FIGURE 4

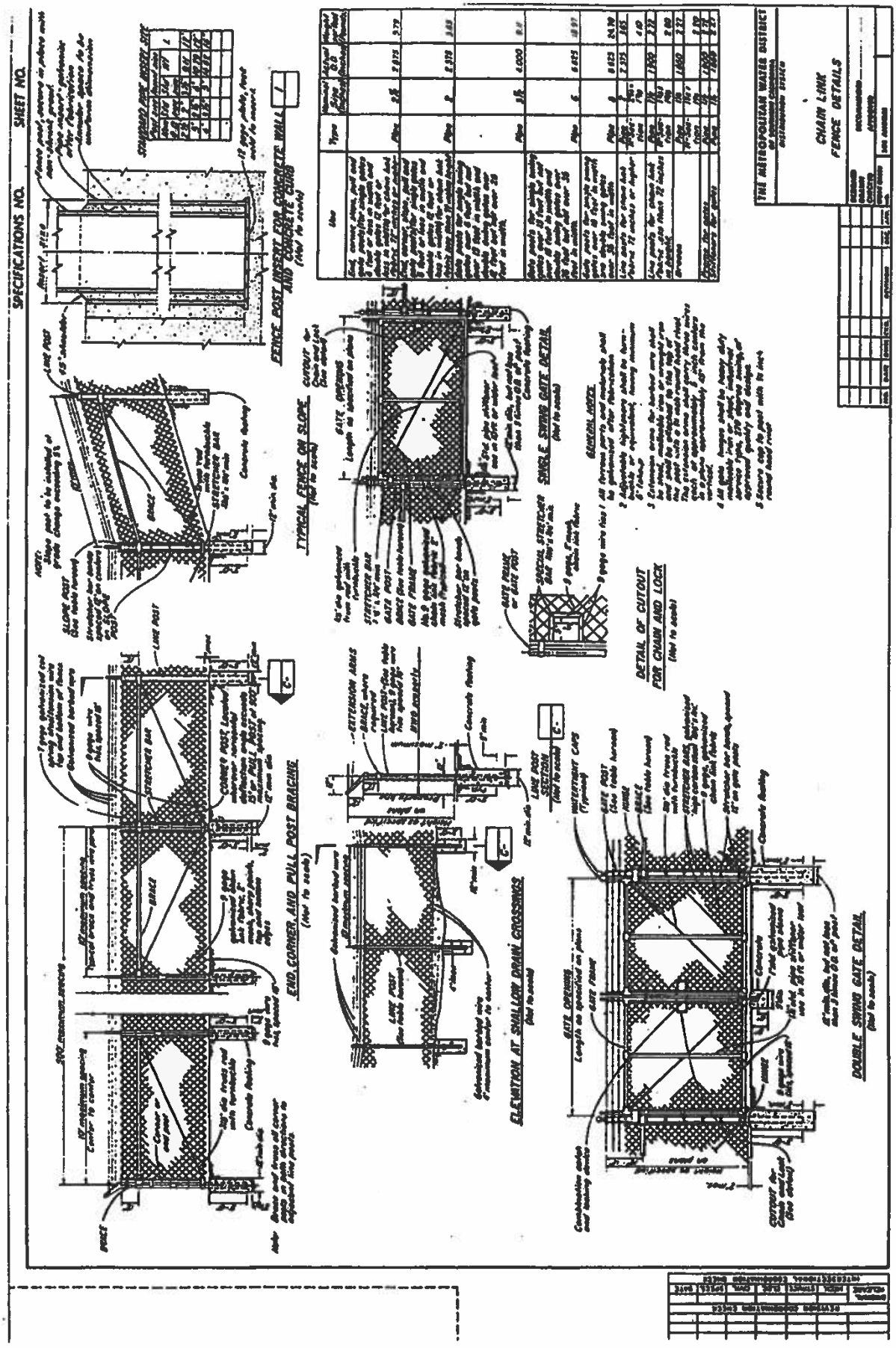
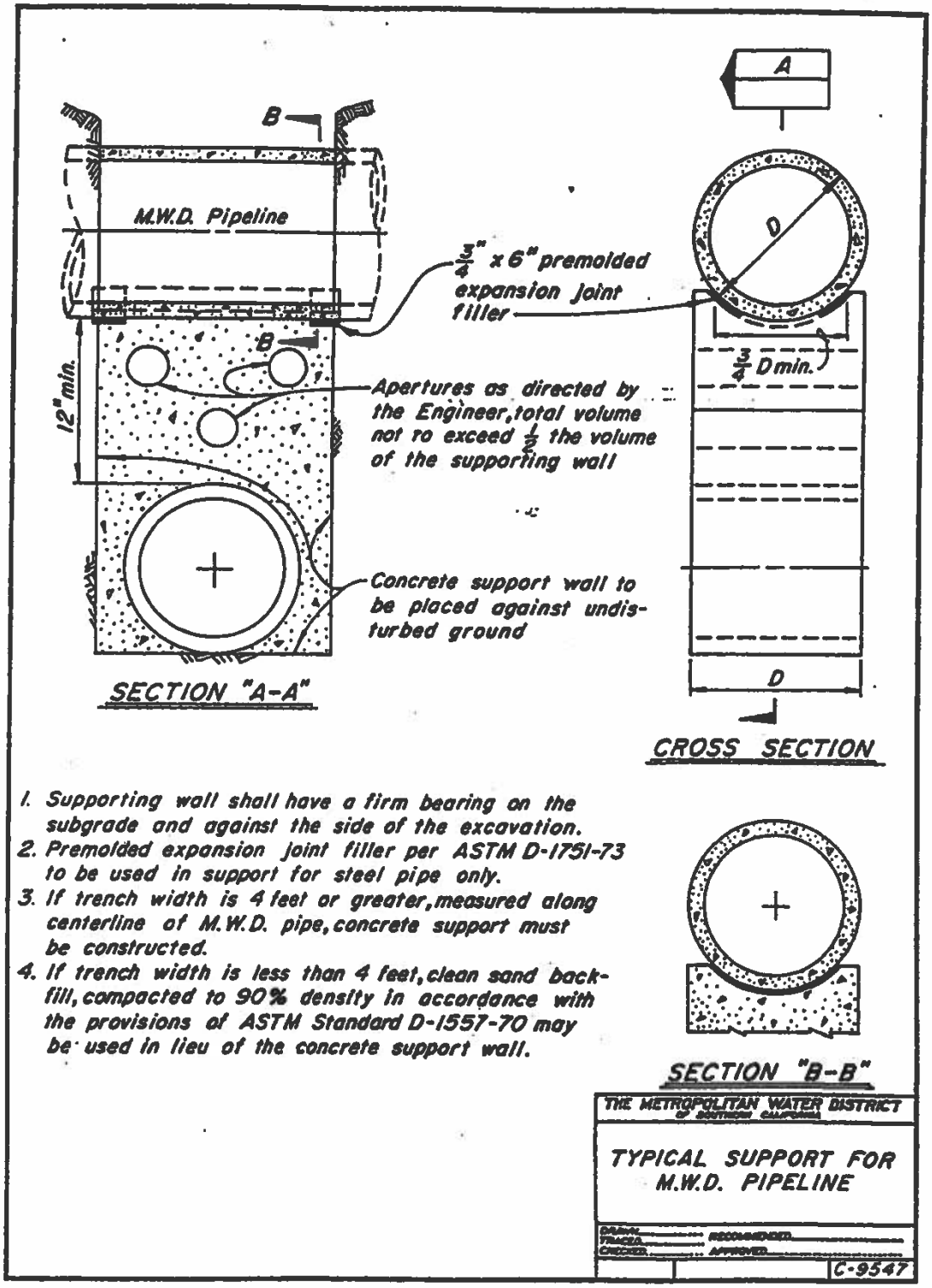
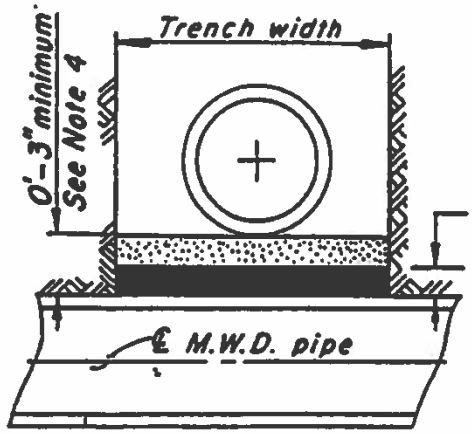

SPECIFICATIONS NO.
SHEET NO.
THE METROPOLITAN WATER DISTRICT
OF SOUTHERN CALIFORNIA
CHAIN LINK
FENCE DETAILS
FENCE POST INSERT FOR CONCRETE WALL AND CONCRETE CURB
TYPICAL FENCE ON SLOPE
SINGLE SWING GATE DETAIL
DETAIL OF CUTOUT FOR CHAIN AND LOCK
END, CORNER AND PULL POST BRACING
ELEVATION AT SHALLOW DRAIN CROSSINGS
DOUBLE SWING GATE DETAIL

FIGURE 5

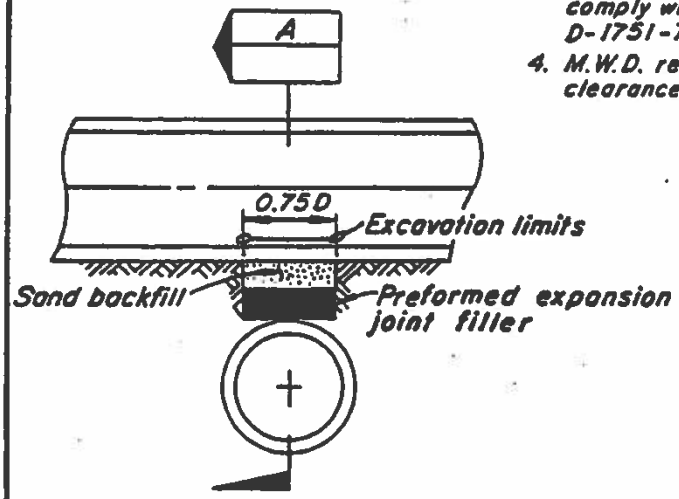

A
B
M.W.D. Pipeline
3/4" x 6" premolded expansion joint filler
B
12" min.
Apertures as directed by the Engineer, total volume not to exceed 1/2 the volume of the supporting wall
Concrete support wall to be placed against undisturbed ground
SECTION "A-A"
D
3/4 D min.
D
CROSS SECTION
1. Supporting wall shall have a firm bearing on the subgrade and against the side of the excavation.
2. Premolded expansion joint filler per ASTM D-1751-73 to be used in support for steel pipe only.
3. If trench width is 4 feet or greater, measured along centerline of M.W.D. pipe, concrete support must be constructed.
4. If trench width is less than 4 feet, clean sand backfill, compacted to 90% density in accordance with the provisions of ASTM Standard D-1557-70 may be used in lieu of the concrete support wall.
SECTION "B-B"
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA
TYPICAL SUPPORT FOR M.W.D. PIPELINE
DRAWN
TRACED
CHECKED
RECOMMENDED
APPROVED
C-9547



SECTION A

NOTES

1. This method to be used where the utility line is 24" or greater in diameter and the clearance between the utility line and M.W.D. pipe is 12" or less.
2. Special protection may be required if the utility line diameter is greater than M.W.D. pipe or if the cover over the utility line to the street surface is minimal and there is 12" or less clearance between M.W.D. pipe and the utility line.
3. Preformed expansion joint filler to comply with ASTM designation D-1751-73.
4. M.W.D. requests 12" minimum clearance whenever possible.



CROSS SECTION

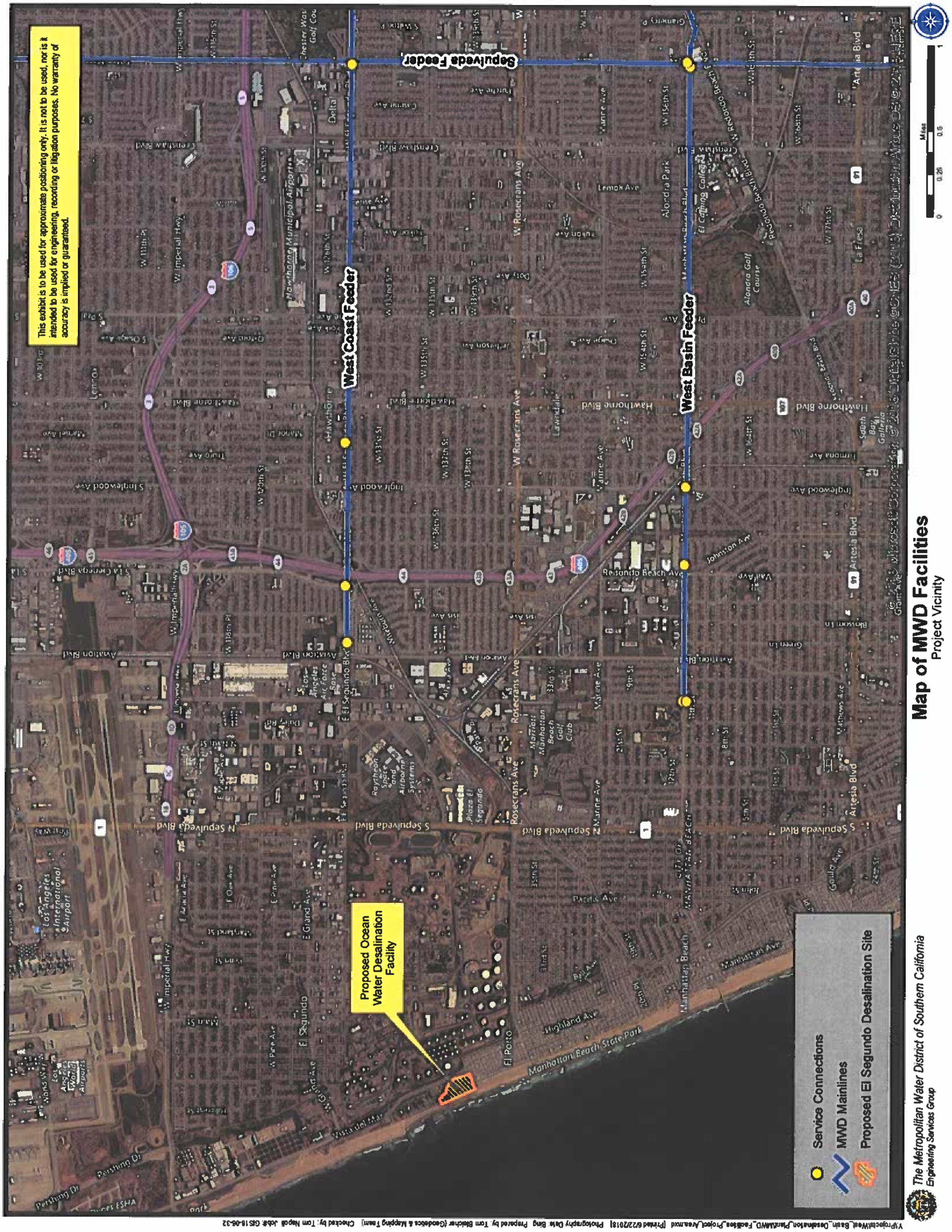
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

TYPICAL EXPANSION JOINT FILLER PROTECTION FOR OVERCROSSING OF M.W.D. PIPELINE

DRAWN ____ RECOMMENDED ____
TRACED ____
CHECKED ____ APPROVED ____

C-11632

Comment Letter MWD



SENT VIA E-MAIL AND USPS: May 15, 2018

desalEIR@westbasin.org
Zita Yu, Ph.D., P.E., Project Manager
West Basin Municipal Water District
17140 South Avalon Boulevard
Carson, CA 90746

Draft Environmental Impact Report (Draft EIR) for the Proposed West Basin Ocean Water Desalination Project Building (SCH No.: 2015081087)

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final EIR. SCAQ-1

SCAQMD Staff's Summary of Project Description

The Lead Agency proposes to construct an ocean water desalination facility with a range of 20 to 60 million gallons per day of potable drinking water (Proposed Project). The Proposed Project would also include construction of ocean water intake and concentrate (brine) discharge infrastructure and a desalinated water conveyance system. Construction of the Proposed Project is expected to take approximately 72 months[1]. SCAQ-2

General Conformity Review and Determination

The Lead Agency included a discussion the General Conformity review and analysis in the Draft EIR. The conformity determination process is intended to demonstrate that a proposed Federal action will not: (1) cause or contribute to new violations of a national ambient air quality standard (NAAQS); (2) interfere with provisions in the applicable SIP for maintenance of any NAAQS; (3) increase the frequency or severity of existing violations of any standard; or (4) delay the timely attainment of any standard.

The South Coast Air Basin (Basin) is designated as extreme non-attainment for ozone and serious non-attainment for PM2.5. To streamline the review process and to facilitate conformity determinations for projects in the Basin, two separate VOC and NOx general conformity budgets were established in the Final 2012 AQMP: 1 tons per day (tpd) of NOx and 0.2 tpd of VOC were set aside for this purpose every year, starting in 2013 until 2030. SCAQMD has set up a tracking system for projects requiring conformity determinations on a first come first serve basis, whereby the project emissions are debited from the applicable set aside accounts until they are depleted. SCAQ-3

Should the Lead Agency have any questions related to the SCAQMD General Conformity review process and determination, they can be directed to Ms. Sang-Mi Lee, Program Supervisor, at slee@aqmd.gov.

SCAQMD Permits

Statewide Portable Equipment Registration is required for certain portable equipment used onsite for less than one year, and SCAQMD permit is required if onsite portable equipment is used for one year or more (California Health and Safety Code Section 41755). In the event that development of the Proposed Project requires a permit from SCAQMD, SCAQMD should be identified as a Responsible Agency for the Proposed Project in the Final EIR. Any assumptions used in the air quality analysis in the Final EIR SCAQ-4

[1] Draft EIR. Page 3-18.

will be the basis for permit conditions and limits. For more information on permits, please visit SCAQMD webpage at: http://www.aqmd.gov/home/permits. Questions on permits can be directed to SCAQMD's Engineering and Permitting staff at (909) 396-3385. SCAQ-4

Conclusion

Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), SCAQMD staff requests that the Lead Agency provide SCAQMD staff with written responses to all comments contained herein prior to the certification of the Final EIR. In addition, issues raised in the comments should be addressed in detail giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice (CEQA Guidelines Section 15088(c)). Conclusory statements do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful or useful to decision makers and to the public who are interested in the Proposed Project. SCAQ-5

SCAQMD staff is available to work with the Lead Agency to address these issues and any other questions that may arise. Please contact me at lsun@aqmd.gov if you have any questions regarding the enclosed comments. SCAQ-6

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

LS
LAC180327-10
Control Number

From: SoCalGasTransmissionUtilityRequest <SoCalGasTransmissionUtilityRequest@semprautilities.com>
Sent: Thursday, April 19, 2018 2:32 PM
To: West Basin Desal EIR
Subject: 0571-18-1170,1172,1173,1175,1241
Attachments: 0571-18-1170,1172,1173,1175,1241.pdf; ELS 20.pdf; ELS 6.pdf; ELS 9.pdf; ELS 10.pdf; ELS 11.pdf; ELS 12.pdf; ELS 13.pdf; ELS 14.pdf; ELS 15.pdf; OWDP-NOA.PDF

To Zita Yu,

Attached are copies of the requested atlas maps. Also included is a letter stating that we have high pressure gas transmission lines within your proposed project vicinity.

When contacting us regarding this project, please reference the assigned PF# 0571-18-1170,1172,1173,1175,1241

SCG-1

Thank you,

Luis Ramirez
Pipeline Planning Assistant
SOCALGASTRANSMISSIONUTILITYREQUEST@SEMPRAUTILITIES.COM

Luis Ramirez
Pipeline Planning Assistant

9400 Oakdale Ave
Chatsworth, CA 91311

LRamirez5@semprautilities.com

April 19, 2018

West Basin Municipal Water District
17140 South Avalon Boulevard
Carson, CA 90746

Email: **Zita Yu - desalEIR@westbasin.org**

Subject: **Ocean Water Desalination Project (SCH # 2015081087)**
Lead Agency: West Basin Municipal Water District
Project Location: 301 Vista Del Mar, El Segundo, CA and the surrounding cities of El Segundo, Los Angeles, Manhattan Beach, Hawthorne, Redondo Beach, Gardena, Torrance, Hermosa Beach, and portions of unincorporated Los Angeles County

DCF: **0571-18-1170,1172,1173,1175,1241**

Southern California Gas Company (SoCalGas), Gas Transmission Department, operates and maintains high-pressure natural gas transmission pipeline **1170, 1172, 1173, 1175, 1241** in the vicinity of your project. The pipeline is shown on the attached atlas prints. Please note: only the high-pressure transmission pipeline information is current on these atlas prints.

Our Gas Distribution Department may have other gas facilities within your project area. To assure no conflict with the SoCalGas' distribution pipeline system, please e-mail them at **NorthwestDistributionUtilityRequest@semprautilities.com.**

This is only a response to a gas facility map request; a review of potential conflicts associated with your request has not been conducted. Consequently, **this letter does not constitute clearance for any construction work near or around SoCalGas' pipeline(s)**. As your project plans are developed, you must notify SoCalGas - Gas Transmission Department regarding the improvements that are proposed near our pipeline(s) and within our easement(s) before you begin any construction, including potholing. In doing so, please allow sufficient time as there may be certain requirements that need to be incorporated into your project's design and could significantly affect your project construction schedule.

SCG-1

Sincerely,

Luis Ramirez
Pipeline Planning Assistant
LRamirez5@semprautilities.com
(818) 701-4546


ELS 6
WARNING! Distribution Medium and High Pressure Facilities are NO LONGER maintained within this map. ONLY TRANSMISSION FACILITIES are maintained in Strip Maps and Atlas Sheets.
Southern California Gas Company
A Sempra Energy utility
CAMPUS SQUARE WEST
PROPERTY OF K. D. WISE
(SURFACE RIGHTS ONLY)
3765-10
3765-9
ID 504 P
RS 8131
MARIPOSA
AVE
DULEY
DOUGLAS
GRAND
NASH
MILLS
AVIATION
INGLEWOOD-REDONDO RD.
227-999
15.01 Acres
5 Acres
P. M. 49 - 56
"FIELD GAS IN AREA AS SHOWN. LEAKAGE INDICATIONS FOUND IN THIS AREA SHOULD BE REPORTED TO AN APPROPRIATE SUPERVISOR TO SEE IF AN ANALYSIS OF THE GAS SHOULD BE MADE BEFORE MAKING REPAIRS."
KINGS & LAKER TRAINING FACILITY
PARCEL 2
BLK. 49
120TH ST
122ND ST
123RD ST
124TH ST
128TH PL
LA 2898
LA 2899
SOUTHERN PACIFIC
TRAM 23c TAX CODE
ELS 7
ELS 11
ELS 6


ELS-9
WARNING! Distribution Medium and High Pressure Facilities are NO LONGER maintained within this map. ONLY TRANSMISSION FACILITIES are maintained in Strip Maps and Atlas Sheets.
TRAM 23c
TAX CODE 227-999
PACIFIC
MARIPOSA
PINE
HOLLY
WHITING
VIRGINIA
CONCORD
RICHMOND
STANDARD
EUCALYPTUS
ARENA
SHELDON
GRAND
(EL SEGUNDO)
TRACT NO. 567
TRACT NO 2801
TRACT NO. 2111
LOT A
LOT 1
P. E. RY. R/W
ELS-10
ELS-8
ELS-14
ELS 9
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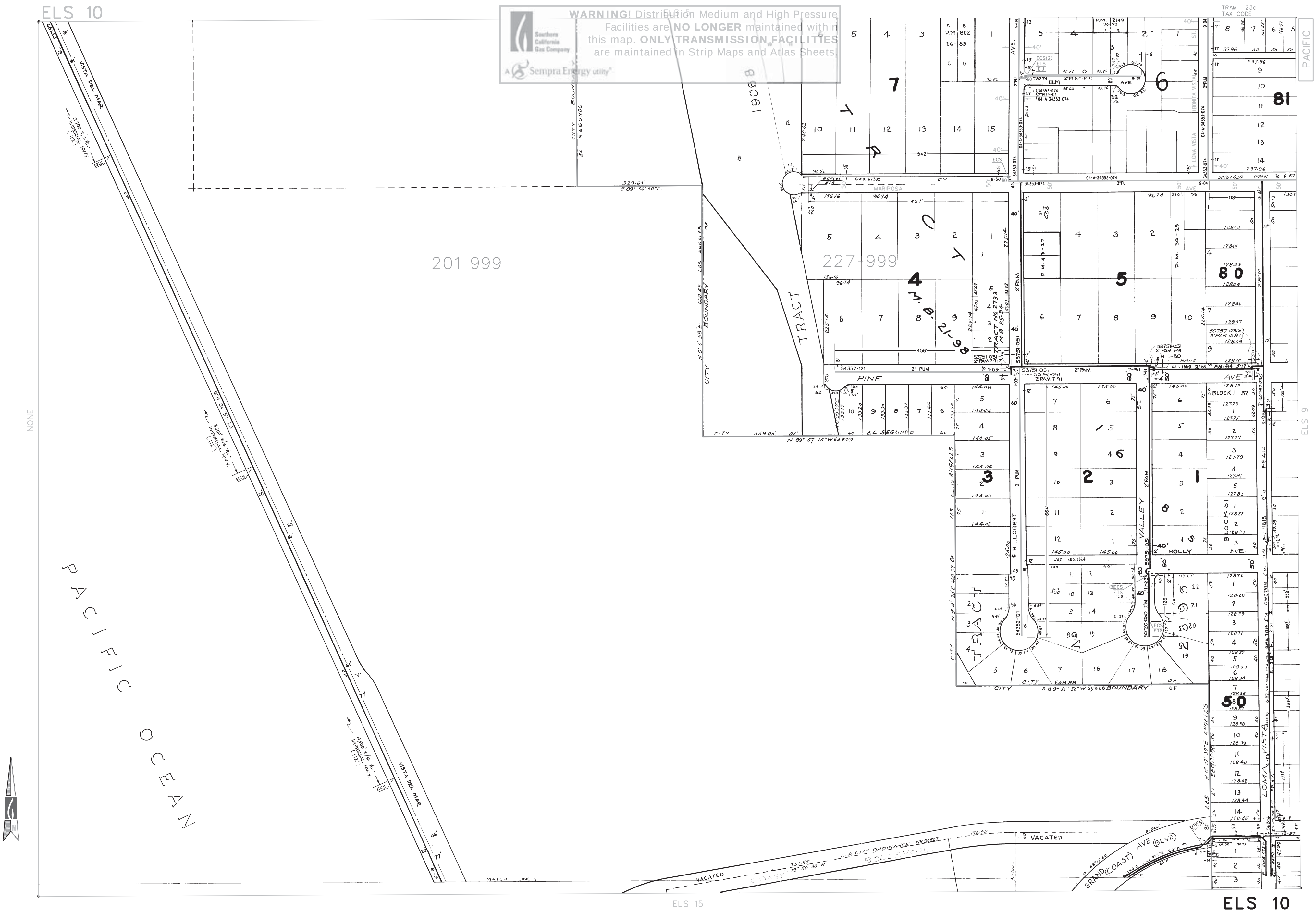
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A Sempra Energy utility
PACIFIC
TRAM 23c
TAX CODE
201-999
227-999
TRACT
M.B. 21-98
TRACT No 2733 M.B. 25-94
PINE
MARIPOSA
EL SEGUNDO
HILLCREST
VALLEY
HOLLY
LOMA VISTA
BONITA VISTA
ELM
CITY BOUNDARY
LOS ANGELES
VISTA DEL MAR
IMPERIAL HWY.
PACIFIC OCEAN
VACATED
BOULEVARD
GRAND (COAST) AVE (BLVD)
MATCH LINE
NONE
ELS 9
ELS 15
ELS 10
VECTOR FILE: els10.43
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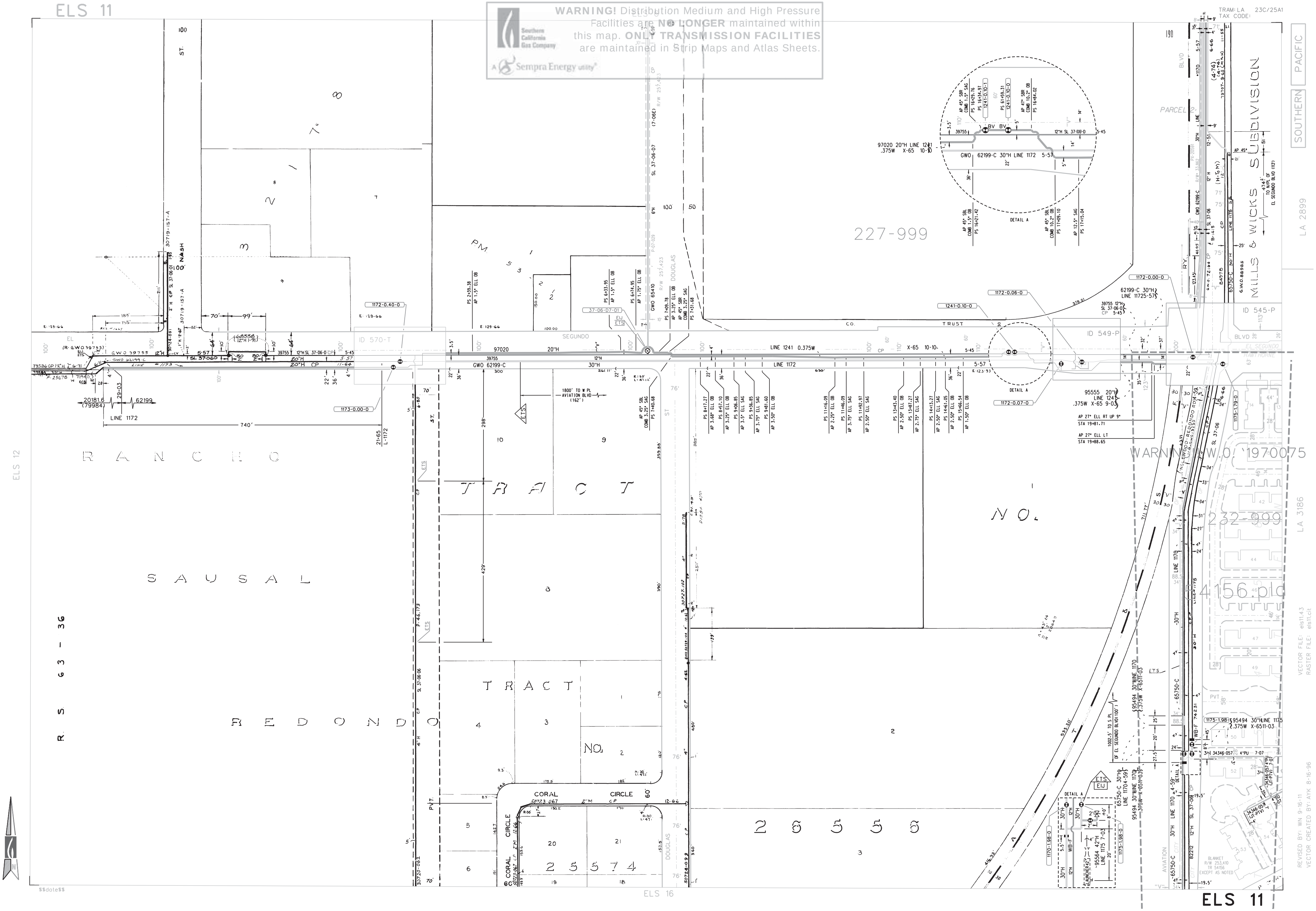
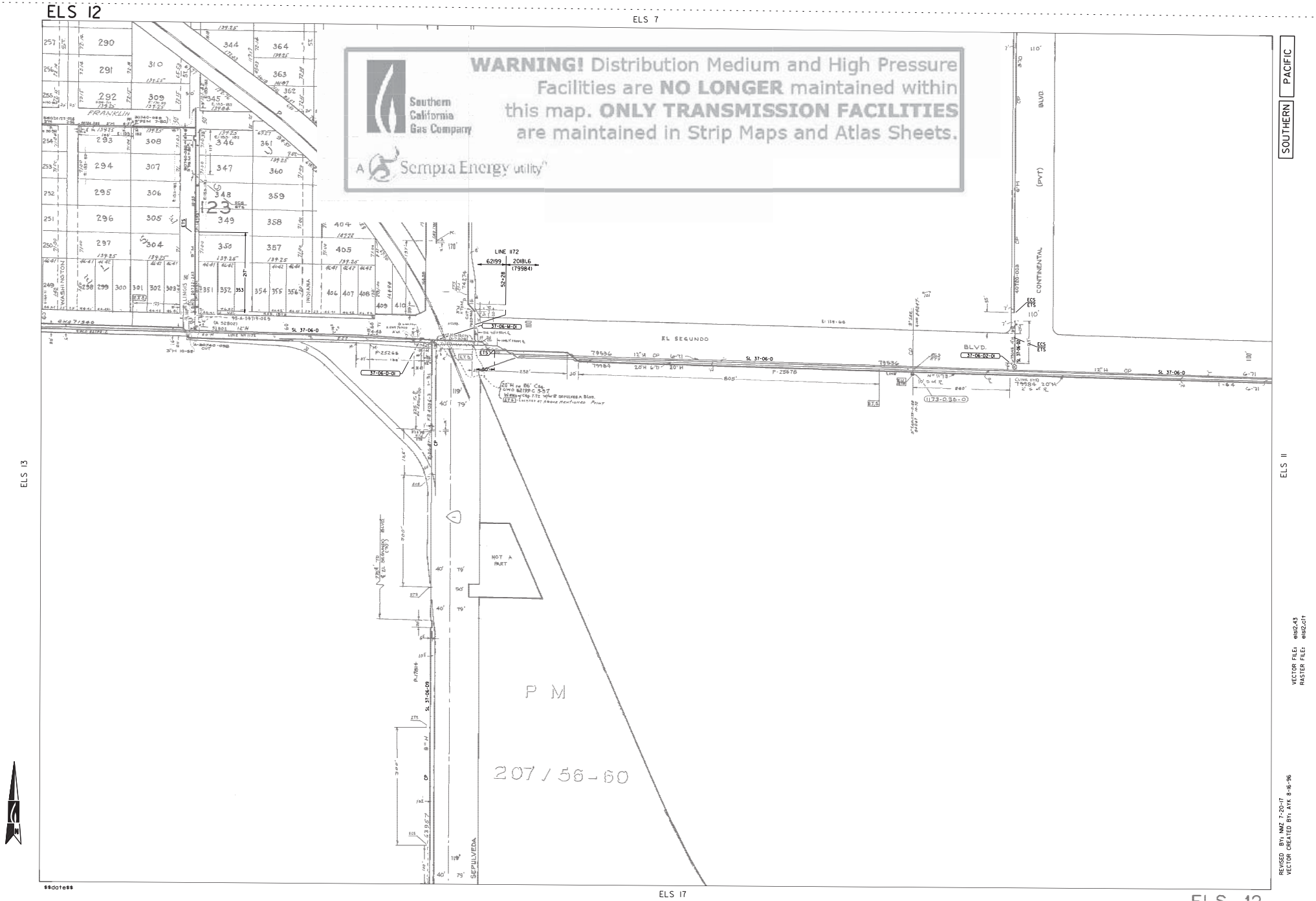


ELS 11
WARNING! Distribution Medium and High Pressure Facilities are NO LONGER maintained within this map. ONLY TRANSMISSION FACILITIES are maintained in Strip Maps and Atlas Sheets.
Southern California Gas Company
A Sempra Energy utility
MILLS & WICKS SUBDIVISION
SOUTHERN
PACIFIC
227-999
232-999
RANCHO
SAUSAL
REDONDO
TRACT
NO.
26556
25574
CORAL
CIRCLE
DOUGLAS
AVIATION
SEGUNDO
NASH
ST.
LINE 1172
LINE 1241 0.375W
GWO 62199-C
DETAIL A
ID 545-P
ID 549-P
ID 570-T
ELS 12
ELS 16
LA 2899
LA 3186
R S 63 - 36


ELS 12
ELS 7
ELS 13
ELS 11
ELS 17
ELS 12
SOUTHERN PACIFIC
WARNING! Distribution Medium and High Pressure Facilities are NO LONGER maintained within this map. ONLY TRANSMISSION FACILITIES are maintained in Strip Maps and Atlas Sheets.
Southern California Gas Company
A Sempra Energy utility
FRANKLIN
WASHINGTON
ILLINOIS
INDIANA
CONTINENTAL
BLVD.
EL SEGUNDO
LINE 1172
62199
2018L6
(79984)
37-06-M-01
37-06-D-01
37-06-02-01
SL 37-06-0
SL 37-06-09
1173-036-0
NOT A PART
P M
207 / 56-60
SEPULVEDA
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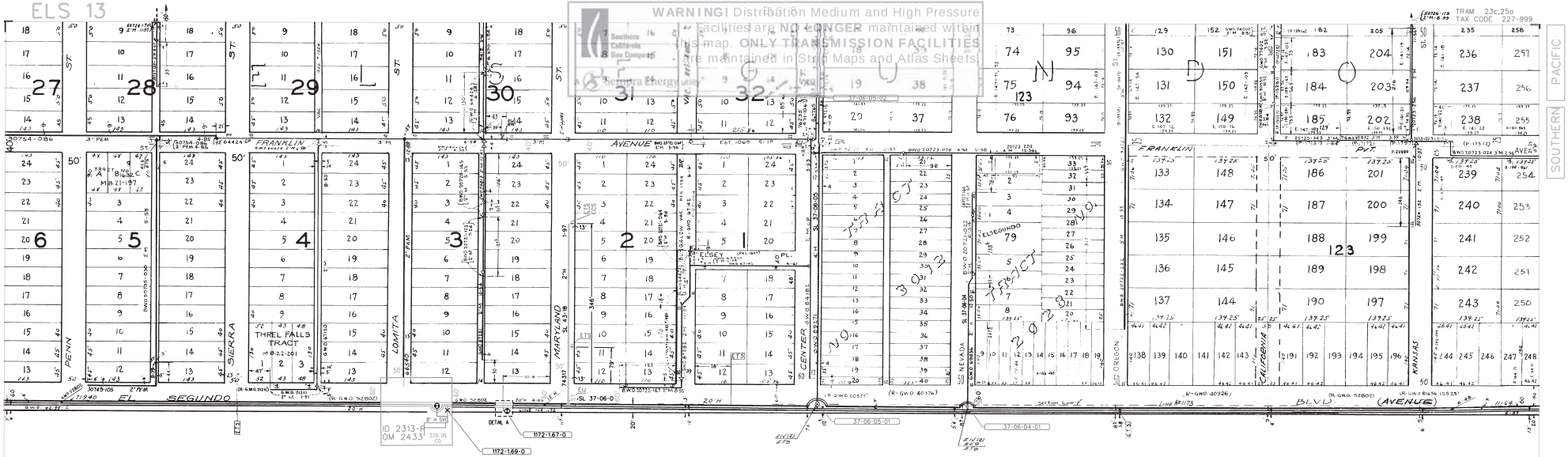
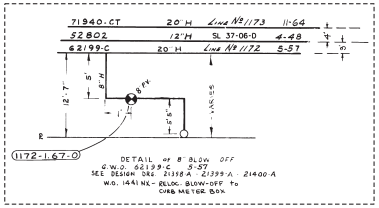


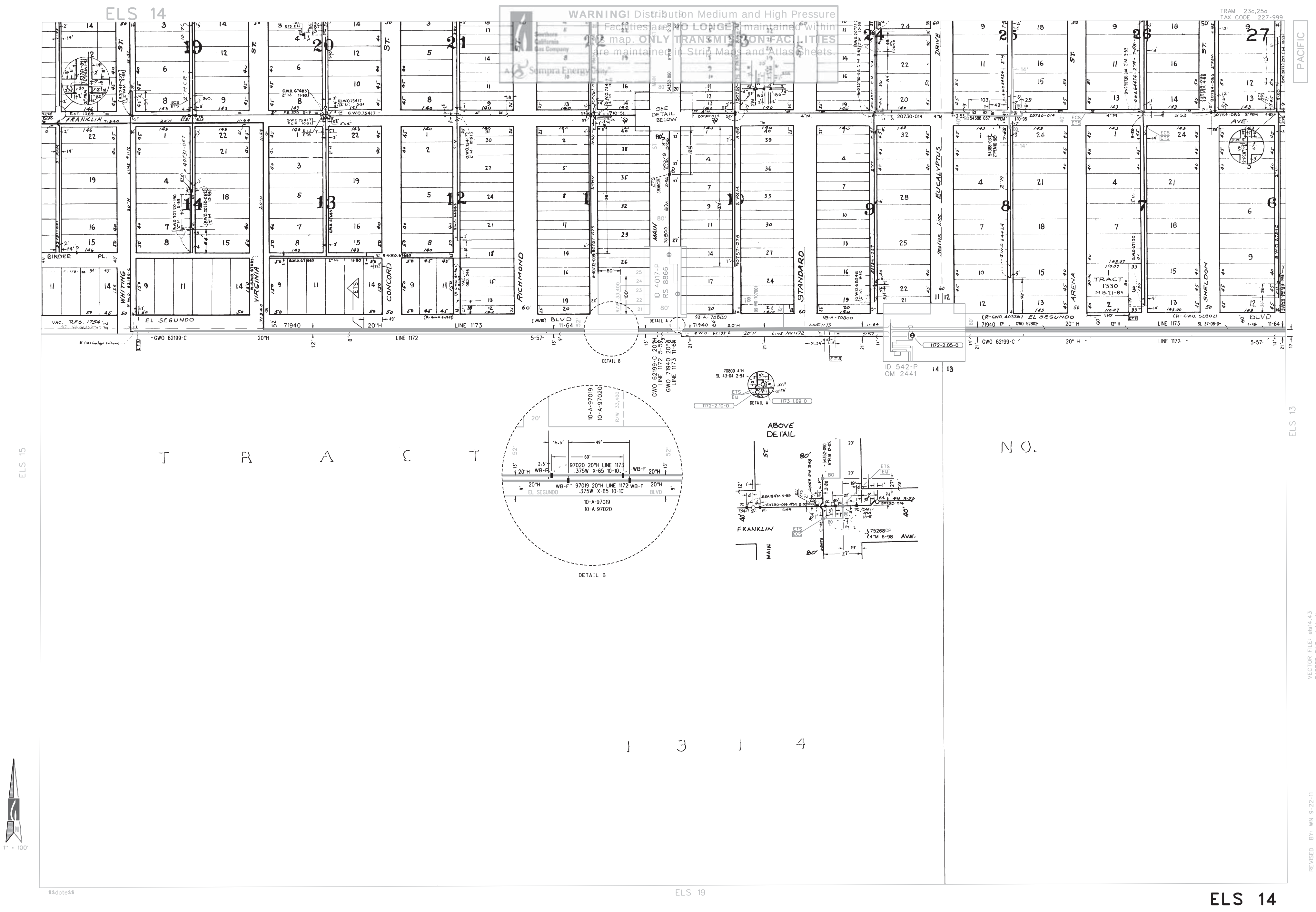


LOT 3.

TRACT Nº 1314

M.B. 20 - 161

ELS 13


ELS 14
WARNING! Distribution Medium and High Pressure Facilities are NO LONGER maintained within this map. ONLY TRANSMISSION FACILITIES are maintained in Strip Maps and Atlas Sheets.
Southern California Gas Company
A Sempra Energy utility
TRAM 23c,25a
TAX CODE 227-999
PACIFIC
FRANKLIN
BINDER PL.
WHITING ST.
VIRGINIA ST.
CONCORD ST.
RICHMOND ST.
MAIN ST.
STANDARD ST.
EUCALYPTUS DRIVE
ARENA ST.
SHELDON ST.
AVE.
EL SEGUNDO BLVD
SEE DETAIL BELOW
ID 4017-P
RS 8866
ID 542-P
OM 2441
DETAIL A
DETAIL B
ABOVE DETAIL
TRACT 1330
M.B.21-81
GWO 62199-C
LINE 1172
LINE 1173
71940
TRACT NO. 1314
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ELS 15
ELS 19
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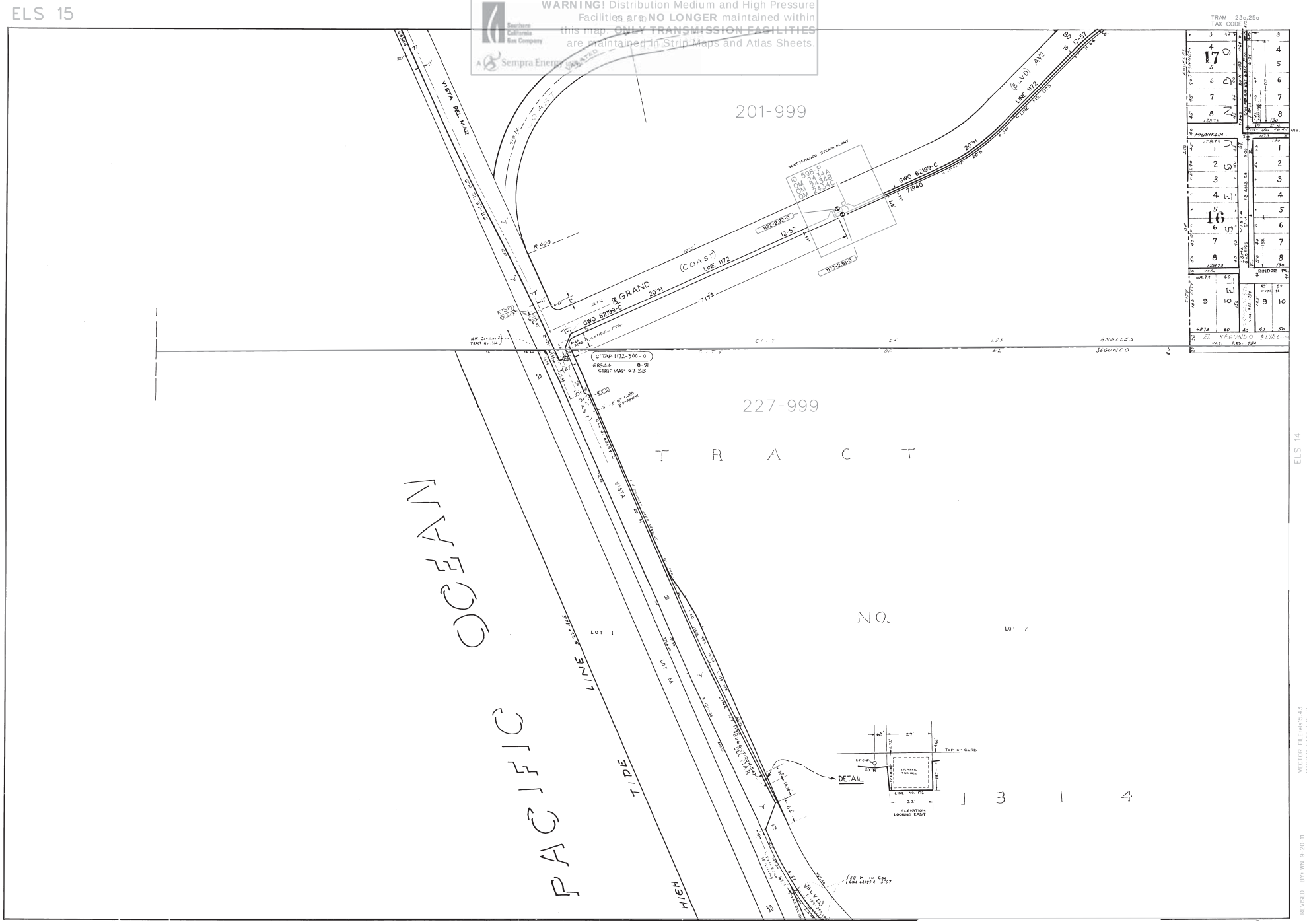

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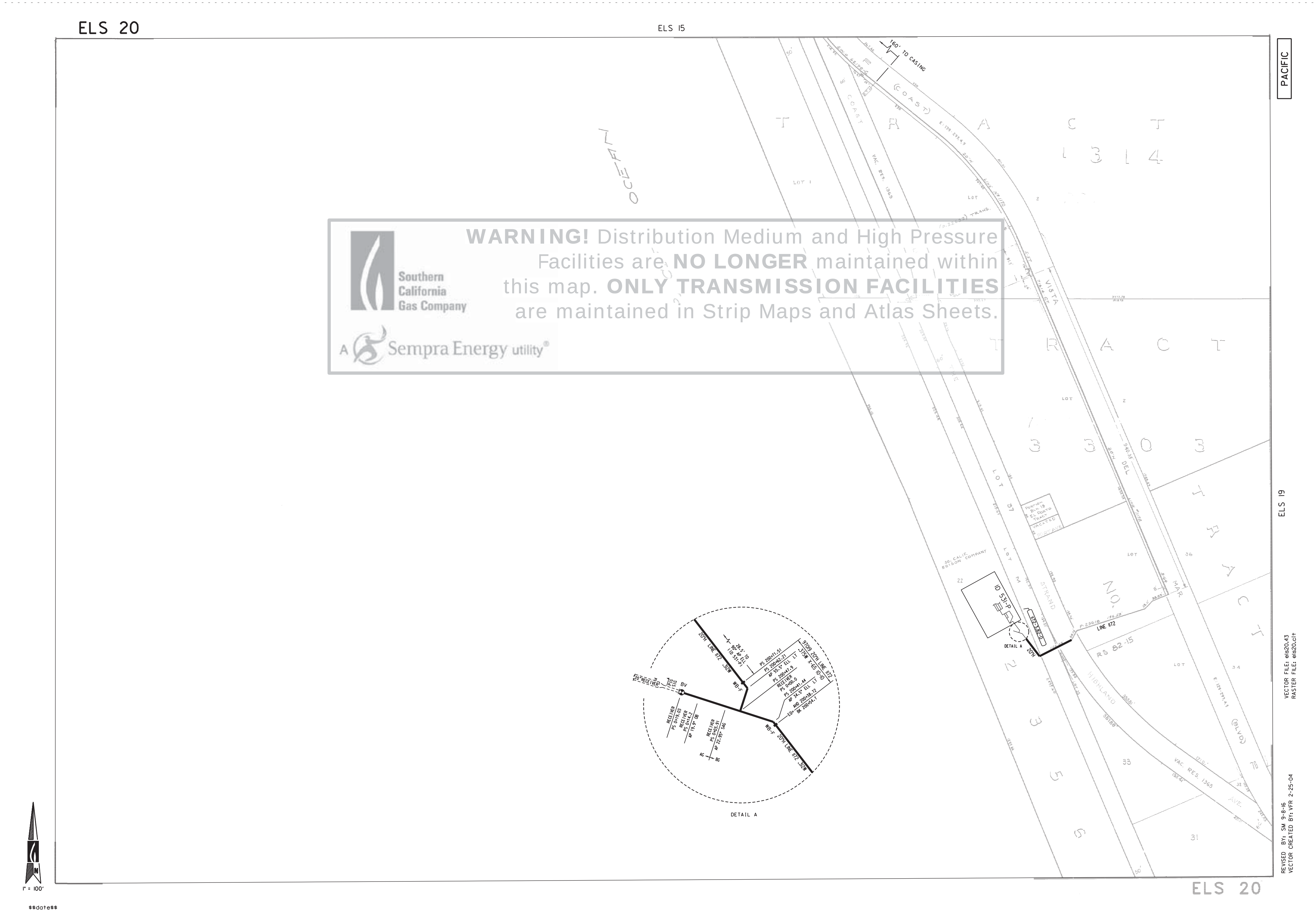
ELS 20
ELS 15
PACIFIC
ELS 19
ELS 20
WARNING! Distribution Medium and High Pressure Facilities are NO LONGER maintained within this map. ONLY TRANSMISSION FACILITIES are maintained in Strip Maps and Atlas Sheets.
Southern California Gas Company
A Sempra Energy utility
160' TO CASING
TRACT 1314
TRACT 33303
TRACT NO. 23356
OCEAN
VISTA
DEL
MAR
STRAND
LINE 872
ID 531-P
DETAIL A
1" = 100'
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RASTER FILE: els20.cit
REVISED BY: SM 9-8-16
VECTOR CREATED BY: VFR 2-25-04

Notice of Availability of A Draft Environmental Impact Report

West Basin Municipal Water District

To: All Interested Persons and Agencies

Subject: Notice of Availability of a Draft Environmental Impact Report

Project Title: Ocean Water Desalination Project (SCH # 2015081087)

Lead Agency: West Basin Municipal Water District

Project Location: 301 Vista Del Mar, El Segundo, CA and the surrounding cities of El Segundo, Los Angeles, Manhattan Beach, Hawthorne, Redondo Beach, Gardena, Torrance, Hermosa Beach, and portions of unincorporated Los Angeles County (see Figure 1)

Public Review Period: Tuesday, March 27, 2018 through Friday, May 25, 2018 at 5 P.M.

In accordance with Section 15087 of the State of California Environmental Quality Act (CEQA) Guidelines, this Notice of Availability (NOA) has been prepared to notify responsible and trustee agencies, other public agencies, and any interested parties that West Basin Municipal Water District (West Basin), as the Lead Agency, has prepared a Draft Environmental Impact Report (Draft EIR) for the proposed Ocean Water Desalination Project (Project) pursuant to CEQA. The EIR provides the responsible and trustee agencies, other public agencies, and interested parties, as well as the public, with information about the potential environmental effects anticipated as a result of the Project.

Project Description: West Basin is investigating the feasibility of the construction and operation of an ocean water desalination facility at two potential sites within the existing El Segundo Generating Station (ESGS). The potential desalination facility would produce 20 million gallons per day (MGD) of drinking water (Local Project) with the potential for a future expansion of the facility to produce up to 60 MGD of drinking water (Regional Project). The Local Project would provide a reliable, local water supply to meet drinking water demands, while increasing drought resiliency and reducing dependency on imported water supplies. Currently, West Basin's only water supplies are imported water provided by the Metropolitan Water District of Southern California (MWD). For the Regional Project, West Basin would look to involve partners to expand the Local Project to produce an additional 40 MGD of drinking water to help meet water demands at a regional scale. This would further reduce dependence on imported water within the MWD service area and improve overall regional supply reliability.

The Project would include construction and operation of ocean water intake and concentrate (brine) discharge infrastructure, an onshore desalinated water treatment facility, and a product water conveyance system. The ocean water intake system would intake raw ocean water through 1-mm (0.04 inch) wedgewire screens. The treatment process would include pre-treatment filtration, reverse osmosis membranes, and post treatment conditioning. The concentrate discharge system would return a blend of concentrated ocean water from the reverse osmosis process and treated backwash to the ocean through a diffuser system for dispersion. The desalinated water conveyance system would deliver drinking water to the local drinking water distribution system. Appurtenant facilities, including pump stations, valves, and meters, would also be constructed and operated as part of the Project.

Anticipated Significant Environmental Effects: The Draft EIR describes the potential direct, indirect, and cumulative environmental impacts of the Project. Impacts could occur in the following Environmental Areas: Aesthetics, Lights & Glare; Air Quality; Terrestrial Biological Resources; Cultural Resources; Energy; Geology and Soils; Greenhouse Gas Emissions; Hazards and Hazardous Materials; Hydrology and Water Quality; Land

Use and Planning; Marine Biological Resources; Noise; Public Services; Recreation; Transportation and Traffic; and Utilities and Service Systems. Mitigation measures have been incorporated to avoid or minimize significant impacts to less than significant levels where feasible. The EIR concludes that there is potential for significant and unavoidable impacts related to air emissions during construction and increased noise during pile driving associated with construction activities.

CEQA also requires this NOA to specify if the Project site contains any listed toxic sites. The Project site is identified on the "Cortese List" (Government Code Section 65962.5) as having the potential for soil and groundwater contamination at the site from past uses on site and neighboring sites.

Public Review and Comments: Pursuant to Section 15087 of the State CEQA Guidelines, West Basin is soliciting comments from the public, responsible and trustee agencies, other public agencies, and interested parties regarding the content of the Draft EIR prepared for the Project. The Draft EIR will be used by West Basin when considering discretionary approvals related to the Project. The 60-day public review period begins Tuesday, March 27, 2018 and ends Friday, May 25, 2018 at 5 P.M. Written comments submitted by U.S. mail or email on the Draft EIR must be received by Zita Yu, Ph.D., P.E. at the address shown below. A dedicated "Ocean Water Desalination Project Draft EIR Comment Box" will be available in the lobby of the West Basin office in Carson, Calif. for the public to drop off written comments in-person between 8 A.M. and 5 P.M. Monday through Friday, except for the District holidays. A contact name and return address or email address should be included with your comments.

West Basin Municipal Water District
Attn: Zita Yu, Ph.D., P.E., Project Manager
17140 South Avalon Boulevard
Carson, CA 90746
desalEIR@westbasin.org

Document Availability: The Draft EIR can be viewed at www.westbasin.org/desal. Hard copies of the Draft EIR are available for public review during regular business hours at the locations listed below:

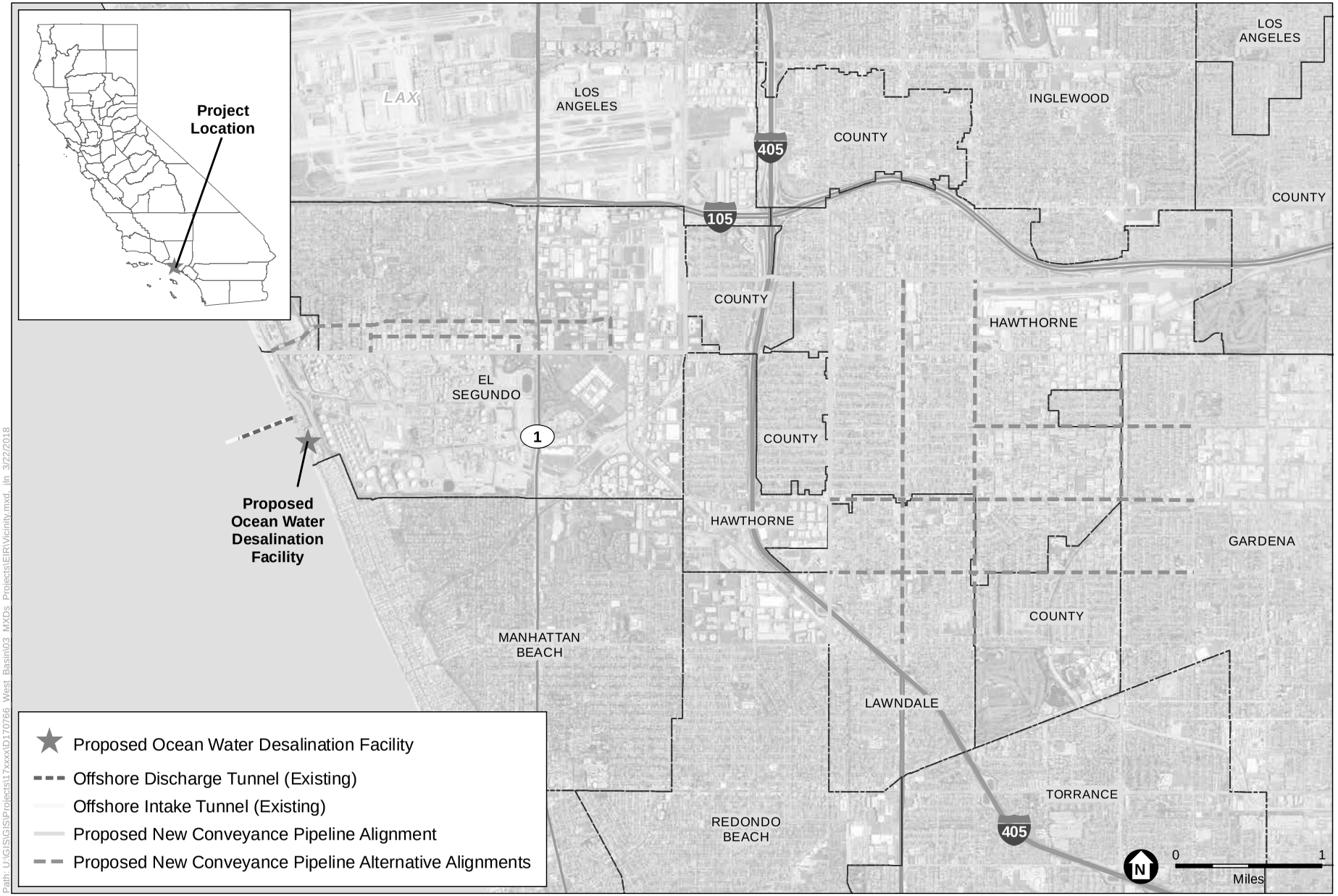
- West Basin Municipal Water District (17140 South Avalon Boulevard, Carson, CA 90746)
- Carson Library (151 East Carson Street, Carson, CA 90745)
- Culver City Julian Dixon Library (4975 Overland Avenue, Culver City, CA 90230)
- El Segundo Public Library (111 West Mariposa Avenue, El Segundo, CA 90245)
- Gardena Mayme Dear Library (1731 West Gardena Boulevard, Gardena, CA 90247)
- Inglewood Public Library (101 West Manchester Boulevard, Inglewood, CA 90301)
- Malibu Library (23519 West Civic Center Way, Malibu, CA 90265)
- Manhattan Beach Library (1320 Highland Avenue, Manhattan Beach, CA 90266)
- Palos Verdes Peninsula Center Library (701 Silver Spur Road, Rolling Hills Estates, CA 90274)
- Redondo Beach Main Library (303 North Pacific Coast Highway, Redondo Beach, CA 90277)
- West Hollywood Public Library (625 N San Vicente Boulevard, West Hollywood, CA 90069

Public Meeting: Two public meetings will be held to provide Project information and receive public comments on the Draft EIR. The public meetings will be held as follows:

LOCATION: **Richmond Street Elementary School (615 Richmond Street, El Segundo, CA 90245)**

DATE:	April 25, 2018 (Wednesday)	DATE:	May 12, 2018 (Saturday)
TIME:	6:00 P.M. – 9:00 P.M.	TIME:	10:00 A.M. – 1:00 P.M.

Upon 72 hours' notice, West Basin Municipal Water District can provide program information and publications in alternate formats or make other accommodations for people with disabilities. In addition, program documents are available at our main office in Carson (17140 South Avalon Boulevard, #210, Carson, CA 90746), which is accessible to individuals with disabilities. To request accommodations ONLY or for more Americans with Disabilities Act information, please contact our Human Resources Manager and Americans with Disabilities Act Coordinator at 310-660-6228 or by email at hr@westbasin.org, Monday through Friday, from 8:00 A.M. to 5:00 P.M., except for the District holidays.



SOURCE: ESRI

West Basin Ocean Water Desalination Project

Figure 1
Project Location

James Chuang
Senior Environmental Specialist

Southern California Gas Company
Sempra Energy utilities
GT02A2
555 Fifth Street
Los Angeles, Ca. 90013
Tel: 213-244-5817

July 17, 2018

Dr. Zita Yu, Ph.D., P.E., Project Manager
West Basin Municipal Water District
17140 South Avalon Boulevard
Carson, CA 90746

Re: **West Basin Ocean Water Desalination Project**

Dear Dr. Zita Yu:

Southern California Gas Company (SoCalGas) appreciates the opportunity to review and respond to the Project's Draft Environmental Impact Report. SoCalGas understands that West Basin is investigating the feasibility of the construction and operation of an ocean water desalination facility at two potential sites within the El Segundo Generating Station (ESGS). The Project would include construction and operation of ocean water intake and concentrate (brine) discharge infrastructure, an onshore desalinated water treatment facility and a product water conveyance system. We respectfully request that the following comments be incorporated in the Project's Draft Environmental Impact Report. SCG2-1

- SoCalGas has a 20" high pressure transmission line that runs underneath the existing access road and connects to the existing natural gas compressor building, which is generally adjacent to the ESGS North Site. Additionally, gas lines run along the public right-of-way along Vista Del Mar, El Segundo Boulevard, Aviation Boulevard, W. 120th Street and Inglewood Avenue. Excavation and trenching for the new desalination water treatment facility and conveyance system may interact with existing gas lines. SCG2-2

- SoCalGas recommends that the project proponent call Underground Service Alert at 811 or 1 800-422-4133 at least two business days prior to performing any excavation work for the proposed project. Underground Service Alert will coordinate with SoCalGas and other Utility owners in the area to mark the locations of buried utility-owned lines. SCG2-3

- Should it be determined that the proposed project may require SoCalGas to abandon and/or relocate or otherwise modify any portion of its existing natural gas lines, SoCalGas respectfully requests that the County and/or the project proponent coordinate with us by emailing SoCalGasTransmissionUtilityRequest@semprautilities.com (for transmission line issues) or NorthwestDistributionUtilityRequest@semprautilities.com (for distribution lines issues). SCG2-4

Once again, we appreciate the opportunity to comment on the Project's Draft Environmental Impact Report. If you have any questions, please feel free to contact SoCalGas Environmental Review at Envreview@semprautilities.com or (213) 244-5817.

SCG2-4

Sincerely,

James Chuang
Senior Environmental Specialist
Southern California Gas Company

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Response to Letter CARS: City of Carson

Response CARS-1

The commenter's statement that desalination should only be used as a last resort is noted for the record. While West Basin appreciates the comment, it expresses an opinion and does not speak to the adequacy of the Draft EIR. See *Master Response: Non-CEQA Issues* and *Master Response: Water Supply Alternatives.*

Response CARS-2

Regarding water rates and cost associated with the proposed Project and economic/social impacts, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18) as well as in *Master Response: Non-CEQA Issues*.

Response CARS-3

The Draft EIR Table 7-2 presents the results of the initial screening of alternatives; none of the alternatives were eliminated because of cost. West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio. But the expansion of an existing conservation program does not meet the objective of diversification and it puts West Basin at greater risk of relying on customer responses to a rationing program during a drought. For example, in order to achieve the reduction in gallons per capita per day (GPCPD) that has been previously experienced in a drought, it is unlikely that consumer lifestyle/behavioral changes that result from rationing would be sustainable over the long term. See *Master Response: Water Supply Alternatives.*

Response CARS-4

Regarding the commenter's contention that the 10 percent threshold for identifying "meaningfully greater" minority populations compared to the larger population is arbitrary, refer to *Master Response: Environmental Justice* (see also Final EIR Section 18) which revises the approach to identifying minority populations. While the City of Carson's population is included in the West Basin service area, no proposed Project facilities are proposed and no environmental impacts have been identified in the Draft EIR that would specifically affect the residents of the City of Carson. Therefore, individual census tracts within the city are not included in the analysis of potential environmental justice effects of site-specific physical environmental impacts.

Response CARS-5

Regarding the concern about energy intensity impacts from the proposed Project impacting low-income communities in the West Basin service area, the commenter is referred to *Master Response: Environmental Justice* for further information regarding electricity consumption and criteria pollutant emissions. Regarding NOx emissions, the Draft EIR concludes (as summarized in Table 5.2-8) that construction would result in emissions of NOx above SCAQMD's published significance thresholds even after all feasible mitigation measures are applied. It is important to note that this conclusion is made based on attainment conditions within the entire South Coast Air Basin and does not necessarily indicate increased impacts within low-income or minority communities compared to higher income or non-minority communities.

Response CARS-6

Starting on page 5.7-19, Draft EIR explains that the threshold of significance used in this document is net carbon neutral; i.e., the proposed Project would have a significant impact on GHG emissions if it were to increase emissions above net carbon neutral as compared to emissions associated with continuing to import water. As stated on page 5.7-26 and 5.7-36 of the Draft EIR, any carbon emissions as a result of the proposed Project would be 100 percent offset through a combination of Project design features and mitigation measures resulting in a net carbon neutral greenhouse gas emissions project when compared to an equivalent volume of MWD imported water. The commenter is also referred to *Master Response: Greenhouse Gas Emissions and Energy Use* for further information regarding the proposed Project's greenhouse gas emissions.

Response CARS-7

See *Master Response: Water Supply Alternatives* and response to comment CARS-3.

Response CARS-8

The Draft EIR Section 7 describes efforts to generate additional local water supplies including increased recycled water through the Water Replenishment District's Groundwater Reliability Improvement Program (GRIP) and Metropolitan's Regional Recycled Water Project. The Draft EIR concludes that ocean water desalination complements other water supply alternatives and supports implementing local water supply development including conservation, recycled water and stormwater capture projects in parallel with ocean desalination.

Response CARS-9

This comment expresses a concern and/or an opinion, and does not pertain to the adequacy of the environmental analysis contained in the Draft EIR. See *Master Response: Non-CEQA Issues*.

Response CARS-10

West Basin notes the City of Carson's contact information for any future correspondence regarding this comment letter.

Response to Letter CULV: City of Culver City

Response CULV-1

West Basin notes Culver City's positions on environmental sustainability. This comment does not speak to the adequacy of the Draft EIR; see *Master Response: Non-CEQA Issues*. See also *Master Response: Water Supply Alternatives.*

Response CULV-2

The Draft EIR Subsection 7.2.1 considered 11 alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See Draft EIR Tables 7-1 and 7-2, and *Master Response: Water Supply Alternatives*. See also, *Master Response: GHG Emissions and Energy Use* and *Master Response: Cost and Rates.*

Response CULV-3

Recycled water is a proven technology that is legally feasible and an important component of West Basin's water supply portfolio. See *Master Response: Water Supply Alternatives.*

As explained in Section 7, expanding recycled water use in the region will not completely offset the need for imported water. Even expanding the recycled water production from Hyperion Water Reclamation Plant to its full capacity, as the Mayor proclaimed in February 2019 would occur by 2035, would not eliminate imported water demands in Southern Los Angeles County. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. As described in EIR Section 7, West Basin as a responsible water supply wholesaler and manager, is considering the addition of ocean water desalination to augment water supply reliability in addition to other local water supply development efforts.

Response CULV-4

The commenter's position to the proposed Project is noted for the record. While West Basin appreciates the comment, it expresses an opinion and does not speak to the adequacy of the Draft EIR. See *Master Response: Non-CEQA Issues* and *Master Response: Water Supply Alternatives.*

Response CULV-5

The Draft EIR Section 7 describes efforts to generate additional local water supplies including increased recycled water for non-potable reuse. The Draft EIR concludes that ocean water desalination complements other water supply alternatives and supports implementing local water supply development including conservation, recycled water and stormwater capture projects in parallel with ocean desalination. See response to comment CULV-3.

Response CULV-6

West Basin recognizes the importance of having a thorough understanding on the costs and benefits of implementing ocean water desalination as a drinking water supply; hence, a study focused on the costs and benefits of project implementation was initiated in January 2019. One of the objectives of this study is to evaluate the potential wholesale water rate increases within West Basin's service area resulting from project implementation. The study will analyze how

affordability may be addressed through the rate making processes for drinking water wholesalers and retailers. The study is expected to be completed in 2020.

Response CULV-7

See *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response CULV-8

See Response to CULV-6.

Response CULV-9

As explained in the Draft EIR Section 3.3, West Basin's goal for the proposed Project is to guarantee future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio. Desalination would be in addition to West Basin's ongoing and continuing conservation and water use efficiency programs, including recycling, water reuse (IPR and DPR), and stormwater capture programs (see Draft EIR Table 2-1). Given the high variability in Southern California's climate and amount of precipitation which is expected to become more variable in the future due to climate change, stormwater capture is not considered a feasible alternative.

The Ballona Creek project would improve downstream water quality in Ballona Creek, Ballona Estuary, Sepulveda Channel, and Centinela Creek during dry weather, providing compliance with Bacteria Total Maximum Daily Load (TMDL). Not only does West Basin not have rights to that water, diversion of that treated water for use by West Basin would undermine the water quality goal of the Ballona Creek project.

See also *Master Response: Water Supply Alternatives.*

Response CULV-10

As discussed in the Draft EIR on page 7-36, the No Project Alternative evaluates water supply sources to be implemented if West Basin does not pursue ocean water desalination. The No Project Alternative includes the continuation of conservation programs and existing supply sources which primarily include recycled water and imported water (see Table 7-4) in addition to groundwater that is available to West Basin's customers. West Basin currently maximizes all feasible water supply alternatives, and will continue to do so under the No Project Alternative whether or not the proposed Project is approved.

However, the collective water supply alternatives identified above and under the No Project Alternative would not meet the objectives of the proposed Project (Draft EIR page 7-40). Maximizing the use of existing sources may reduce some of the need for imported water in the future, but current water supply sources do not holistically improve water security, or reduce the risk of imported water unavailability during drought conditions, and would not collectively eliminate the need for imported water. See *Master Response: Water Supply Alternatives*. West Basin's future water supply diversification would result in a reduction in imported water which would allow for an increase in conservation programs and recycled water, and ocean water desalination should it be approved as a supply source. As noted in the conclusion to the March

2019 Coordinated Strategic Plan to Advance Desalination for Enhanced Water Security[1], "Desalination is an important part of a comprehensive approach to improve water availability, resiliency, and security in the U.S."

[1] A Report by the Desalination Science and Technology Task Force Subcommittee on Water Availability and Quality Committee on Environment, of the National Science & Technology Council, and issued by the Executive Office of the President of the United States.

Response to Letter ELSEG: El Segundo Dept. of Planning and Building Safety

Response ELSEG-1

West Basin notes the City of El Segundo's role as a Responsible Agency under CEQA for the proposed Project. Subsequent responses to comment are provided in ELSEG-2 through ELSEG-3.

Response ELSEG-2

The Draft EIR Section 5.8, *Hazards and Hazardous Materials*, presents the existing conditions relative to hazardous materials. Subsection 5.8.2 describes the known and potentially hazardous building materials in the structures that would be demolished, and the previous soil and groundwater investigations and cleanup actions for contaminated soil and groundwater at the site.

As discussed in Impact HAZ 5.8-1, West Basin is aware that the demolition of Units 3 and 4 at the ESGS North Site may encounter asbestos-containing materials, lead-based paint, polychlorinated biphenyls (PCBs) in fluorescent light ballasts, and/or mercury in fluorescent light tubes where present. The removal and disposal of hazardous building materials are regulated by numerous regulations described in Subsection 5.8.1 including the goals, objectives, policies, and programs of the City of El Segundo General Plan Conservation, Public Safety, and Hazardous Materials and Waste Management Elements that address hazards and hazardous materials. The El Segundo Fire Department is identified as the designated CUPA for the City of El Segundo; Draft EIR pages 5.8-11 and 5.8-12 list the hazardous materials programs under the jurisdiction of the El Segundo Fire Department. West Basin is legally required to comply with the requirements of the programs.

As discussed in the Draft EIR Subsection 5.8.2, numerous investigations and cleanup actions have been conducted at the proposed Project sites. West Basin recognizes that residual levels of contamination may be present and that there is the potential to encounter currently unknown contamination at locations not previously sampled. To address this potential, West Basin has committed to implement Mitigation Measures HAZ-1, Waste Management Plan, and HAZ-2, Project Demolition and Construction Health and Safety Plans. These plans would establish procedures to train workers in the recognition of hazardous materials, establish procedures for monitoring and testing of suspect materials, and establish procedures for the safe and legal containerization, transportation, and disposal of waste materials at licensed facilities permitted to accept the materials. Note that the plans will be submitted to the El Segundo Fire Department for their review and approval.

Response ELSEG-3

This comment lists various permits that the City of El Segundo anticipates West Basin will be required to acquire from the El Segundo Fire Department, beyond those listed in Table 3-11. West Basin agrees that there are additional permits that would apply to the proposed Project and appreciates the City's attention to permit requirements. Note that the chemicals and quantities to be used are listed in Table 3-2. West Basin will comply with all legal requirements including, for

example, requirements for contractors that will handle hazardous materials during construction and the requirement of a Hazardous Materials Business Plan during operations. In addition, West Basin intends to apply for and comply with all required permits. Sections 5.2, *Air Quality*, and 5.8, *Hazards and Hazardous Materials*, list the various requirements in their respective *Regulatory Framework* subsections that are specific to air quality (Section 5.2), and hazardous building materials, and contaminated soil and/or groundwater (Section 5.8).

Response to HAW: City of Hawthorne

Response HAW-1

West Basin notes that the conveyance facilities do traverse through the City of Hawthorne's jurisdiction. Subsequent responses to comment are provided in HAW-2 through HAW-5.

Response HAW-2

As indicated in the Draft EIR in Table 3-11 on page 3-41, West Basin will be required to obtain an encroachment permit from the City of Hawthorne prior to construction.

Response HAW-3

West Basin will coordinate with the City of Hawthorne regarding installation of all pipelines associated with the Project, including paving of roadways.

Response HAW-4

The Draft EIR Table 3-11 identifies the City of Hawthorne as a Local Agency with permit authority for portions of the desalinated water conveyance facilities, which are identified on Figures 3-1 and 3-5.

Response HAW-5

West Basin notes the City of Hawthorne's contact information for any future correspondence regarding this comment letter.

Response to Letter HBCH: City of Hermosa Beach

Response HBCH-1

West Basin's core mission is to ensure a reliable water supply in an economically responsible manner. Although the proposed Project may increase wholesale water rates supplied to local retailers, the ultimate goal of the Project is to stabilize water prices to minimize risks of substantially higher water costs that could occur with a less reliable water supply, which is subject to drought and risk of upset within California's vast water importation systems. As a component of responsible water management planning, any increase in rates caused by the proposed Project would serve to protect against future cost spikes associated with potential imported water system inefficiencies or failure. See also *Master Response: Cost and Rates.*

Response HBCH-2

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*. See also *Master Response: Cost and Rates* and *Master Response: Water Supply Alternatives.*

Response HBCH-3

This comment expresses an opinion about the need and appropriateness of the project, and provides a brief summary of the issues the commenter has on the Draft EIR. For responses to these specific comments, see response to comments HBCH-4 through HBCH-35.

Response HBCH-4

The EIR used the appropriate baseline to evaluate the potential impacts of the proposed Project on marine biological resources. See *Master Response: Marine Biological Resources Study Area*.

Response HBCH-5

See *Master Response: Marine Biological Resources Study Area*.

Response HBCH-6

See *Master Response: Marine Biological Resources Study Area* for an explanation of the validity and adequacy of the marine study area, as it relates to the larger Santa Monica Bay. Additionally, as identified in Section 5.11, *Marine Biological Resources*, in the discussion of potential entrainment (Draft EIR pages 5.11-49 through 5.11-54) and discharge shear stress (Draft EIR pages 5.11-58 through 5.11-60), the CWA 316(b) entrainment studies upon which the Project-related entrainment and shear stress effects were estimated, and APF calculations are based, utilize an area of recruitment within SMB that is much larger than the proposed Project marine study area. Any larval fish or invertebrate taxa that might spawn outside the established marine study area would be reflected in the multi-year data used to analyze these impacts. Similarly, any adults that settle out within SMB, or the greater Southern California Bight, would be reflected in the site data used to identify fish and invertebrate species present within the marine study area. See also Draft EIR Section 5.9, *Hydrology and Water Quality*, Subsection 5.9.4, for a discussion

of the brine dilution modeling conducted for the proposed Project (specifically, Impact HYDRO-5.9-2 on Draft EIR page 5.9-49) and Final EIR Appendix 14.

Response HBCH-7

The Draft EIR provides substantial evidence that project direct and indirect effects on marine habitats and biological resources would be confined to a relatively small area, and would not have the potential to generate impacts to habitats or marine species at greater distances than the Marine Study Area. See *Master Response: Marine Biological Resources Study Area* and response to comment HBCH-6. Regarding the need to assess potential impacts to water quality and marine biological resources outside of the defined Marine Study Area, see *Master Response: Marine Biological Resources Study Area.*

As discussed in the Draft EIR Subsection 5.9.4, consistent with the requirements of the California Ocean Plan for the discharge of desalination brine, the dilution analyses completed in support of the impact assessment assume zero ocean current velocity, representing the worst-case condition in terms of brine dilution with receiving waters. Overall, the effect of ocean currents is to increase dilution compared to the zero current results. Resulting salinities would be substantially lower than those reported in the Draft EIR since greater dilution is achieved through additional dynamic mixing from waves or ocean currents. Neglecting the effect of currents (assuming zero current), consistent with the required methodology prescribed in the Ocean Plan, represents the most conservative (i.e., the "worst-case") scenario, and therefore, the Ocean Plan regulations related to water quality would continue to be met for all anticipated ocean currents occurring in Santa Monica Bay.

As discussed in the Draft EIR, Santa Monica Bay dissolved oxygen concentrations are generally around 8 mg/l (page 5.9-33). Impacts relating to reduced dissolved oxygen concentrations from the discharge of brine are assessed in the Draft EIR Subsection 5.9.4 under Impact 5.9-2 (pages 5.9-53 and 5.9-54). Based on the receiving water dissolved oxygen content at the proposed diffuser location and the dynamics of brine discharges via a multiport diffuser (Final EIR Appendix 14A), the amount of dissolved oxygen supplied to a discharged dense brine plume by entrained ambient seawater would ensure that dissolved oxygen levels would not be substantially reduced in receiving waters as compared to baseline conditions. Furthermore, the treatment process would involve concentrating source ocean water and hence would not alter the mass loading of organics or oxygen demands. As a result, hypoxia would not occur and impacts relating to decreased dissolved oxygen in Santa Monica Bay would be less than significant.

Response HBCH-8

See *Master Response: Marine Biological Resources Study Area*.

Response HBCH-9

See *Master Response: Marine Biological Resources Study Area* for an explanation of the validity and adequacy of the marine study area. Additionally, as identified in Section 5.11, *Marine Biological Resources*, in the discussion of potential entrainment (Draft EIR pages 5.11-49 through 5.11-54) and discharge shear stress (Draft EIR pages 5.11-58 through 5.11-60), the CWA

316(b) entrainment studies upon which the proposed Project-related entrainment effects were calculated utilize a much larger area of recruitment within SMB than the marine study area. If the Point Dume State Marine Conservation Area contributes any larval fish to the marine study area, this would be reflected in the multi-year data used to analyze the entrainment impacts. Similarly, if any adults from either of the Marine Protected Areas located on either end of SMB immigrated into the marine study area, their presence would be reflected in the site data used to identify fish and invertebrate species present within the marine study area. See *Master Response: Supplemental Studies*; specifically, Comparison of 316(b) Data in SMB (Final EIR Appendix 12). See response to comment HBCH-6.

Response HBCH-10

See *Master Response: Marine Biological Resources Study Area*.

Response HBCH-11

The Draft EIR Section 4.1 presents the approach to the cumulative analysis. As explained in the Draft EIR on page 4-2 to 4-3, both the list approach and the summary of projections approach are used to determine the proposed Project's cumulative impacts, depending upon which approach is appropriate/relevant for any one environmental issue area. Additionally, the geographic area considered for the cumulative analysis varies according to environmental issue area and was determined based upon the proposed Project's scope and anticipated area in which the proposed Project could contribute to an incremental increase in cumulatively considerable impacts. Draft EIR Table 4-2 lists 12 off-shore projects that have been proposed within the Southern California Bight that were considered in the cumulative analysis of *Marine Biological Resources* in Draft EIR Subsection 5.11.5. In addition, potential impacts of the proposed Project are evaluated against baseline conditions, which by definition includes the effects of existing projects that are producing related impacts and those impacts are then evaluated for their contribution to a cumulative impact. The marine resources study area is discussed in *Master Response: Marine Biological Resources Study Area*, and cumulative impacts on marine resources are presented in Draft EIR Subsection 5.11.5. The less than significant proposed Project impacts to marine biological resources would not contribute to a cumulatively considerable impact. For example, underwater noise impacts are relatively localized to the area where impacts occur. Therefore, the potential for reasonably foreseeable noise impacts including cumulative noise impacts are described to the extent that they are reasonably foreseeable given the nature and duration of the anticipated noise sources from both construction and operation and given the nature of existing and cumulative sources of noise. See also response to comment HTB-21.

Response HBCH-12

As the CEQA lead agency, West Basin will use this EIR to review the potential environmental impacts of the proposed Project and to determine whether to approve the proposed Project and pursue permitting, which will include a request to the Los Angeles Regional Water Quality Control Board (LARWQCB) for California Water Code (CWC) Section 13142.5(b) determination (the "Water Code determination"). The LARWQCB must find that the applicant has complied with the Ocean Plan Amendments in order to make the Water Code determination. More specifically, pursuant to Ocean Plan Chapter III.M.2.a.(2), LARWQCB (not the applicant)

must independently analyze a range of feasible alternatives for the best available site, best available design, best available technology, and best available mitigation measures and then must consider all four factors collectively to determine the best combination of feasible alternatives to minimize intake and mortality of all forms of marine life.

CEQA Guidelines Section 15064.7(a) provides that a threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect. The Draft EIR assessment of impacts on water quality from the discharge of proposed Project brine (see Draft EIR Subsection 5.9.4, Impact HYDRO 5.9-2) specifically incorporates the numeric thresholds defined in the Ocean Plan (2 ppt at 100 meters) for determining impacts from operation of the Local and Regional Project. As explained on Draft EIR page 5.9-60, "[T]he impact analysis presented below first assesses salinity increases from Local Project operational discharges and whether such increases comply with California Ocean Plan numeric salinity standards."

As to the request to add "minimize intakes and mortality to all forms of life" to the threshold of significance, this would not be appropriate because first of all, this determination under the OPA is to be made by the LARWQCB. Furthermore, there is no single criterion to meet this threshold, rather this standard would be applied by the LARWQCB to all components of the proposed Project (siting, design, technology, and mitigation) pursuant to the OPA. However, West Basin has presented as much information as possible to demonstrate consistency with the OPA requirements.

In response to comments on the Draft EIR, and to support future consideration of the proposed Project by permitting agencies, West Basin prepared four supplemental Studies (see *Master Response: Supplemental Studies*). In response to comment LARWQCB-30, West Basin completed an analysis of a linear diffuser (Final EIR Appendix 14A), the objective of which is to minimize the extent of the Brine Mixing Zone and minimize the jet exit velocity in order to minimize mortality of organisms that may be entrained into the jets due to turbulence and shear. West Basin also completed an analysis that compares the existing 316(b) data from the El Segundo Generating Station (ESGS), the Scattergood Generating Station (SGS), and the Redondo Beach Generating Station (RBGS), and evaluates the differences in planktonic species' variation and densities, and the potential levels of entrainment that could result from a desalination plant at each location. Results of the analysis (Final EIR Appendix 12) indicate that the preferable location for a project's ocean water intake in coastal California must be as distant as possible from rocky reef/hard substrate habitat, coastal lagoons and estuaries, and marine protected areas (MPAs) in order to minimize the entrainment of larval fish, including special status and managed fish and invertebrate taxa. Based on available data, the evidence indicates the ESGS is the "best available" site in SMB to minimize the intake and mortality of marine life.

The conclusions in the EIR are adequately supported by the technical detail provided for the purposes of determining impacts under CEQA. See *Master Response: CEQA and Ocean Plan Compliance*.

Response HBCH-13

The commenter is correct in asserting that the Ocean Plan Amendments of 2015 (SWRCB 2015), represent "… a starting point" from which, "…more work is needed to understand the long-term impacts of desalinization discharges." As illustrated in the analysis of proposed Project-related possible ocean water entrainment and discharge sheer stress mortality, scientific studies conducted since the promulgation of OPA 2015 suggest that both the extent of entrainment that occurs when using wedgewire screened intakes and the magnitude of sheer stress induced mortality of planktonic organisms is less than projected by OPA 2015 (Draft EIR pages 5.11-49 through 5.11-60) as illustrated in Draft EIR Tables 5.11-9 and 5.11-12. The APF calculations can vary a minimum of 11-12 percent for entrainment effects and 17-25 percent or more for shear stress effects based on basic operational assumptions and scientific studies showing that only organisms <1 mm in size are affected and that not all planktonic taxa are affected by sheer stress turbulence. Mitigation Measure BIO-M2 commits to a level of compensation or offsite habitat restoration based on actual on-site scientific studies that analyze the potential impacts on marine productivity from the proposed Project.

The *Intake Effects Assessment Report* (Tenera 2014, see Draft EIR Appendix 4A) documented the performance of a wedgewire screened ocean intake associated with a demonstration desalination project, and as such is applicable to either the Regional or Local Projects. This study evaluated impingement of planktonic and larval organisms under intake water flow rates of <0.5 fps using a 1.0 mm wedgewire screen. These conditions are the same as those proposed for the Project and therefore, would be applicable to the assessment regardless of actual flow volume. Flow volume only becomes critical in estimating potential total entrainment of planktonic organisms <1.0 mm in size. The analysis of entrainment of these sized organisms is provided for both the Local and Regional Projects in the Draft EIR on pages 5.11-49 through 5.11-54 and as summarized in Draft EIR Tables 5.11-9 and 5.11-12.

The Draft EIR determination is that entrainment and discharge related shear stress impacts are potentially significant and therefore required mitigation, and that the implementation of Mitigation Measure BIO-M2, which includes a commitment of offsite ecological habitat enhancement or financial support of a fee-based mitigation program, would reduce the potential impacts to a less than significant level. As discussed above, the purpose of the post-operation entrainment studies is to more precisely identify and define the potential magnitude of the proposed Project's entrainment and sheer stress impacts and to provide the additional science specifically identified by the commenter that is missing and which can only be obtained once a desalinization project in SMB is operational.

Response HBCH-14

The comment correctly cites the conclusion made in the Draft EIR concerning intake entrainment from the proposed Project: "At present, the extent of protection that wedgewire screens could provide to prevent entrainment of larval fish and invertebrates in the Project marine study area is unknown." However, the commenter incorrectly claims what that quoted statement refers to. The potential impacts of planktonic entrainment on marine ecosystems are well established as documented by the SWRCB in the supporting work used to prepare the OPA (SWRCB 2015). As

the commenter indicated, the SWRCB established how all desalination projects that utilize ocean water intakes will assess entrainment effects and how they will offset those impacts to a less than significant level (SWRCB 2015). The commenter should note that Mitigation Measure BIO-M2 includes new, site-specific studies of a coastal desalination operation in SMB that is intended to better understand the magnitude of entrainment by these types of facilities, and the effectiveness of implemented operational controls, and therein reduce some of the uncertainty surrounding the adverse impacts of desalination. Regardless of the findings of these studies, both entrainment and shear stress effects on planktonic taxa and the potential resultant impact on marine ecosystems will be determined by the LARWQCB during the Water Code Determination process, and impacts will be fully mitigated pursuant to the OPA (SWRCB 2015) requirements by West Basin through offsite ecological habitat restoration, consistent with OPA 2015 and as directed by the LARWQCB. See also response to comment MLBU-13.

Response HBCH-15

The Draft EIR addresses the infeasibility of comingling brine with wastewater. See response to comment MBCH3-75. Furthermore, the proposed diffuser design has been adequately analyzed. A supplemental model analysis of dilution was conducted for linear diffuser configurations (see *Master Response: Supplemental Studies* and Final EIR Appendix 14A). The objective of the analysis was to advance the proposed diffuser configuration and to confirm that the proposed diffuser design would comply with the required Ocean Plan criteria for desalination discharges. These criteria are: The salinity increment must be less than 2 ppt within the maximum allowable BMZ of 100 m (328 ft), and the jets must be fully submerged and not impact the water surface. In addition, the analysis identified a liner diffuser configuration that would minimize the extent of the BMZ and minimize the jet exit velocity in order to minimize mortality of organisms that may be entrained into the jets due to turbulence and shear.

Through the assessment, two linear diffuser designs were identified that had a common port spacing and number of ports, and therefore diffuser length, that will meet the required environmental compliance criteria for all potential proposed operational discharge scenarios (see Final EIR Section 11, *Refinements to the Project Description* for details relating to incorporation of the linear diffuser design into the proposed Project). One port diameter is needed for the Local Project operational discharge scenarios and a different diameter is needed for the Regional Project operational discharge scenarios. Therefore, the supplemental dilution analyses identified potential linear diffuser configurations that require only the port diameters be changed when transitioning from the Local Project to Regional Project. See response to comment LARWQCB-30 for additional details.

Response HBCH-16

The Draft EIR does not evaluate the potential impacts of the proposed Project on eelgrass because, contrary to the comment's assertion, there are no submerged aquatic vegetation (SAV) beds, including SAV such as the surfgrass *Phyllospadix* and the eelgrass *Zostera*, in the vicinity of the proposed intake or discharge infrastructure. The reference cited in the comment (Brock et al. 2011) does not identify any eelgrass or surfgrass beds in the vicinity of the proposed Project's intake or discharge infrastructure.

Response HBCH-17

The temperature requirements for existing and new discharges in California coastal waters defined in the SWRCB Thermal Plan are presented in the Draft EIR Subsection 5.9.1 (page 5.9-20). As discussed in the Draft EIR (Subsection 5.9.4, *et seq*.), the assessment of impacts to water quality comprehensively applied and considered the applicable regulations. Dilution model analysis of brine discharges presented in the Final EIR Appendix 14A provides the assumed temperature of the receiving waters of Santa Monica Bay in the vicinity of the proposed discharge point as well as the assumed temperature of the brine discharge. Impact 5.9-2 (Subsection 5.9.4) presents a detailed analysis of potential water quality impacts from operational discharges of brine, including consideration of thermal impacts in the context of the regulatory requirements defined in the SWRCB Thermal Plan.

As discussed under Impact 5.9-2 on page 5.9-56 (see Footnote 21), temperature is a commonly studied parameter due to the practice of commingling brine streams from desalination plants with power plant discharges of cooling water that have high temperatures. Given that the proposed Local and Regional Project would not operate in combination with a power plant or other facility that uses ocean waters for cooling purposes, there would be no heating mechanism or any process that would substantially increase the temperature of the source water as it passes through the treatment units. Therefore, the desalination process would not substantially increase the temperature of the discharged effluent, and thermal impacts on receiving waters would not occur.

Response HBCH-18

Regarding the proposed diffuser configuration see response HBCH-15, LARWQCB-30, and *Master Response: Supplemental Studies* for additional information. Concerning potential marine life shear mortality caused by the jet force of diffusers, as suggested by the commenter, the Draft EIR thoroughly assesses the potential effects of diffuser jets operated at set flow rates on planktonic organisms, using several recent scientific studies (e.g., Foster et al. 2013; Roberts 2018; Jessopp 2007; Zhang 2017) that have evaluated shear stress on planktonic organisms (Draft EIR pages 5.11-58 through 5.11-60). These studies were published after the commenter's cited references. In addition, Mitigation Measure BIO-M2 includes not only offsite ecological habitat enhancement to offset proposed Project related shear stress effects to marine ecosystems, but also proposes conducting additional site-specific studies to determine more accurately the magnitude of those effects, which can only be conducted once the desalinization facility is operational. Regarding impacts related to shear mortality and the supplemental studies analyzing linear diffuser designs, see response to comment LARWQCB-30.

Regarding the need for monitoring of brine discharges and potential unknown consequences to marine biological resources, as described in detail in the Draft EIR Subsections 5.9.1 and 5.9.4 and summarized in the *Master Response: CEQA and Ocean Plan Compliance*, West Basin will prepare and submit information required by the Ocean Plan when submitting the NPDES discharge permit application to the LARWQCB including a Report of Waste Discharge, which will provide a detailed analysis of compliance with the Ocean Plan water quality standards, and a request for a water code determination will require that West Basin prepare and provide the

LARWQCB with a Marine Life Mortality Report as described in Ocean Plan chapter III.M.2.e.(1)(a), and a Mitigation Plan.

Further, and to address potential unknown consequences of different water quality constituents interacting in the marine environment, as part of the NPDES permit application, Whole Effluent Toxicity (WET) testing would be required for the facility point of discharge, representing an integrated approach for assessing the potential for acute and/or chronic toxicity of proposed discharges. WET testing represents a standardized measure of the aggregate toxic effect of an effluent measured directly by a toxicity test and is used to evaluate biological impacts of discharges for NPDES permitting.

The primary objective of WET testing is to ensure that effluent released from industrial and municipal facilities into the nation's waters does not cause unacceptable levels of toxicity to aquatic life. As described in Subsection 5.9.1, the point of compliance for water quality standards relating to operational discharges is the edge of the Zone of Initial Dilution (ZID). Such an approach for water quality standards acknowledges the concept of a regulatory mixing zone where water quality constituent concentrations contained in discharges undergo rapid and substantial reduction via dilution. Within the mixing zone, water quality criteria may be exceeded as long as toxic conditions are prevented. To determine whether an effluent has the potential to be toxic, WET tests are performed on various aquatic test species.

Additionally, as described in detail in the Draft EIR Subsection 5.9.4 (page 5.9-55), West Basin would be required to comply with the Monitoring and Reporting Program requirements of the NPDES Permit and would also be subject to the monitoring and reporting requirements of the California Ocean Plan (described in Subsection 5.9.1). Monitoring requirements under the California Ocean Plan ensure that monitoring be conducted for salinity levels, benthic community health, aquatic life toxicity, and hypoxia and that the monitoring program be consistent with the requirements detailed in Appendix III of the Ocean Plan which specifies monitoring plan framework, scope, and methodological design for determining compliance. The performance standard(s) associated with the monitoring requirements of the California Ocean Plan are defined in Chapter III of the Ocean Plan (Part 4 (a)) and in Appendix III (Part 8) with definitions of terms provided in Appendix II.

Response HBCH-19

Regarding the commenter's concern that the Draft EIR analysis is inconsistent with the thresholds within Appendix F, and that the Draft EIR downplays the extent to which seawater desalination is the most energy-intensive source of water, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Regarding the commenter's concern that the Draft EIR should have analyzed the Project's energy and GHG impacts in comparison to a range of other water supply alternatives that are less energy intensive, see *Master Response: Greenhouse Gas Emissions and Energy Use,* and *Master Response: Water Supply Alternatives.*

Response HBCH-20

West Basin recognizes the energy requirements of different local water supply alternatives, and recognizes that ocean water desalination is more energy-intensive than other local water supplies. However, the demand for water in the West Basin service area cannot be fully met with any one of the local water supply alternatives. The EIR evaluates the proposed Project's energy consumption in Section 5.5 and concludes that although the energy requirements to operate the ocean water desalination would be greater than other water supplies such as recycled water and imported water, the benefit of a drought-resilient water supply balances benefits and risks of the water supply portfolio. See *Master Response: Greenhouse Gas Emissions and Energy Use.*

Regarding the commenter's concern that the Draft EIR does not reference the analysis conducted by the Pacific Institute that compares energy and GHG emissions of seawater desalination to other water supply options, see *Master Response: Greenhouse Gas Emissions and Energy Use.* The Pacific Institute's study concludes that ocean desalination process is energy intensive compared with other water supplies. The EIR acknowledges this in Section 5.5 Energy. West Basin recognizes the energy requirements of different local water supply alternatives, and recognizes that ocean water desalination is more energy-intensive than other local water supplies. However, the project objectives are to diversify water sources in a manner that is economically viable and environmentally responsible. The EIR describes that a diverse water supply portfolio may include sources with varying power requirements and does not preclude any source solely on its energy requirements. The most reliable water source may also have the highest energy demand. This may limit the percentage produced from a particular source, but does not eliminate its value within a diverse and resilient supply portfolio.

The Project objectives of West Basin's proposed Ocean Water Desalination Project are to:

- Diversify West Basin's water source portfolio to increase reliability in the near and intermediate term (5–15 years) and the long term (15–30 years) while reducing reliance on imported water.
- Improve water security through West Basin's increased local control of water supplies and infrastructure.
- Improve West Basin's local control of future water costs and long-term price stability.
- Improve climate resiliency by developing a water source that is less susceptible to hydrologic variability.
- Develop a potable water supply that is economically viable and environmentally responsible.

Response HBCH-21

The Draft EIR does not take credit for future GHG reductions from SCE's electricity generation portfolio. Rather, the Draft EIR states on page 5.5-17 that the electricity demands of the desalination facility and pump stations would be supplied by SCE, which is subject to California's Renewable Portfolio Standards (RPS), and that over time, due to these standards, the electricity available to the Project would include greater contributions from renewable energy supplies. As the energy sector is decarbonized through increased renewable energy the energy intensity of water will also be reduced (CARB 2017). In terms of ocean desalination's relatively

high energy-intensity compared to other water supply alternatives, see *Master Response: Greenhouse Gas Emissions and Energy Use.* Regarding the comment that the Project would result in significant and unavoidable energy impacts, see responses to comments MBCH3-43 and -44.

Response HBCH-22

The Draft EIR Section 5.5.4 explains that the electricity demands of the desalination facility and pump stations would be supplied by SCE, which is subject to California's RPS Program. As a result, the electricity available to the proposed Project will, over time, include greater contributions from renewable energy supplies. The Draft EIR concludes that the small percentage of load increase compared with the regional demand would not jeopardize SCE's ability to meet RPS goals. The small increase in load is well within the CPUC's authorization for SCE's increased power generation as described on page 5.5-24. As described on page 5.5-18, the Project would not result in a wasteful use of energy that would jeopardize the State's GHG reduction goals. Rather, the incremental increase in energy per acre foot of water produced would modestly increase energy demands compared with current regional and local use. Regarding energy conductoring infrastructure in the coastal areas, the Draft EIR acknowledges on page 5.5-21 that the final determination for whether additional poles are needed and where they would be located would be determined by SCE in the future. If SCE is required to build additional infrastructure such as power poles, SCE may need to conduct a subsequent assessment.

Response HBCH-23

As lead agency, West Basin has concluded that the amount of GHG emissions associate with the proposed Project would be partially offset by reductions in the need for imported water within its service area. See *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response HBCH-24

Regarding the commenter's concern that the Draft EIR should have analyzed the Project's energy and GHG impacts in comparison to a range of other water supply alternatives that are less energy intensive, see *Master Response: Greenhouse Gas Emissions and Energy Use,* and *Master Response: Water Supply Alternatives.*

Response HBCH-25

The Draft EIR does not argue that significant impacts of the proposed Project (e.g., on GHG emissions) can be justified compared to impacts of imported water. As explained in the Draft EIR Sections 1.2, *Executive Summary* and 3.3, *Project Objectives*, desalination as a component of West Basin's future water supply portfolio would partially offset the need for imported water. See *Master Response: Greenhouse Gas Emissions and Energy Use.*

The comment asserts that the Draft EIR's position of achieving net neutral GHG emissions fails because "experts agree" ocean desalination will not reduce stresses on freshwater systems; the Draft EIR makes no such claim regarding freshwater resources.

The citation used in the comment comes from a May 2016 report which summarizes "An Uncommon Dialogue" on the coastal and marine impacts of ocean desalination that was

facilitated and organized by Stanford University's Water in the West, was taken out of context, and is not relevant to the GHG discussion in the Draft EIR. The Uncommon Dialogue had two primary objectives: 1) to promote information exchange and open discussion regarding the best available science, technology and policy related to marine and coastal impacts of desalination projects in California and beyond; and 2) to identify key issues and knowledge gaps for future research and policy development with respect to marine and coastal impacts of ocean desalination in California. Two of the West Basin Draft EIR preparers were invited "experts."

To put the citation in context, the May 2016 report summarizes the four facilitated sessions; the first session, which is quoted in the comment, was titled, "Scope of Desalination and Current Regulatory Framework in California" and notes that "[t]he current drought, restrictions on historical sources of freshwater and uncertainty stemming from a changing climate are among the factors driving a search for new sources of water for human use — including ocean desalination for coastal populations." The first finding of this session begins with, "[t]he role of ocean desalination will be minor in the context of California's overall water budget, although it may be very important in some local areas." And the entire finding quoted in the comment reads: "Ocean desalination will not, in the foreseeable future, significantly reduce stress on freshwater resources — particularly freshwater ecosystems. Even the highest total projected production of potable water from ocean desalination in California is so low that it will not meaningfully reduce stress on freshwater systems***, such as, for example, exports from the Bay Delta system (Water Plan, 2013). In addition, it is not clear the extent to which planned desalination facilities will provide the regions with supplemental supply and therefore, work to reduce or replace existing demands on groundwater and surface water sources."*** [Emphasis added.]

See also *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response HBCH-26

The Draft EIR does not require the offset of GHG emissions associated with MWD's imported water. Nor does the Draft EIR's analysis rely on changes in MWD's actions. Instead, the analysis considers the reduction of GHG emissions that would result from West Basin's reduction in use of imported water and compares that to the GHG emissions that would be created by construction and operation of the proposed Project. In other words, West Basin is accounting for the GHG emissions associated with its own water demand, while other recipients of imported water would be responsible for GHG emissions associated with their portfolio. As West Basin modifies its water supply portfolio, its GHG emissions inventory changes associated with each water source. West Basin is not responsible for GHG emissions associated with water imported for other users. See *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response HBCH-27

Regarding to the commenter's statement that the Draft EIR ignores the superior alternative of using renewable energy to offset the GHG emissions of a less energy intensive water source, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response HBCH-28

Flooding and coastal hazards and the effects associated with coastal flooding and tsunami impacts, including sea level rise, are discussed in the Draft EIR Section 5.9, *Hydrology and Water Quality*, Impact 5.9-6 on pages 5.9-72 through 5.9-78.

As explained on page 5.9-72, sea level rise is an existing environmental condition, and unless the proposed Project will exacerbate this condition, it is not considered a potentially significant impact under CEQA. In the interest of providing as much information as possible, West Basin conducted a site-specific Coastal Hazards Analysis for the proposed desalination facility at the ESGS North and South Sites, a copy of which is provided as Draft EIR Appendix 5. In response to this and other comments, however, West Basin also prepared a supplemental Coastal Hazards study (see *Master Response: Supplemental Studies* and Final EIR Appendix 15) that considered a high-risk sea level rise projection and the "extreme risk aversion" scenario known as the "H++" scenario. The results of the study confirmed that development on the site would be constrained, but feasible.

Finally, the comment suggests that the proposed Project should be relocated outside of the coastal zone. The Draft EIR on page 7-42 evaluates using the AES site in Redondo Beach. This site was rejected for numerous reasons including greater marine impacts and institutional constraints. As explained further in *Master Response: Supplemental Studies*, detailed technical investigations into subsurface seawater intake options concluded that the proposed Project could not obtain source water through alternative intake mechanisms (e.g., wells located near, but not directly on the shoreline), and that in order for the proposed Project to function, open ocean intakes would be required. Thus, even if the proposed Project as a whole is a not determined to be a coastal-dependent development or use, because the intake facilities "… require a site on, or adjacent to, the sea to be able to function at all," those components are necessarily coastal-dependent per the Coastal Act Section 30101 definition. Accordingly, because the proposed Project would be "dependent upon a coastal-dependent development or use," it would necessarily be a coastal-related development (Section 30101.3).

Response HBCH-29

The Draft EIR Subsection 7.1.3 explains the proposed Project would result in very few significant and unavoidable impacts and identifies those impacts as air quality and noise during construction. The Draft EIR found that impacts on the marine environment (see EIR Section 5.11 and response to comments HBCH-4 through HBCH-18), water quality (see EIR Section 5.9 and response to comments HBCH-12 and -13), GHG emissions and climate change dynamics (see EIR Sections 5.5 and 5.7 and response to comments HBCH-19 through -27) would be less than significant, or less than significant with mitigation. See response to comment EOGB- 26, and *Master Response: Water Supply Alternatives.*

Response HBCH-30

CEQA Guidelines Section 15126.6 explains that the lead agency, in this case the District, is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives (see Draft EIR Subsection 7.1.4). There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the

rule of reason. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553 and *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376). Although a lead agency may not give a project's purpose an artificially narrow definition, a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need, and not study alternatives that cannot achieve the basic goals of the project. The Draft EIR appropriately analyzed the water supply alternatives as initial screening alternatives and dismissed each of the alternatives due to inability to meet project goals and/or infeasibility. However, the CEQA alternatives (including the No Project Alternative, AES Redondo Beach Generating Station Alternative, Reduced Capacity Alternative, and Reduced Elevation Alternative) were all analyzed in greater depth and meet the range of reasonable alternatives required by CEQA.

See response to comment LAW2-36 and LAW2-39.

The water supply alternatives that were discussed in the Draft EIR (including increased conservation, stormwater capture, and IPR and DPR) contribute to the goal of ensuring future water supply reliability, consistent with goals identified in West Basin's 2015 Urban Water Management Plan. West Basin's vision statement from the 2017 to 2022 Strategic Business Plan states the District goal is "sustainable and drought-proof water services enhancing the quality of life and economy of our communities." As noted throughout the Draft EIR, West Basin continues to develop water supply alternatives in addition to ocean water desalination, representing a responsible, diverse, and balanced water supply portfolio. This includes maintaining and increasing conservation as an integral component of its water supply portfolio. It also includes continuing to provide non-potable recycled water. Therefore, the water supply portfolio inclusive of ocean water desalination (and as analyzed in this EIR) is in fact a hybrid solution. See *Master Response: Water Supply Alternatives.*

Regarding the commenters Footnote 81: As noted by the Water in the West Summary Findings (Leon Szeptycki, et al. 2016, page 7), "Future work is needed to further define the elements of sustainable desalination projects and develop policies to incentivize adoption of those elements. Elements of sustainable desalination identified at the conference included projects that are smaller; that provide supply to meet a specific, clear local demand; that are located away from sensitive and valuable marine areas; and that are powered by renewable energy sources." The proposed Project would generally satisfy these elements.

Response HBCH-31

As noted in the Draft EIR Subsection 7.1.4, while it is not necessary to perform any further analysis of the screened alternatives, given the interest expressed by the public in the alternatives to the proposed Project, West Basin has included a discussion of Project objectives and a brief discussion of potential impacts for each of the screening alternatives.

But contrary to the comment, the EIR does not evaluate alternatives against costs. The project objectives "control of water" and "control of pricing" focus on control. As explained in the Draft EIR Subsection 7.2.1 for example, increased conservation would not improve West Basin's local control of future water costs and long-term price stability; the Stormwater Capture Alternative would not improve West Basin's local control of future water costs and long-term price stability;

the Increased Recycling Alternative would not improve West Basin's local control of future water costs and long-term price stability; as for the indirect potable reuse alternative, greater price certainty would be achieved for those proposed Project components owned by West Basin but less so for the source water facilities owned by the City of Los Angeles. See also *Master Response: Water Supply Alternatives.*

Response HBCH-32

Contrary to the assertion in the comment, the need for 21,500 AFY equates directly to the difference between total supplies and total demands during a multi-dry year event similar to the 2012-2015 drought conditions (20,342 acre-feet in 2020), as shown in UWMP Table 5-5; see response to comment LAW2-37. The shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3). As noted in Section 4.5 of the 2015 and the 2010 UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015 and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section 9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its water reliability initiative.

Even with the maximum practicable conservation savings, increases in recycled water production, and expansion of groundwater supplies by retail agencies, West Basin's service area could experience a shortage of 20,342 acre-feet per year by 2020 and 21,500 acre-feet per year by 2025 and beyond. In other words, the proposed Local Project is sized at 20 MGD (or approximately 21,500 AFY), to directly respond to the multi-dry year event shortfall. Thus, the proposed Project would provide the quantity of water necessary to make up the expected shortfall in imported water supplies for what are expected to be more frequent and severe future droughts.

CEQA Guidelines Section 15126.6 requires that an EIR consider alternatives that can avoid or substantially lessen significant impacts of a project. The alternatives in Draft EIR Section 7 (excluding the No Project Alternative) are evaluated based on their ability to accomplish most of the Project objectives (see Subsection 7.1.3) while avoiding or minimizing one or more of the proposed Project's potentially significant impacts identified in EIR Sections 5.1 through 5.16.

See response to comment LAW2-38 and *Master Response: CEQA and Ocean Plan Compliance, Master Response: Supplemental Studies* and *Master Response: Water Supply Alternatives.*

Response HBCH-33

Draft EIR Section 3.2 explains that the ocean water intake and concentrate discharge tunnels, installed in 1965 to supply cooling water to the conventional steam turbine units at ESGS (Units 3 and 4), were decommissioned in December 2015. Therefore, the proposed Project, which proposes the use of the existing tunnels, did not contemplate using the once-through-cooling water as diluent for the brine. In response to this and other comments expressing concern about the siting of the proposed Project and associated intake and discharge structures at the ESGS

facility, West Basin reviewed publicly available data for other similar intake and outfall facilities within the Santa Monica Bay. This analysis compares the existing 316(b) data from the ESGS, the Scattergood Generating Station (SGS), and the Redondo Beach Generating Station (RBGS), and evaluates the differences in planktonic species' variation and densities, and the potential levels of entrainment that could result from a desalination plant at each location. Results of the analysis (see Final EIR Appendix 12) indicate that the preferable location for a project's ocean water intake in coastal California must be as distant as possible from rocky reef/hard substrate habitat, coastal lagoons and estuaries, and marine protected areas (MPAs) in order to minimize the entrainment of larval fish, including special status and managed fish and invertebrate taxa. Based on available data, the evidence indicates the ESGS is the "best available" site in SMB to minimize the intake and mortality of marine life. See *Master Response: Supplemental Studies*.

West Basin has chosen to utilize wedgewire screens because they are prescribed by the Ocean Plan Amendment where subsurface intakes are infeasible. As explained in the Draft EIR Sections 1.2, *Executive Summary*, and 3.3, *Project Description*, West Basin's goal is to ensure future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan (UWMP). Desalination as a component of West Basin's future water supply portfolio would offset up to 22,500 AFY[2] of imported water in order to "diversify West Basin's water source portfolio" and would allow West Basin to "increase reliability . . . while reducing reliance on imported water." The EIR is an informational document that is intended to provide public agencies and the public with detailed information about the effect that a project is likely to have on the environment. Comments on the appropriateness of the project size are not within the scope of CEQA. Nevertheless, these comments are included within the Administrative Record and will contribute to the information that will be considered by the decision-makers in the context of the entire record. See also response to comment LAW2-38, SCLA-3 and EOGB-23 and *Master Response: Water Supply Alternatives*.

Response HBCH-34

The Draft EIR does not extrapolate Local Project impacts to the Regional Project, nor is the Regional Project analysis tiered off the Local Project analysis as asserted by the commenter. As explained in the Draft EIR Section 5.0, *Approach to Analysis*, impacts associated with the Local Project are assessed at a project-level, whereas impacts associated with the Regional Project are assessed at a project-level for those components that are known (such as the physical size of the facility) and a programmatic-level for those aspects of the proposed Project that are not well-defined (such as regional partners). Every topical section in Section 5 (*Environmental Analysis*) distinguishes between the Local Project and the Regional Project when discussing and analyzing the potential impacts of each proposed Project component (i.e., Ocean Water Desalination Facility, Screened Ocean Intake and Concentrate Discharge, Desalinated Water Conveyance Components). The impacts resulting from the Regional Project are sometimes assessed in terms

[2] Including 1,000 AFY of brackish groundwater desalination that could come from West Basin's existing C. Marvin Brewer Desalter facility.

of the incremental increase against baseline potentially resulting from the additional build out and operation of the Regional Project, in addition to the impacts from the Local Project.

However, in the example cited by the comment ("As with the Local Project …), the Draft EIR draws the conclusion it does about the Regional Project because that is what the evidence presents, not because of extrapolation or an incremental increase. In the paragraph prior to the text cited in the comment, the Draft EIR explains that Table 5.9-8 summarizes the minimum initial dilution ratios modeled for the proposed operational discharges for the Regional Project, and explains these dilution ratios *are almost identical* to those calculated for the Local Project although the volume of discharge would be greater. As such, the assessed concentrations of water quality constituents at the edge of the ZID (the point of compliance) for the Regional Project would be similar to those reported for the Local Project. Therefore, the Draft EIR correctly concludes that based on modeling of the Regional Project against ambient ocean conditions, *as with the Local Project*, the brine discharge from the Regional Project would not contribute contaminants or increase their concentration significantly over ambient levels beyond the mixing area.

Response HBCH-35

In response to comments, some changes have been made to the EIR to clarify various issues. Also, in response to comments, additional studies were undertaken that merely amplify or clarify the data in the EIR and confirm its impact analyses; those studies also support future regulatory decisions to be made by other agencies. However, neither the methodologies employed nor the conclusions reached have changed in any way that implicates a significant environmental impact not identified in the Draft EIR, a substantially more severe significant environmental effect than indicated, or a new feasible alternative or mitigation measure (CEQA Guidelines Section 15088.5). The questions raised by the commenter, and any revisions that have been made to the Draft EIR in response, are not significant in a way that would require recirculation of, or supplement to, the Draft EIR because they provide additional clarifications, and do not change any of the impact determinations, previously discussed in the Draft EIR. The Draft EIR is comprehensive and robust, compiled by scientists and experts in their respective environmental fields. West Basin as the lead agency under CEQA believes it complies with the requirements of CEQA and is supported with substantial evidence. For these reasons, recirculation of the Draft EIR is not required. The commenter's suggestion to consider reconfiguring the project is noted for the record. The commenter is also referred to *Master Response: Supplemental Studies.*

Response to Letter MLBU: City of Malibu

Response MLBU-1

West Basin's core mission is to ensure a reliable water supply in an economically responsible manner. Although the proposed Project may increase wholesale water rates supplied to local retailers, the ultimate goal of the proposed Project is to stabilize water prices to minimize risks of substantially higher water costs that could occur with a less reliable water supply, which is subject to drought and risk of upset within California's vast water importation systems. As a component of responsible water management planning, any increase in rates caused by the proposed Project would serve to protect against future cost spikes associated with potential imported water system inefficiencies or failure. See also *Master Response: Cost and Rates.*

Response MLBU-2

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary. See *Master Response: Non-CEQA Issues.* See also *Master Response: Cost and Rates* and *Master Response: Water Supply Alternatives.*

Response MLBU-3

This comment expresses an opinion about the need and appropriateness of the project, and provides a brief summary of the issues the commenter has on the Draft EIR. For responses to these specific comments, see response to comments MLBU-4 through MLBU-33.

Response MLBU-4

The EIR used the appropriate baseline to evaluate the potential impacts of the proposed Project on marine biological resources. See *Master Response: Marine Biological Resources Study Area.*

Response MLBU-5

See *Master Response: Marine Biological Resources Study Area* for an explanation of the validity and adequacy of the marine study area, as it relates to the larger Santa Monica Bay. Additionally, as identified in Section 5.11, *Marine Biological Resources*, in the discussion of potential entrainment (Draft EIR pages 5.11-49 through 5.11-54) and discharge shear stress (Draft EIR pages 5.11-58 through 5.11-60), the CWA 316(b) entrainment studies upon which the proposed Project-related entrainment and shear stress effects were estimated, and APF calculations are based, utilize an area of recruitment within SMB that is much larger than the proposed Project marine study area. Any larval fish or invertebrate taxa that might spawn outside the established marine study area would be reflected in the multi-year data used to analyze these impacts. Similarly, any adults that settle out within SMB, or the greater Southern California Bight, would be reflected in the site data used to identify fish and invertebrate species present within the marine study area. See also Draft EIR Section 5.9, *Hydrology and Water Quality*, Subsection 5.9.4, for a discussion of the brine dilution modeling conducted for the proposed Project (specifically, Impact HYDRO-5.9-2 on Draft EIR page 5.9-49) and Final EIR Appendix 14.

Response MLBU-6

The Draft EIR provides substantial evidence that project direct and indirect effects on marine habitats and biological resources would be confined to a relatively small area, and would not have the potential to generate impacts to habitats or marine species at greater distances than the Marine Study Area. See *Master Response: Marine Biological Resources Study Area* and response to comment MLBU-5. Regarding the need to assess potential impacts to water quality and marine biological resources outside of the defined Marine Study Area, see *Master Response: Marine Biological Resources Study Area.*

As discussed in the Draft EIR Subsection 5.9.4, consistent with the requirements of the California Ocean Plan for the discharge of desalination brine, the dilution analyses completed in support of the impact assessment assume zero ocean current velocity, representing the worst-case condition in terms of brine dilution with receiving waters. Overall, the effect of ocean currents is to increase dilution compared to the zero current results. Resulting salinities would be substantially lower than those reported in the Draft EIR since greater dilution is achieved through additional dynamic mixing from waves or ocean currents. Neglecting the effect of currents (assuming zero current), consistent with the required methodology prescribed in the Ocean Plan, represents the most conservative (i.e., the "worst-case") scenario, and therefore, the Ocean Plan regulations related to water quality would continue to be met for all anticipated ocean currents occurring in Santa Monica Bay.

As discussed in the Draft EIR, Santa Monica Bay dissolved oxygen concentrations are generally around 8 mg/l (page 5.9-33). Impacts relating to reduced dissolved oxygen concentrations from the discharge of brine are assessed in the Draft EIR Subsection 5.9.4 under Impact 5.9-2 (pages 5.9-53 and 5.9-54). Based on the receiving water dissolved oxygen content at the proposed diffuser location and the dynamics of brine discharges via a multiport diffuser (Final EIR Appendix 14A), the amount of dissolved oxygen supplied to a discharged dense brine plume by entrained ambient seawater would ensure that dissolved oxygen levels would not be substantially reduced in receiving waters as compared to baseline conditions. Furthermore, the treatment process would involve concentrating source ocean water and hence would not alter the mass loading of organics or oxygen demands. As a result, hypoxia would not occur and impacts relating to decreased dissolved oxygen in Santa Monica Bay would be less than significant.

Response MLBU-7

See *Master Response: Marine Biological Resources Study Area*.

Response MLBU-8

See *Master Response: Marine Biological Resources Study Area* for an explanation of the validity and adequacy of the marine study area. Additionally, as identified in Section 5.11, *Marine Biological Resources*, in the discussion of potential entrainment (Draft EIR pages 5.11-49 through 5.11-54) and discharge shear stress (Draft EIR pages 5.11-58 through 5.11-60), the CWA 316(b) entrainment studies upon which the proposed Project-related entrainment effects were calculated utilize a much larger area of recruitment within SMB than the marine study area. If the Point Dume State Marine Conservation Area contributes any larval fish to the marine study area,

this would be reflected in the multi-year data used to analyze the entrainment impacts. Similarly, if any adults from either of the Marine Protected Areas located on either end of SMB immigrated into the marine study area, their presence would be reflected in the site data used to identify fish and invertebrate species present within the marine study area. See *Master Response: Supplemental Studies*; specifically, Comparison of 316(b) Data in SMB (Final EIR Appendix 12).

See response to comment MLBU-5.

Response MLBU-9

See *Master Response: Marine Biological Resources Study Area*.

Response MLBU-10

The Draft EIR Section 4.1 presents the approach to the cumulative analysis. As explained in the Draft EIR on page 4-2 to 4-3, both the list approach and the summary of projections approach are used to determine the proposed Project's cumulative impacts, depending upon which approach is appropriate/relevant for any one environmental issue area. Additionally, the geographic area considered for the cumulative analysis varies according to environmental issue area and was determined based upon the proposed Project's scope and anticipated area in which the proposed Project could contribute to an incremental increase in cumulatively considerable impacts. Draft EIR Table 4-2 lists 12 off-shore projects that have been proposed within the Southern California Bight that were considered in the cumulative analysis of Marine Biological Resources in Draft EIR Subsection 5.11.5. In addition, potential impacts of the proposed Project are evaluated against baseline conditions, which by definition includes the effects of existing projects that are producing related impacts and those impacts are then evaluated for their contribution to a cumulative impact. The marine resources study area is discussed in *Master Response: Marine Biological Resources Study Area*, and cumulative impacts on marine resources are presented in Draft EIR Subsection 5.11.5. The less than significant proposed Project impacts to marine biological resources would not contribute to a cumulatively considerable impact. For example, underwater noise impacts are relatively localized to the area where impacts occur. Therefore, the potential for reasonably foreseeable noise impacts including cumulative noise impacts are described to the extent that they are reasonably foreseeable given the nature and duration of the anticipated noise sources from both construction and operation and given the nature of existing and cumulative sources of noise. See also response to comment HBCH-11 and MBCH3-9.

Response MLBU-11

As the CEQA lead agency, West Basin will use this EIR to review the potential environmental impacts of the proposed Project and to determine whether to approve the proposed Project and pursue permitting, which will include a request to the Los Angeles Regional Water Quality Control Board (LARWQCB) for California Water Code (CWC) Section 13142.5(b) determination (the "Water Code determination"). The LARWQCB must find that the applicant has complied with the Ocean Plan Amendments in order to make the Water Code determination. More specifically, pursuant to Ocean Plan Chapter III.M.2.a.(2), LARWQCB (not the applicant) must independently analyze a range of feasible alternatives for the best available site, best available design, best available technology, and best available mitigation measures and then must

consider all four factors collectively to determine the best combination of feasible alternatives to minimize intake and mortality of all forms of marine life.

CEQA Guidelines Section 15064.7(a) provides that a threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect. The Draft EIR assessment of impacts on water quality from the discharge of proposed Project brine (see Draft EIR Subsection 5.9.4, Impact HYDRO 5.9-2) specifically incorporates the numeric thresholds defined in the Ocean Plan (2 ppt at 100 meters) for determining impacts from operation of the Local and Regional Project. As explained on Draft EIR page 5.9-60, "[T]he impact analysis presented below first assesses salinity increases from Local Project operational discharges and whether such increases comply with California Ocean Plan numeric salinity standards."

As to the request to add "minimize intakes and mortality to all forms of life" to the threshold of significance, this would not be appropriate because first of all, this determination under the OPA is to be made by the LARWQCB. Furthermore, there is no single criterion to meet this threshold, rather this standard would be applied by the LARWQCB to all components of the proposed Project (siting, design, technology, and mitigation) pursuant to the OPA. However, West Basin has presented as much information as possible to demonstrate consistency with the OPA requirements.

In response to comments on the Draft EIR, and to support future consideration of the proposed Project by permitting agencies, West Basin prepared four supplemental Studies (see *Master Response: Supplemental Studies*). In response to comment LARWQCB-30, West Basin completed an analysis of a linear diffuser (Final EIR Appendix 14A), the objective of which is to minimize the extent of the Brine Mixing Zone and minimize the jet exit velocity in order to minimize mortality of organisms that may be entrained into the jets due to turbulence and shear. West Basin also completed an analysis that compares the existing 316(b) data from the El Segundo Generating Station (ESGS), the Scattergood Generating Station (SGS), and the Redondo Beach Generating Station (RBGS), and evaluates the differences in planktonic species' variation and densities, and the potential levels of entrainment that could result from a desalination plant at each location. Results of the analysis (Final EIR Appendix 12) indicate that the preferable location for a project's ocean water intake in coastal California must be as distant as possible from rocky reef/hard substrate habitat, coastal lagoons and estuaries, and marine protected areas (MPAs) in order to minimize the entrainment of larval fish, including special status and managed fish and invertebrate taxa. Based on available data, the evidence indicates the ESGS is the "best available" site in SMB to minimize the intake and mortality of marine life.

The conclusions in the EIR are adequately supported by the technical detail provided for the purposes of determining impacts under CEQA. See *Master Response: CEQA and Ocean Plan Compliance*.

Response MLBU-12

The commenter is correct in asserting that the Ocean Plan Amendments of 2015 (SWRCB 2015), represent "… a starting point" from which, "…more work is needed to understand the long-term impacts of desalinization discharges." As illustrated in the analysis of proposed Project-related

possible ocean water entrainment and discharge sheer stress mortality, scientific studies conducted since the promulgation of OPA 2015 suggest that both the extent of entrainment that occurs when using wedgewire screened intakes and the magnitude of sheer stress induced mortality of planktonic organisms is less than projected by OPA 2015 (Draft EIR pages 5.11-49 through 5.11-60) as illustrated in Draft EIR Tables 5.11-9 and 5.11-12. The APF calculations can vary a minimum of 11-12 percent for entrainment effects and 17-25 percent or more for shear stress effects based on basic operational assumptions and scientific studies showing that only organisms <1 mm in size are affected and that not all planktonic taxa are affected by sheer stress turbulence. Mitigation Measure BIO-M2 commits to a level of compensation or offsite habitat restoration based on actual on-site scientific studies that analyze the potential impacts on marine productivity from the proposed Project.

The *Intake Effects Assessment Report* (Tenera 2014, see Draft EIR Appendix 4A) documented the performance of a wedgewire screened ocean intake associated with a demonstration desalination project, and as such is applicable to either the Regional or Local Projects. This study evaluated impingement of planktonic and larval organisms under intake water flow rates of <0.5 fps using a 1.0 mm wedgewire screen. These conditions are the same as those proposed for the proposed Project and therefore, would be applicable to the assessment regardless of actual flow volume. Flow volume only becomes critical in estimating potential total entrainment of planktonic organisms <1.0 mm in size. The analysis of entrainment of these sized organisms is provided for both the Local and Regional Projects in the Draft EIR on pages 5.11-49 through 5.11-54 and as summarized in Draft EIR Tables 5.11-9 and 5.11-12.

The Draft EIR determination is that entrainment and discharge related shear stress impacts are potentially significant and therefore required mitigation, and that the implementation of Mitigation Measure BIO-M2, which includes a commitment of offsite ecological habitat enhancement or financial support of a fee-based mitigation program, would reduce the potential impacts to a less than significant level. As discussed above, the purpose of the post-operation entrainment studies is to more precisely identify and define the potential magnitude of the proposed Project's entrainment and sheer stress impacts and to provide the additional science specifically identified by the commenter that is missing and which can only be obtained once a desalinization project in SMB is operational.

Response MLBU-13

The comment correctly cites the conclusion in the Draft EIR concerning intake entrainment from the proposed Project: "At present, the extent of protection that wedgewire screens could provide to prevent entrainment of larval fish and invertebrates in the Project marine study area is unknown." However, the comment incorrectly claims what that quoted statement refers to. The potential impacts of planktonic entrainment on marine ecosystems are well established as documented by the SWRCB in the supporting work used to prepare the OPA (SWRCB 2015). As the commenter indicated, the SWRCB established how all desalination projects that utilize ocean water intakes will assess entrainment effects and how they will offset those impacts to a less than significant level (SWRCB 2015). The commenter should note that Mitigation Measure BIO-M2 includes new, site-specific studies of a coastal desalination operation in SMB that is intended to improve the understanding of the magnitude of entrainment by these types of facilities, and the

effectiveness of implemented operational controls, and therein reduce some of the uncertainty associated with the adverse impacts of desalination. Regardless of the findings of these studies, both entrainment and shear stress effects on planktonic taxa and the potential resultant impact on marine ecosystems, will be determined by the LARWQCB during the Water Code Determination process, and impacts will be fully mitigated by West Basin through offsite ecological habitat restoration, consistent with OPA 2015 and as directed by the LARWQCB. See also response to comment HBCH-14.

Response MLBU-14

The Draft EIR addresses the infeasibility of comingling brine with wastewater. See response to comment MBCH3-75. Furthermore, the proposed diffuser design has been adequately analyzed. A supplemental model analysis of dilution was conducted for linear diffuser configurations (see *Master Response: Supplemental Studies* and Final EIR Appendix 14A). The objective of the analysis was to advance the proposed diffuser configuration and to confirm that the proposed diffuser design would comply with the required Ocean Plan criteria for desalination discharges. These criteria are: The salinity increment must be less than 2 ppt within the maximum allowable BMZ of 100 m (328 ft), and the jets must be fully submerged and not impact the water surface. In addition, the analysis identified a liner diffuser configuration that would minimize the extent of the BMZ and minimize the jet exit velocity in order to minimize mortality of organisms that may be entrained into the jets due to turbulence and shear.

Through the assessment, two linear diffuser designs were identified that had a common port spacing and number of ports, and therefore diffuser length, that will meet the required environmental compliance criteria for all potential proposed operational discharge scenarios (see Final EIR Section 11, *Refinements to the Project Description* for details relating to incorporation of the linear diffuser design into the proposed Project). One port diameter is needed for the Local Project operational discharge scenarios and a different diameter for the Regional Project operational discharge scenarios. Therefore, the supplemental dilution analyses identified potential linear diffuser configurations that require only the port diameters be changed when transitioning from the Local Project to Regional Project. See response to comment LARWQCB-30 for additional details.

Response MLBU-15

The Draft EIR does not evaluate the potential impacts of the proposed Project on eelgrass because, contrary to the comment's assertion, there are no submerged aquatic vegetation (SAV) beds, including SAV such as the surfgrass *Phyllospadix* and the eelgrass *Zostera*, in the vicinity of the proposed intake or discharge infrastructure. The reference cited in the comment (Brock et al. 2011) does not identify any eelgrass or surfgrass beds in the vicinity of the proposed Project's intake or discharge infrastructure.

Response MLBU-16

The temperature requirements for existing and new discharges in California coastal waters defined in the SWRCB Thermal Plan are presented in the Draft EIR Subsection 5.9.1 on page 5.9-20. As discussed in the Draft EIR (Subsection 5.9.4, *et seq*.), the assessment of impacts to

water quality comprehensively applied and considered the applicable regulations. Dilution model analysis of brine discharges presented in the Final EIR Appendix 14A provides the assumed temperature of the receiving waters of Santa Monica Bay in the vicinity of the proposed discharge point as well as the assumed temperature of the brine discharge. Impact 5.9-2 (Subsection 5.9.4) presents a detailed analysis of potential water quality impacts from operational discharges of brine, including consideration of thermal impacts in the context of the regulatory requirements defined in the SWRCB Thermal Plan.

As discussed under Impact 5.9-2 on page 5.9-56 (see Footnote 21), temperature is a commonly studied parameter due to the practice of commingling brine streams from desalination plants with power plant discharges of cooling water that have high temperatures. Given that the proposed Local and Regional Project would not operate in combination with a power plant or other facility that uses ocean waters for cooling purposes, there would be no heating mechanism or any process that would substantially increase the temperature of the source water as it passes through the treatment units. Therefore, the desalination process would not substantially increase the temperature of the discharged effluent, and thermal impacts on receiving waters would not occur. See also response to comment HBCH-17.

Response MLBU-17

Regarding the proposed diffuser configuration see response MLBU-14 and *Master Response: Supplemental Studies* for additional information. Concerning potential marine life shear mortality caused by the jet force of the diffusers, as suggested by the commenter, the Draft EIR thoroughly assesses the potential effects of diffuser jets operated at set flow rates on planktonic organisms, using several recent scientific studies (e.g. Foster et al. 2013; Roberts 2018; Jessopp 2007; Zhang 2017) that have evaluated shear stress on planktonic organisms (Draft EIR pages 5.11-58 through 5.11-60). These studies were published after the reference cited by the commenter. In addition, Mitigation Measure BIO-M2 includes not only offsite ecological habitat enhancement to offset proposed Project related shear stress effects to marine ecosystems, but also proposes conducting additional site-specific studies to determine more accurately the magnitude of those effects, which can only be conducted once the desalinization facility is operational. Regarding impacts related to shear mortality and the supplemental studies analyzing linear diffuser designs, see response to comment LARWQCB-30 and HBCH-18.

Regarding the need for monitoring of brine discharges and potential unknown consequences to marine biological resources, as described in detail in the Draft EIR Subsections 5.9.1 and 5.9.4 and summarized in the *Master Response: CEQA and Ocean Plan Compliance*, West Basin will prepare and submit information required by the Ocean Plan when submitting the NPDES discharge permit application to the LARWQCB including a Report of Waste Discharge, which will provide a detailed analysis of compliance with the Ocean Plan water quality standards, and a request for a water code determination will require that West Basin prepare and provide the LARWQCB with a Marine Life Mortality Report as described in Ocean Plan chapter III.M.2.e.(1)(a), and a Mitigation Plan.

Further, and to address potential unknown consequences of different water quality constituents interacting in the marine environment, as part of the NPDES permit application, Whole Effluent

Toxicity (WET) testing would be required for the facility point of discharge, representing an integrated approach for assessing the potential for acute and/or chronic toxicity of proposed discharges. WET testing represents a standardized measure of the aggregate toxic effect of an effluent measured directly by a toxicity test and is used to evaluate biological impacts of discharges for NPDES permitting.

The primary objective of WET testing is to ensure that effluent released from industrial and municipal facilities into the nation's waters does not cause unacceptable levels of toxicity to aquatic life. As described in Subsection 5.9.1, the point of compliance for water quality standards relating to operational discharges is the edge of the Zone of Initial Dilution (ZID). Such an approach for water quality standards acknowledges the concept of a regulatory mixing zone where water quality constituent concentrations contained in discharges undergo rapid and substantial reduction via dilution. Within the mixing zone, water quality criteria may be exceeded as long as toxic conditions are prevented. To determine whether an effluent has the potential to be toxic, WET tests are performed on various aquatic test species.

Additionally, as described in detail in the Draft EIR Subsection 5.9.4 (page 5.9-55), West Basin would be required to comply with the Monitoring and Reporting Program requirements of the NPDES Permit and would also be subject to the monitoring and reporting requirements of the California Ocean Plan (described in Subsection 5.9.1). Monitoring requirements under the California Ocean Plan ensure that monitoring be conducted for salinity levels, benthic community health, aquatic life toxicity, and hypoxia and that the monitoring program be consistent with the requirements detailed in Appendix III of the Ocean Plan which specifies monitoring plan framework, scope, and methodological design for determining compliance. The performance standard(s) associated with the monitoring requirements of the California Ocean Plan are defined in Chapter III of the Ocean Plan (Part 4 (a)) and in Appendix III (Part 8) with definitions of terms provided in Appendix II.

Response MLBU-18

Regarding the commenter's concern that the Draft EIR analysis is inconsistent with the thresholds within Appendix F, and that the Draft EIR downplays the extent to which seawater desalination is the most energy-intensive source of water, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Regarding the commenter's concern that the Draft EIR should have analyzed the Project's energy and GHG impacts in comparison to a range of other water supply alternatives that are less energy intensive, see *Master Response: Greenhouse Gas Emissions and Energy Use,* and *Master Response: Water Supply Alternatives.*

Response MLBU-19

West Basin recognizes the energy requirements of different local water supply alternatives, and recognizes that ocean water desalination is more energy-intensive than other local water supplies. However, the demand for water in the West Basin service area cannot be fully met with any one of the local water supply alternatives. The EIR evaluates the proposed Project's energy

consumption in Section 5.5 and concludes that although the energy requirements to operate the ocean water desalination would be greater than other water supplies such as recycled water and imported water, the benefit of a drought-proof water supply balances benefits and risks of the water supply portfolio. See *Master Response: Greenhouse Gas Emissions and Energy Use.*

Regarding the commenter's concern that the Draft EIR does not reference the analysis conducted by the Pacific Institute that compares energy and GHG emissions of seawater desalination to other water supply options, see *Master Response: Greenhouse Gas Emissions and Energy Use.* The Pacific Institute's study concludes that ocean desalination process is energy intensive compared with other water supplies. The EIR acknowledges this in Section 5.5 Energy. West Basin recognizes the energy requirements of different local water supply alternatives, and recognizes that ocean water desalination is more energy-intensive than other local water supplies. However, the project objectives are to diversify water sources in a manner that is economically viable and environmentally responsible. The EIR describes that a diverse water supply portfolio may include sources with varying power requirements and does not preclude any source solely on its energy requirements. The most reliable water source may also have the highest energy demand. This may limit the percentage produced from a particular source, but does not eliminate its value within a diverse and resilient supply portfolio.

The Project objectives of West Basin's proposed Ocean Water Desalination Project are to:

- Diversify West Basin's water source portfolio to increase reliability in the near and intermediate term (5–15 years) and the long term (15–30 years) while reducing reliance on imported water.
- Improve water security through West Basin's increased local control of water supplies and infrastructure.
- Improve West Basin's local control of future water costs and long-term price stability.
- Improve climate resiliency by developing a water source that is less susceptible to hydrologic variability.
- Develop a potable water supply that is economically viable and environmentally responsible.

Response MLBU-20

Regarding the commenter's statement that the Project would result in significant and unavoidable energy impacts, see responses to comments MBCH3-43 and -44 and *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response MLBU-21

The Draft EIR Section 5.5.4 explains that the electricity demands of the desalination facility and pump stations would be supplied by SCE, which is subject to California's RPS Program. As a result, the electricity available to the proposed Project will, over time, include greater contributions from renewable energy supplies. The Draft EIR concludes that the small percentage of load increase compared with the regional demand would not jeopardize SCE's ability to meet RPS goals. The small increase in load is well within the CPUC's authorization for SCE's increased power generation as described on page 5.5-24. As described on page 5.5-18, the Project

would not result in a wasteful use of energy that would jeopardize the State's GHG reduction goals. Rather, the incremental increase in energy per acre foot of water produced would modestly increase energy demands compared with current regional and local use. Regarding energy conductoring infrastructure in the coastal areas, the Draft EIR acknowledges on page 5.5-21 that the final determination for whether additional poles are needed and where they would be located would be determined by SCE in the future. If SCE is required to build additional infrastructure such as power poles, SCE may need to conduct a subsequent assessment.

Response MLBU-22

As lead agency, West Basin has concluded that the amount of GHG emissions associate with the proposed Project would be partially offset by reductions in the need for imported water within its service area. See *Master Response: Greenhouse Gas Emissions and Energy Use.* Regarding the commenter's concern that the Draft EIR should have analyzed the Project's energy and GHG impacts in comparison to a range of other water supply alternatives that are less energy intensive, see *Master Response: Greenhouse Gas Emissions and Energy Use,* and *Master Response: Water Supply Alternatives.*

Response MLBU-23

The Draft EIR does not argue that significant impacts of the proposed Project (e.g., on GHG emissions) can be justified compared to impacts of imported water. As explained in the Draft EIR Sections 1.2, *Executive Summary* and 3.3, *Project Objectives*, desalination as a component of West Basin's future water supply portfolio would partially offset the need for imported water. See *Master Response: Greenhouse Gas Emissions and Energy Use.*

The commenter asserts that the Draft EIR's position of achieving net neutral GHG emissions fails because "experts agree" ocean desalination will not reduce stresses on freshwater systems; the Draft EIR makes no such claim regarding freshwater resources.

The citation used in the comment comes from a May 2016 report which summarizes "An Uncommon Dialogue" on the coastal and marine impacts of ocean desalination that was facilitated and organized by Stanford University's Water in the West, was taken out of context, and is not relevant to the GHG discussion in the Draft EIR. The Uncommon Dialogue had two primary objectives: 1) to promote information exchange and open discussion regarding the best available science, technology and policy related to marine and coastal impacts of desalination projects in California and beyond; and 2) to identify key issues and knowledge gaps for future research and policy development with respect to marine and coastal impacts of ocean desalination in California. Two of the West Basin Draft EIR preparers were invited "experts."

To put the citation in context, the May 2016 report summarizes the four facilitated sessions; the first session, which is quoted in the comment, was titled, "Scope of Desalination and Current Regulatory Framework in California" and notes that "[t]he current drought, restrictions on historical sources of freshwater and uncertainty stemming from a changing climate are among the factors driving a search for new sources of water for human use — including ocean desalination for coastal populations." The first finding of this session begins with, "[t]he role of ocean desalination will be minor in the context of California's overall water budget, although it may be very important in some local areas." And the entire finding quoted in the comment reads: "Ocean

desalination will not, in the foreseeable future, significantly reduce stress on freshwater resources — particularly freshwater ecosystems. Even the highest total projected production of potable water from ocean desalination in California is so low that it will not meaningfully reduce stress on freshwater systems**, *such as, for example, exports from the Bay Delta system (Water Plan, 2013). In addition, it is not clear the extent to which planned desalination facilities will provide the regions with supplemental supply and therefore, work to reduce or replace existing demands on groundwater and surface water sources."*** [Emphasis added.]

See also *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response MLBU-24

The Draft EIR does not require the offset of GHG emissions associated with MWD's imported water. Nor does the Draft EIR's analysis rely on changes in MWD's actions. Instead, the analysis considers the reduction of GHG emissions that would result from West Basin's reduction in use of imported water and compares that to the GHG emissions that would be created by construction and operation of the proposed Project. In other words, West Basin is accounting for the GHG emissions associated with its own water demand, while other recipients of imported water would be responsible for GHG emissions associated with their portfolio. As West Basin modifies its water supply portfolio, its GHG emissions inventory changes associated with each water source. West Basin is not responsible for GHG emissions associated with water imported for other users. See *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response MLBU-25

Regarding to the commenter's statement that the Draft EIR ignores the superior alternative of using renewable energy to offset the GHG emissions of a less energy intensive water source, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response MLBU-26

Flooding and coastal hazards and the effects associated with coastal flooding and tsunami impacts, including sea level rise, are discussed in the Draft EIR Section 5.9, *Hydrology and Water Quality*, Impact 5.9-6 on pages 5.9-72 through 5.9-78.

As explained on page 5.9-72, sea level rise is an existing environmental condition, and unless the proposed Project will exacerbate this condition, it is not considered a potentially significant impact under CEQA. In the interest of providing as much information as possible, West Basin conducted a site-specific Coastal Hazards Analysis for the proposed desalination facility at the ESGS North and South Sites, a copy of which is provided as Draft EIR Appendix 5. In response to this and other comments, however, West Basin also prepared a supplemental Coastal Hazards study (see *Master Response: Supplemental Studies*) that considered a high-risk sea level rise projection and the "extreme risk aversion" scenario known as the "H++" scenario. The results of the study confirmed that development on the site is feasible.

Finally, the comment suggests that the proposed Project be relocated outside of the coastal zone. The Draft EIR on page 7-42 evaluates using the AES site in Redondo Beach. This site was rejected for numerous reasons presented in the discussion including greater marine impacts and

institutional constraints. As explained further in *Master Response: Supplemental* Studies, detailed technical investigations into subsurface intake options concluded that the proposed Project could not obtain source water through alternative intake mechanisms (e.g., wells located near, but not directly on the shoreline), and that in order for the proposed Project to function, open ocean intakes would be required. Thus, even if the proposed Project as a whole is a not determined to be a coastal-dependent development or use, because the intake facilities "…require a site on, or adjacent to, the sea to be able to function at all," those components are necessarily coastal-dependent per the Coastal Act Section 30101 definition. Accordingly, because the proposed Project would be "dependent upon a coastal-dependent development or use," it would necessarily be a coastal-related development (Section 30101.3).

Response MLBU-27

The Draft EIR Subsection 7.1.3 explains the proposed Project would result in very few significant and unavoidable impacts and identifies those impacts as air quality and noise during construction. The Draft EIR found that impacts on other topical areas such as energy, GHG emissions, water quality, and the marine environment, among others, would be less than significant, or less than significant with mitigation (see Draft EIR Sections 5.5, 5.7, 5.9, and 5.11, respectively). See response to comment HBCH-29 and *Master Response: Water Supply Alternatives.*

Response MLBU-28

CEQA Guidelines Section 15126.6 explains that the lead agency, in this case the District, is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives (see Draft EIR Subsection 7.1.4). There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553 and *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376). Although a lead agency may not give a project's purpose an artificially narrow definition, a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need, and not study alternatives that cannot achieve the basic goals of the project. The Draft EIR appropriately analyzed the water supply alternatives as initial screening alternatives and dismissed each of the alternatives due to inability to meet project goals and/or infeasibility. However, the CEQA alternatives (including the No Project Alternative, AES Redondo Beach Generating Station Alternative, Reduced Capacity Alternative, and Reduced Elevation Alternative) were all analyzed in greater depth and meet the range of reasonable alternatives required by CEQA.

The water supply alternatives that were discussed in the Draft EIR (including increased conservation, stormwater capture, and IPR and DPR) contribute to the goal of ensuring future water supply reliability, consistent with goals identified in West Basin's 2015 Urban Water Management Plan. West Basin's vision statement from the 2017 to 2022 Strategic Business Plan state's the District goal is "sustainable and drought-proof water services enhancing the quality of life and economy of our communities." As noted throughout the Draft EIR, West Basin continues to develop water supply alternatives in addition to ocean water desalination, representing a responsible, diverse, and balanced water supply portfolio. This includes maintaining and increasing conservation as an integral component of its water supply portfolio. It also includes

continuing to provide non-potable recycled water. Therefore, the water supply portfolio inclusive of ocean water desalination (and as analyzed in this EIR) is in fact a hybrid solution. See response to comment HBCH-32, LAW2-38 and *Master Response: Water Supply Alternatives.*

Regarding the commenter's Footnote 74: as noted by the Water in the West Summary Findings (Leon Szeptycki et al. 2016, page 7), "Future work is needed to further define the elements of sustainable desalination projects and develop policies to incentivize adoption of those elements. Elements of sustainable desalination identified at the conference included projects that are smaller; that provide supply to meet a specific, clear local demand; that are located away from sensitive and valuable marine areas; and that are powered by renewable energy sources." The proposed Project would generally satisfy these elements.

Response MLBU-29

As noted in the Draft EIR Subsection 7.1.4, while it is not necessary to perform any further analysis of the screened alternatives, given the interest expressed by the public in the alternatives to the proposed Project, West Basin has included a discussion of Project objectives and a brief discussion of potential impacts for each of the screening alternatives.

But contrary to the comment, the EIR does not evaluate alternatives against costs. The project objectives "control of water" and "control of pricing" focus on control. As explained in the Draft EIR Subsection 7.2.1 for example, increased conservation would not improve West Basin's local control of future water costs and long-term price stability; the Stormwater Capture Alternative would not improve West Basin's local control of future water costs and long-term price stability; the Increased Recycling Alternative would not improve West Basin's local control of future water costs and long-term price stability; as for the indirect potable reuse alternative, greater price certainty would be achieved for those proposed Project components owned by West Basin but less so for the source water facilities owned by the City of Los Angeles. See also *Master Response: Water Supply Alternatives.*

Response MLBU-30

Contrary to the assertion in the comment, the need for 21,500 AFY equates directly to the difference between total supplies and total demands during a multi-dry year event similar to the 2012-2015 drought conditions (20,342 acre-feet in 2020), as shown in UWMP Table 5-5; see response to comment LAW2-37. The shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. West Basin 2010 and 2015 UWMPs Table ES-3 display the expected increases in these supplies between 2010-2035 and 2015-2040, respectively. Draft EIR Table 2-1 also displays the increases between 2015 and 2040. As noted in Section 4.5 of the 2015 and the 2010 UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015 and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section 9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its water reliability initiative.

Even with the maximum practicable conservation savings, increases in recycled water production, and expansion of groundwater supplies by retail agencies, West Basin's service area could experience a shortage of 20,342 acre-feet per year by 2020 and 21,500 acre-feet per year by 2025 and beyond. In other words, the proposed Local Project is sized at 20 MGD (or approximately 21,500 AFY), to directly respond to the multi-dry year event shortfall. Thus, the proposed Project would provide the quantity of water necessary to make up the expected shortfall in imported water supplies for what are expected to be more frequent and severe future droughts.

CEQA Guidelines Section 15126.6 requires that an EIR consider alternatives that can avoid or substantially lessen significant impacts of a project. The alternatives in Draft EIR Section 7 (excluding the No Project Alternative) are evaluated based on their ability to accomplish most of the Project objectives (see Subsection 7.1.3) while avoiding or minimizing one or more of the proposed Project's potentially significant impacts identified in EIR Sections 5.1 through 5.16.

See response to comment LAW2-38 and *Master Response: CEQA and Ocean Plan Compliance, Master Response: Supplemental Studies* and *Master Response: Water Supply Alternatives.*

Response MLBU-31

Draft EIR Section 3.2 explains that the ocean water intake and concentrate discharge tunnels, installed in 1965 to supply cooling water to the conventional steam turbine units at ESGS (Units 3 and 4), were decommissioned in December 2015. Therefore, the proposed Project, which proposes the use of the existing tunnels, did not contemplate using the once-through-cooling water as diluent for the brine. In response to this and other comments expressing concern about the siting of the proposed Project and associated intake and discharge structures at the ESGS facility, West Basin reviewed publicly available data for other similar intake and outfall facilities within the Santa Monica Bay. This analysis compares the existing 316(b) data from the ESGS, the Scattergood Generating Station (SGS), and the Redondo Beach Generating Station (RBGS), and evaluates the differences in planktonic species' variation and densities, and the potential levels of entrainment that could result from a desalination plant at each location. Results of the analysis (see Final EIR Appendix 12) indicate that the preferable location for a project's ocean water intake in coastal California must be as distant as possible from rocky reef/hard substrate habitat, coastal lagoons and estuaries, and marine protected areas (MPAs) in order to minimize the entrainment of larval fish, including special status and managed fish and invertebrate taxa. Based on available data, the evidence indicates the ESGS is the "best available" site in SMB to minimize the intake and mortality of marine life. See *Master Response: Supplemental Studies*.

West Basin has chosen to utilize wedgewire screens because they are prescribed by the Ocean Plan Amendment where subsurface intakes are infeasible. As explained in the Draft EIR Sections 1.2, *Executive Summary*, and 3.3, *Project Description*, West Basin's goal is to ensure future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan (UWMP). Desalination as a component of West Basin's future water supply portfolio would offset up to 22,500 AFY[3] of

[3] Including 1,000 AFY of brackish groundwater desalination that could come from West Basin's existing C. Marvin Brewer Desalter facility.

imported water in order to "diversify West Basin's water source portfolio" and would allow West Basin to "increase reliability . . . while reducing reliance on imported water." The EIR is an informational document that is intended to provide public agencies and the public with detailed information about the effect that a project is likely to have on the environment. Comments on the appropriateness of the project size are not within the scope of CEQA. Nevertheless, these comments are included within the Administrative Record and will contribute to the information that will be considered by the decision-makers in the context of the entire record. See also response to comment LAW2-38, SCLA-3 and EOGB-23 and *Master Response: Water Supply Alternatives*.

Response MLBU-32

The Draft EIR does not extrapolate Local Project impacts to the Regional Project, nor is the Regional Project analysis tiered off the Local Project analysis as asserted by the commenter. As explained in the Draft EIR Section 5.0, *Approach to Analysis*, impacts associated with the Local Project are assessed at a project-level, whereas impacts associated with the Regional Project are assessed at a project-level for those components that are known (such as the physical size of the facility) and a programmatic-level for those aspects of the proposed Project that are not well-defined (such as regional partners). Every topical section in Section 5 (*Environmental Analysis*) distinguishes between the Local Project and the Regional Project when discussing and analyzing the potential impacts of each proposed Project component (i.e., Ocean Water Desalination Facility, Screened Ocean Intake and Concentrate Discharge, Desalinated Water Conveyance Components). The impacts resulting from the Regional Project are sometimes assessed in terms of the incremental increase against baseline potentially resulting from the additional build out and operation of the Regional Project, in addition to the impacts from the Local Project.

However, in the example cited by the comment ("As with the Local Project . . ."), the Draft EIR draws the conclusion it does about the Regional Project because that is what the evidence presents, not because of extrapolation or an incremental increase. In the paragraph prior to the text cited in the comment, the Draft EIR explains that Table 5.9-8 summarizes the minimum initial dilution ratios modeled for the proposed operational discharges for the Regional Project, and explains these dilution ratios *are almost identical* to those calculated for the Local Project although the volume of discharge would be greater. As such, the assessed concentrations of water quality constituents at the edge of the ZID (the point of compliance) for the Regional Project would be similar to those reported for the Local Project. Therefore, the Draft EIR correctly concludes that based on modeling of the Regional project against ambient ocean conditions, *as with the Local Project*, the brine discharge from the Regional Project would not contribute contaminants or increase their concentration significantly over ambient levels beyond the mixing area.

Response MLBU-33

In response to comments, some changes have been made to the EIR to clarify various issues. Also, in response to comments, additional studies were undertaken that merely amplify or clarify the data in the EIR and confirm its impact analyses; those studies also support future regulatory decisions to be made by other agencies. However, neither the methodologies employed nor the

conclusions reached have changed in any way that implicates a significant environmental impact not identified in the Draft EIR, a substantially more severe significant environmental effect than indicated, or a new feasible alternative or mitigation measure (CEQA Guidelines Section 15088.5). The questions raised by the commenter, and any revisions that have been made to the Draft EIR in response, are not significant in a way that would require recirculation of, or supplement to, the Draft EIR because they provide additional clarifications, and do not change any of the impact determinations, previously discussed in the Draft EIR. In addition, the Draft EIR is comprehensive and robust, compiled by scientists and experts in their respective environmental fields. West Basin as the lead agency under CEQA believes it complies with the requirements of CEQA and is supported with substantial evidence. For these reasons, recirculation of the Draft EIR is not required. The commenter's suggestion to consider reconfiguring the project is noted for the record. The commenter is also referred to *Master Response: Supplemental Studies.*

Response to Letter MBCH: City of Manhattan Beach

Response MBCH-1

West Basin initially provided a Draft EIR review and comment period of 60 days, from March 27, 2018, through May 25, 2018. In response to comments requesting an extension, West Basin granted a 31-day extension for review and comment on the Draft EIR, as requested by the commenter. The public review period ended at 5 p.m. on Monday, June 25, 2018, providing a 91-day public review period.

Response to Letter MBCH2: City of Manhattan Beach

Response MBCH2-1

West Basin initially provided a Draft EIR review and comment period of 60 days, from March 27, 2018, through May 25, 2018. In response to comments requesting an extension, West Basin granted a 31-day extension for review and comment on the Draft EIR, as requested by the commenter. The public review period ended at 5 p.m. on Monday, June 25, 2018, providing a 91-day public review period.

Response to Letter MBCH3: City of Manhattan Beach

Response MBCH3-1

In response to comments, some changes have been made to the EIR to clarify various issues. Also, in response to comments, additional studies were undertaken that merely amplify or clarify the data in the EIR and confirm its impact analyses; those studies also support future regulatory decisions to be made by other agencies. However, neither the methodologies employed nor the conclusions reached have changed in any way that implicates a significant environmental impact not identified in the Draft EIR, a substantially more severe significant environmental effect than indicated, or a new feasible alternative or mitigation measure (CEQA Guidelines Section 15088.5). The questions raised by the commenter, and any revisions that have been made to the Draft EIR in response, are not significant in a way that would require recirculation of, or supplement to, the Draft EIR because they provide additional clarifications and do not change any of the impact determinations previously discussed in the Draft EIR. In addition, the Draft EIR is comprehensive and robust, compiled by scientists and experts in their respective environmental fields. West Basin as the lead agency under CEQA believes it complies with the requirements of CEQA and is supported with substantial evidence. For these reasons, recirculation of the Draft EIR is not required.

Response MBCH3-2

West Basin has provided written responses to comments to commenting agencies in accordance with CEQA Guidelines Section 15088.

As explained in the Draft EIR Section 5.0, *Approach to Analysis*, impacts associated with the Local Project are assessed at a project-level, whereas impacts associated with the Regional Project are assessed at a project-level for those components that are known (such as the physical size of the facility) and a programmatic-level for those aspects of the proposed Project that are not well-defined (such as regional partners). The impacts resulting from the Regional Project are assessed in terms of the incremental increase against baseline, in addition to those impacts potentially resulting from the construction and operation of the described Local Project facilities.

The baseline conditions against which the potential direct and indirect impacts of the Project(s) (and alternatives) are assessed are based on the quality of environmental resources within the proposed Project area at the time of the issuance of the Notice of Preparation (NOP), as well as the existing regulatory framework relevant to construction and operation of the proposed Project. If substantial changes are proposed to the Project, or substantial changes in circumstance under which the project is being undertaken occur following certification of this Final EIR, or if new information which could not have been known at the time the EIR was certified becomes available, a subsequent or supplemental environmental review would be required (CEQA Section 21166).

The Local Project and Regional Project are described in an appropriate amount of detail and "stability" in the Draft EIR Section 3, *Project Description*. The Local Project components are described in the Draft EIR Subsection 3.4.1 and the Regional Project components are described in the Draft EIR Subsection 3.4.2. As stated in each section, respectively, the Local Project would

produce 20 MGD of product water, while the Regional Project would produce 60 MGD. The Local Project construction is described in the Draft EIR Section 3.5 while the Regional Project construction is described in the Draft EIR Section 3.6. Every topical section in Section 5 (*Environmental Analysis*) distinguishes between the Local Project and the Regional Project when discussing and analyzing the potential impacts of each proposed Project component (i.e., Ocean Water Desalination Facility, Screened Ocean Intake and Concentrate Discharge, Desalinated Water Conveyance Components).

The Local Project and the Regional Project are defined distinctly for several reasons. The primary reason is that the construction effort associated with each component would occur independently and at different times; the Local Project would be installed first, followed by the Regional Project if regional collaborators are secured. If, at a later date, the Regional Project becomes a reality, the analysis clearly defined and included in this EIR will be expanded upon, if necessary, to fully evaluate the construction and operation of the Regional Project. All of the analysis contained within each section of the EIR fully describes the impacts of implementing a series of facilities, which, comprised together, encompass the whole of the proposed Project.

Response MBCH3-3

The Draft EIR Subsection 5.16.4 describes potential impacts on the sewer systems. Industrial wastewater generated at the ocean water desalination facility would be conveyed to either the City of Los Angeles sewer system (El Segundo connection) or the Sanitation Districts of Los Angeles County sewer system (Manhattan Beach connection) depending on capacities, and West Basin would be required to obtain an Industrial Wastewater Discharge Permit to comply with the facilities' Wastewater Ordinances.

Response MBCH3-4

The routine use or accidental release of hazardous materials is evaluated in the Draft EIR Section 5.8, *Hazards and Hazardous Materials*.

Response MBCH3-5

The ESGS North Site is an approximate 8-acre area located in the middle of the ESGS property and the South Site is an approximate 13-acre area located in the southern portion of the property (see Draft EIR page 3-2). Since the Draft EIR Table 3-1 shows that the total footprint for the Local Project would be about 3 acres (138,000 or 133,600 square feet at the South or North Site, respectively), there would be ample acreage for a parking lot that the Draft EIR explains on page 3-10 would be a single-level structure located adjacent to the Joint (with NRG) Administrative/Operations building; it would be graded as such along with the site circulation roads (see Draft EIR page 3-19). Resulting impacts on aesthetics and biological resources (and all other topical sections) are addressed in the Draft EIR for the whole of the proposed Project footprint. Any traffic or circulation impacts resulting from any spillover parking would be managed within the fenced proposed Project site and would not impact public roads. The same parking structure would accommodate, and would not be impacted by, the Regional Project.

Response MBCH3-6

The Draft EIR text on page 3-11 has been revised to explain that the frequency of the bypass events for the Local Project is expected to be minimal, at several times a year for a duration of approximately one to 24 hours each. And the bypass events for the Regional Project (Draft EIR page 3-17) could occur several times per month for a duration of approximately one to 24 hours each. Since the discharges would "bypass the entire treatment facility", the bypassed flows would therefore be comprised of seawater.

Response MBCH3-7

The Draft EIR Table 3-2 lists the desalination facility chemical storage capacities for the Local Project as well as for the Regional Project.

Response MBCH3-8

As described in the Draft EIR Subsection 3.4.2, a pump station would only be required for the Regional Project. EIR Section 2.2 explains that this EIR would provide the basis for any future project-level CEQA analysis for the incremental addition of the Regional Project (CEQA Guidelines Section 15168(d)) if it were to be pursued. Draft EIR Subsection 5.14.4 explains that the pump station sites would remove some areas of existing parks from public use, but once constructed would not substantially reduce the availability of recreational facilities in the community. Only small portions of the existing public space would be committed to the pump station. Installation of the pump station within an existing recreational facility, if necessary, would be consistent with goals to accommodate local water supply projects and would not significantly impact the use of the existing facilities and impacts would be less than significant.

In response to this comment, the Draft EIR text in Project Description Table 3-11 is revised (see Final EIR Section 11, *Refinements to the Project Description*) as follows:

L.A. County Parks	Encroachment Permit	May be required for siting, construction and operation of the Regional Project pump station.

Response MBCH3-9

A complete listing of all ocean intake/discharges in the Southern California Bight is not necessary to characterize the cumulative context within which the proposed Project would occur. Potential impacts of the proposed Project are evaluated against baseline conditions, which by definition includes the effects of existing projects. As defined in CEQA Guidelines Section 15355, a cumulative impact from multiple separate projects consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other closely related projects. CEQA Guidelines Section 15130(a) states that an EIR must discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in Section 15065(a)(3). Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant but must briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

The approach to each cumulative analysis varies for each environmental issue and is described at the end of each topical section in Section 5. In particular, the analysis of cumulative water quality impacts is focused on the pollutants associated with desalination operations, which consist primarily of increased salinity in discharged water and minor other incidental pollutants including copper resulting from corrosion of the wedgewire screens. The analysis of cumulative water quality impacts is provided in the Draft EIR on pages 5.9-78 to 5.9-80. As indicated on page 5.9-79, "cumulative discharges to the Santa Monica Bay include cooling water discharges from the operating units of the ESGS Site, the 5-mile ocean outfall from the City of Los Angeles Hyperion Water Reclamation Plant, the County of Los Angeles Joint Pollution Control Plant outfall off Palos Verdes, and numerous stormwater drainages along the coastline including major contribution from Ballona Creek." The analysis goes on to indicate that, "the likelihood of discharge plumes from different outfalls … intersecting or merging and resulting in exceedances of the California Ocean Plan defined water quality objectives or receiving water salinity limitations and adversely affecting beneficial uses of receiving waters (Santa Monica Bay) is very low." Further the analysis indicates that "brine discharge from the operation of the proposed Project desalination plant would be subject to water quality limitations under a NPDES Permit for the discharge through the diffuser (Impact 5.9-2). Similarly, the operational discharges of projects considered in the cumulative scenario (Table 4-2) are subject to the water quality requirements of the NPDES permit system, administered by the LARWQCB. Mandatory water quality testing and analysis, required as part of the NPDES permit process, would ensure operational discharges comply with Basin Plan and California Ocean Plan water quality objectives and effluent limitations. The cumulative impact from the discharges to the Santa Monica Bay would be considered less than significant." The contribution of the proposed Project and other similar projects that have regulated discharges would not be cumulatively considerable with unregulated discharges.

Response MBCH3-10

The Draft EIR evaluates potential impacts to scenic resources in Section 5.1. The Draft EIR notes on page 5.5-21 that power would be supplied by SCE and that additional power poles may be needed. As stated on page 5.5-21 of the Draft EIR, "[i]t is anticipated that the SCE electrical power grid may require upgrades to supply the Project operations. Upgrades *could include*, for example, new conductoring on existing power poles or *installation of new poles*. However, *SCE* ***is unable to confirm the necessary upgrades to their power grid. As a result, subsequent evaluation of these upgrades may be required***." [Emphasis added.] Potential new poles that may be required to enhance the power grid are not evaluated in the Draft EIR because they are speculative, but if they are required in the future, any potential impacts would be reviewed at that time.

Response MBCH3-11

Impacts to scenic vistas and scenic resources in a state scenic highway are discussed on pages 5.1-9 through 5.1-19 of the Draft EIR, and include consideration of visual simulations from four key view vantage points depicted in Figures 5.1-1 through 5.1-22 (presented on pages 5.1-32 through 5.1-67 along with descriptions of effects to each key view as a result of the Local Project and Regional Project at each of the potential locations – South Site and North Site). The analysis

of construction impacts does not rely on the temporary nature of construction impacts, rather the analysis is based on the totality of the circumstances as well as the mitigation measures. On page 5.1-10, the analysis indicates that "[c]onstruction activities at the ESGS South Site would be visible from the public coastal areas, Marvin Braude Coastal Bike Trail, 45th Street, and Vista Del Mar. The existing 45th Street berm would be retained and re-landscaped to minimize exposure to local land uses and public views. .... For the entire ESGS South Site construction period, construction views from 45th Street would be screened by use of temporary construction screening and the existing berm." The analysis relies upon Mitigation Measures AES-1 through AES-4 that require screening of construction activities to the maximum extent practicable.

Response MBCH3-12

The mitigation measures are not deferred as they include performance standards. The dimension and material of screening will be determined when the equipment to be screened and the duration of necessary screening have been identified. As noted by the commenter, Mitigation Measure AES-1 requires that staging areas be screened to minimize public views to the maximum extent practicable. West Basin would be responsible for ensuring compliance with all mitigation measures. The basis for the benchmark is existing conditions. Mitigation measures would be implemented as needed to mitigate impacts. For example, AES-1 requires screening of staging areas, so prior to use of such areas, screening would be put in place.

Response MBCH3-13

West Basin is responsible for implementing all mitigation measures including ensuring that rooftop mechanical equipment is screened from view where possible. Screening of views will be based on the four key viewpoints evaluated in the Draft EIR that are representative of all potential views and vantage points. West Basin would evaluate and implement as appropriate additional screening as needed to ensure mechanical equipment is screened as much as possible. Nonetheless, the buildings will have some rooftop mechanical equipment similar to most light industrial buildings, and the impacts of these facilities to local views would be less than significant when thoughtfully designed and screened as required in the mitigation measure.

Response MBCH3-14

The mitigation measures commit the applicant to implementing feasible screening where possible. A screen is designed to shield potentially unattractive elements from view. Screens typically consist of fencing but can include vegetation. With respect to the proposed Project it is anticipated that most public views during construction will be screened by solid construction fencing that would block views of construction equipment from most public vantage points. Nonetheless, the buildings will have some rooftop mechanical equipment similar to most light industrial buildings, and the impacts of these facilities to local views would be less than significant when thoughtfully designed and screened as required in the mitigation measure.

Response MBCH3-15

The Draft EIR provides Key View 3 which is from 45th Street immediately adjacent to the South Site. As indicated on page 5.1-37, if constructed on the South Site, the proposed Project "would

be visible from the street level on 45th Street; refer to Figure 5.1-8. Existing views to the on-site surface parking lot (the former ESGS Tank Farm site) would be replaced with Local Project ocean water desalination facility structures, which would extend above the visible horizon." The intent of CEQA is to evaluate potential impacts on the environment as a whole as compared to existing conditions. The view from 45th street adjacent to the South Site is from a relatively limited location experienced by most people very briefly in passing. The majority of the view that would be blocked from that limited location is of a parking lot, but a short segment of ocean view visible above the parking lot would also be blocked from the roadway. 45th street is not a main vehicle thoroughfare and does not have a sidewalk for pedestrian use for much of its length, therefore view impacts are considered less than significant with the mitigation measures (screening) identified in the Draft EIR.

Response MBCH3-16

The impact evaluation of operational impacts of the Regional Project is not based on historic uses. As noted on page 5.1-17, "[t]he industrial nature of the existing site and surrounding uses (north and east) provides context for the proposed Project, and in general the proposed Project is considered compatible with ***existing*** and historic uses on the site and expected to result in less than significant impacts to views with incorporation of mitigation measures." [Emphasis added.]

Response MBCH3-17

The California Coastal Act does not indicate that a project cannot block any views of the coast. The California Coastal Act recognizes that there is a need for some coastal dependent industrial uses and provides policies that allow appropriate evaluation of such projects. As indicated on page 5.1-17, "… the expanded development proposed at the ESGS South Site is considered consistent with the LCP and Coastal Act since it would: (1) not block views of the scenic coastal areas, (2) minimize the alteration of natural land forms, (3) be visually compatible with the character of surrounding areas (north and east), and (4) include landscaping to enhance visual quality in visually degraded areas and to buffer the community to the south." A detailed discussion of proposed Project consistency with the Coastal Act and the El Segundo Local Coastal Plan is provided in table 5.10-3 pages 5.10-17 through 5.10-20.

Response MBCH3-18

The proposed Project is not located within Manhattan Beach and therefore a detailed evaluation of consistency with Manhattan Beach General Plan policies is not appropriate. However, West Basin is sensitive to the needs of neighbors to the south in Manhattan Beach and intends to implement all feasible mitigation measures to reduce impacts on Manhattan Beach residents. As the commenter notes, relevant policies that apply to adjacent development in the City of Manhattan Beach are presented in the Draft EIR on page 5.1-3. Goal LU-4 indicates "[p]reserve the features of each community neighborhood, and develop solutions tailored to each neighborhood's unique characteristics." The proposed Project is consistent with the existing zoning on the proposed Project site. Policy 4.1 under that goal indicates that public access and enjoyment of the beach should be protected while respecting privacy of beach residents. The proposed Project does not affect access. While it does add an industrial use (to an industrially

zoned property) along the beach front, the proposed Project would not change the character of the site and would not substantially impact enjoyment of the beach.

Response MBCH3-19

As noted in footnote 1 in the Draft EIR on page 5.1-1, "the analysis addresses public views and not private views, since obstruction of private views is not generally regarded as a significant environmental impact." The footnote goes on to highlight the courts' position that a CEQA analysis, "must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general." The Draft EIR evaluates impacts of the proposed Project on the environment. Impacts of the proposed Project on the South Site to visual character are evaluated in the Draft EIR on pages 5.1-20 through 5.1-22. Mitigation measures require screening that would reduce impacts by softening the southern border of the site with landscaping and screening mechanical equipment from view.

Response MBCH3-20

As explained in the Draft EIR on page 3-14, the Regional Project would be an expansion of the initial 20 MGD Local Project. In order to clearly present impacts and avoid repetition, the EIR describes impacts of the Local Project and then the added impacts of the Regional Project. The impacts of the Local Project and the impacts of the Regional Project are evaluated in comparison to the existing baseline.

Response MBCH3-21

The mitigation measures identified to address impacts to aesthetic resources generally require screening and rely on performance standards to achieve impact reduction. More screening would be required of the larger Regional Project, but the same performance standards would apply (e.g. minimizing public views of staging areas).

Response MBCH3-22

As noted in the Draft EIR on page 5.1-26, "[c]onstruction would generally not occur during the nighttime; however, security lighting would be required." Therefore, the analysis of construction lighting impacts is based on the anticipated low-level security lighting. Further the analysis indicates, "[t]o ensure that light spillover onto adjacent property does not occur, compliance with Mitigation Measure AES-5 requires preparation of a Construction Safety Lighting Plan that demonstrates that all construction-related lighting is located and aimed away from adjacent residential and public beach areas and consists of the minimal wattage necessary to provide safety at the construction site."

Mitigation Measure AES-6 for operational impacts is not deferred mitigation as it includes a performance standard to ensure that exterior lighting does not spill onto adjacent residential properties. The benchmark would be existing lighting levels. West Basin would evaluate proposed lighting to ensure that the proposed Project does not result in new spillover lighting on to adjacent residential properties. It is possible to shield lights such that no light spills on to adjacent properties.

The proposed Project site is located in the City of El Segundo. Pages 5.1-2 through 5.1-5 identify generally the most applicable regulations and policies. As noted on page 3-42 in footnote 1, "California Government Code Section 53091(d) states that '[b]uilding ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency.' Furthermore, Section 53091(e) states that '[z]oning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water . . .' However, West Basin intends to make every effort to comply with all applicable building and zoning ordinances stipulated under the City of El Segundo Municipal Code in the construction and operation of the Ocean Water Desalination Project." Mitigation Measure AES-7's painting requirement would be consistent with these building and zoning ordinances.

West Basin is responsible for implementing the mitigation measures identified in the EIR and would determine the appropriate implementation actions to meet the identified performance standards based on professional judgement.

Response MBCH3-23

A discussion of General Conformity is addressed in the Draft EIR starting on page 5.2-25 in the *Federal Conformity Analysis for SRF (CEQA Plus)* section. Because the proposed Project exceeds the *de minimis* threshold for NOx, West Basin performed a general conformity analysis. Pursuant to 40 C.F.R. section 93.158 *Criteria for determining conformity of general Federal actions, "*where the action involves regional water and/or wastewater projects" exceeding limits for ozone or nitrogen dioxide, such action is determined to conform to the applicable state implementation plan (SIP) if the project is "sized to meet only the needs of population projections that are in the applicable SIP. *See* 40 C.F.R. Section 93.158(a)(5)(v). As discussed in the last full paragraph on page 5.2-28 of the Draft EIR, the proposed Project meets the conformance criteria under 40 C.F.R. section 93.158(a)(5)(v) because it is a regional water project that is sized to replace approximately 10 percent of the imported water supplies to meet existing demand and population projections included in the SIP. The proposed Project replaces existing water supply; it does not create new water supply capacity. Such replacement water would help to meet existing and future water demands outlined in the 2015 UWMP, thereby reducing the District's imported water dependency. The water demands identified in the UWMP are based on the applicable SCAG Regional Transportation Plan /Sustainable Communities Strategy (RTP/SCS) population and water demand projections that are specifically developed to conform to the South Coast Air Basin's SIP for NOx. Therefore, the proposed Project conforms with the SIP population assumptions and meets the criteria for conformance applied to regional water supply projects.

Response MBCH3-24

Mitigation Measure AQ-3 requires that contractors provide proof of the use of Tier 4 engines. West Basin would be responsible for ensuring compliance with the mitigation measure. As a public agency, records of compliance will be maintained for public scrutiny, but no public participation in compliance enforcement would be initiated or needed.

Response MBCH3-25

In order to identify impacts to nearby sensitive receptors, the SCAQMD recommends using its Localized Significance Thresholds (LSTs). Based on the size of a project and the distance to receptors, if its daily emissions are under this screening level, it would not have the potential to exceed federal or state Ambient Air Quality Standards (AAQS). If, as shown in Table 5.2-18 for NOx from the offshore emissions, a project's daily emissions exceed the LSTs, there is the potential for the project to exceed the AAQS and a refined analysis must be conducted to determine if impacts to sensitive receptors is significant. The refined analysis is an additional level of analysis between the LSTs and dispersion modeling that takes into account more project-specific information to provide a more accurate account of emissions from a project. These pollutant concentrations are then compared to the most stringent AAQS for that pollutant. Pollutant concentrations that do not exceed the AAQS are determined to be less than significant for impacts to sensitive receptors. The "refined analysis for Offshore Emissions" row in Table 5.2-18 provides the results of the additional analysis performed for NOx emissions and, as shown, demonstrates that while the proposed Project exceeds the LSTs, when a more project-specific analysis is conducted, the proposed Project would not exceed the AAQS. In response to the comment requesting clarification of the Local Project's offshore emissions related to NOx shown in Table 5.2-18, the Draft EIR text is modified as presented below.

The Draft EIR text on page 5.2-20 is revised as follows:

> … For sites over 5 acres, if the emissions exceed the screening level thresholds in the lookup tables the site would have the potential to result in significant local impacts and the SCAQMD recommends air quality dispersion modeling to assess impacts to nearby sensitive receptors. This refined analysis uses the AERMOD dispersion model to determine the concentration of the pollutant at the nearby receptor locations. For NOx and CO emissions, concentrations derived from the dispersion modeling are converted to ppm, added to the existing background emissions, and compared to the appropriate ambient air quality standards shown in Table 5.2-1. For PM10 and PM2.5, concentrations are compared to an increase of 10.4 $\mu g/m^3$.

The Draft EIR text on page 5.2-46 is revised as follows:

> … It is noted that due to the location of the Project components, LST emissions associated with the construction of the onshore facilities for the ESGS were evaluated for a 5-acre site at 25 meters. Construction of offshore Project components were evaluated for a 5-acre site at 500 meters. Construction of the off-site conveyance pipeline was ~~were~~ evaluated for a 1-acre site at 25 meters. Where emissions exceed the screening tables, a refined analysis was conducted to determine the potential to result in significant impacts as discussed in Section 5.2.3 Significance Thresholds and Criteria – Localized Significance Thresholds.

The following footnote is added with respect to the refined analysis of offshore emissions to Table 5.2-18 on page 5.2-47 as follows:

> **Refined analysis for Offshore Emissions[2]**
>
> [2]The refined analysis utilized dispersion modeling. Because the Basin is in non-attainment for NOx, the threshold is based on California ambient air quality standards as identified in Table 5.2-1.

The Draft EIR text on page 5.2-47 is revised as follows:

> As identified in Table 5.2-18, incorporation of Mitigation Measures AQ-1 through AQ-3 for Local Project emissions for the screened ocean intake and concentration discharge facilities would result in less than significant impacts. Mitigated NOx emissions exceeds the LST screening tables for a 5-acre site at 500 meters. Therefore, a refined analysis was conducted to determine if the Project concentrations would exceed CAAQS for the specific Project conditions. Based on the results of the dispersion model, the impacts from the Project for the offshore emissions would not exceed the CAAQS and, therefore, the Project would result in less than significant impacts with respect to NOx emissions.

Response MBCH3-26

The quantitative analysis of the health risk assessment and emissions modeling is summarized in the body of the Draft EIR and detailed assumptions and calculations used in the analysis are included in Draft EIR Appendix 3D. In response to the comment, Section 5.2 Air Quality, particularly related to the health risk discussion, is updated to direct the reader to the appropriate appendix sections for technical data, including the risk calculations. As detailed in Appendix 3D, emissions reductions afforded by the incorporation of Mitigation Measures MM AQ-1 through MM AQ-3 were accounted for in the mitigated health risk calculations which results in the less than significant finding.

The Draft EIR text on page 5.2-48 is revised as follows:

> …The resulting health risk calculations were performed using a spreadsheet tool consistent with the OEHHA guidance. The spreadsheet tool incorporates the algorithms, equations, and a variable described above as well as in the OEHHA guidance, and incorporates the results of the AERMOD dispersion model. Risk assumptions and calculations for both unmitigated and mitigated scenarios are included in Appendix 3D, Air Quality/Greenhouse Gas Emissions Data, Health Risk Assessment.

The Draft EIR text on page 5.2-53 is revised as follows:

> …Construction of the Regional Project would contribute to the long-term emissions associated with the Project and would therefore add to the cumulative emissions experienced during the lifetime of nearby residents. Risk assumptions and calculations for both unmitigated and mitigated scenarios are included in Appendix 3D, Air Quality/Greenhouse Gas Emissions Data, Health Risk Assessment.

Response MBCH3-27

The first paragraph on Draft EIR page 5.2-56 states: "Construction in the immediate vicinity of 45th Street would also be of relatively short duration, and odors would be typical of construction and grading projects, and regulated by the ARB and SCAQMD." The analysis does not suggest that the construction period for the entire proposed Project is of relatively short duration, rather that the portion of time where construction equipment would be in the immediate vicinity of the residents would be of a relatively short duration. As outlined in Table 3-9 and described on page 3-32 installation of pipeline generally proceeds at 150 feet per day. Construction activities in front of a specific property would occur for three to four weeks.

The residents along 45th street are within approximately 100 feet and up to 1,200 feet from construction activities that would occur on the South Site, with the majority of construction occurring within 800 feet of these receptors. Construction equipment is not a stationary source and, therefore, would not be emitting diesel exhaust along the property line adjacent to the 45th street residents for the full duration of a construction day. Also, as shown in Project Description Figure 3-10, construction activities on the South Site are anticipated to be 50 or more feet in from the property line closest to 45th street, and not occurring along the fence-line. Activities that could occur along the proposed Project site boundary would be materials stockpiling during construction and would not include ground disturbing activities or large earth moving equipment. Additionally, the 100 feet measures the distance from the proposed Project site boundary to the property line and not to the actual residences farther away. As such, the distance from the source of emissions to the receptors would typically be greater than 100 or even 200 feet from where the residential sensitive receptors would be. During the times when the heaviest equipment is anticipated to be onsite, typically during demolition and grading activities, the equipment would be working over a large section of the site throughout the day and, therefore, emissions are not concentrated at the property fence-line.

Furthermore, the proposed Project is subject to SCAQMD Rule 402 which states "… a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public…" This would include odor as a nuisance. Because the project must comply with Rule 402, the potential for objectionable odors to affect residents is minimized. In sum, while during construction nearby residences may occasionally be affected by odor, given the distance and limited duration of construction activity, these impacts are considered to be less than significant.

Response MBCH3-28

As discussed in Draft EIR Subsection 5.3.2, a site survey of the proposed Ocean Water Desalination Facility was conducted on November 2, 2015 for biological resources. For the proposed pipeline alignments and regional pump station, the Draft EIR found that installation would occur within disturbed areas or within existing rights-of-ways, and that as such no impact to sensitive biological resources would occur. Tree removals are not anticipated along pipeline alignment. The Draft EIR concludes that indirect impacts to nesting birds in ornamental landscaping would be minimal due to existing human activity and disturbances in the urban landscape within city streets. No mitigation is required. The reason why cultural surveys were conducted along the alignments as the commenters references is that a disturbed landscape does not indicate a lack of cultural resources, which can be historic in nature and depend on the year built. That is why cultural surveys were done in this particular case.

Response MBCH3-29

As disclosed on page 5.3-15, the biological resources survey was conducted in November 2015, outside the nesting bird season. However, the Draft EIR recognizes that nesting and roosting opportunities on the ESGS site exist. To account for the possibility of nesting or roosting birds within the construction zone and adjacent areas, Mitigation Measure BIO-5 requires that a

qualified biologist conduct nesting bird surveys prior to any construction activities occurring within the nesting bird season, and includes detailed performance standards to ensure impacts are reduced to a less than significant level.

Response MBCH3-30

Even though coast buckwheat is the host plant for the El Segundo blue butterfly, it does not currently meet the definition of a special-status species (see Draft EIR Subsection 5.3.2, page 5.3-11). It should be noted that the coast buckwheat was artificially planted as part of ESGS improvements. Nevertheless, although the site visit was conducted outside the blooming period for many of the plants listed in Table 5.3-1, the survey concluded that the habitat was of sufficient quality to support the El Segundo blue butterfly based on an analysis of the quantity and extent of on-site habitat, the presence of the El Segundo blue butterfly in nearby areas, and the degree of urbanization in the area. Pre-construction surveys required in Mitigation Measure BIO-9 would be conducted to determine presence of listed plant and wildlife species that may have occupied the site in the intervening years between the initial surveys and construction.

Response MBCH3-31

In response to the commenter's suggestion to include performance standards within Mitigation Measure BIO-2, the Draft EIR text on page 5.3-36 is revised as shown in response to comment CEC-3.

Response MBCH3-32

In response to the commenter's suggestion about implementing measures within a close temporal timeframe to construction, Mitigation Measure BIO-6 has been revised as follows:

> **BIO-6:** ~~Prior to~~ Within 72 hours of the commencement of ground-disturbing activities, a qualified biologist shall conduct a pre-construction clearance survey for western snowy plover on and in the vicinity of the ~~Project~~ ESGS~~-~~site. This shall include a focused search for western snowy plover in suitable habitat within 500 feet of proposed construction activities. Western snowy plover shall be avoided by workers waiting for western snowy plover to leave an area before working in it. If western snowy plovers are observed nesting within 500 feet of construction activities, a minimum buffer of 500 feet shall be delineated around the nest and monitored until the nest is no longer considered active.

Response MBCH3-33

A list of projects analyzed for cumulative impacts can be found in Table 4-1. As discussed in Draft EIR Subsection 5.3.5, all proposed Project impacts would be mitigated to less than significant levels and the Project's contribution toward cumulative impacts is not considered to be cumulatively considerable. This includes cumulative impacts to the western snowy plover.

Response MBCH3-34

Buildings associated with resources P-19-188895 (Hawthorne High School) and P-19-189423 (apartment building) are located more than 25 feet away from the proposed water conveyance pipeline alignments which would be installed using excavators and paving equipment. As

indicated in Chapter 5.12 Noise on page 5.12-26, ground-borne vibrations associated with the proposed water conveyance pipeline alignments would not be above levels that could damage structures at a distance of 25 feet from the source of vibration.

Resource P-19-190098 (El Segundo Generating Station) has been evaluated and found to not qualify as a historical resource pursuant to CEQA. Therefore, any project-related ground-borne vibrations at the El Segundo Generating Station are not considered a significant impact on a cultural resource.

Response MBCH3-35

Mitigation Measure CUL-3 has been revised to specify both onshore and offshore components shall be monitored and specific monitoring methodology for offshore components has been included. See response to comment SLC-14 to see these changes to the measure.

Response MBCH3-36

The preparation of the CRMMP is not a deferral of mitigation; rather it sets forward performance standards for cultural resources monitoring which necessarily would occur in the future. Mitigation Measure CUL-3 has been revised as follows and use of the word "mitigation" in reference to inadvertent discoveries has been replaced with the term "treatment" to avoid being conflated with the mitigation measures outlined in the EIR. Mitigation Measure CUL-3 has been revised to include greater specificity regarding the treatment of inadvertent discoveries. Mitigation Measure CUL-3 has also been revised to specifically include both onshore and offshore components. See response to comment SLC-14 to see these changes to the measure.

Response MBCH3-37

Mitigation Measure CUL-4 has been revised and use of the word "mitigation" in reference to inadvertent discoveries has been replaced with the term "treatment" to avoid being conflated with the mitigation measures outlined in the EIR. Mitigation Measure CUL-4 has been revised to reference Mitigation Measure CUL-3, which includes treatment for inadvertent discoveries. See also responses to comments SLC-15 and MBCH3-36.

Response MBCH3-38

Mitigation Measure CUL-5 has been revised as follows to include a provision that any confidential information pertaining to cultural resources will not be publicly disseminated.

> **CUL-5:** Within 90 days after completion of ground-disturbing activities, West Basin shall prepare a CRR that specifies all field activities including dates, times and locations, findings, samplings and analysis. All survey reports, DPR 523 forms, and additional research reports not previously submitted to the CHRIS shall be included as an appendix to the CRR. <u>All confidential information protected by relevant law and pertaining to cultural resources identified during monitoring shall remain confidential and will not be publicly disseminated.</u>

Response MBCH3-39

The preparation of the PRMMP is not a deferral of mitigation; rather it sets forward performance standards for paleontological resources monitoring which necessarily would occur in the future. Mitigation Measure CUL-8 has been revised to include details as to what the PRMMP will include. See reponse to comment SLC-16 to see these changes to the measure. See also response to comment SLC-18.

Response MBCH3-40

As stated in the Draft EIR on page 5.4-26, fossil specimens have been identified in the vicinity of the proposed Project within Older Alluvium (Qoa) and Elevated Alluvial sediments (Qae) starting at depths of 13 feet below ground surface. Based on this research, it is assumed that the potential to encounter paleontological resources within these deposits is high at approximately 13 feet below ground surface. Given that the depths of these deposits are likely not uniform and fluctuate somewhat, monitoring will start at 10 feet to provide a buffer. Mitigation Measure CUL-10 has been revised as follows to clarify that paleontological resources monitoring will begin at 10 feet deep. The mitigation measure also clarifies inadvertent discovery protocol of a paleontological resource at a depth of less than 10 feet when a paleontological monitor is not present.

> **CUL-10:** West Basin shall ensure that the PRMs monitor all construction-related grading, excavation, trenching, and boring in areas that involve excavations greater than ~~8~~10 feet and extend into older Quaternary alluvial deposits, ~~both~~ at the desalination facility site, ~~and~~ desalinated water conveyance pipeline alignment, and offshore Project components. In the event that the Qualified Paleontologist determines full-time monitoring is not necessary in locations that were identified as potentially fossil-bearing in the PRMMP, monitoring activities may be modified, at the direction of the Qualified Paleontologist.
>
> West Basin shall ensure that the Qualified Paleontologist and PRMs have the authority to stop or redirect construction if a unique paleontological resource or site or unique geologic feature is encountered. Should a paleontological resource be identified at a depth of less than 10 feet and a PRM or the Qualified Paleontologist is not present, all construction shall halt and the Qualified Paleontologist shall be contacted to assess the discovery and develop appropriate treatment in coordination with West Basin.
>
> West Basin shall ensure that the Qualified Paleontologist prepares a summary of monitoring and other paleontological activities that will be reported on monthly. The summary will include the name(s) of the Qualified Paleontologist or PRMs active during the month, general descriptions of training and monitored construction activities, and general locations of excavations, grading, and other activities. A section of the report shall include the geologic units or subunits encountered, descriptions of samplings within each unit, and a list of identified fossils. A final section of the report shall address any issues or concerns about the Project relating to paleontological monitoring, including any incidents of noncompliance or any changes to the monitoring plan.

Response MBCH3-41

In response to the comment that asks for clarification on the "on-site solar power generation," the Draft EIR text on page 5.5-15 is revised as follows:

West Basin is committed to pursuing reasonable and feasible energy minimization and efficiency as part of the Project, including use of energy recovery devices (for the first pass reverse osmosis [RO] process) and energy efficient pumps. In implementing Mitigation Measure GHG-1, West Basin may ~~will~~ also use on-site solar power generation to reduce load demand from the grid.

Response MBCH3-42

The statement on page 5.5-16 of the Draft EIR is included in the impact analysis portion of the section and is presenting ways in which the proposed Project's energy use is reduced with implementation of anti-idling regulations as compared to existing conditions. This discussion is based on the fact that construction activities associated with the Project would occur on top of the environmental baseline (existing conditions). The commenter is correct that if the proposed Project would not occur and the baseline conditions were maintained, use of energy efficient vehicles would not result in energy savings. However, the impact analysis is intended to demonstrate which potential impacts could occur if a project is implemented, and discuss ways those impacts can be mitigated, if possible. In this case, the EIR is stating that with anti-idling regulations, impacts resulting from implementation of the Project would be reduced compared to existing conditions.

Response MBCH3-43

The Draft EIR identifies the energy requirements of the proposed Project and evaluates whether the use of energy would be wasteful in Section 5.5. West Basin acknowledges that ocean water desalination is a more energy-intensive source than imported water but increases water supply stability and reliability for the overall regional water supply portfolio. The addition of ocean water desalination as a component of a diverse water supply portfolio is not a wasteful use of energy, since it represents a thoughtful balance of costs and risks aimed at benefiting the public and stabilizing availability and pricing of a vital public utility. Furthermore, the proposed Project would utilize state of the art technology to maximize efficiency.

Comparing the amount of energy to the overall County consumption provides a meaningful assessment of energy availability, and assists in determining whether the proposed Project would exceed the available electricity supply or require the construction of new or expansion of existing facilities. As shown, in Draft EIR Table 5.7-1, the energy intensity of MWD imported water ranges from 2,451 to 3,163 kWh/acre-feet. The estimated energy intensity of the Project as shown in Tables 5.5-5 and 5.5-6 is estimated at 4,867 kWh/acre-feet for the Local Project (20 MGD) and 5,215 kWh/acre-feet for the Regional Project (60 MGD), which is similar to the 5,086 kWh/acre-feet (15.6 kWh/kgal) estimate for the recently approved desalination project at South Coast Water District's Doheny Ocean Desalination Project (South Coast Water District 2018).

Another way of comparing the scale of the proposed project's energy use would be against West Basin's existing imported water energy use. As of 2015, West Basin imports 105,000 AFY that results in the use of approximately 294,735 mwh/y (2,807 kwh/AF x 105,000 AFY) by MWD. The proposed project would produce 21,500 AFY using 104,641 mwh/y (4,867 kwh/AF x 21,500 AFY). The proposed project represents 35 percent of the current total amount of energy expended to provide imported water supplies to the West Basin service area. The total energy use associated

with providing the same volume of water (21,500 AFY desalinated water and 83,500 AFY imported water) to the service area would increase from 294,735 mwh/y to 339,025 mwh/y, an increase of approximately 15 percent.

Regarding the commenter's statement that there are less energy intensive alternatives than ocean desalination for increasing local water supplies, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response MBCH3-44

CEQA Guidelines Appendix F, Energy Conservation, states that the evaluation of energy use should be evaluated in an EIR and provides guidance for consideration in this evaluation. In accordance with Appendix F of the CEQA Guidelines, and as described in the Draft EIR in Section 5.5.3, the Project would result in a significant impact with regard to energy if the Project would, among other things, cause wasteful, inefficient, and unnecessary consumption of energy during construction, operation, and/or maintenance. These guidelines also state that in order to assure that energy implications are considered in project decisions, EIRs are required to include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (see Public Resources Code section 21100(b)(3)).

Under Impact 5.5-3, the Draft EIR references Table 5.5-4 only to illustrate that daily operation of the proposed Project would account for the majority of its demand for electricity. Impact 5.5-3 concludes that the proposed Project buildings would not result in inefficient, wasteful, or unnecessary consumption of energy, as they would be built to be highly energy efficient in accordance with California's Building Energy Efficiency Standards (Title 24, Part 6) as well as applicable requirements in CalGreen (Title 24, Part 11). Additionally, the proposed Project would not result in any unusual characteristics that would result in excessive operational fuel consumption, and fuel consumption associated with Project-related vehicle trips would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. The Project would adhere to all applicable state and federal energy efficiency standards, and it would incorporate all available feasible energy recovery and conservation technologies to minimize the Project's energy electricity consumption, as required by Mitigation Measure GHG-1.

Regarding the commenter's statement that there are less energy intensive alternatives than ocean desalination for increasing local water supplies, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response MBCH3-45

The Draft EIR concludes on pages 5.5-20 and 5.5-21 that the expected increase in demand for electricity does not exceed available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

As noted in the Draft EIR on page 5.5-21, it is anticipated that the SCE electrical power grid may require upgrades to supply the proposed Project operations. West Basin would ensure that relevant connection/expansion fees are paid to SCE in order to upgrade the existing SCE electrical grid such that it can adequately support proposed Project operations alongside the existing energy demands of the El Segundo Generating Station. Upgrades could include, for example, new conductoring on existing power poles or installation of new poles. However, SCE was unable to confirm the necessary upgrades to their power grid at time of writing.

The Draft EIR on page 5.5-21 describes the electrical substation that would be required on the property to lower the voltage from service voltage to site distribution voltage. The substation would be located at the proposed Project site, as shown in the Draft EIR in Figures 3-9 (ESGS North Site) and 3-10 (ESGS South Site). The impacts associated with construction and operation of that substation, are analyzed throughout the Draft EIR along with impacts of the overall Project.

While upgrades to SCE's power grid may be needed, SCE is unable to confirm what those necessary upgrades would be. As such, predicting and analyzing the impacts of these upgrades would be speculative. However, West Basin assumes that the upgrades would be relatively minor, involving the construction of a few additional poles or modifying conductoring that would result in less than significant impacts. Large scale infrastructure implementation such as the construction of a large off-site substation, power generating facility, or long-range conveyance system is not anticipated. West Basin has committed to paying all applicable connection/expansion fees to SCE. SCE would be required to implement any necessary mitigation measures and comply with all applicable laws and regulations in implementing the upgrades.

The Draft EIR acknowledges that the operation of the Local Project and the Regional Project would result in a less than significant impact from GHG emissions with the implementation of Mitigation Measure GHG-1, which requires the preparation and implementation of an Energy Minimization and GHG Reduction Plan. The discussion under Impact 5.5-3 correctly acknowledges that Mitigation Measure GHG-1 will reduce operational energy consumption through the use of available feasible energy recovery and conservation technologies, and thus prevent the proposed Project's wasteful, inefficient, and unnecessary consumption of energy.

Response MBCH3-46

The basis for using SCE's entire service area as a geographic context for the cumulative impact analysis is that SCE is the anticipated electrical service provider for the proposed Project. Furthermore, the cumulative impacts analysis assesses SCE's capacity planning for the Western Los Angeles Basin of the Los Angeles Basin local reliability area (see Draft EIR page 5.5-24). This is an appropriate level of detail given the manner in which SCE distributes electricity within its service area. The Draft EIR provides an overview of SCE's broad infrastructure and capacity, as well as the more local system. The Draft EIR concludes that the Project's additional demand is within the CPUC-approved future capacity authorizations for the Los Angeles Basin subarea. This is relevant and appropriate to include in the EIR.

The EIR complies with the requirements of CEQA in explaining that the proposed Project is not a wasteful use of energy since it represents a thoughtful balance of costs and risks aimed at benefiting the public and stabilizing availability and pricing of a vital public utility. Furthermore, the proposed Project would utilize state of the art technology to maximize efficiency. See also response to comment MBCH3-43.

Response MBCH3-47

Lateral spreading is discussed in the Draft EIR Subsection 5.6.2 on page 5.6-12. The surface and shallow subsurface geologic condition beneath the proposed Desalination Facility, Screened Ocean Intake, and Concentrate Discharge Site provides a low potential for lateral spreading as discussed in the Final Engineering Geology Report for the redevelopment of ESGS Units 5 through 8 (Ninyo & Moore 2013). While the potential for lateral spreading at the proposed Desalinated Water Conveyance Corridors, and Regional Pump Station Optional Site is unknown at this time, given the lack of a free face, the relatively flat topography, and low liquefaction potential east of the shoreline, the potential for lateral spreading is also considered low. In addition, as explained in Impact GEO 5.6-1 in the Draft EIR on page 5.6-16, the CBC and local ordinances require that the structural elements of the proposed Project undergo appropriate design-level geotechnical investigations and evaluations prior to final design and construction. The geotechnical investigation and evaluation would include any recommendations for soils remediation and/or foundation systems necessary to reduce seismic-related hazards to less than significant. Compliance with the existing regulations would ensure that persons and structures associated with the Local Project ocean water desalination facility would not be exposed to potential substantial adverse effects involving strong seismic ground shaking and seismic-related ground failure (liquefaction, lateral spreading, and landslides). With compliance with existing regulations and conditions, the impact would be less than significant.

Response MBCH3-48

The Draft EIR did not fail to establish an adequate baseline. As noted by the California Office of Planning and Research (OPR) “the focus of the analysis should not be on the ‘conflict’ with the plan, but instead, on any adverse environmental impact that might result from a conflict. For example, destruction of habitat that results from development in conflict with a habitat conservation plan might lead to a significant environmental impact. The focus, however, should be on the impact on the environment, not on the conflict with the plan.” (OPR 2017, page 35).

The Draft EIR acknowledges on page 5.10-22 that an LCP amendment would be needed to change the use from power generation to water production. Both uses provide a coastal-dependent public utility service that do not increase local coastal hazards compared with existing conditions. See also response to comment MBCH3-49.

Response MBCH3-49

The effects associated with coastal flooding and tsunami impacts, including sea level rise, are discussed in Draft EIR, Section 5.9, *Hydrology and Water Quality*, Impact 5.9-6 on pages 5.9-72 through 5.9-78.

As explained on page 5.9-72, sea level rise is an existing environmental condition, and unless the proposed Project will exacerbate this condition, it is not considered a potentially significant impact under CEQA. However, in the interest of providing as much information as possible, West Basin conducted a site-specific Coastal Hazards Analysis for the proposed desalination facility at the ESGS North and South Sites, a copy of which is provided as Draft EIR Appendix 5. In response to this and other comments, however, West Basin also prepared a Supplemental Coastal Hazards study (see *Master Response: Supplemental Studies*) that considered a high-risk sea level rise projection and the "extreme risk aversion" scenario known as the "H++" scenario. Furthermore, Mitigation Measure HYDRO-1 in EIR Subsection 5.9.4, requires the District to complete a Project-specific coastal engineering study for the final Project design, and requires the final Project engineering design to minimize conflicts with the applicable Coastal Act Section 30235 (Construction altering natural shoreline) and Section 30253 (Safety, stability, pollution, energy conservation, visitors). See also response to comment CCC-19.

Response MBCH3-50

The Draft EIR did not find all construction-related impacts to be less than significant; see Draft EIR Subsection 7.1.3. Construction-related impacts associated with Air Emissions and Noise were found to be significant and unavoidable.

With respect to the impact of seismic damage, as discussed in Subsection 5.6.3, CEQA generally does not require a lead agency to consider the impact of the existing environment on the project. However, if a project exacerbates a condition in the existing environment, the lead agency is required to analyze the impact of that exacerbated condition on the environment. There is no indication that the construction or operation of the proposed Project would exacerbate the exposure of people or structures to seismic hazards. The possibility of moderate to high seismic activity may be considered as approximately similar to the entire Southern California region as a whole. Nevertheless, the Draft EIR recognizes that seismic damage during construction would result in a delay in the completion of the proposed Project, and some unfinished and/or damaged project components may have to be rebuilt. Such delays would be temporary and therefore, the potential for the proposed Project to be exposed to the adverse effects of seismic hazards, including the risk of loss, injury, or death involving a seismic event during construction would be less than significant. See Draft EIR Subsection 5.6.4. No further analysis is required.

Response MBCH3-51

Expansive soils are discussed in the Draft EIR Subsection 5.6.2 on page 5.6-13. Expansive soils are clayey soils that have the potential to shrink and swell and damage structures. However, the surface and shallow subsurface geologic conditions beneath the proposed Project components are sandy and would not be susceptible to expansion, as evidenced by the lack of structural damage to the existing on-site NRG Units 3 and 4 structures. This is not a vacant property with unknown soil characteristics. In addition, as explained in Impact GEO 5.6-4 on page 5.6-24, the CBC and local ordinances require that the structural elements of the proposed Project undergo appropriate design-level geotechnical investigations and evaluations prior to final design and construction. The geotechnical investigation and evaluation would include any recommendations for soils remediation and/or foundation systems necessary to reduce hazards from soil conditions. Compliance with the existing regulations would ensure that persons and structures associated

with the Local Project ocean water desalination facility would not be exposed to potential substantial adverse effects involving expansive soils. With compliance with existing regulations and conditions, the impact would be less than significant.

Response MBCH3-52

Starting on page 5.7-19, Draft EIR explains that the threshold of significance used in this document is net carbon neutral; i.e., the Project would have a significant impact on GHG emissions if it were to increase emissions above net carbon neutral as compared to emissions associated with continuing to import water. To the extent GHG emissions resulting from the Project exceed this net carbon neutral standard, West Basin has committed to Project design features and mitigation measures that will offset 100 percent of these excess emissions so that impacts are less than significant. Also see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response MBCH3-53

The Project's operational GHG emissions, as shown in Table 5.7-3, represent average annual electricity consumption needed to operate the desalination facility, based on the report *Energy Consumption for West Basin Ocean Water Desalination Project EIR* (SPI 2017), and the most recent emission factor (2016) publicly reported by SCE.

Response MBCH3-54

Regarding the commenter's concern over of use of a net carbon neutral goal as an emissions threshold rather than a numeric one, please see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response MBCH3-55

The estimate for the Regional Project's average annual GHG emissions included in the Draft EIR Section 5.7.4 is based on the amortized total construction emissions plus annual emissions that result from operational electricity use, as presented and explained in Table 5.7-4 (Draft EIR page 5.7-27); the Draft EIR does not assume a linear increase in GHG emissions from the Local Project.

Response MBCH3-56

Mitigation Measure GHG-1 requires that West Basin offset emissions to the net carbon neutral quantities, i.e., no increase from current levels of emissions needed to deliver water to West Basin customers. Table 5.7-3 provides a calculation of the GHG offset quantities envisioned by the measure for the Local Project. This quantity estimate will vary depending on the verified emissions calculations prepared in compliance with Mitigation Measure GHG-2. The preparation and implementation of the Energy Minimization and GHG Reduction Plan required by Mitigation Measure GHG-1 can include some or all of the mitigation options identified in subsection 3, as needed to achieve required energy reductions; any or all of them represent a viable means to directly reduce or offset GHG emissions associated with the Project. However, the measure requires West Basin to minimize the proposed Project's energy demand and implement on-site

renewable energy use before progressing through the remainder of the mitigation options identified in subsection 3 of Mitigation Measure GHG-1 (renewable power purchase agreement, renewable energy certificates, and carbon offsets) on the basis of the options' physical and economic feasibility. Without knowing the required reductions to achieve the GHG threshold, along with current information on cost-effectiveness, regulatory feasibility, technological feasibility, and availability of each option, it would be speculative to quantify the emissions reductions from each of the mitigation options at this time.

Mitigation Measure GHG-2 requires that West Basin prepare and publish an annual GHG Report to quantify annual GHG emissions resulting from proposed Project operation and the annual GHG emissions avoided by not using imported water sources. The sum of the GHG emissions from Project operation and the amortized construction emissions minus the avoided GHG emissions from not using imported water would be used to determine the annual incremental GHG emissions that must be mitigated by the proposed Project.

Response MBCH3-57

Mitigation Measure GHG-1 requires the preparation of an Energy Minimization and GHG Reduction Plan, while Mitigation Measure GHG-2 describes how the annual monitoring of the Plan will work. As the Draft EIR describes on page 5.7-32, Mitigation Measure GHG-2 requires West Basin to prepare and publish an annual GHG Report quantifying annual emissions and demonstrating how the Project is meeting its obligation to reduce GHG emissions to a net carbon neutral threshold of significance. The findings of the annual report are to be validated and verified by a third-party accredited entity under a state-recognized standard, such as ISO 14065, which specifies principles and requirements for validation or verification of GHG accounting, or a similar standard. In addition, compliance with the offset is required through West Basin's commitment to implementing the Mitigation Monitoring and Reporting Plan.

Response MBCH3-58

As the Draft EIR describes on page 5.7-32, Mitigation Measure GHG-2 requires West Basin to prepare and publish an annual GHG Report quantifying annual emissions and demonstrating how the Project is meeting its obligation to reduce GHG emissions to a net carbon neutral threshold of significance. The findings of the annual report are to be validated and verified by a third-party accredited entity under a state-recognized standard, such as ISO 14065, which specifies principles and requirements for validation or verification of GHG accounting, or a similar standard.

In response to the comment, revisions have been made to Mitigation Measure GHG-1 to further clarify that the mitigation reduces impacts. In response to the comment, the Draft EIR text on page 5.7-32 is revised as follows:

> West Basin shall implement items a. and b. and progress through the remaining GHG reduction strategies and offset strategies ~~remainder~~ (items c. through e.) to achieve the net carbon neutral threshold of significance. Selection and implementation of the options will be based on their ~~on the basis of the options'~~ physical and economic feasibility, as reasonably determined by West Basin, with low-cost options preferred over high-cost options. ~~In the event that options have equivalent costs, options enumerated higher in the above list shall be selected by West Basin over options enumerated later in the above list.~~

Note that this clarifying change presented in the mitigation measure does not result in a decrease in the effectiveness of the proposed measure, does not result in an increase in the severity of the identified impact after mitigation, and does not preclude meaningful review and comment.

Response MBCH3-59

There is no public process in the verification of the annual report. As the Draft EIR describes on page 5.7-32, Mitigation Measure GHG-2 requires West Basin to validate and verify the findings of the annual report by a third-party accredited under a state-recognized standard, such as ISO 14065, which specifies principles and requirements for validation or verification of GHG accounting, or a similar standard.

Response MBCH3-60

As explained in the footnotes to Table 5.7-6, energy savings estimates from West Basin's water conservation and recycling programs are based on the average energy intensity of imported water. Because the water supplied by the proposed Project (after mitigation) will have net carbon neutral GHG emissions compared to imported water, the expected emissions reductions associated with water conservation would remain the same.

Response MBCH3-61

The Draft EIR Subsection 3.5.2 provides a discussion of the options for managing the dredge materials on pages 3-24 and 3-25 and explains the materials to be dredged would be sampled and analyzed for hazardous constituents prior to dredging. Samples would be collected in compliance with USEPA dredge sample collection methodology. The disposal options would be based on the analytical testing results and would be in compliance with all federal, state, and local regulations. As noted in the Draft EIR on page 3-25, Footnote 7, it is assumed that a majority of the dredged materials will be suitable for offshore disposal because the proposed offshore dredging location has not been identified previously as a contamination area. Contaminated materials, if any, are assumed to be negligible in volume and could be disposed of at any number on onshore licensed disposal facilities permitted to accept the materials. In the unlikely event that onshore disposal is necessary, acceptance criteria for onshore disposal facilities are discussed in the Draft EIR Section 5.8 on page 5.8-1.

Response MBCH3-62

Mitigation Measures HAZ-3 through HAZ-6 are described in the Draft EIR Subsection 5.8.4 on pages 5.8-24 and 5.8-25.

HAZ-3 is the preparation and implementation of an Anchoring Plan that would be in compliance with U.S. Coast Guard regulations, which include required plan elements (performance standards). The performance standard for the Anchoring Plan is the communication of anchoring procedures and the preparation of a response plan in the unlikely event that a vessel becomes unanchored. Mitigation Measure HAZ-3 provides a list of the required plan elements that would be expanded to address U.S. Coast Guard regulations regarding mooring during offshore construction and routine maintenance. The measure requires a description of vessels to be used, delineation of safety and anchor zones, mapping of areas with kelp, seagrasses, and hard substrate

if they exist in the work area, and identification of vessels and buoys including daylight and nighttime marking schemes.

HAZ-4 is the preparation and implementation of a Marine Safety Plan that would also be in compliance with U.S. Coast Guard regulations, which include performance standards. The performance standard for the Marine Safety Plan is the communication of safety protocols as listed in the mitigation measure. Mitigation Measure HAZ-4 provides a list of the required plan elements that would be expanded to address U.S. Coast Guard regulations regarding offshore mooring during construction and routine maintenance. The measure requires a description of marine operations protocols, critical operations and curtailment plan, offshore fueling procedures, storm procedures, marine communications plan, marine transportation plan for barges, tugboats, crewboats, and other vessels, and a navigational marking and lighting plan.

HAZ-5 is the preparation and implementation of a Marine Oil Spill Response Plan that would also be in compliance with U.S. Coast Guard regulations, which include performance standards. The performance standard for the Marine Oil Spill Response Plan is the communication of procedures for the cleanup of marine oil spills to the satisfaction of the U.S. Coast Guard. Mitigation Measure HAZ-5 provides a list of the required plan elements that would be expanded to address U.S. Coast Guard regulations regarding offshore mooring during construction and routine maintenance. The measure requires a description of spill response team and equipment, notification requirements including names and phone numbers of agencies to be notified, and a description of marine spill scenarios and response procedures.

HAZ-6 is the preparation and implementation of a Diver Safety Plan that would also be in compliance with U.S. Coast Guard regulations, which include performance standards. The performance standard for the Diver Safety Plan is the communication of safe diving procedures to divers, including the preparation of a job safety analyses for each dive and a plan for evacuating injured divers. Mitigation Measure HAZ-6 provides a list of the required plan elements that would be expanded to address U.S. Coast Guard regulations regarding offshore mooring during construction and routine maintenance. The measure requires a description of the diving techniques and equipment that will be used to support the underwater work activities, a description of the job safety analysis tool that will be used to prepare for each day's diving operations, an evacuation plan for evacuating injured divers, and a contact list for local emergency services organizations and facilities.

Response MBCH3-63

Both the Local and Regional Projects are evaluated against baseline conditions. The Draft EIR Subsection 3.4.2 explains on page 3-14 that the Regional Project would result in a larger capacity desalination plant than the Local Project, and therefore, would result in the generation of more water. The Regional Project components assessed in the Draft EIR would be in the same locations as the Local Project components, and some components would have a larger footprint than the Local Project. However, from a hazardous materials perspective, the Local and Regional projects are both required to comply with the same federal, state, and local regulations. Therefore, it is not unreasonable to analyze the Regional project as a larger version of the Local project that would have similar impacts.

Response MBCH3-64

As described in the Draft EIR Subsection 5.9.4, consistent with the requirements of the 2015 California Ocean Plan Amendment, the Project-specific dilution analyses assume zero ocean current velocity, representing the worst-case condition in terms of brine dilution with receiving waters. As described in the Draft EIR Subsection 5.9.2 the environmental parameter most relevant for dilution and mixing is the receiving water density structure, and the physical water quality parameters (e.g., salinity, temperature, and dissolved oxygen) within the Santa Monica Bay exhibit distinct seasonal variations and spatial distributions (such as with depth). Such variation is a result of interactions among bathymetry, vertical mixing, freshwater discharge, and biological processes. The seasonal cycles correspond to oceanic patterns such as water masses transported by the California Current from the northwest and the Southern California Countercurrent from the south and freshwater discharges from major surface water bodies.

Overall, and contrary to the comment, the effect of ocean currents increases dilution compared to the zero current results; brine does not collect within the countercurrent. Resulting salinities at the Brine Mixing Zone (BMZ) boundary would be substantially lower than those reported in the Draft EIR because greater dilution would be achieved through additional dynamic mixing from waves or ocean currents. Neglecting the effect of currents (assuming zero current), consistent with the methodology prescribed in the Ocean Plan for assessing salinity impacts from brine discharges, represents the most conservative (i.e., the "worst-case") scenario, and therefore, the Ocean Plan regulations related to salinity would continue to be met for all anticipated ocean currents occurring in Santa Monica Bay.

Given the Ballona Creek location (north of the proposed Project site) and the predominant ocean current flow direction (from north to south, see Draft EIR Subsection 5.9.4 on page 5.9-54), and the results of the dilution modeling which indicates the Project would meet Ocean Plan thresholds well within the Marine Study Area, water quality at Ballona Creek would not experience increases in salinity from brine discharge. The Draft EIR provides substantial evidence that project direct and indirect effects on marine habitats and biological resources would be confined to a relatively small area and would not have the potential to generate impacts to habitats or marine species at greater distances than the Marine Study Area. See also *Master Response: Marine Biological Resources Study Area*.

Response MBCH3-65

The Draft EIR Appendix 2 presents the Feasibility Assessment of Subsurface Seawater Intakes that includes two separate evidence-based studies. In response to this and other similar comments, a supplemental study has been conducted that expands upon the Subsurface Intake (SSI) Feasibility Study provided in the Draft EIR. The findings of this supplemental study (provided as Final EIR Appendix 13) present further evidence that confirms West Basin's conclusions in the

Draft EIR, and provide support for future regulatory decisions. See also *Master Response: Supplemental Studies*.

Response MBCH3-66

Water quality sampling conducted as part of West Basin's Pilot Project located in El Segundo (at the proposed Project site) and Demonstration Project located in Redondo Beach documented that water quality conditions in Santa Monica Bay are highly variable over time and that some existing constituent concentrations at times exceeded the California Ocean Plan water quality objectives under baseline conditions (Draft EIR Subsection 5.9.4, page 5.9-54; see also response to comment LARWQCB-11 for additional details).

It should be noted that the proposed Project would not add or contribute new or additional pollutants to Santa Monica Bay. Although the RO treatment process would result in the discharge of increased concentrations of constituents within a localized area or mixing zone, the overall total loading of chemicals and minerals being discharged into Santa Monica Bay would not be increased with implementation of the proposed Project as compared to existing (baseline) conditions. The proposed Project proposes to return to Santa Monica Bay all the associated water quality constituents that originated in the source water but were rejected from the RO treatment process.

As discussed in the Draft EIR (Subsection 5.9.4, *et seq*.), the assessment of impacts to water quality comprehensively applied and considered the applicable regulations discussed in the regulatory setting section (Draft EIR Subsection 5.9.1, *et seq*.), such as the National Pollution Discharge Elimination System (NPDES) permit program as well as the Water Quality Objectives of the California Ocean Plan. As described in detail in the Draft EIR Subsections 5.9.1 and 5.9.4 and summarized in *Master Response: CEQA and Ocean Plan Compliance*, West Basin will prepare and submit information required by the Ocean Plan when submitting the NPDES discharge permit application to the Los Angeles Regional Water Quality Control Board (LARWQCB), including a Report of Waste Discharge, which will provide a detailed analysis of compliance with the Ocean Plan water quality standards. Further, as part of the NPDES permit application, Whole Effluent Toxicity (WET) testing would be required for the facility point of discharge, representing an integrated approach for assessing the potential for acute and/or chronic toxicity of proposed discharges. The primary objective of WET testing is to ensure that effluent released from industrial and municipal facilities into the nation's waters does not cause unacceptable levels of toxicity to aquatic life. Subsection 5.9.1 describes that the point of compliance for water quality standards relating to operational discharges is the edge of the Zone of Initial Dilution (ZID). Such an approach for water quality standards acknowledges the concept of a regulatory mixing zone where water quality constituent concentrations contained in discharges undergo rapid and substantial reduction via dilution. Within the mixing zone, water quality criteria may be exceeded as long as toxic conditions are prevented. To determine whether an effluent has the potential to be toxic, WET tests are performed on various aquatic test species.

WET testing represents a standardized measure of the aggregate toxic effect of an effluent measured directly by a toxicity test and is used to evaluate biological impacts of discharges for NPDES permitting. The use of biological testing provides a means to evaluate the impact of

chemical and physical mixtures at the site of discharge and will consider benthic species and/or species most relevant to the site. By nature, and definition, toxicity cannot be measured analytically, as is done for assessing the in-pipe concentrations of constituents regulated under the Ocean Plan with numeric Water Quality Objectives (WQOs). Chemical analyses are practical only when all potential constituents present in an effluent are known. WET testing assesses the combined toxic effects of all constituents of an effluent, known or unknown.

Response MBCH3-67

The impact analysis in the Draft EIR incorporates the findings of a quantified analysis of copper dissolution rates from the proposed copper/nickel wedgewire screens. The Project-specific copper dissolution assessment was conducted for the proposed intake structures to determine the potential implications for water quality impacts in the context of numeric water quality standards defined in the California Ocean Plan. The analysis of copper dissolution, presented in the Draft EIR Appendix 4B (Applied Marine Sciences, 2018. Technical Memorandum: Dissolution Estimate of Copper:Nickel Corrosion from Wedgewire Screens) and incorporated into the analysis of impacts under Impact 5.9-2 (Draft EIR Subsection 5.9.4), determined that the dissolution of copper into seawater would not result in exceedances of the California Ocean Plan water quality objectives for copper. Specifically, the mean concentrations of copper-nickel alloy loss were calculated to be 0.03 micrograms per liter (µg/L) for the 90:10 and 0.05 µg/L for the 70:30 copper-nickel alloy wedgewire screens (see Table 5.11-10, Draft EIR Section 5.11, *Marine Biological Resources*, page 5.11-55). In comparison to the 6-month median of 3 micrograms per liter (µg/L), daily maximum of 12 µg/L, and instantaneous maximum of 30 µg/L identified as the California Ocean Plan Water Quality Objectives for Protection of Marine Life thresholds (see Subsection 5.9.1), the estimated daily and instantaneous copper concentrations resulting from corrosion of the copper-nickel alloy would be orders of magnitude smaller. CEQA Guidelines Section 15126.6 requires that an EIR consider alternatives that can avoid or substantially lessen significant impacts of a project. The use of copper-nickel alloy wedgewire screens would not result in an impact requiring the EIR to evaluate a stainless steel alternative; no change has been made to the EIR as a result of this comment.

Response MBCH3-68

Water quality impacts of the Regional Project brine discharge are not assessed against the Local Project's future baseline as the commenter asserts. Water quality impacts from the Regional Project are presented under Impact 5.9-2 (Draft EIR Subsection 5.9.4 page 5.9-58 *et seq*.) which explains that impacts to water quality standards or Waste Discharge Requirements would occur if operational discharges from the Regional Project resulted in salinity concentrations greater than 2 ppt above *ambient salinity levels* (i.e., baseline salinity of Santa Monica Bay under existing conditions, not existing conditions at the time of implementation of the Regional Project) at the edge of the BMZ. The methodology and assumptions for assessing Regional Project salinity impacts are the same as described for the Local Project and are presented in detail in Appendix 14A of the Final EIR. Assuming the most conservative scenario, the model analysis demonstrates that operational discharges from the Regional Project would meet the California Ocean Plan salinity standard (Final EIR Table 5.9-8).

Response MBCH3-69

As described on page 5.9-16 of the Draft EIR, the LARWQCB General NPDES Permit No. CAG994004 (R4-2003-0111) (Dewatering Permit) covers discharges of treated and untreated groundwater generated from permanent or temporary dewatering operations, including groundwater generated from construction dewatering activity. As assessed and discussed in detail under Impact 5.9-1 under "Construction Excavation Dewatering Activities" (Draft EIR Subsection 5.9.4, pages 5.9-42 to 5.9-43), construction dewatering at the proposed desalination facility would require West Basin or their contractor(s) to obtain coverage under the Dewatering Permit for dewatering. The permit requires testing of the effluent to identify the presence of potential contaminants and implementation of appropriate treatment and disposal methods. Options for disposal of dewatering discharge include: (a) onsite treatment, then discharge to the sanitary sewer, (b) discharge to mobile storage tanks, then transportation to a licensed treatment or disposal facility permitted to accept the waste, or (c) onsite treatment, then discharge to groundwater (recharge wells and trenches). An ongoing monitoring and reporting program, with LARWQCB review and approval, is also required under this permit to ensure on-site treatment and/or disposal adheres to the conditions of the Dewatering Permit. Mandatory compliance with the requirements of the Dewatering Permit would ensure that proposed Project dewatering discharges would not mobilize pollutants, result in exceedances of water quality standards, or otherwise degrade water quality or deleteriously affect the beneficial uses of receiving waters.

In addition, as discussed under Impact 5.9-1 and described in detail in Section 5.8 (Draft EIR page 5.8-22 *et seq*.) Mitigation Measure HAZ-1 shall include procedures for managing groundwater generated from dewatering activities, including contaminated groundwater, if any. The disposal procedures for contaminated groundwater would be required to comply with the regulations listed in Subsection 5.8.1 which include RCRA, Hazardous Materials Business Plan Program, Hazardous Waste Control Law, and the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program, all of which require that hazardous waste be disposal at licensed facilities permitted to accept the waste. The specific disposal facility – the sewer system or a hazardous waste treatment facility – would depend on the nature and concentrations of chemicals in the dewatering effluent. See response to comments CCC-13 for additional details.

Response MBCH3-70

As discussed in detail under Impact 5.9-3 (Draft EIR Subsection 5.9.4, page 5.9-61 *et seq*.), groundwater levels in the City of El Segundo vary, but are typically 20 feet below ground surface. While proposed Project construction may require dewatering where deep excavations encounter shallow or perched groundwater, any such dewatering activities would be temporary, highly localized, and would involve the extraction of low volumes of shallow groundwater (i.e., not groundwater from aquifers used for municipal or industrial water supply). No long-term pumping of groundwater from coastal aquifers is proposed as part of the Project and, as such, dewatering activities conducted during construction would not result in significant long-term effects to local groundwater supplies, such as saline intrusion into coastal aquifers. As discussed on page 5.9-35 of the Draft EIR, seawater intrusion has already occurred along the coastal area; the temporary construction dewatering for the desalination facility would not change this condition. In addition,

as explained on pages 5.9-35 and 5.9-36 in the Draft EIR, the Los Angeles County Department of Public Works (LACDPW) owns and maintains a seawater barrier system located inland from the ESGS. This system injects barrier injection water to maintain protective levels to protect the aquifer from seawater intrusion.

Response MBCH3-71

This comment describes similar concerns expressed in comment MBCH3-49. The comment asserts that the decreased elevation of the proposed Project site could expose people to risks associated with flooding, tsunamis, or wave run-up. As explained in the response to comment MBCH3-49 and on page 5.9-72 in the Draft EIR, Section 5.9, *Hydrology and Water Quality*, sea level rise is an existing environmental condition, and unless the proposed Project will exacerbate this condition, it is not considered a potentially significant impact under CEQA.

Nonetheless, West Basin has evaluated the potential effects of anticipated future sea level rise and will implement further design measures to protect the proposed Project from potential effects of sea level rise, as explained in the response to comment MBCH-49 and in the Draft EIR, Section 5.9, *Hydrology and Water Quality*, Impact 5.9-6 on pages 5.9-72 through 5.9-78. In the interest of providing as much information as possible, West Basin conducted a site-specific Coastal Hazards Analysis for the proposed desalination facility at the ESGS North and South Sites, a copy of which is provided in Appendix 5 of the Draft EIR. In response to this and other comments, however, West Basin also prepared a supplemental Coastal Hazards study (see *Master Response: Supplemental Studies* and Final EIR Appendix 15) that considered a high-risk sea level rise projection and the "extreme risk aversion" scenario known as the "H++" scenario. The results of the study confirmed that development on the site would be constrained, but feasible.

While the Draft EIR acknowledges on page 5.9-76, that although the existing southern berm along 45th Street would be retained, the entire ESGS South Site behind the 45th Street berm would be lowered to roughly at grade with the bike trail in order to reduce visual impacts, and would therefore, require coastal hazard protection similar to that provided by the existing ESGS seawall. While the Draft EIR acknowledges that the purpose of Mitigation Measure HYDRO-1 is to require the final Project engineering design to minimize conflicts with the applicable Coastal Act Section 30235 (Construction altering natural shoreline) and Section 30253 (Safety, stability, pollution, energy conservation, visitors), Mitigation Measure HYDRO-1 has been revised in response to comment CCC-19, to include the relevant Coastal Act sections as performance standards. See *Master Response: Supplemental Studies*, and Final EIR Appendix 15. As noted in Draft EIR Section 7.4, one of the reasons the North Site is preferred over the South Site is because of the reduced total construction time because of reduced grading (see Draft EIR Section 7.4).

Response MBCH3-72

See response to comment CCC-31 regarding the proposed Project's potential to conflict with the LCP's Power Plant (PP) land use designation.

Response MBCH3-73

The potential presence of hazardous construction materials, such as oils, lubricants, paints, thinners, solvents, cleaning agents, degreasers, glues, other adhesives, cement, concrete, and asphalt mixtures, on work vessels engaged in the modification of the ESGS intake and discharge pipelines are temporary and must be stored onboard in accordance with both State and Federal regulations. Any "leaching or leaking" of these materials from the work vessels by definition is an accidental release and must be prevented and responded to immediately. As discussed in the Draft EIR on pages 5.11-43 and 5.11-44, the application of mitigation measures HAZ-4 and HAZ-5, respectively, are designed to prevent the accidental release of these materials if present on board any of the work vessels, and therein preventing any potential significant impact should they be released. Furthermore, as indicated in Section 5.8, *Hazards and Hazardous Materials*, none of these products, with the exception of vessel fuel, should be present on the offshore work vessels in quantities sufficiently large to pose a significant threat to marine biota if accidentally released.

Response MBCH3-74

The Draft EIR Section 2.10.10 presents West Basin's extensive evaluation of the technical, economic, social and environmental feasibility of incorporating subsurface intakes into the proposed Project design. Based on the extensive research and site-specific field-testing and analysis, none of the eight subsurface intake technologies evaluated were found to be feasible for the design intake rate of 40 MGD at the ESGS facility. See *Master Response: CEQA and Ocean Plan Compliance*, *Master Response: Supplemental Studies*, and Final EIR Appendix 13.

Response MBCH3-75

The Draft EIR Subsection 7.2.3, page 7-35 identifies alternative brine discharge solutions including co-mingling of brine with wastewater discharges at the City of Los Angeles Hyperion Water Reclamation Plant. As noted on page 7-35, West Basin recognizes that the Ocean Plan Amendment requires that desalination projects demonstrate the best available site, design, technology and mitigation for the treatment facility, intake and discharge facilities. As such, the Draft EIR included two studies in Appendix 10 and Appendix 11 that evaluate the feasibility of using the existing Hyperion discharge to co-mingle the brine discharge as recommended in the Ocean Plan Amendment. The studies identified constraints that made use of the Hyperion discharge facility infeasible. The constraints included the potential for the brine contribution to result in exceedances of Hyperion's existing NPDES permit such that reconfiguration of the diffusers would be required at the end of the five-mile outfall to comply with the Ocean Plan Amendment. The Draft EIR describes why co-mingling of brine with wastewater discharge is not the preferred discharge technology. Nevertheless, West Basin recognizes that during permitting, the feasibility of this alternative will be evaluated for consistency with the Ocean Plan Amendment. For additional discussion regarding Ocean Plan compliance and the assessment of impacts under CEQA see *Master Response: CEQA and Ocean Plan Compliance.*

Response MBCH3-76

See *Master Response: Marine Biological Resources Study Area*. The Draft EIR provides substantial evidence that proposed Project direct and indirect effects on marine habitats and biological resources would be confined to a relatively small area and would not have the potential to generate impacts to habitats or marine species at greater distances than the Marine Study Area, as demonstrated through the empirical transport modeling and characterization of the Environmental Setting. Therefore, species that may be inhabiting the area near the terminus of Ballona Creek, for example, would not be affected by the proposed Project construction or operation, regardless of their sensitivity to salinity increases.

Response MBCH3-77

As described in Draft EIR Subsection 5.3.2, page 5.3-30 and displayed on Figure 5.3-2, critical habitat for the snowy plover occurs within the study area. Impacts to critical habitat are sufficiently analyzed on Page 5.3-30. Impacts to snowy plover are sufficiently analyzed in Subsection 5.3.4, page 5.3-33.

Response MBCH3-78

Contrary to the commenter's assertion, the Draft EIR does indeed address underwater noise and vibration generated by potential Project-related pile-driving. The topic is extensively discussed in the Draft EIR Subsection 5.11.4 (pages 5.11-44 through 5.11-50). In addition, the Draft EIR provides calculations of projected underwater noise generated by Project-related pile-driving (Draft EIR Table 5.11-7, Draft EIR page 5.11-50). Mitigation Measure BIO-M1 (Draft EIR pages 5.11-62 -5.11-63) requires the Project sponsor to prepare a noise reduction plan prior to Project implementation that re-calculates all potential underwater noise generated by the final piling design, and it requires the Project sponsor to develop a plan to reduce underwater noise to levels determined by NMFS not to harm fish and marine mammals. This plan should include all feasible BMPs currently known to reduce underwater noise generation, as well as any new BMPs developed after the preparation of the CEQA analysis and prior to Project implementation. This approach ensures that the best technology is employed to reduce the generation and potential effects of underwater noise from the proposed project that is years, if not decades, from its implementation.

Estimates of underwater noise levels, noise transmittal, and noise attenuation with distance are calculated based on technical data available for pile type, pile driver type, and pile-driving scenario. Calculation of sound attenuation for projected pile-driving determines the distance at which NMFS establishes underwater sound criteria for the proposed Project. These SEL Cumulative threshold distances for fish, and for marine mammals, were presented in Draft EIR Table 5.11-7, and were updated in the Final EIR based on revised technical data, and are presented as part of this response. As illustrated in the revised Table 5.11-7 below, underwater sound levels high enough to potentially cause acute damage to fish is < 2 meters for a vibratory hammer and <18 meters for an impact hammer, depending on the pile composition and diameter used for the piling. Cumulative SEL levels resulting in behavioral changes, depending on the type of pile hammer used, range between 1 and 215 meters. SEL Cumulative harassment underwater

sound levels for marine mammals range between 0.1 and 34.8 meters, depending on the species, piling composition and diameter, and type of hammer used.

Based on these findings, establishing a 500-meter zone by which extra BMP measures are required was considered to be overly cautious. For this proposed Project, work barges, anchoring arrays, and support boats are expected to utilize an area slightly less than 500-meters in circumference. Past marine mammal observations have demonstrated that marine mammals naturally avoid activities and vessels associated with underwater construction. Considering that neither SEL Cumulative sound thresholds, nor impacts associated with construction-related vessels and activities, are estimated to occur at distances greater than 500-meters, requiring additional measures to reduce noise levels that do not exceed these thresholds within this zone is not necessary. Moreover, it would only be necessary to apply additional BMPs if the generated underwater noise levels exceeded established acceptable criteria at some distance from the sound source within which marine mammals could reasonably be expected to occur.

In response to this and other comments (see response to comment SLC-26), the Draft EIR text in Table 5.11-7 is revised as follows:

TABLE 5.11-7
ESTIMATED VIBRATORY AND IMPACT HAMMER PILE-DRIVING SOUND LEVELS AND DISTURBANCE TO CRITERIA LEVELS

Pile Type	Equipment Type	Distance to Sound Level Thresholds (meters) for ~~Non-impulsive~~ Vibratory Hammer Sound Sources[2]: SEL Cumulative Threshold [4] 187 dB (Fish ≥2g)	SEL Cumulative Threshold [4] 183 dB (Fish < 2g)	150 dB (Fish-Behavioral) [3, 4]	SEL Cumulative Threshold [3, 4] 199 dB (Low-Frequency Cetaceans)	198 dB (Mid-Frequency Cetaceans)	173 dB (High-Frequency Cetaceans)	201 dB (Phocid Pinnipeds)	219 dB (Otariid Pinnipeds)	Attenuation Equipment
12-inch Steel Pipe Pile[1]	Vibratory	~~1~~ 0.0	~~1~~ 0.0	12	~~20~~ 2.3	~~108~~ 0.1	~~29.5~~ 2.1	~~12.1~~ 1.2	~~0.9~~ 0.1	None
13-inch Steel Pipe Pile[1, 5]	Vibratory	1.0	~~1~~ 2.0	~~25~~ 22.0	~~20~~ 4.3	~~108~~ 0.2	~~29.5~~ 3.8	~~12.1~~ 2.3	~~0.9~~ 0.2	None
16-inch Steel Pipe Pile[1]	Vibratory	1.0	~~1~~ 2.0	4.0	~~58.5~~ 5.1	~~5.2~~ 0.3	~~86.5~~ 4.4	~~35.6~~ 2.7	~~2.5~~ 0.2	None
16-inch Fiberglass/ concrete pile[1]	Vibratory	0.0	1.0	1.0	~~4.3~~ 1.8	~~0.4~~ 0.1	~~6.4~~ 1.6	~~2.6~~ 1.0	~~0.2~~ 0.1	None
Pile Type	**Equipment Type**	**Distance to Sound Level Thresholds (meters) for ~~Impulsive~~ Impact Hammer Sounds Sources[2]: SEL Cumulative Threshold 187 dB (Fish ≥ 2 g)**	**SEL Cumulative Threshold 183 dB (Fish < 2 g)**	**150 dB (Fish-Behavioral) [3, 4]**	**SEL Cumulative Threshold [3, 4] 183 dB (Low-Frequency Cetaceans)**	**185 dB (Mid-Frequency Cetaceans)**	**155 dB (High-Frequency Cetaceans)**	**185 dB (Phocid Pinnipeds)**	**203 dB (Otariid Pinnipeds)**	**Attenuation Equipment**
12-inch Steel Pipe Pile[3]	Impact	~~6~~ 1.0	~~11~~ 1.0	100	~~1.1~~ 1.8	0.1	2.2	~~0.7~~ 1.0	~~0.0~~ 0.1	None
13-inch Steel Pipe Pile[3, 4, 5]	Impact	~~0~~ 10.0	~~0~~ 18.0	215	29.2	1.0	34.8	15.7	1.1	None
16-inch Steel Pipe Pile[3]	Impact	~~3~~ 2.0	~~5~~ 3.0	63	~~2.7~~ 4.8	~~0.2~~ 0.2	5.5	~~1.7~~ 2.5	~~0.1~~ 0.2	None
16-inch Fiberglass/ concrete pile[3]	Impact	~~0~~ 1.0	1.0	76	~~0.2~~ 1.2	~~0.0~~ 0.0	~~0.5~~ 1.4	~~0.1~~ 0.6	~~0.0~~ 0.0	None

NOTES:

1 Vibratory pile driving hammers have been documented to reduce underwater noise levels a minimum of 14-15 dB and up to 28-29 dB, depending on the pile type, water depth, and type of hammers being used (Caltrans 2015). Estimating the potential underwater noise attenuation distances for steel pipe and fiberglass/concrete pilings using a vibratory hammer, underwater noise levels documented for impact hammers were reduced by 14 dB.

2 NOAA 2018b, NOAA 2016b; NMFS 2016; Caltrans 2015, AMS 2018

3 Time duration for using an impact hammer to set any pilings to desired depth assuming the vibratory hammer cannot, by itself, achieve required anchor depth was <1 hour. Calculations assumed ~~4,440~~ 50 blows per piling, 2 piles per day, XLogR = 15, pulse duration = 0.8 seconds, ~~2.5~~ 2.0 weighting factor adjustment.

4 In calculating the potential SEL cumulative or behavioral threshold distances for fish, if no RMS values available for pile driving calculation, the mean of Peak dB and SEL dB values used. If no SEL value available for the pile driving calculation, then the RMS values is used.

5. Data for the installation of the 13-inch steel pilings reflect very shallow water conditions on the Mad River in Arcata, CA and appear to reflect unique underwater noise reflective conditions.

Response MBCH3-79

Draft EIR Subsection 5.11.2, Marine Biological Resources explains on page 5.11-34 that the Ballona Lagoon (adjacent to Marina del Rey), the El Segundo Dunes, and the Palos Verdes Peninsula have been designated as Significant Ecological Areas (SEAs) and Coastal Resource Areas (CRAs) by the County of Los Angeles. Further discussion of Ballona Creek is presented in Draft EIR Section 5.9 Hydrology and Water Quality. The Draft EIR on page 5.9-26, discusses Ballona Creek within the context of the Santa Monica Watershed. Given the Ballona Creek location (north of the proposed Project site) and the predominant ocean current flow direction (from north to south), as explained in Draft EIR Subsection 5.9.4, the ambient water quality at the ESGS in the nearshore area could be affected by the water quality of the Ballona Creek and Marina Del Rey discharge points, particularly during storm events. The Draft EIR provides substantial evidence that project direct and indirect effects on marine habitats and biological resources would be confined to a relatively small area and would not have the potential to generate impacts to habitats or marine species at greater distances than the Marine Study Area. See also *Master Response: Marine Biological Resources Study Area*.

Response MBCH3-80

As described in the Draft EIR Subsection 5.9.2 (page 5.9-32), salinity levels are generally constant in ocean waters, on average around 34 grams per kilogram of water (commonly reported as parts per thousand (e.g., 34 ppt), but can fluctuate within coastal zones due to introduction of near-shore freshwater. The MBC Applied Environmental Sciences, 2017, Existing Conditions Summary states that salinity levels within Santa Monica Bay (SMB) are generally uniform and vary from 33 ppt to 34 ppt (Draft EIR page 5.9-32) and cites a 1993 study. In the next paragraph, MBC 2017 presents salinity data from between 2010 and 2014 that confirms the salinity range cited from 1993.

The diffuser model analysis (Draft EIR Appendix 4C, Final EIR Appendix 14A), which was summarized and incorporated into the analysis of operational impacts (Impact 5.9-2, Draft EIR page 5.9-49 et seq.), assumed a receiving water salinity of 33.5 ppt based on more than 20 years of local NPDES monitoring, consistent with the 33 ppt to 34 ppt range presented in the proposed Project water quality environmental setting.

The characterization of marine habitats and associated marine communities provided in the Draft EIR Section 5.11, *Marine Biological Resources* established the dominant biological taxa and overall community composition of the various marine habitats present within the marine study area and within SMB. This characterization was based on current knowledge of the biological taxa that utilize habitats offshore of California. Consistent with CEQA Guidelines Section 15125, the environmental setting for marine resources needs to characterize the biological communities present, or expected to be present, within the identified study area that would be potentially exposed to proposed Project activities and impacts. The description of the habitats and associated marine biological communities present within the study area were based on an extensive review and analysis of intertidal and subtidal habitats and biological taxa in the Southern California Bight (SCB) in general, SMB more specifically, and where possible, within the study area itself. This information on the study area was provided in MBC 2017, which was then condensed and

summarized in Draft EIR Section 5.11, *Marine Biological Resources*, pages 5.11-12 through 5.11-36.

The information for the marine study area provided in MBC 2017 was augmented by data and information provided in the 2010 lease extension for the El Segundo Marine Terminal located immediately up coast of the marine study area, and by data from a recent fiber optic cable landing CEQA EIR prepared for the City of Hermosa Beach in 2015. It was fortuitous that a major coastal industrial operation is present within the marine study area, which conducted site-specific scientific investigations of subtidal and intertidal habitats and their associated marine biota. Such site-specific investigations do not exist with respect to most of the coast of California. Even though many of the site-specific studies were conducted 5 or more years ago, the scientific information they provide is valid and demonstrates that the taxa inhabiting the various marine habitats within the SCB are also present, and serve the same ecosystem roles, in the marine study area. Because of previously demonstrated anthropogenic impacts on the nearshore waters near the proposed Project site, reductions and loss of certain species in the marine study area have already occurred. Additionally, more recent studies would not be expected to provide any significant increase in scientific data that would change or alter the analysis of potential impacts on the marine ecosystem. The impact analysis was based on potential habitat alterations by the Project and the potential for impacts to all marine organisms utilizing those habitats. For instance, it is irrelevant if species A or species B of a mollusk was present; if the impact was projected to affect mollusks, all species of mollusks present would be impacted. Finally, all special-status species that have any potential to be present in the marine study area and have any reasonable potential for being effected by Project activities have been adequately assessed.

Response MBCH3-81

The commenter is correct in stating that the occurrence of White sharks in the coastal waters of SMB have been increasing in recent years, especially during the recent warmer El Niño years. The commenter's statement that the waters of SMB serve as potential nursery areas is also correct but misleading because all of the State's inshore coastal waters are used by juvenile White sharks as nursery grounds and foraging areas. To better reflect these considerations and the criteria for establishing expected occurrence within the marine study area, column five of table 5.11-3 has been updated for White sharks to read as follows:

> **Low-Moderate** ~~**Not Expected**~~ **to Low**. Present in coastal waters throughout the State ~~but typically north of the study area~~. with inshore coastal waters frequently used as foraging areas for juveniles. The presence of juvenile White sharks has been noted to increase in SMB during El Niño conditions, but this increase is typically expected to occur north of the study area.

It is an incorrect assertion, however, that the proposed Project's impact analysis omitted White sharks from the analysis and that the Draft EIR only identified two FESA or CESA protected species that had any probability to occur within the marine study area. In fact, 15 taxa of fish and marine mammals were identified as having a low to high probability of occurrence in the marine study area. The analysis of potential Project effects on marine biological resources evaluated those impacts initially on an altered or damaged habitat-basis, and then considered all marine organisms and trophic groups present within those habitats and whether the Project-identified

changes would directly or indirectly impact those taxa. As stated in the Draft EIR (pages 5.11-37 through 5.11-76) the potential for disturbance to pelagic habitat-based taxa during construction is from the temporary loss of foraging area, the temporary decrease in water clarity, and from underwater noise. During operations, potential impacts would include the temporary exposure to the brine plume located within the 0.3 to 0.9 acre Brine Mixing Zone, which represents < 0.04 percent of the pelagic habitat within the marine study area. Based on the defined CEQA evaluation criteria (Draft EIR Subsection 5.11.3, pages 5.11-36 to 5.11-37), the potential for Project-related activities to impact White sharks remains less than significant. Finally, the data used to assess the potential occurrence of special status species does not come from outdated data from surveys in 2001, but as documented in the footnotes of Draft EIR Table 5.11-3 in the Draft on EIR page 5.11-30, the key references used include scientific documents dated 2008, 2010, 2011, 2014, 2017, and 2018.

Response MBCH3-82

See response to comment MBCH3-81.

Response MBCH3-83

The Draft EIR in its discussion of underwater noise from pile-driving activities establishes that underwater noise at high decibel levels causes harm to fish and marine mammals (Draft EIR pages 5.11-44 to 5.11-50). This harm can range from acute effects including death, and indirect effects resulting in altered behavior. NOAA, as the Federally mandated agency responsible for enforcement of the MPA and FESA for marine species, has established underwater noise threshold levels for both fish and marine mammals below which no harm is expected. These thresholds for Level A (acute effects) are provided in Draft EIR Table 5.11-7. Level B (harassment levels) have been established as 120 and 160 dB for non-impulsive and impulsive sound sources, respectively, and were provided in the Draft EIR on pages 5.11-47. NOAA has already gathered sufficient scientific data as well as conducted a number of studies in order to establish acceptable underwater noise levels at which little to no harm to fish or marine mammals are expected to occur. NOAA's regulatory determinations and potential effect levels were duly cited and provided in the Draft EIR on pages 5.11-47-48.

The recent scientific work conducted by Ted Cranford and referenced by the commenter was published on April 23, 2018, after the March 27, 2018 release of the Draft EIR. Cranford used computer tomography of an entire minke whale and combined it with custom-developed computer simulation tools to model how whales hear sounds. This research is not directly relevant to the analysis in the EIR because it is not necessary to understand how a specific species hears sound in order to recognize negative effects of sound on that animal above certain sound levels. NOAA, as the Federally mandated agency responsible for implementation of the Marine Mammal Protection Act, has determined at what sound levels acute or chronic effects occur on marine mammals. It is in accordance with these Federally established noise thresholds that the Draft EIR assessed proposed Project related underwater noise generation and potential effects.

Response MBCH3-84

All work vessels, including work barges, commercial diver tenders, pipe laying ships, etc. are expected to originate from the Ports of Long Beach and Los Angeles (POLB/POLA), as stated in Draft EIR Subsection 3.5.2 and again on page 5.11-39. The marina at Marina Del Rey is too small to support or dock these large offshore construction and support vessels. Smaller crew boats that may be used to ferry work crews on a daily basis during offshore construction activities for the proposed Project may originate from POLB/POLA or Marina Del Rey, since smaller vessels can be used. This option is also accurately described in Draft EIR Subsection 3.5.2 and on page 5.11-39. The potential impact analysis for marine biological resources considered different types of vessels originating from all local harbors, as well as POLB/POLA, as stated in the Draft EIR on page 5.11-39.

Response MBCH3-85

The bulk of the information on recovery of benthic infauna following dredging comes from experience with offshore sand mining projects for beach nourishment, construction materials, and precious metals. Most of these scientific studies were conducted worldwide in the late 1990's and early 2000's. Although several coastal desalination projects have been constructed in California, none of those projects have been required to conduct post-construction benthic recovery studies. The commenter's concern regarding dispersal of species and its role in mortality and harassment is unclear. The Draft EIR analysis assumed 100 percent mortality of all infaunal and epifaunal organisms inhabiting dredged sediments. This might include some small fish, such as blennies, that may be extracted with the dredged sand. Once this material is placed back on the seafloor, it will become recolonized through emigration from surrounding, undisturbed sediments and by annual spring recruitment of larvae that settle out onto the seafloor from the overlying water column. Therefore, a few months to several years were noted in the Draft EIR in order for the sediments to achieve full recovery, given that it might take a few years of recruitment to fully recolonize the sediments.

Response MBCH3-86

The analysis of potential dredging effects on marine seafloor habitat and associated invertebrate and fish taxa is presented in the Draft EIR on pages 5.11-39 through 5.11-43. It includes the temporary loss of approximately 8 acres of seafloor habitat used for fish foraging. Additional impacts to the seafloor habitat include increased turbidity, shading and light attenuation, and potential entrainment of small, less mobile fish and invertebrates. The Draft EIR determination that proposed Project dredging activities would result in a less than significant impact was based on multiple factors as outlined in the methodology (Draft EIR pages 5.11-36 through 5.11-38). In reference to the commenter's concern about entrainment of fish and less motile invertebrates during dredging, as discussed in the subsection entitled Marine Wildlife Entrainment (Draft EIR page 5.11-41), the proposed Project will use a clamshell dredge as prior studies by the USACE (Reine and Clark 1998) have demonstrated that this type of dredge substantially limits the entrainment of fish. Fish are typically not entrained because most fish swim away from the actual dredging area, and because fish stay away from the area due to the physical disturbance created by the dredge bucket entering and exiting the water column. However, some fish, such as small

blennies, and epifaunal invertebrates, that tend to either hide in burrows in the sediment or are too slow to move away from the dredge bucket, may be entrained together with the sediments during dredging. When this material is side-cast the material is winnowed into the water column just above the seafloor allowing many of the entrained fish and some of the epifaunal invertebrates to swim or float away. The combination of the proposed dredging equipment, the use of side-casting, the documented behavior of fish in response to dredging activities, and the small area of the seafloor being temporarily disturbed, resulted in a determination of less than significant impact from proposed Project dredging activities.

Additionally, the distribution of epibenthic invertebrates, such as urchins, sea stars, sea pens, sand dwelling anemones, are typically fairly broad and the numbers entrained by the clamshell dredge are limited and low. Recovery of these organisms, like the benthic infauna are fairly rapid, typically faster than that required for benthic infauna.

Response MBCH3-87

As with the response to comment MBCH3-85 above, the determination of an impact was based on multiple criteria (Draft EIR pages 5.11-36 through 5.11-38). Relative to increased turbidity from proposed Project dredging activities, it was based on the extremely small area of seafloor being dredged (<0.4 percent), the short duration of dredging activities (< 60 days), the standardized permit requirements issued by State and Federal agencies, which routinely include all existing BMPs to reduce suspended sediments, the grain size composition of the sediments being dredged, and naturally occurring oceanographic conditions that would be expected to quickly disperse any generated turbidity plume. These BMPs include the use of silt curtains, gunderbooms, dredging operation controls such as longer cycle times to reduce the speed at which a loaded dredge bucket is pulled through the water column, elimination of multiple bites with the dredge bucket, and using environmental dredge buckets as appropriate and feasible. These BMP's were listed in Section 5.9, *Hydrology and Water Quality*, on page 5.9-45.

Response MBCH3-88

The Draft EIR Subsection 2.10.4 presents the results of an impingement and entrainment study for the West Basin Demonstration Desalination facility (Tenera 2014) and the entire report is included as Appendix 4A to the Draft EIR. The report assessed impingement and entrainment impacts for the West Basin Demonstration Desalination Facility and a conceptual full-scale desalination facility. Appendix 4A was discussed in Draft EIR Subsection 2.10 as Project Development Background, and provided an overall assessment of the impacts of the demonstration facility, of a proposed full-scale facility, and of the potential reductions in impacts due to the use of wedgewire screens. In fact, while the Draft EIR explains on page 2-33 that "losses of 1 to 2 percent of the source water populations for the majority of the taxa analyzed," the next sentence on the same Draft EIR page explains that the "report findings indicate that screened ocean intakes fitted with wedgewire screens significantly reduce or eliminate potential impingement effects and entrainment impacts."

Furthermore, the analysis of impacts on the marine environment from the proposed Project is evaluated in Draft EIR Subsection 5.11.4. By utilizing the approach to mitigation described in the

2015 Ocean Plan Amendment, the implementation of Mitigation Measure BIO-M2 will counteract annual larval losses by increasing area of habitat potentially used for fish spawning and as fish nursery grounds.

Response MBCH3-89

The Draft EIR did not require an independent assessment of cross-current velocities across the proposed wedgewire screened intakes. A previous site-specific evaluation of wedgewire screened intakes (Tenera 2014, see Draft EIR Appendix 4A) was conducted under operating conditions comparable to the proposed Project (1.0 mm wedgewire screens with intake flow velocities of <0.5 fps), demonstrating that no impingement of larval organisms or larger fish occurred. The analysis in this study confirmed that under the proposed operating conditions and at a location near the proposed Project, impingement did not occur. Additionally, the approach velocity of ocean water flowing across the screen's surface was calculated, given an intake flow rate of 0.5 fps, would be approximately 0.141 fps (GHD 2018). This velocity represents the cross-flow current speed needed to prevent impingement. Surface currents in SMB average between 0.3 – 0.66 fps (Hickey 1992), not including wind wave or storm surge, which would increase these average figures.

Response MBCH3-90

The previously conducted Intake Effects Assessment Report (Tenera 2014, see Draft EIR Appendix 4A) referenced by the commenter assessed the potential for impingement on the wedgewire screen by a scaled-down pilot version of an ocean intake in SMB. This pilot intake facility was operated under the same intake water flow rate of <0.5fps and using a 1.0 mm slot-width screen, as is proposed by the Project. The results of this study are directly applicable to the assessment of the Project's impingement potential, regardless of actual intake flow volume. Flow volume only becomes critical in estimating potential total entrainment of planktonic organism <1.0 mm in size. See also response to comment MBCH3-89.

Response MBCH3-91

The Draft EIR Section 5.11, *Marine Biological Resources*, does not make any reference or statements concerning entrainment of species >2 mm. The analysis of entrainment (Draft EIR pages 5.11-49 through 5.11-54) does consider the potential for entrainment of organism < 1 mm or close to 1 mm in size based on the wedgewire screen. The Intake Effects Assessment Report (Tenera 2014) previously referenced by the commenter states that some larval fish and invertebrate organisms < 1mm in size or close to 1 mm in size would still be expected to occur. This conclusion was included in the analysis of entrainment (Draft EIR page 5.11-51). The analysis on entrainment also considered larval fish head size and identified those taxa whose larval head size were substantially larger than 1 mm as planktonic organisms that would most likely not be entrained (Draft EIR Table 5.11-9).

Response MBCH3-92

The Draft EIR did in fact consider the potential impacts from increased salinity on organisms in the marine study area, including planktonic organisms. As discussed in more detail in the Draft

EIR (on pages 5.11-56 through 5.11-58) the potential effect of increased salinity, as high as 36.5 ppt, was assessed for different kinds of taxa, including plants, invertebrates, fish and plankton. As presented in the Draft EIR Table 5.11-11, toxic effects from increased salinity to planktonic organisms such as Mysid shrimp, are only documented to occur when salinities are >47.8 ppt for survival and >49.7 ppt for growth. The projected salinity of the Project discharge is modeled to be <35.5 ppt at the edge of the Brine Mixing Zone (as defined by the CA Ocean Plan; SWRCB 2015) for all scenarios modeled, which is estimated to be approximately 45 to 63 feet out from the diffuser for the Local Project and 70 to 98 feet for the Regional Project, and well below the salinity concentrations where any effects to planktonic organism have been documented.

Response MBCH3-93

The Draft EIR does in fact estimate potential impacts to planktonic organisms from impingement (Draft EIR page 5.11-49), entrainment (Draft EIR pages 5.11-49 through 5.11-54; Draft EIR Table 5.11-9), and potential discharge shear stress mortality (Draft EIR pages 5.11-58-5.11-60; Draft EIR Table 5.11-12). Impacts from shear stress and impingement and entrainment were not purposely "segmented"; they were analyzed in accordance with the OPA requirements. In the cases of entrainment and shear stress mortality, both impacts were assessed to be potentially significant unless mitigated. With the implementation of Mitigation Measure BIO-M2, which includes direct offsite ecological habitat enhancement or funding for offsite ecology habitat enhancement, the potential effects would be reduced to a less than significant level after mitigation.

Response MBCH3-94

The Draft EIR Appendix 11 evaluates the feasibility of constructing a brine discharge pipeline to Hyperion Water Reclamation Plant to co-mingle brine with the existing secondary-treated wastewater effluent. The study comports with the Ocean Plan Amendment requirements to evaluate the possibility of co-mingling brine with existing ocean discharges. The study concludes that the construction of a pipeline would be difficult, but technically feasible. However, the study concludes that future wastewater flows in the Hyperion outfall are not sufficiently reliable to support the dilution benefits associated with co-mingling. Furthermore, since the publication of the Draft EIR, the Mayor of the City of Los Angeles announced on February 21, 2019, that the City will recycle 100 percent of its wastewater by 2035, further assuring that any co-mingling of brine with wastewater at the Hyperion plant would be infeasible. As a result, significant alterations to the outfall diffuser would be required similar to the proposed outfall. And because West Basin does not own the Hyperion facility, the study concluded that it would be infeasible to obtain permission from the City of Los Angeles to retrofit the existing outfall to accommodate ocean water desalination brine. While, the benefits of co-mingling brine with wastewater effluent are to meeting water quality standards, little benefit is gained with regards to discharge entrainment and shear stress impacts. As such, West Basin has met the Ocean Plan's requirements to investigate the feasibility of using existing outfalls to co-mingle brine and proposes to use a multi-port diffuser; see Final EIR Appendix 14.

Response MBCH3-95

The commenter's assertion that the potential effects of the Regional Project were determined to be less than significant on the basis that the impacts would be similar to those of the Local Project is incorrect. All of the potential effects of the Local and Regional Projects were assessed individually against baseline conditions. While the types of effects on marine habitats and ecosystems would be similar between the Projects, the magnitude of effects would differ. Specific to the commenter's example of the differences between the Local and Regional Project's salinity discharge, this is discussed in detail in Section 5.9, *Hydrology and Water Quality*, beginning in the Draft EIR on page 5.9-58, and Draft EIR Table 5.9-8, which presents information on the Regional Project relative to the brine discharge.

Response MBCH3-96

As discussed in Section 5.12.1, the proposed Project is located within the City of EL Segundo, which is subject to the El Segundo Municipal Code (ESMC) Section 7-2-10. Section D states the following:

> Exemptions:
>
> (D) Construction Noise: Noise sources associated with or vibration created by construction, repair, or remodeling of any real property, provided said activities do not take place between the hours of six o'clock (6:00) PM and seven o'clock (7:00) AM Monday through Saturday, or at any time on Sunday or a Federal holiday, and provided the noise level created by such activities does not exceed the noise standard of sixty five (65) dBA plus the limits specified in § 7-2-4C of this Chapter as measured on the receptor residential property line and provided any vibration created does not endanger the public health, welfare and safety.

As stated on page 5.12-6, "Although the Project is not in the city of Manhattan Beach, the El Segundo Generating Station (ESGS) South Site is located immediately adjacent to Manhattan Beach City limits and within 130 feet of residential units across 45th Street from the South Site. Accordingly, potential impacts to these Manhattan Beach residents are evaluated in light of Manhattan Beach's noise standards."

The Manhattan Beach Municipal Code (MBMC) Section 5.48.060, as well as Section 9.44.030, restricts construction to 7:30 a.m. and 6:00 p.m., Monday through Friday, and 9:00 a.m. and 6:00 p.m. on Saturdays. MBMC Section 5.48.250 exempts construction activities from the MBMC daytime standards.

Therefore, both the ESMC and MBMC limit construction to daytime hours Monday through Saturday. Even though the proposed Project itself is not located in Manhattan Beach, construction of the proposed Project would adhere to these allowable daytime hours for construction activities occurring within the El Segundo and Manhattan Beach jurisdictional boundaries, as required in Mitigation Measure NOI-1.

In addition, as stated on page 5.12-17, both El Segundo's and Manhattan Beach's noise ordinances exempt reasonable daytime construction noise. However, as is typical for construction

activities in proximity to residences, proposed Project construction noise would exceed the operational exterior noise standards for residential uses.

Implementation of Mitigation Measures NOI-1 through NOI-3 would lessen construction noise and ensure that impacts at sensitive receptors would be minimized. Mitigation Measure NOI-1 requires that construction equipment be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices. Mitigation Measure NOI-2 requires that West Basin provide a qualified "Noise Disturbance Coordinator" to respond to local complaints, should they arise. Mitigation Measure NOI-3 would require West Basin to investigate pile installation methods other than percussive pile driving and implement the alternative method if feasible.

Nevertheless, as stated on page 5.12-17, despite implementation of all feasible mitigation, and despite the fact that construction is exempt from the local noise ordinances, given the duration of construction and proximity to noise-sensitive receptors, and given the City of El Segundo's and City of Manhattan Beach's noise standards for residential uses that would be exceeded for an extended duration, construction of the Local Project with respect to noise impacts during construction is considered significant and unavoidable.

Response MBCH3-97

The Draft EIR identifies worse-case noise generation during specific construction activities in order to assess the maximum noise impact that could occur during construction. The loudest activities would not be occurring consistently over the 72 months for the Local Project, but may occur during extended periods. Mitigation Measures NOI-1 through NOI-4 have been established to minimize the noise impacts to local receptors, including limiting the duration of noise generating activities. However, the Draft EIR concludes in Tables 5.12-9 and 5.12-16 that construction noise may exceed thresholds of significance. As discussed on page 5.12-17, Mitigation Measure NOI-3 would require West Basin to investigate pile installation methods other than percussive pile driving and implement the alternative method if feasible. As discussed on page 5.12-22, Mitigation Measure NOI-2 which would be implemented for construction activities near local residences, requires that West Basin designate a qualified Noise Disturbance Coordinator who shall have the authority to require the installation of a temporary noise barrier to reduce noise impacts to the closest sensitive receptors. The noise barriers shall be tall enough to effectively block sight-lines of the construction to the closest residences. The contractor shall install noise barriers as directed by the Noise Disturbance Coordinator to minimize construction noise and resolve noise complaints.

However, despite implementation of all feasible mitigation, and despite the fact that construction is exempt from the local noise ordinances, given the duration of construction and proximity to noise-sensitive receptors, and given the City of El Segundo's and City of Manhattan Beach's noise standards for residential uses that would be exceeded for an extended duration, construction of the Local Project with respect to noise impacts during construction is considered significant and unavoidable.

Response MBCH3-98

West Basin is aware that construction noise may impact sensitive receptors, and it has committed to implementing all feasible mitigation measures for both the Local Project and Regional Project. The comment does not suggest any additional mitigation measures that West Basin could implement that would assist in further reducing or avoiding noise impacts. Mitigation Measure NOI-2 already requires West Basin to install noise barriers if needed to meet noise thresholds established by the City or if needed to reduce nuisance noise at nearby receptors. Mitigation Measure NOI-3 requires West Basin to implement drilling or vibratory methods to install piles if technically feasible. The Draft EIR recognizes that percussive pile driving may be the only method that can achieve the building safety standards needed to ensure compliance with the California Building Code (CBC). If this is the case, West Basin has prepared for the possibility and identified a significant and unavoidable impact of the project. This is not a deferral of mitigation or refusal to implement all feasible mitigation, but rather a recognition that final geotechnical data may determine that other methods are insufficient.

As stated in Mitigation Measure NOI-2, on page 5.12-22, throughout proposed Project construction and operation, West Basin shall document, investigate, evaluate, and attempt to resolve all Project-related noise complaints as soon as possible. For construction activities near local residences, the Noise Disturbance Coordinator shall have the authority to require the installation of temporary noise barriers to reduce noise impacts to the closest sensitive receptors. The noise barriers shall be tall enough to effectively block sight-lines of the construction to the closest residences. The contractor shall install noise barriers as directed by the Noise Disturbance Coordinator to minimize construction noise and resolve noise complaints. Noise barriers are effective only if it is feasible and technically possible to install a barrier of sufficient height and width that blocks the line-of-sight between the noise source and all potentially affected receptors. In addition, as discussed in Mitigation Measure NOI-3, West Basin shall determine the feasibility of using construction methods that avoid percussive pile driving. Other methods of pile installation such as vibratory or drilling shall be investigated during development of final designs and implemented if feasible.

Response MBCH3-99

The Draft EIR provides a detailed analysis of the potential for proposed construction methods to result in vibration that could damage structures. In an abundance of caution, the Draft EIR includes a Mitigation Measure NOI-5 that evaluates potential vibration effects of final construction methods and proximity to the existing structures and prohibits vibratory construction methods that are close enough to the storage tank to risk its structure integrity. This is not deferral, but rather a cautious measure to ensure the integrity of the storage tank.

Typical vibration levels produced by construction equipment are illustrated in Table 5.12-13, which identify a range of vibration levels at 25 feet for pile drivers both impact and sonic. Proposed Project construction can generate varying degrees of ground-borne vibration, depending on the construction procedure and the construction equipment used. Construction equipment operations generate vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on structures located in the vicinity of the construction site

often varies depending on soil type, ground strata, and construction characteristics of the receiver structures. The results from vibration can range from no perceptible effects at the lowest vibration levels to low rumbling sounds and perceptible vibration at moderate levels, to structural damage at the highest levels. Ground-borne vibrations from construction activities rarely reach levels that damage structures.

The closest structure on site would be the storage tank that could be within 25 feet of the pile driving activities. At this proximity, vibration could exceed structural damage thresholds for reinforced concrete or steel structures, as noted in Table 5.12-7. Because neither specific pile driving equipment nor a specific construction contractor has been selected, Mitigation Measure NOI-5 would require that West Basin evaluate whether pile driving installation activities within 100 feet of the existing storage tank located east of the ESGS site could damage the tank, which would depend on the specific pile driving equipment characteristics, as well as soil type, ground strata, and construction characteristics of the receiver structures. If vibration analysis concludes that construction methods could result in vibration beneath the tank that could result in structural damage, West Basin shall modify construction methods to ensure vibration would not be generated at levels that could damage the tank. The potential impact would only occur at the South Site Alternative. The Waste Management Plan that is required by Mitigation Measure HAZ-1 would include emergency contingencies to ensure full secondary containment of the storage tank is sufficient to avoid any risk of uncontrolled release from the tank.

In addition, during construction, Mitigation Measure NOI-5 requires West Basin to continue to monitor the storage tank for damage if construction activities occur within 25 feet of the tank. In response to this comment Mitigation Measure NOI-5 has been modified to ensure that if any damage is detected, all related construction activities must immediately stop and be modified to avoid further damage:

> **NOI-5:** Prior to conducting sheet piling installation activities within 100 feet of the existing ~~Chevron~~ storage tank, West Basin shall conduct a vibration analysis of the local impact area to evaluate the potential for the construction methods to damage the tank. If vibration analysis concludes that construction methods could result in vibration beneath the tank that could result in structural damage, West Basin shall modify construction methods to ensure vibration would not be generated at levels that could damage the tank. ~~West Basin shall provide the assessment to Chevron for their review and comment.~~ West Basin shall monitor the existing ~~Chevron~~ storage tank for damage during construction activities within 25 feet of the tank. If damage from project-related vibration is detected, West Basin shall cease construction until methods are developed to avoid further damage and West Basin shall repair the damage.

Response MBCH3-100

The Draft EIR Section 5.12, *Noise*, analyzes the proposed Project's potential to affect both temporary (Impact NOI 5.12-4, page 5.12-31) and permanent (Impact NOI 5.12-3, page 5.12-28) ambient noise in the area. The Draft EIR identifies the ambient noise measurements (page 5.12-11) that were conducted at locations representative of typical existing noise exposure within and immediately adjacent to the desalination facility site and proposed conveyance system routes. The

ambient noise measurement location at the Strand and 45th street was selected to address potential noise impacts to the El Porto community in Manhattan Beach directly to the south of the proposed Project. The Draft EIR provides a detailed assessment of both construction and operational noise, concluding that construction noise could result in a significant and unavoidable impact of the project. Once constructed, noise impacts would be less than significant with mitigation applied. Operational noise impacts are analyzed on page 5.12-19.

As discussed in Impact NOI 5.12-1, noise from the desalinated water pump station and discharge pump station would be approximately 62 dBA without incorporating noise attenuation from enclosures, intervening structures, or topography, which could exceed Manhattan Beach's operational noise standards for residential uses. Mitigation Measure NOI-4 would require that West Basin incorporate acoustical treatments including enclosures for noise-generating machinery, which would achieve 40 dBA attenuation, to meet the nighttime noise standards for residential uses, which are lower than the daytime standards. Furthermore, as stated in Impact NOI 5.12-3, Mitigation Measure NOI-4 would require that West Basin design the facilities with acoustic treatments sufficient to meet local exterior noise standards. Mitigation Measure NOI-2 would require West Basin to monitor noise levels at the facility to ensure that the proposed Project does not exceed El Segundo's (Table 5.12-1) and Manhattan Beach's (Table 5.12-2) noise standards for residential uses. The Draft EIR notes that the closest residences may be 130 feet south of the enclosed pump station. Compliance with the noise ordinance standards would require that the facility control noise sources to levels below existing ambient levels. As shown in Table 5.12-6, the ambient noise level at the Strand and 45th Street is 59.3 dBA Leq. Therefore, with the incorporation of required mitigation measures, the proposed Project's contribution to the permanent ambient noise would not be perceptible, and impacts would be less than significant with mitigation. The Draft EIR complies with CEQA requirements to identify potential noise impacts associated with construction and operation and to propose mitigation measures that would ensure noise impacts are avoided or minimized through the establishment of measurable performance standards. See *Master Response: Environmental Impacts to the El Porto Community*.

Response MBCH3-101

As discussed in Section 3, *Project Description*, the proposed Project includes an initial desalination facility of 20 million gallons per day (MGD) of drinking water (Local Project) and the potential future expansion of the facility to produce up to 60 MGD (Regional Project). The Regional Project is inclusive of the Local Project, meaning that the assessment of noise impacts associated with the Regional Project includes the entirety of the combined facility at a project level. Project-level analyses examine all phases of a proposed project, including planning, construction, and operation, at a site-specific level, consistent with CEQA Guidelines Sections 15161 and 15378(a). The project-level EIR analysis is based on conservative assumptions, with the intent to sufficiently anticipate and address reasonably foreseeable potential environmental impacts. This EIR addresses appropriate aspects of the Regional Project (60 MGD) at a "programmatic level," pursuant to CEQA Guidelines Section 15168. While much of the Regional Project components are analyzed at a project-level, the Regional Project's details concerning design and operational characteristics have not been determined, and therefore, they cannot be

analyzed at the level of detail required for project-level analysis. The Regional Project would be collocated with the Local Project site (on either ESGS North or ESGS South). Once this Draft EIR environmental review process is complete, West Basin will consider whether to approve the Local Project. If the Local Project is approved, West Basin plans to pursue regulatory permits to implement the Local Project. If and when West Basin considers moving forward with the Regional Project (60 MGD), the specific designs that are known at that time could require subsequent project-level environmental review pursuant to CEQA Guidelines Section 15168(c).

As discussed on page 5.12-30, similar to the Local Project, operation of the Regional Project would generate noise within structures designed to minimize noise impacts to sensitive receptors. On-site activities associated with facility operation would be subject to Mitigation Measure NOI-2, ensuring that the facility would not increase ambient noise levels compared with existing conditions, and Mitigation Measure NOI-4, which would ensure that structures are designed with acoustic treatments sufficient to meet exterior noise standards. With implementation of mitigation, a less than significant impact would occur.

Response MBCH3-102

If the Chester Washington Golf Course is ultimately chosen as the location for the Regional Project pump station, West Basin will work with the County of LADPR to compensate for replacement of park space. The CEQA Guidelines questions analyzed in Section 5.14, *Recreation*, include 1) whether the proposed Project would increase the use of existing parks that would damage the recreational facilities or 2) whether the proposed Project would include recreational facilities or require expansion of recreation facilities that might have impacts on the environment. West Basin has appropriately analyzed these topics in Section 5.14. West Basin will coordinate with LADPR regarding any future use of the Washington Golf Course. See also Response to LADPR-1.

Response MBCH3-103

The agencies responsible for permits, approvals and regulatory requirements are listed in the Draft EIR Table 3-11. The same table also lists the required permits or approvals, and for what activity or component the permit or approval would be required.

Response MBCH3-104

As explained in Impacts REC 5.14-1 (pages 5.14-7 and 5.14-8) and TRA 5.15-6 (pages 5-15-33 and 34), application of Mitigation Measures REC-1 and TRA-1 would provide for local agency coordination around bicycle path disruptions, and establishment of appropriate detours and associated signage during periods of closure. Thus, with these measures implemented, any closures of the bike routes identified in Figure 5.14-1 would be accompanied by bike path detours during construction.

Response MBCH3-105

Impacts associated with rerouting the Marvin Braude Bike Trail during construction are addressed in Section 5.14, *Recreation* and Section 5.15, *Transportation and Traffic*. As discussed on pages 5.14-7 and 5.15-33, work immediately adjacent to the Marvin Braude Coastal Bike Trail

would occur for a period of several weeks. As currently envisioned, use of the bike trial could be disrupted for a period of several weeks during the 5-year construction period. As explained in Impacts REC 5.14-1 (pages 5.14-7 and 5.14-8) and TRA 5.15-6 (pages 5-15-33 and 34), application of Mitigation Measures REC-1 and TRA-1 would provide for local agency coordination around bicycle path disruptions, and establishment of appropriate detours and associated signage during periods of closure. Thus, with these measures implemented, any closures of the subject trail would be accompanied by instructions regarding safe alternative routes.

Mitigation Measures REC-1 and TRA-1 apply to all bike routes that could be impacted by proposed Project construction as identified in Figure 5.14-1.

Response MBCH3-106

The analysis in Draft EIR Section 5.15, *Transportation and Traffic* (Impact TRA 5.15-1), examines the potential for the proposed Project to conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. The discussion considers numerous local policies and regulations (specified in Subsection 5.15.1, *Regulatory Framework* and Subsection 5.15.3, *Significance Criteria and Thresholds*), and does not address those of individual jurisdictions specifically. Nevertheless, for the reasons presented in the Draft EIR, and summarized below, the analysis addresses and concludes the proposed Project would not conflict with applicable Manhattan Beach General Plan provisions.

In the discussion of potential construction impacts (Impact TRA 5.15-1; pages 5.15-17 through 5.15-22; 5.15-23 through 5.15-24), the Draft EIR acknowledges that the proposed Project would increase worker and truck trips on local roadways during the construction period. To minimize the effect of additional traffic on local roadways during construction, including traffic which could conflict with the policies and regulations of local jurisdictions, the Draft EIR recommends Mitigation Measures TRA-1 and TRA-2, which call for preparation and implementation of a traffic control plan and parking and staging plan. The traffic control plan would be required to address several construction traffic issues, including timing of materials deliveries, lane closures and detours, specify haul routes, and preservation of emergency service provider access, among other measures to reduce local construction traffic impacts. The parking and staging plan would require that all proposed Project-related parking occur on-site or in predesignated off-site proposed Project areas, among other measures (page 5.15-26). The Draft EIR concludes that with these measures, proposed Project construction would have a less than significant impact with respect to plans and policies establishing measures of effectiveness for the performance of the circulation system.

Similarly, the Draft EIR's discussion of operational impacts on traffic explains proposed Project operations would result in a nominal increase in local traffic, which would not significantly impact the level of service on areas roadways. The analysis concludes that, without mitigation, proposed Project operations would have a less than significant impact with respect to plans and policies establishing measures of effectiveness for the performance of the circulation system (Impact TRA 5.15-1; pages 5.15-22 through 5.15-23; 5.15-25 through 5.15-26).

Therefore, while the impact discussion does not include specific consistency findings with respect to individual provisions of specific local government policies and regulations concerning traffic and transportation, the impact discussion draws upon the requirements presented in Subsection 5.15.1, *Regulatory Framework*, and standards presented in Subsection 5.15.3, *Significance Thresholds and Criteria*, in evaluating and concluding whether the proposed Project would conflict with any such requirement. Table 5.10-3 summarizes the proposed Project's consistency with the Coastal Act, Sea Level Rise Policy Guidance, and El Segundo LCP plans, policies, and regulations. For the reasons presented, the proposed Project would not conflict with Manhattan Beach goals or policies related to the performance of the circulation system.

Response MBCH3-107

As discussed in Draft EIR Section 5.14, *Recreation* (page 5.14-7) and Section 5.15, *Transportation and Traffic* (Impact TRA 5.15-6; page 5.15-33), work immediately adjacent to the Marvin Braude Coastal Bike Trail could occur for a period of several weeks. As currently envisioned, use of the bike trial could be disrupted for a period of several weeks during the 5-year construction period. As explained in Impacts REC 5.14-1 (pages 5.14-7 and 5.14-8) and TRA 5.15-6 (pages 5-15-33 and 34), application of Mitigation Measures REC-1 and TRA-1 would provide for local agency coordination around bicycle path disruptions, and establishment of appropriate detours and associated signage during periods of closure. Thus, with these measures implemented, any closures of the subject trail would be accompanied by instructions regarding safe alternative routes, which would not include forcing trail users onto the sand.

Response MBCH3-108

The Draft EIR includes provisions in the Project Description that indicate worker trips would occur prior to 7 AM and either before 4 PM or after 6 PM. This is based on the need to begin and end construction at the allowable hour each day to maximize constriction time. Additionally, the Traffic Control Plan required under Mitigation Measure TRA-1 will "identify need for construction work hours and arrival/departure times outside of peak traffic periods."

Response MBCH3-109

The Draft EIR presents two options for sewer connection, the City of Manhattan Beach and the City of El Segundo. West Basin will work with both entities regarding the potential sewer connection. Impacts of both connections are adequately addressed in the Draft EIR on page 5.16-16 respective to Utilities. West Basin will work with either city to procure all necessary permits and approvals.

Response MBCH3-110

The goal of the proposed Project is to reduce reliance on imported water and improve water reliability and security in an environmentally responsible manner. Phase 1 of the Project identifies 21,500 AFY as a target amount that could be increased to 60,000 AFY in a Regional Project in the future. Since West Basin's future demands are generally similar to existing demands (see Draft EIR on page 2-15), the amount of water provided by ocean water desalination would directly reduce the need for imported water. As stated in the Draft EIR on page 6-8 and 6-9,

"While the Project would provide a new water source within West Basin's service area, it would replace imported water distribution through the service area and therefore would not induce future growth. Rather, as a project to support future reliability by creating a new local water source, the Project would accommodate existing demand and a very small (0.4 percent) annual increase in demand such that water infrastructure reliability would not be an impediment to already planned growth." The Draft EIR therefore concludes that proposed Project neither supports nor encourages growth within West Basin's service area to a greater degree than presently estimated by the 2015 UWMP and land use agencies with jurisdiction over the proposed Project area. See EIR Section 6, Other CEQA Considerations, specifically Section 6.2.3 Population Growth.

Contrary to the commenter's interpretation of the language presented on page 6-9 on the Draft EIR, ("…the Project would be implemented in phases to ensure the new supply is appropriately keeping up with population growth"), the Regional Project would only be implemented as necessary to meet projected water demands (imported or locally-produced) consistent with the demographic forecasts developed by Southern California Association of Governments. In fact, the 21,500 AFY of potable water to be produced by the Local Project is in direct response to the 20,342 acre-foot shortfall that West Basin's 2015 Urban Water Management Plan (2015 UWMP; West Basin 2016) identifies would be experienced in a multiple-dry year event. See *Master Response: Water Supply Alternatives*.

Response MBCH3-111

The demolition of existing NRG Units 3 and 4 are analyzed throughout the EIR where impacts would result from this particular activity. Where different, impacts associated with the North Site and South Site are distinctly analyzed in the Draft EIR (oftentimes with distinct headings). The example provided by the commenter is accurate because as stated in the Draft EIR on page 5.14-7, the demolition of Units 3 and 4 would occur entirely within the ESGS site perimeter and would not interfere with nearby recreational activities. This is clearly not applicable to the South Site, where demolition of existing units would not occur and is not applicable to the analysis.

Response MBCH3-112

See response to comment MBCH3-94.

Response MBCH3-113

As stated in the Draft EIR in Subsection 7.3.4 on page 7-55, the Reduced Elevation – South Site Plan Alternative would reduce the significance level of aesthetic impacts by minimizing the aesthetic impact to neighboring residential land uses. While this alternative reduces the aesthetic impact, it does not reduce any of the significant and unavoidable impacts identified in the Draft EIR to air quality or noise.

Regarding the commenter's assertion that the Draft EIR be revised to include more alternatives that reduce potentially significant impacts, West Basin has done its due diligence per CEQA Guidelines Section 15126.6(b) to choose a range of reasonable alternatives that focus on "substantially lessening" any significant effects of the proposed Project, which this alternative does with respect to aesthetic impacts, which will be significantly reduced to neighboring residential land uses.

Response MBCH3-114

The Draft EIR's discussion of the environmentally superior alternative clearly states that the No Project Alternative is the environmentally superior Alternative to the proposed Project. CEQA Guidelines section 15126.6(e)(2) states if the environmentally superior alternative is the 'no project' alternative, the EIR should identify an environmentally superior alternative among the other alternatives analyzed. Consistent with this requirement, the Draft EIR concludes on page 7-59 that the proposed Project would be environmentally superior to the other Alternatives analyzed. For clarity, the EIR goes on to conclude that the North Site is environmentally superior to the South Site. No additional information is needed to comply with CEQA regarding identification of an environmentally superior project Alternative.

Response MBCH3-115

See response to comment MBCH3-1.

Response to Letter RBCH: City of Redondo Beach

Response RBCH-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Response RBCH-2

The Draft EIR discusses the proposed Project's use of energy in Section 5.5, *Energy*, in Section 5.7, *Greenhouse Gas Emissions,* and marine resources are discussed in Section 5.11, *Marine Biological Resources*. As noted throughout the Draft EIR, West Basin continues to include conservation as an integral component of its water supply portfolio and West Basin's recycled water sales are anticipated to increase in the future, even in the No Project Alternative. West Basin acknowledges the City's position that West Basin should provide recycled water to every business and residence in Redondo Beach. But it is unclear what 250 MGD of nearby discharge water referred to in the comment could be put to beneficial use. See response to comment HTB-37 and *Master Response: Water Supply Alternatives.*

Response RBCH-3

This comment does not address the environmental effects of the proposed Project; Draft EIR Subsection 7.2.1 discusses the current status of regulations addressing the direct use of recycled water for all non-potable uses.

Response RBCH-4

The Draft EIR Subsection 7.3.2 explains that the AES Generating Station in Redondo Beach has a long history of controversy regarding future land uses and local residents' desire to see open space uses or redevelopment for tourism and economic benefit, and discloses that the City was working with AES on selling the property; therefore, its availability for West Basin use is uncertain at this time. Nevertheless, given the extensive prior evaluation of this site and the amount of land potentially available, this alternative is evaluated as an alternative in Section 7.

Response RBCH-5

The commenter's opposition to the desalination facilities at both the El Segundo and the Redondo Beach locations are noted for the record. See *Master Response: Non-CEQA Issues*.

Response RBCH-6

Responses to comments provided by the City of Redondo Beach as Exhibit A are included in response to comments RBCH-7 through RBCH-14.

Response RBCH-7

The Draft EIR Subsection 7.2.1 considered 11 alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse (see Draft EIR Table 7-1). See also response to comment CULV-10 and *Master Response: Water Supply Alternatives.*

Response RBCH-8

As outlined in Draft EIR Section 5.11, *Marine Biological Resources*, there is a wide variation in the estimated magnitude of entrainment and therefore ecosystem effect. It is precisely for this reason that Mitigation Measure BIO-M2 commits West Basin to mitigating potential entrainment impacts of the proposed Project with ecosystem enhancement efforts. This measure also proposes to conduct a study of the operation under real-world conditions to assess the magnitude of potential impact. Further, Mitigation Measure BIO-M2 was developed specifically to clarify the impact of the proposed Project's ocean intake and discharge on marine productivity and to provide commensurate ecological enhancement and improvement to offset any effects of the proposed Project on marine productivity, as required by CEQA, and therein reducing the potential effects of Project related entrainment to less than significant.

In terms of the two mitigation opportunities referenced by the commenter, as stated within the text of Mitigation Measure BIO-M2, "If elected by the Project, habitat restoration will occur at a location of sufficient marine acreage or alternative coastal lagoon/estuary acreage (e.g. Ballona Wetland Restoration Project), and in a manner acceptable to the RWQCB as part of the Project's permitting process." While the Ballona site is mentioned, the final decision on location will be "determined by the RWQCB with consideration for: (1) existing level of wetland function at the site prior to mitigation; (2) resulting level of wetland function expected at the mitigation site after the proposed Project is fully successful; (3) length of time before the mitigation is expected to be fully successful; (4) risk that the mitigation project may not succeed; and (5) differences in the location of the lost wetland and the mitigation wetland that affect the services and values they have the capacity and opportunity to generate, consistent with the OPA."

Response RBCH-9

In response to the comment providing updated information about the Waterfront Development Project's approval by the Redondo Beach City Council and pending review of the California Coastal Commission, the Draft EIR text on page 4-5 is revised as follows:

City of Redondo Beach	
Waterfront Development Project (Portofino Way and Torrance Circle)	Demolition of approximately 207,402 SF of existing structures Retention of 12,479 SF of existing development Construction of up to 511,460 SF of retail, restaurant, creative office, specialty cinema, a public market hall, and a boutique hotel Total of new and remaining development on-site would be 523,939 SF (304,058 SF of net new development) Status: ~~Application being processed, NOP circulated June-July 2014~~ Approval by City Council, under review by California Coastal Commission, construction anticipated ~~2017-2020~~ 2019-2021.

Response RBCH-10

In response to the comment providing updated information about the South Bay Galleria Improvement Project, which was approved by the Planning Commission on April 19, 2018 and is on appeal to the City Council, the Draft EIR text on page 4-6 is revised as follows:

23	South Bay Galleria Improvement Project (1815 Hawthorne Boulevard)	Increase existing SF by 217,864 SF, including department stores, mall shops, dining and entertainment. Overall density of development on the site (including retail, office, hotel, and housing) will increase to a maximum 1,943,965 sf of building floor area. Project will also include a hotel of up to 150 rooms and up to 300 ~~650~~ DU (townhomes, condos, and/or apartment homes). Status: ~~NOP posted October 2015~~Approved by Planning Commission on April 19, 2018 and on appeal to the City Council, construction anticipated ~~2017-2018~~ 2020-2023

Response RBCH-11

In response to new information about cumulative project number 24, the Draft EIR text on page 4-6 is modified as follows:

24	Mixed-Use Development (1700 South Pacific Coast Highway)	~~149~~ 115 DU 2637,000 SF of commercial Status: Approved June 2016, construction to begin in 2019 ~~completed 2017~~

Response RBCH-12

In response to new information about cumulative project 25, the Draft EIR text on page 4-6 is revised as follows:

25	600 North Pacific Coast Highway	Expansion of existing automobile sales office/lot with adjacent property at 610 N. Pacific Coast Highway Status: ~~Initial project development stage~~ Project under construction in 2019

Response RBCH-13

Mitigation Measure TRA-1 requires West Basin to prepare a Traffic Control Plan, which will identify temporary travel lane closures and truck routes. As indicated in the Draft EIR in Table 3-11 on page 3-41, West Basin will be required to obtain an encroachment permit from the City of Redondo Beach prior to construction. West Basin will communicate with the City of Redondo Beach regarding lane closures within its jurisdiction.

Response RBCH-14

See response to comment RBCH-4.

Response to Letter LADPR: Los Angeles County Department of Parks and Recreation

Response LADPR-1

As discussed in the Draft EIR on page 2-3, this EIR addresses some aspects of the Regional Project (60 MGD) at a "programmatic level," pursuant to CEQA Guidelines Section 15168. A program-level analysis allows a public agency to evaluate the effects of a series of actions that are related geographically and as logical parts in a chain of contemplated actions, as is true for the Local and Regional Projects. The pump station is a Regional Project feature, and would be constructed by West Basin after the Local Project is implemented, and after the year 2026. While much of the Regional Project components are analyzed at a project-level, some of the Regional Project's details concerning design and operational characteristics have not been determined, and therefore, they cannot be analyzed at the level of detail required for project-level analysis. The 5,000-square foot pump station site is proposed to be constructed on the Chester Washington Golf Course, and impacts have adequately been analyzed in the Draft EIR at a programmatic level based on the information available at the time the Draft EIR was released. Additionally, the commenter's request that information about how the land will be acquired, assessed, and used, be included in the Draft EIR, is outside of the scope of the CEQA analysis. If the site is still being considered at the time the Regional Project is built, West Basin will coordinate with the County of Los Angeles Department of Parks and Recreation (LADPR) regarding acquisition, access, and use.

Response LADPR-2

If the Chester Washington Golf Course is ultimately chosen as the location for the Regional Project pump station, West Basin will work with the County of LADPR to compensate for removal of green space, per the Park Preservation Act, as appropriate. The CEQA Guidelines questions analyzed in Section 5.14, *Recreation*, include 1) whether the proposed Project would increase the use of existing parks that would damage the recreational facilities or 2) whether the proposed Project would include recreational facilities or require expansion of recreation facilities that might have impacts on the environment. West Basin has appropriately analyzed these topics in Section 5.14. West Basin will coordinate with LADPR regarding any future use of the Washington Golf Course. See also Response to LADPR-1.

Response LADPR-3

West Basin reviewed the *Historic Resources Evaluation for the Chester Washington Golf Course* provided by the commenter, and notes that the Chester Washington Golf Course is eligible for listing on the California Register of Historical Resources (CRHR) and the County of Los Angeles Register of Landmarks and Historic Districts. The Draft EIR, beginning on page 5.4-31, discusses the Regional Project desalinated water conveyance components impacts for historical resources. This section has been updated to consider historical resources identified after certification of the EIR, but before proposed Project construction. A new mitigation measure, Mitigation Measure CUL-12, has been incorporated for the Regional Project's desalination water conveyance components. This mitigation measure requires the preparation of a historical resources assessment prior to implementation of the Regional Project. The assessment will identify historic

architectural resources that may be directly or indirectly impacted by the Regional Project, including the golf course and associated facilities that are eligible for listing on the CRHR, and will provide treatments to avoid or reduce potential impacts. The Draft EIR text is modified on page 5.4-32 as follows:

Desalinated Water Conveyance Components

As noted above in the Local Project Impact CUL-5.4-1 discussion, no known historical resources were identified within the proposed desalinated water conveyance components as a result of the records search and survey. However, the geoarchaeological review indicates that the sediments underlying the eastern portions of the water conveyance components have the potential to contain buried archaeological deposits that may qualify as historical resources. Therefore, construction of the offshore and onshore portions of the ocean intake and concentrate discharge structures has the potential to encounter subsurface archaeological deposits that qualify as historical resources, resulting in a significant impact. Implementation of Mitigation Measures CUL-1 through CUL-5 would be required to ensure that the Project's potential impacts to archaeological resources that may qualify as historical resources are less than significant.

Because the phasing of the Regional Project is unknown at this time, additional historic architectural resources that qualify as historical resources may be identified as part of separate projects within and/or adjacent to the desalinated water conveyance components. Should additional historical resources be identified in the future, construction of the Regional Project's desalination water conveyance components could directly or indirectly impact these resources. Implementation of **Mitigation Measure CUL-12** would be required to ensure that the Project's potential impacts to historic architectural resources that may qualify as historical resources are less than significant.

Mitigation Measures:

Implement Mitigation Measures CUL-1 through CUL-5 and CUL-12 for impacts to historical resources resulting from construction of the ocean water desalination facility and the desalination water conveyance components.

> **CUL-12:** Prior to development of the Regional Project's desalination water conveyance components, West Basin shall retain a qualified architectural historian to conduct a historical resources assessment. All identified historic architectural resources shall be assessed for the Regional Project's potential to result in direct and/or indirect impacts to those resources, and any historic architectural resource that may be affected shall be evaluated for potential significance (i.e., listing in the CRHR) prior to West Basin's approval of Project plans and publication of subsequent CEQA documents. The qualified architectural historian shall provide recommendations for avoiding or minimizing impacts, or for the treatment of historical resources that will be impacted by the Regional Project. West Basin shall implement the recommendations.

Response LADPR-4

The proposed Project does not anticipate the removal of trees requiring a removal permit. Avoidance of trees as well as necessary permitting should a tree require removal is discussed on pages 5.3-47 through 5.3-49. Tree removal permit requirements are discussed on page 5.3-9.

Response LADPR-5

The proposed Regional Pump Station would be a small structure that would not have the potential to significantly impact views or change the character of the surrounding area including the golf course. While design of the pump station has not yet been completed, pump stations are typically one-story shed-like structures. Final designs would ensure that access to the golf course is not impeded. As with other proposed Project facilities, the Regional Pump Station would be required to comply with mitigation measures to reduce aesthetic impacts including Mitigation Measure AES-1 to screen construction staging areas, Mitigation Measure AES-3 requiring enclosures to be compatible with adjacent structures, and Mitigation Measure AES-7 requiring that structures visible to the public be painted to minimize visual intrusion.

West Basin will coordinate with the owner of the land on which the Regional Pump Station is proposed, in order to acquire the land and to ensure ongoing operation of adjacent facilities such as recreation areas.

Response LADPR-6

West Basin acknowledges that the Los Angeles County Department of Public Works manages the Marvin Braude Bike Trail. In response to the comment, the Draft EIR text in Table 3-11 on page 3-41 is revised as follows:

~~L.A. County Parks~~ Los Angeles County Department of Public Works	Encroachment Permit	May be required for temporary ESGS seawall work along Marvin Braude Bike Trail.

Response LADPR-7

LADPR requested a typographical change to the Draft EIR Section 5.14, Recreation. In response to the comment, the Draft EIR text on page 5.14-6 is revised as follows:

- Regional Pump Station Optional Site 5, which is sited within the westernmost edge of the Chester Washington Golf Course in unincorporated Los Angeles County.

Response LADPR-8

West Basin notes the Los Angeles Department of Parks and Recreation's contact information for any future correspondence regarding this comment letter.

Response to Letter LADWP: Los Angeles Department of Water and Power

Response LADWP-1

West Basin notes the Los Angeles Department of Water and Power's (LADWP) mission. A response regarding power resources are addressed in response to comment LADWP-2.

Response LADWP-2

The Draft EIR Figure 3-21 shows the proposed offsite staging areas. The note on the figure acknowledges that "offsite staging areas are preliminary, subject to change during final design and construction." Although West Basin appreciates the comment, space availability at Scattergood may change in the future; therefore, no change has been made to the EIR.

Response LADWP-3

West Basin notes the LADWP's contact information for any future correspondence regarding this comment letter.

Response to Letter LASAN: Los Angeles Bureau of Sanitation

Response LASAN-1

If West Basin chooses the sewer infrastructure option within the jurisdiction of the City of Los Angeles Department of Sanitation (LASAN), West Basin will coordinate with the City appropriately.

Response LASAN-2

West Basin notes the LASAN's contact information for any future correspondence regarding this comment letter.

Response to Letter MWD: Metropolitan Water District of Southern California

Response MWD -1

West Basin appreciates the Metropolitan Water District of Southern California's (MWD's) role as a regional wholesale water provider, its understanding of the proposed Project, its commitment to water use efficiency, and its support for desalination as a new, additional, local water supply, as demonstrated by the Seawater Desalination Program Agreement it entered into with West Basin in March 2006 (Agreement No. 70023; MWD 2006). Under the terms of that agreement (Sections 2.3 and 2.4), West Basin will provide MWD (as a responsible agency under CEQA), with the necessary environmental documentation to support the proposed project, including a detailed project description.

As noted on Draft EIR page 3-14, new conveyance infrastructure would convey product water from the Local Project desalination facility to the existing distribution system that delivers potable water to local area distribution systems, and to regional supply feeders owned by MWD. The closest regional potable water feeder system is MWD's West Basin Feeder located within Manhattan Beach Boulevard and the West Coast Feeder located within El Segundo Boulevard. Both of these regional feeders are fed by the MWD Sepulveda Feeder, which is located within the north-south Van Ness Avenue. The locations of existing MWD facilities are shown in Draft EIR Figure 3-5.

Several conveyance alignment alternatives may be used to convey desalinated water from the proposed desalination facility to the MWD Feeder System as well as to local water retailers' distribution systems, as shown in Figure 3-5. The Draft EIR describes on page 3-14 that from the desalination facility, the new pipeline route would head north on Vista del Mar Boulevard, then slightly east on Grand Avenue, and continue east along El Segundo Boulevard to the intersection with Aviation Boulevard. Conveyance option alternative alignments could potentially include parallel alignments continuing along Grand Avenue, along Franklin Avenue, or through Chevron's property. From the intersection of Grand Avenue and Aviation Boulevard, the proposed conveyance pipeline alignment would travel north on Aviation Boulevard to West 120th Street, where it would turn east and connect to the MWD Feeder at Van Ness Avenue. To connect the desalinated water conveyance pipeline to the west end of the existing West Basin Feeder, a pipeline would travel south on Inglewood Avenue from West 120th Street to Manhattan Beach Boulevard. Additionally, pipeline alternative alignments would be routed through various alternative routes to connections along the existing West Basin and West Coast Feeders.

In response to this comment, the text on Draft EIR page 3-2 is revised as follows:

> Potable water produced at the facility would be conveyed to the existing local water distribution system through a new conveyance system. The new conveyance system would connect to the local distribution system serving the cities of El Segundo, Redondo Beach, Lawndale, Gardena, and Hawthorne and portions of unincorporated Los Angeles County, and/or MWD's feeder system.

West Basin is currently focused on the Local Project that may convey product water to either the local retailers' distribution systems or to MWD's Feeder System. The full details of the Regional Project's design and operational characteristics have not been determined at this time.

As acknowledged in Draft EIR Table 3-11, West Basin would need to coordinate with MWD in the event the Regional Project is pursued. A partnership with MWD would be required and West Basin would enter into a Wheeling Agreement for use of MWDs conveyance route to transport the potable water produced from the desalination process to the West Basin service area retailers. An encroachment permit would also be required for any West Basin facililities that would be adjacent to MWD's facilities or MWD's rights of way. West Basin appreciates receiving the compatability Guidelines for Developments in the Area of Facilities.

Response to Letter SCAQMD: South Coast Air Quality Management District

Response SCAQ-1

Responses to comments provided by the South Coast Air Quality Management District (SCAQMD) are included in response to comments SCAQ-2 through SCAQ-6.

Response SCAQ-2

West Basin acknowledges the brief summary of the Project Description provided by the commenter.

Response SCAQ-3

West Basin thanks the SCAQMD for the information regarding the SCAQMD General Conformity review process. A discussion of General Conformity is addressed in the Draft EIR starting on page 5.2-25 in the *Federal Conformity Analysis for SRF (CEQA Plus)* section. As stated, the proposed Project meets the conformance criteria under 40 C.F.R. section 93.158(5)(v) for conformance applied to regional water supply projects. Therefore, conformity is established by the nature of the Project. Since the Project is in conformance it would not utilize the general conformity emissions credits included in the 2012 AQMP. See response to comment MBCH3-23.

Response SCAQ-4

Draft EIR Table 3-11 lists the SCAQMD as an agency responsible for issuing a permit to construct the desalination facility, and a permit to operate any backup sources of power such as emergency generators.

Response SCAQ-5

West Basin will provide written responses to comments to commenting agencies in accordance with CEQA Guidelines Section 15088.

Response SCAQ-6

West Basin notes the SCAQMD's contact information for any future correspondence regarding this comment letter.

Response to Letter SCG: Southern California Gas Company

Response SCG-1

West Basin will coordinate with the Southern California Gas Company when the proposed Project is designed to ensure construction does not interfere with any of the high pressure gas lines mentioned in the comment.

Response to Letter SCG2: Southern California Gas Company

Response SCG2-1

Responses to comments provided by the Southern California Gas Company are provided in responses to comment SCGS2-2 through SCGS2-4.

Response SCG2-2

Please see response to comment SCG-1.

Response SCG2-3

Please see response to comment SCG-1. Per normal construction protocol, West Basin's construction contractor will contact Underground Service Alert to make sure underground utilities are marked.

Response SCG2-4

Please see response to comment SCG-1.

SECTION 15
Tribal Entity Comments and Responses

15.1 Tribe

The following comment letters were received from tribal entities on the West Basin Municipal Water District (West Basin) Ocean Water Desalination Project (Project) Draft Environmental Impact Report (Draft EIR). The comment letters are grouped together and are followed by all responses as indicated in **Table 15-1**.

TABLE 15-1
LIST OF DRAFT EIR COMMENT LETTERS: TRIBAL ENTITY

Letter Code	Commenting Party	Letter Page Number	Response Page Number
GK	Gabrieleño Band of Missions Indians - Kizh Nation	15-3	15-9
GK2	Gabrieleño Band of Missions Indians - Kizh Nation 2	15-7	15-10

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GABRIELEÑO BAND OF MISSION INDIANS — KIZH NATION
Historically known as The San Gabriel Band of Mission Indians
:ognized by the State of California as the aboriginal tribe of the Los Angeles basin

Date April 1, 2018

Re: AB52 Consultation - CEQA Public Resources Code section 21080.3, sub. (b) request for formal notification of proposed projects within the Gabrieleño/Kizh Tribe's geographic area of traditional and cultural affiliation

Dear Lead Agency

Effective July 1, 2015, AB52 went into effect and we are initiating contact with you as you are listed as a lead agency through the Native American Heritage Commission or through CEQA. Your city lies within the Ancestral territory and sacred villages of our great tribal Nation . We, the Gabrieleño Band of Mission Indians – Kizh(pronounced Keech) Nation, represent the indigenous peoples of a once vast territory extending through Los Angeles, Orange, Ventura, San Bernardino and Riverside Counties (see attached map showing our traditional tribal territory). We are grateful that this important bill is granting us better opportunity to protect our many tribal cultural resources, village sites and sacred/religious sites.

The Gabrieleño Band of Mission Indians – Kizh Nation is a California State recognized American Indian Tribe centered at Mission San Gabriel. However, our Tribal territory was much bigger than this as it was the largest of all territories in Southern California. Please find included with this notification a map outlining our traditional tribal territory for your use as a planning tool. This map is a modern compilation of notes and maps from various ethnographers, historians, linguists, archaeologists and anthropologists dating back to the late 1700s. Even older than that, is the oral history of our elders and the elders of surrounding tribes. Within these boundaries were once found thousands of individual village sites, sacred sites, religious sites, and trading routes. Our Tribe has been designated by the NAHC as Most Likely Descendants on numerous projects within which reburial of human remains and associated grave goods and artifacts occurred. However, we are a Tribe with many facets in addition to protecting our sacred sites. In addition to educating the public about our culture, we have many projects to revitalize our lost culture and language, and we have published our first book.

GK-1

AB52 (Public Resources Code 21080.3.1) states that:

"Within 14 days of determining...to undertake a project, the lead Agency shall provide notification to...a tribal representative... Traditionally and culturally affiliated...that have requested notice... That includes a brief description of the proposed project and its Location, the lead agency contact information, and a notification That the California Native American tribe has 30 days to request Consultation...the parties may propose mitigation measures.... Capable of avoiding or substantially lessening potential significant Impacts to a tribal cultural resource or alternatives that would Avoid significant impacts..."

GK-1

The following person is designated as our Tribe's lead contact person for the purposes of receiving notices

of proposed projects from your agency:

Andrew Salas, Chairman
Gabrieleño Band of Mission Indians – Kizh Nation
PO Box 393
Covina, CA 91723
Office: 1(844) 390-0787- (626) 521-5827
email: admin@gabrielenoindians.org

Following receipt and review of the information you provide, we will reply within 30 days to potentially request consultation to mitigate any impacts your project may cause to tribal cultural resources. Your response confirming receipt of this letter is greatly appreciated.

With respect,

Andrew Salas, Chairman

APPENDIX 1: Map 1-2; Bean and Smith 1978 map.

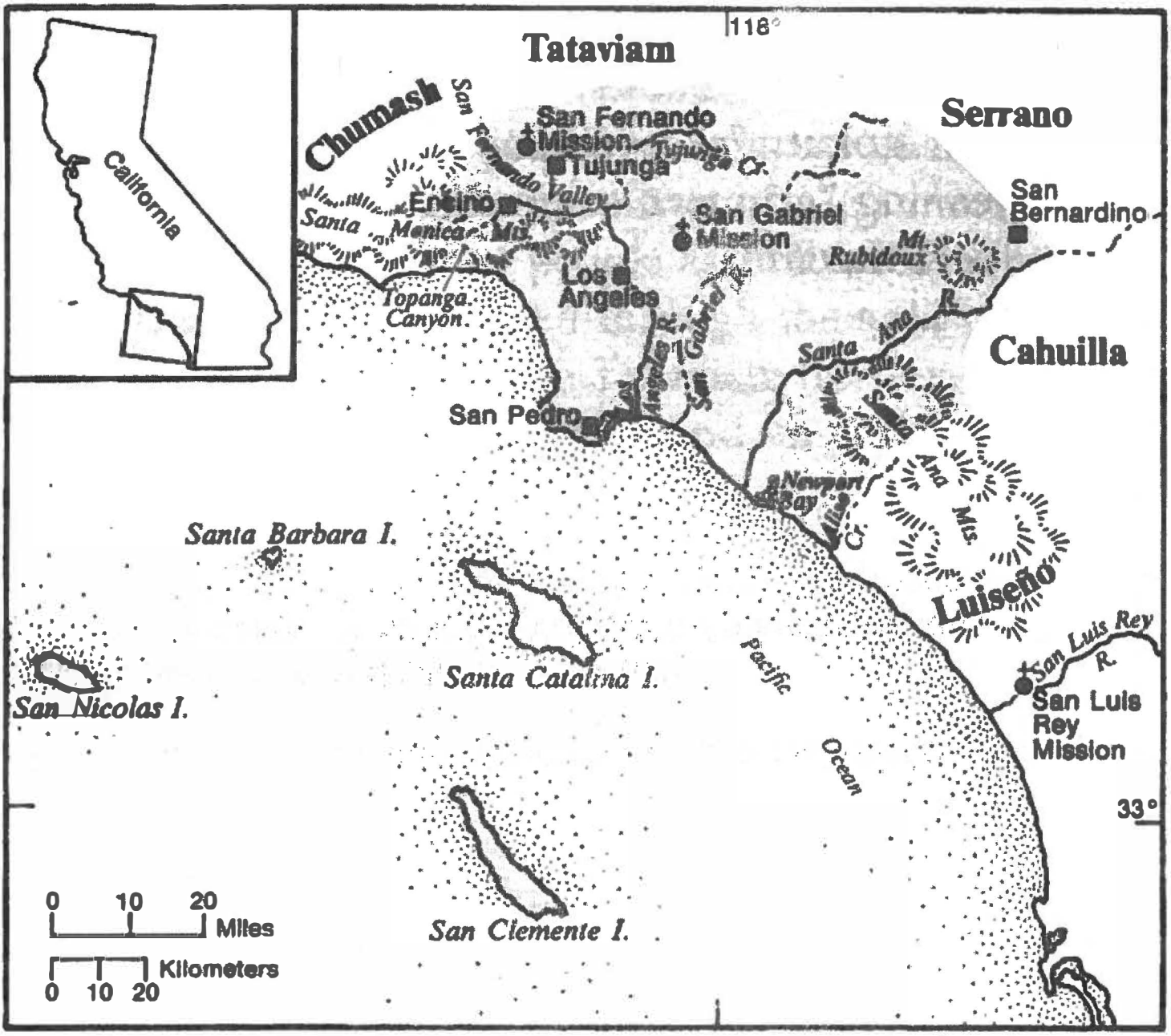

Fig. 1. Tribal territory.

The United States National Museum's Map of Gabrielino Territory:

Bean, Lowell John and Charles R. Smith
1978 Gabrielino IN *Handbook of North American Indians, California,* Vol. 8, edited by R.F. Heizer, Smithsonian Institution Press, Washington, D.C., pp. 538-549


KIZH GABRIELENO TERRITORY
Santa Barbara Island
San Nicolas Island
Sea of Kizh
OCEAN
LOS ANGELES
SAN BERNARDINO
NATIONAL FOREST
COUNTY
SAN DIEGO
SEE SAN DIEGO AREA MAP
U.S. MILITARY RESERVATION
MARINE CORPS BASE CAMP PENDLETON

GABRIELEÑO BAND OF MISSION INDIANS - KIZH NATION
Historically known as The San Gabriel Band of Mission Indians
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

April 4, 2018

February 9, 2018

Re: AB52 Consultation request for the West Basin 301 Vista Del Mar El Segundo, Los Angeles, Manhattan Beach, Hawthorne, Redondo Beach, Gardena, Torrance, Hermosa Beach, and portions of unincorporated Los Angeles county

To whom this may concern,

Please find this letter as a written request for consultation regarding the above-mentioned project pursuant to Public Resources Code § 21080.3.1, subd. (d). Your project lies within our ancestral tribal territory, meaning belonging to or inherited from, which is a higher degree of kinship than traditional or cultural affiliation. Your project is located within a sensitive area and may cause a substantial adverse change in the significance of our tribal cultural resources. Most often, a records search for our tribal cultural resources will result in a "no records found" for the project area. The Native American Heritage Commission (NAHC), ethnographers, historians, and professional archaeologists can only provide limited information that has been previously documented about California Native Tribes. This is the reason the NAHC will always refer the lead agency to the respective Native American Tribe of the area because the NAHC is only aware of general information and are not the experts on each California Tribe. Our Elder Committee & tribal historians are the experts for our Tribe and are able to provide a more complete history (both written and oral) regarding the location of historic villages, trade routes, cemeteries and sacred/religious sites in the project area. Therefore, to avoid adverse effects to our tribal cultural resources, we would like to consult with you and your staff to provide you with a more complete understanding of the prehistoric use(s) of the project area and the potential risks for causing a substantial adverse change to the significance of our tribal cultural resources. GK2-1

Consultation appointments are available on Wednesdays and Thursdays at our offices at 910 N. Citrus Ave. Covina, CA 91722 or over the phone. Please call toll free 1-844-390-0787 or email gabrielenoindians@yahoo.com to schedule an appointment.

** Prior to the first consultation with our Tribe, we ask all those individuals participating in the consultation to view a video produced and provided by CalEPA and the NAHC for sensitivity and understanding of AB52. You can view their videos at: http://calepa.ca.gov/Tribal/Training/ or http://nahc.ca.gov/2015/12/ab-52-tribal-training/

With Respect,

Andrew Salas, Chairman

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Response to Letter GK: Gabrieleño Band of Mission Indians – Kizh Nation

Response GK-1

On October 24, 2018, an Assembly Bill 52 consultation meeting was held via telephone between West Basin and Andrew Salas, Chairman, and Matt Teutimez of the Gabrieleno Band of Mission Indians – Kizh Nation. During the meeting, Chairman Salas and Mr. Teutimez expressed the desire for monitoring even in previously disturbed areas, including the proposed pipeline alignments. Chairman Salas and Mr. Teutimez requested they be allowed to review and comment on the cultural resources mitigation measures pertaining to archaeological resources. On October 25, 2018, the cultural resources mitigation measures were sent to Chairman Salas and Mr. Teutimez via email for review and comment. A follow-up email was sent to Chairman Salas and Mr. Teutimez on November 6, 2018 to inquire about comments they may have regarding the mitigation measures. Chairman Salas responded via email the same day stating that he would review and would follow-up with any concerns if he had them. On November 13, 2018, a follow-up email was sent to Chairman Salas asking if he had any concerns regarding the cultural resources mitigation measures. To date, Chairman Salas has not responded with any concerns. As a result, the conclusions in the Draft EIR remain the same and no revisions are required.

Response to Letter GK2: Gabrieleño Band of Mission Indians – Kizh Nation

Response GK2-1

On October 24, 2018, an Assembly Bill 52 consultation meeting was held via telephone between West Basin and Andrew Salas, Chairman, and Matt Teutimez of the Gabrieleno Band of Mission Indians – Kizh Nation. During the meeting, Chairman Salas and Mr. Teutimez expressed the desire for monitoring even in previously disturbed areas, including the proposed pipeline alignments. Chairman Salas and Mr. Teutimez requested they be allowed to review and comment on the cultural resources mitigation measures pertaining to archaeological resources. On October 25, 2018, the cultural resources mitigation measures were sent to Chairman Salas and Mr. Teutimez via email for review and comment. A follow-up email was sent to Chairman Salas and Mr. Teutimez on November 6, 2018 to inquire about comments they may have regarding the mitigation measures. Chairman Salas responded via email the same day stating that he would review and would follow-up with any concerns if he had them. On November 13, 2018, a follow-up email was sent to Chairman Salas asking if he had any concerns regarding the cultural resources mitigation measures. To date, Chairman Salas has not responded with any concerns. As a result, the conclusions in the Draft EIR remain the same and no revisions are required.

West Basin Municipal Water District

Ocean Water Desalination Project

Final Environmental Impact Report

Volume 3

State Clearinghouse Number 2015081087

October 2019

TABLE OF CONTENTS

West Basin Municipal Water District
Ocean Water Desalination Project Final EIR

Volume 3

Figures

Tables

Appendices

SECTION 16
Organization Comments and Responses

16.1 Organization

The following comment letters were received from organizations on the West Basin Municipal Water District (West Basin) Ocean Water Desalination Project (Project) Draft Environmental Impact Report (Draft EIR). The comment letters are grouped together and are followed by all responses as indicated in **Table 16-1**.

TABLE 16-1
LIST OF DRAFT EIR COMMENT LETTERS: ORGANIZATIONS

Letter Code	Commenting Party	Letter Page Number	Response Page Number
BP	Brenntag Pacific	16-3	16-83
EJ	Environmental Justice, Community, and Indigenous Groups	16-5	16-84
EOGB	Environmental Organizations and Green Business	16-10	16-86
GSW	Golden State Water Company	16-18	16-93
HTB	Heal the Bay	16-20	16-94
LAW	Los Angeles Waterkeeper	16-34	16-110
LAW2	Los Angeles Waterkeeper 2	16-36	16-111
NRG	NRG Energy, Inc.	16-72	16-126
OFSP	Ocean Front Strand Properties	16-74	16-130
SCLA	Sierra Club Angeles Chapter	16-75	16-131
UPRR	Union Pacific Railroad	16-81	16-138

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From:	Traci Morrison/Pacific/Brenntag
To:	West Basin Desal EIR
Cc:	Traci Morrison/Pacific/Brenntag
Subject:	West Basin Desal; Ammonium Sulfate instead of Aqua Ammonia
Date:	Monday, April 23, 2018 12:17:30 PM
Attachments:	image001.jpg

Zita,

I am writing to you to find out some more details on the West Basin Desal Plant. I work for Brenntag Pacific, the worldwide largest chemical distributor, and we custom blend Liquid Ammonium Sulfate 40%, our trade name "AquaLAS40." We have switched many municipalities away from aqua ammonia for safety reasons.

I just wanted to find out how you came to your decision to use ammonium sulfate? Do you have any studies you conducted. I will also contact someone in procurement to see if we can quote the product. Thank you for your time and any details you can provide me.

BP-1

Best Regards,

Traci R. Morrison

Traci R. Morrison
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Product Pricing and technical support in case I am unavailable;
Ryan Kumpula; 484-797-0169 rkumpula@brenntag.com

Best Regards,

Traci R. Morrison

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June 25, 2018

Zita Yu, Ph.D., P.E.
Project Manager
West Basin Municipal Water District
17140 South Avalon Boulevard, Suite 210
Carson, California 90746-1296

Sent via e-mail to: DesalEIR@WestBasin.org

RE: Environmental Justice, Community, and Indigenous Groups' Comments on West Basin Municipal Water District Ocean Desalination Draft Environmental Impact Report

Dear Dr. Yu:

We the undersigned environmental justice, community, and indigenous groups thank you for this opportunity to comment on West Basin Municipal Water District's (West Basin) Draft Environmental Impact Report (DEIR) prepared pursuant to the California Environmental Quality Act (CEQA) for the proposed Ocean Water Desalination Project (Project). EJ-1

West Basin's longstanding and seemingly steadfast commitment to ocean-water desalination over less expensive and more energy friendly means of increasing water supply—conservation, recycling, stormwater capture, and brackish groundwater desalination—will result in a significant and disproportionate impact on low income and minority populations. The Project would produce *the* most expensive water[1] in an unnecessary amount[2] for a vast service area that encompasses widely disparate communities, the most disadvantaged of which will bear the brunt of the Project's high costs, adverse environmental impacts, and outsized energy use. EJ-1

The DEIR environmental justice analysis is inadequate for the reasons detailed below. We also find it notable that out of a 1000+ page DEIR, **only half of a single page is dedicated to the analysis of the Project's environmental justice impacts** and the conclusion that the impacts would be less than significant. (See DEIR, 6-13.) EJ-2

The Project Will Increase Water Rates and Disproportionately Impact Low-Income Populations. EJ-3

Ocean desalination is the most expensive option for increasing our local water supplies at $2,100 to $2,500 per acre-foot.[3] West Basin estimates the cost to build the Project will be half-a-billion dollars. The Project will inevitably increase water rates for West Basin's ratepayers. This increase in water rates will disproportionately impact low-income populations in West Basin's service area relative to the more affluent populations. For example, a $10 increase to water rates that seems modest in affluent Rolling Hills Estates has a significantly great impact on a ratepayer living below the federal poverty line in Inglewood, Hawthorne, Lawndale, or Gardena, each of which 100% of the population is disadvantaged communities. The DEIR also does not account for the cumulative impact on water rates that the Project may have in light of, for example, Metropolitan Water District's commitment to funding the multi-billion-dollar twin-tunnels project.[4]

The Project Will Effectively Result in Disadvantaged Communities Subsidizing Affluent Communities' Excessive Water Consumption. EJ-4

We applaud West Basin's significant conservation savings over the past 25 years, but challenge the agency's assertion that demand has hardened to a point that makes it difficult to realize the additional savings West Basin claims is needed if the Project is not built. Such opportunities for realizing additional conservation savings are clear when looking at the disparity between West Basin's affluent communities' and its low-income and minority communities' residential per capita water usage (R-GPCD). West Basin customers in affluent communities such as Palos

[1] HEATHER COOLEY & RAPICHAN PHURISAMBAN, THE COST OF ALTERNATIVE WATER SUPPLY AND EFFICIENCY OPTIONS IN CALIFORNIA 13 (Pac. Inst. 2018), *available at* http://pacinst.org/wp-content/uploads/2016/10/PI_TheCostofAlternativeWaterSupplyEfficiencyOptionsinCA.pdf.
[2] Comment Letter from Los Angeles Waterkeeper to West Basin Municipal Water District (explaining that the need for 21,500 acre-feet a year of new potable water supply is not supported in the DEIR).
[3] COOLEY & RAPICHAN, *supra* note 1, at 13.
[4] Bettina Boxxall, *Southern California Water Votes to Controversial Plan to Build Two Delta Tunnels,* LA TIMES (Apr. 10, 2018, 8:15 PM), http://www.latimes.com/local/lanow/la-me-delta-tunnel-mwd-20180410-story.html.

Verdes use upwards of 200 R-GPCD—almost three times the South Coast region average[5]—while customers in Hawthorne use only 62 R-GPCD, (DEIR, 7-13.).[6] Yet, West Basin seeks to impose the steep costs of building and operating an ocean desalination plant across its entire service area. This scenario effectively results in low income and minority communities subsidizing wealthier communities' excessive water consumption.

EJ-4

The DEIR Fails to Account for Adverse Impacts to Disadvantaged Communities Outside of Hawthorne.

West Basin's contention that its Project's impact on disadvantaged communities is less than significant does not tell the whole story. The DEIR only analyzes the Project's impacts to the census tracts where aboveground infrastructure would be implemented (census tracts in El Segundo and Hawthorne). (DEIR, 5-13.) For Hawthorne, the DEIR compares the demographics of the 3 impacted census tracts in Hawthorne to the demographics of the city of Hawthorne as a whole. (DEIR, 6-10–6-11.) However, in doing so, the DEIR averages the minority population percentages of the 3 impacted census tracts *before* comparing them to the minority population percentage of the whole city of Hawthorne, thus diluting the actual minority percentages of the individual, impacted tracts. (DEIR, 6-11.) This allows the DEIR to find that the impacted census tracts do not have significantly greater minority populations, and thus, the Project does not disproportionately impact minority populations. (DEIR, 6-10, 6-13.)

EJ-5

This Hawthorne-to-Hawthorne comparison is disingenuous. Hawthorne's population is 100% disadvantaged communities (DAC). The Project would provide a water supply for all customers in West Basin's service area, therefore at a minimum, the DEIR environmental justice analysis should look at West Basin's service area as a whole and assess the impacts of the Project on the disadvantaged communities *relative to the Project's impacts on the affluent communities*. By unreasonably, geographically limiting the environmental justice analysis, **the DEIR fails to account for the Project's impacts to Carson, which is 82.1% DAC, Inglewood, which is 100% DAC, Gardena, which is 100% DAC, and Lawndale, which is 100% DAC.**

The DEIR Should Consider the Environmental Justice Impacts of the Project's Air Quality Impacts.

Ocean desalination is the most energy-intensive option for increasing local water supplies.[7] The continuous energy demand of the 20 MGD desalination plant is equivalent to the average annual

EJ-6

[5] From July 2017 to August 2017 alone the average residential per capita water use for the South Coast region decreased from 69.63 R-GPCD to 65.87 R-GPCD. (*Is California Water Use Increasing?* 89.3 KPCC, http://projects.scpr.org/applications/monthly-water-use/region/south-coast/.)

[6] STATE WATER RESOURCES CONTROL BOARD, *August Supplier Conservation*, 9, 10 (2017), https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/2017oct/supplierconservation_100317.pdf.

[7] HEATHER COOLEY & MATTHEW HEBERGER, KEY ISSUES IN SEAWATER DESALINATION IN CALIFORNIA: ENERGY AND GREENHOUSE GAS EMISSIONS (Pac. Inst. 2013), *available at* http://pacinst.org/wp-content/uploads/2013/05/desal-energy-ghg-full-report.pdf; NAT. RES. DEF. COUNCIL, ET AL., PROCEED WITH CAUTION II: CALIFORNIA'S DROUGHTS AND DESALINATION IN CONTEXT (2016), *available at* https://www.nrdc.org/sites/default/files/california-drought-desalination-2-ib.pdf.

energy demand of almost twice the number of households in Lawndale.[8] Many of West Basin's low-income and minority customers are among those most disproportionately burdened by multiple sources of pollution.[9] These communities already suffer from poor air quality.[10] Southern California Edison (SCE) would supply the energy needed by the Project, and while the DEIR discusses SCE's power mix, it does not identify the specific plants on which SCE relies. (DEIR, 5.5-6–5.5-7.) The communities in or near where these plants are located, will be disproportionately impacted by the Project's adverse impacts to air quality. Yet, the DEIR does not disclose which communities these are or analyze the impacts. EJ-6

The DEIR Should Consider the Environmental Justice Impacts of the Project's Greenhouse Gas Impacts. EJ-7

Based on the 2014 power mix of SCE,[11] the 20 MGD ocean desalination plant would contribute as much as 44,702 metric tons of CO_2e emissions per year and the 60 MGD plant would contribute as much as 146,879 metric tons per year.[12] The Project's significant GHG emission contributions will exacerbate climate change, and **disproportionately impact low-income and minority communities, which are least able to adapt to or recover from climate change impacts**.[13]

The DEIR Should Consider the Environmental Justice Impacts of the Project's Marine Impacts. EJ-8

The Project would use an open-ocean intake and discharge system to draw in ocean water and discharge concentrated brine, which has the potential to adversely impact marine life. The DEIR environmental justice analysis fails to discuss the potential impacts this may have on communities that rely on marine life for subsistence.

For all of the above reasons, West Basin's CEQA analysis fails to comply with the Government Code[14], CEQA, and the California Attorney General's instructive Fact Sheet, *Environmental Justice at the Local and Regional Level Legal Background*.[15] EJ-9

The bottom line is that ocean desalination is not the answer, and we call on West Basin to take a step back and see that the Project's costs overwhelmingly outweigh any benefit, particularly in light of the more cost-effective, environmentally sound options available for meeting our water EJ-10

[8] *See* POWERS ENGINEERING, ASSESSMENT OF ENERGY INTENSITY AND GREENHOUSE EMISSIONS OF PROPOSED WEST BASIN DESALINATION PLANT AND WATER SUPPLY ALTERNATIVES 19 (2018), *available at* https://www.smarterwaterla.org/wp-content/uploads/2018/01/Powers_Engineering_2018_WB_Desal.pdf.
[9] CALENVIROSCREEN 3.0, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30 (last visited June 4, 2018).
[10] *Id.*
[11] POWERS ENGINEERING, *supra* note 8, at 16.
[12] POWERS ENGINEERING, *supra* note 8, at 21.
[13] U.S. GLOBAL CHANGE RESEARCH PROGRAM, THE IMPACTS OF CLIMATE CHANGE ON HUMAN HEALTH IN THE UNITED STATES: A SCIENTIFIC ASSESSMENT (2016), *available at* https://health2016.globalchange.gov/.
[14] "'[E]nvironmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." (Gov. Code, § 65040.12(e).)
[15] OFFICE OF THE CALIFORNIA ATTORNEY GENERAL, ENTVL. JUSTICE AT THE LOCAL AND REG'L LEVEL LEGAL BACKGROUND (2012), *available at* https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/ej_fact_sheet.pdf.

supply needs. Operation of an ocean desalination plant will have the perverse result of low-income communities subsidizing West Basin's most affluent communities' excessive water consumption. In addition, the Project will adversely impact air quality and contribute to climate change impacts on communities that already bear a disproportionate pollution burden.[16] West Basin should be exploring opportunities for expanding its successful conservation and recycling programs and other water supply options that do not compromise the health and economic well-being of communities. Ocean desalination should be considered an option of last resort and one that West Basin should not be pursuing at this time.

EJ-10

Sincerely,

Taylor Thomas
Research and Policy Analyst
East Yards Communities for Environmental Justice

Jane Williams
Executive Director
California Communities Against Toxics

Cynthia Babich
Coordinator
Los Angeles Environmental Justice Network

Cynthia Medina
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Martha Camacho-Rodriguez
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Social Eco Education

Veronica Padilla
Executive Director
Pacoima Beautiful

Robina Suwol
Executive Director
California Safe Schools

Angela Mooney D'Arcy
Executive Director
Sacred Places Institute

Roberto Morales
Chair
Nature for All

Yvonne (Martinez) Watson
Chair, Environmental Justice Committee
Sierra Club Angeles Chapter

cc: Sally Magnani, Senior Assistant Attorney General, sally.magnani@doj.ca.gov

[16] CALENVIROSCREEN 3.0, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30 (last visited June 4, 2018).

June 25, 2018

Zita Yu, Ph.D., P.E.
Project Manager
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Sent via e-mail to: *DesalEIR@WestBasin.org*

RE: Environmental Organizations and Green Business Comments on West Basin Municipal Water District Ocean Desalination Draft Environmental Impact Report

Dear Dr. Yu:

We, the undersigned environmental organizations and green businesses, thank you for this opportunity to comment on West Basin Municipal Water District's (West Basin) Draft

EOGB-1

Environmental Impact Report (DEIR) prepared pursuant to the California Environmental Quality Act (CEQA) for the proposed Ocean Water Desalination Project (Project).

While we are not opposed to ocean desalination as a source of potable water in appropriate circumstances, we are opposed to West Basin pursuing ocean desalination until the agency has exhausted more cost-effective and environmentally sound options to promote local water self-sufficiency, including:

- Significant additional conservation and efficiency measure to alleviate demand;
- Greater investment in multi-benefit stormwater capture and use;
- Expanding West Basin's successful water recycling program; and
- Remediation of groundwater in the West Coast Basin through brackish desalination.

In addition to ocean desalination's detrimental impacts to marine ecosystems, especially when open-ocean intakes are used as is the case of with the proposed Project, it is the most energy-intensive and expensive method of meeting our local water supply needs. At a time when we must be doing everything in our power to reduce our carbon footprint, West Basin must not invest its limited resources in a project whose energy demand will exacerbate climate change impacts, the burden of which will disproportionately impact the communities least equipped to deal with them. Likewise, West Basin should not be pursuing the most expensive option available to enhance local water supplies when much more cost-effective options exist. In a world of limited resources, committing valuable money, time, and expertise to ocean desalination is not only unwise, but inevitably hinders or even precludes more environmentally and financially sound options. For these reasons, ocean desalination should only be pursued as an option-of-last-resort.[1]

EOGB-1

CEQA requires that an agency avoid turning the environmental impact report into a post-hoc justification for its preferred alternative. (*Save Tara v. W. Hollywood* (2008) 45 Cal.4th 116, 136.) We are, thus, particularly concerned that the DEIR only analyzes three "build" alternatives and **all three alternatives evaluated involve construction and operation of an ocean desalination plant**. The DEIR does not allow a fully informed consideration of the Project by the public or the decisionmakers. The analyses, in several areas, are inadequate for failing to evaluate significant adverse environmental impacts and adequately mitigate for such impacts. In many areas, the DEIR also lacks substantial evidence to support its findings of less than significant impacts. We thank you for your careful consideration of the comments below.

EOGB-2

Energy Impacts

- **The Project would result in the inefficient, wasteful, and unnecessary consumption of energy** and fails to comply with the directive of CEQA Guidelines Appendix F. Ocean desalination is the most energy-intensive option for increasing local water

EOGB-3

[1] *See* CAL. STATE ASSEMBLY SELECT COMM. ON WATER CONSUMPTION AND ALTERNATIVE SOURCES, NEW SOURCES FOR CALIFORNIA'S WATER SUPPLY 3 (2016), *available at* https://mavensnotebook.com/wp-content/uploads/2016/04/Final-Report-Select-Committee-on-Water-Consumption-and-Alternative-Sources.pdf (making the policy recommendation that desalination should be used as an option of last resort).

supplies.[2] The 20 MGD plant would have the electricity demand of as much as 18,185 homes and the 60 MGD plant would have the electricity demand of as many as 59,751 homes.[3] In stark contrast, water conservation results in energy savings. For example, between June 2015 and May 2016, when statewide conservation measures were in place, California's conservation rate of 24.5% over 2013 levels resulted in electricity savings of 1,830 GWh or the electricity use of 274,000 average Californian homes for a year.[4] In light of the water supply opportunities available that would have significantly less energy impacts or could even result in energy savings, the Project would result in the inefficient, wasteful, and unnecessary consumption of energy.

EOGB-3

- The DEIR **energy analysis does not present substantial evidence to support its conclusion that the impacts from *the* most energy-intensive option for increasing local water supplies would have a less than significant energy impact.** For example, the analysis does not evaluate the potential significant impacts from the SCE electrical power grid upgrades that the DEIR states are anticipated to be required to supply the Project's operations (DEIR, 5.5-21) and does not account for the recent SoCalGas Aliso Canyon natural gas storage facility blowout and limits the grid operator may now impose on usage under certain peak demand conditions.[5]

EOGB-4

EOGB-5

Greenhouse Gas Impacts

- The Project's greenhouse gas (GHG) impacts should be considered significant. The Project would result in a greater contribution of GHG emissions into our atmosphere, than importing water over hundreds of miles through the State Water Project.[6] Based on the 2014 power mix of Southern California Edison (SCE),[7] the **20 MGD ocean desalination plant would contribute as much as 44,702 metric tons of CO_2e emissions per year and the 60 MGD plant would contribute as much as 146,879 metric tons per year**.[8]

EOGB-6

- While the DEIR states "West Basin is committed to reducing the Project's GHG emissions to 'net zero' (net carbon neutral) *compared to continued use of imported water*

EOGB-7

[2] HEATHER COOLEY & MATTHEW HEBERGER, KEY ISSUES IN SEAWATER DESALINATION IN CALIFORNIA: ENERGY AND GREENHOUSE GAS EMISSIONS (Pacific Institute 2013), *available at* http://pacinst.org/wp-content/uploads/2013/05/desal-energy-ghg-full-report.pdf; NAT. RES. DEF. COUNCIL, ET AL., PROCEED WITH CAUTION II: CALIFORNIA'S DROUGHTS AND DESALINATION IN CONTEXT (2016), *available at* https://www.nrdc.org/sites/default/files/california-drought-desalination-2-ib.pdf.

[3] POWERS ENGINEERING, ASSESSMENT OF ENERGY INTENSITY AND GREENHOUSE EMISSIONS OF PROPOSED WEST BASIN DESALINATION PLANT AND WATER SUPPLY ALTERNATIVES 19 (2018), *available at* https://www.smarterwaterla.org/wp-content/uploads/2018/01/Powers_Engineering_2018_WB_Desal.pdf.

[4] Edward S. Spang et al., 2018 *Environ. Res. Lett.* 13 014016, 2, 5–6.

[5] *See* POWERS ENGINEERING, *supra* note 3, at 23.

[6] POWERS ENGINEERING, *supra* note 3, at 22.

[7] *Id.* at 16.

[8] *Id.* at 21.

supplied by M[etropolitan] W[ater] D[istrict]" (emphasis added DEIR, 5.7-20.), **the DEIR fails to provide any evidence that MWD will reduce the volume of imported water on a one-to-one basis as a result of the Project.** As a result, the DEIR lacks substantial evidence to show the Project's GHG contribution could be reduced to "net zero," and the resulting mitigation proposed is inadequate. EOGB-7

Energy and GHG Mitigation

- **The DEIR fails to adopt adequate mitigation measures for energy and GHG impacts.** In light of the alternative water supply options available that could avoid the significant energy and GHG impacts of the Project, including conservation, stormwater capture, recycling, and remediating brackish groundwater, the DEIR should have analyzed the Project's impacts in comparison to such alternatives, and ultimately, proposed mitigation that reduced the Project's GHG emissions *below* that of imported water. EOGB-8

Land Use

- **The Project would conflict with El Segundo's Local Coastal Program (ESLCP), and therefore, land use impacts should be considered significant.** The ESLCP may need to be amended before a coastal development permit could be issued for the Project because the ESLCP only anticipated minor modifications of existing energy facilities and construction of shoreline protective structures, not major construction of a new ocean desalination facility. EOGB-9
- With the hazards of sea-level rise and the shoreline's growing susceptibility to erosion, it is unwise to invest half-a-billion dollars to build infrastructure on the coast that will exacerbate climate change. EOGB-10

Marine Biological Resources & Hydrology and Water Quality

- The DEIR uses an improper baseline to determine significant marine biological and water quality impacts by **arbitrarily limiting the environmental setting** to a small rectangular portion of the Santa Monica Bay. As a result of this limited marine study area, the DEIR **fails to account for the interconnectivity between ecosystems within Santa Monica Bay as a whole** and thus, fails to analyze a reasonable scope of impacts. In particular, the DEIR fails to analyze the significant impacts to the network of Marine Protected Areas in the Bay—Mugu Lagoon to Latigo Point Area of Special Biological Significance, the Point Dume State Marine Conservation Area and State Marine Reserve, the Point Vicente SMCA, and the Abalone Cove SMCA. EOGB-11
- While the DEIR discusses the requirements of the California Ocean Plan Desalination Amendment (Ocean Plan), it does not incorporate any of these requirements as a threshold of significance in the marine biological resources or hydrology and water quality analyses. As the Ocean Plan is the regulatory framework specifically adopted to address such impacts from ocean desalination facilities, **the DEIR should have** EOGB-12

evaluated the extent to which the Project will "minimize intakes and mortality to all forms of marine life"[9] and applied this as a threshold of significance. EOGB-12

- The Ocean Plan requires desalination plants be sited, designed, utilize technology, and be operated to "minimize intakes and mortality to all forms of marine life."[10] Once-through cooling (OTC) infrastructure was decommissioned due to its adverse environmental impacts. Because the Project, proposes to use this decommissioned intake and discharge infrastructure, the Project's intake and discharge will have adverse environmental impacts. **Use of this decommissioned OTC infrastructure is not appropriate.** EOGB-13
- The DEIR does not present substantial evidence to support its conclusion that impacts to marine biological resources and water quality would be less than significant. For example, the mere fact that the Project's intake and brine discharge technology is permissible under the Ocean Plan does not preclude the potential for significant impacts. In fact, the Pacific Institute reports that the **"impacts of impingement and entrainment from desalination plants on the marine environment are not well understood" and may result in significant loss of biological productivity.**[11] With respect to **brine discharge impacts,** there is also a "lack of baseline ecological data," but **studies "clearly demonstrate the potential for acute and chronic toxicity and small-scale alterations to community structure in marine environments."**[12] EOGB-14 EOGB-15

Environmental Justice

- Out of a 1000+ page draft environmental impact report, **only half of a single page is dedicated to analysis of environmental justice impacts and mitigation measures.** (*See* DEIR, 6-13.) EOGB-16
- **The DEIR analysis fails to account for multiple low-income or minority populations (such as Carson, 82.1% of which is disadvantaged communities, and Inglewood, 100% of which is disadvantaged communities)** by analyzing only census tracts where aboveground infrastructure would be implemented (El Segundo and Hawthorne). (DEIR, 5-13.) EOGB-17
- The DEIR compares the Project's impacts on census tracts in Hawthorne to impacts on the city of Hawthorne as a whole. This is an unreasonably limited environmental setting and **fails to account for the Project's impacts on low-income or minority populations in West Basin's service area as whole, compared to the Project's impacts on affluent communities in West Basin's service area**. (DEIR, 6-11.) EOGB-18

[9] *See* ST. WATER RESOURCES CONTROL BOARD, FINAL STAFF REPORT INCLUDING THE FINAL SUBSTITUTE ENVIRONMENTAL DOCUMENTATION FOR THE AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE WATERS OF CALIFORNIA, ADDRESSING DESALINATION FACILITY INTAKES, BRINE DISCHARGES, AND THE INCORPORATION OF OTHER NON-SUBSTANTIVE CHANGES, Adopted May 6, 2015, *available at* https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/rs2015_0033_sr_apx.pdf.
[10] *Id.* at 11.
[11] HEATHER COOLEY ET AL., KEY ISSUES IN SEAWATER DESALINATION IN CALIFORNIA: MARINE IMPACTS 3 (Pac. Inst. 2013), *available at* http://pacinst.org/wp-content/uploads/2013/12/desal-marine-imapcts-full-report.pdf.
[12] *Id.* at 14.

- The Project's significant GHG emission contributions will exacerbate climate change, and **disproportionately impact low-income and minority communities, which are least able to adapt to or recover from climate change impacts**.[13] EOGB-19
- Many low-income and minority communities in West Basin's service area already suffer from poor air quality.[14] While the DEIR discusses SCE's power mix, it does not identify the specific plants on which SCE relies. Thus, the D**EIR does not analyze the impacts to the communities that will be most heavily impacted by the Project's high energy demand.** EOGB-20
- The half-a-billion dollar cost of building the Project will inevitably increase water rates for West Basin's ratepayers. This **increase in water rates will disproportionately impact low-income populations** in West Basin's service area relative to the more affluent populations. EOGB-21
- Further, there is significant disparity in the residential per capita water usage (R-GPCD) between the affluent communities and the low-income communities in West Basin's service area. For example, affluent communities such as Palos Verdes use upwards of 200 R-GPCD, while customers in Hawthorne use only 62 R-GPCD, (DEIR, 7-13.).[15] **The Project would effectively result in low-income communities subsidizing affluent communities' excessive water consumption.** EOGB-22

Cumulative Impacts

- While the DEIR provides a "Cumulative Projects List" (DEIR, Table 4-1) of past, present, and probable future projects/development in the Project area, **the DEIR does not address how the combined nature of such projects would impact the region.** The mere fact that such future projects would be required to conform to the requirements of applicable regulations, does not necessarily preclude the potential for significant impacts. EOGB-23

Alternatives to the Project

- **The only alternatives the DEIR analyzes are variations on building an ocean desalination plant. The DEIR does not analyze conservation, stormwater capture, recycling, brackish groundwater desalination, or any combination of these water supply options in its alternatives analysis.** EOGB-24
- **The DEIR relies on an unsubstantiated need for the development of 21,500 acre-feet per year (AFY) of new, potable water supply.** Neither West Basin's 2015 Urban Water Management Plan nor MWD's Integrated Water Resources Plan support the need EOGB-25

[13] U.S. GLOBAL CHANGE RESEARCH PROGRAM, THE IMPACTS OF CLIMATE CHANGE ON HUMAN HEALTH IN THE UNITED STATES: A SCIENTIFIC ASSESSMENT (2016), *available at* https://health2016.globalchange.gov/.
[14] *See* CALENVIROSCREEN 3.0, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30 (last visited June 8, 2018).
[15] STATE WATER RESOURCES CONTROL BOARD, *August Supplier Conservation*, 9, 10 (2017), https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/2017oct/supplierconservation_100317.pdf.

for 21,500 AF of new potable water supply. Yet, the DEIR includes a requirement that 21,500 acre-feet per year (AFY) of new, potable water supply be developed. This 21,500 AFY requirement is not disclosed as a project objective, and instead, operates as a shadow objective, which the DEIR uses to eliminate conservation, stormwater capture, and recycling as alternatives to the Project. EOGB-25

- **Conservation, stormwater capture, recycling, and brackish groundwater desalination are alternatives that would increase local water supplies, avoid the significant adverse environmental impacts of the Project**, including the energy, GHG, marine, water quality, and environmental justice impact, **and would meet most of the DEIR's stated project objectives.** The DEIR alternatives analysis is inadequate for failing to, at least, analyze a hybrid alternative that includes a combination of such alternatives. EOGB-26
- In particular, West Basin has been a leader in recycled water with its Edward C. Little Water Recycling Facility (ECLWRF) that currently recycles approximately 35 MGD of secondary effluent from the Hyperion Water Reclamation Plant. While we applaud West Basin's efforts to increase recycling at ECLWRF to 70 MGD, ECLWRF is "designed for ultimate expansion to 100 MGD."[16] **Expanding recycling at ECLWRF to its maximum capacity would more than eliminate the need for the 20 MGD plant.** EOGB-27

For the reasons outlined above, as well as those expressed in Los Angeles Waterkeeper and Heal the Bay's comment letters, we respectfully request that the DEIR be revised and recirculated. We also strongly encourage West Basin to employ a Reduce, Reuse, Recycle, and Restore approach to developing its water supply portfolio and comprehensively explore the numerous opportunities it has for increasing conservation, stormwater capture, recycling, and brackish groundwater remediation, instead of pursuing ocean desalination at this time. Once again, thank you for your careful consideration of our comments. EOGB-28

Sincerely,

Melissa Kelly
Los Angeles Waterkeeper

On behalf of:

Craig Cadwallader	Conner Everts	Nancy Shrodes	Marcus Eriksen
Surfrider, South Bay Chapter	Desal Response Group	Heal the Bay	5 Gyres

[16] CH2M HILL, WATER REUSE CASE HISTORY: WEST BASIN WATER RECYCLING/PETROLEUM REFINERY REUSE PROGRAM (WATER MATCH).

Merle Moshiri
President
Residents for Responsible Desalination

Susan Jordan
Executive Director
California Coastal Protection Network

Conner Everts
Environmental Water Caucus

Veronica Padilla
Pacoima Beautiful

Sherry Lear and Damien Luzzo
Co-Organizers
350 South Bay Los Angeles

Marco Gonzalez
Coastal Environmental Rights Foundation

Jonathan Parfrey
Climate Resolve

Pamela Berstler
Green Gardens Group

Sean Bothwell
Policy Director
California Coastkeeper Alliance

Graham Hamilton
Surfrider, Los Angeles Chapter

Finian Makepeace
Kiss the Ground

Charming Evelyn
Sierra Club

Pam Heatherington
Board of Directors
Environmental Center of San Diego

Siobhan Dolan
Southern California Watershed Alliance

Azita Yazdani
President and CEO
Exergy Systems, Inc.

Melanie Winter
The River Project

Leslie Mintz Tamminen
Director
Seventh Generation Advisors

Joseph K. Lyou
President & CEO
Coalition for Clean Air

Adam Scow
Food and Water Watch

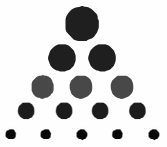
Dan Silver
Endangered Habitats League

Stephen Mejia-Carranza
Friend of the LA River

Alison Lipman
SELVA International

Mia Lehrer
Studio-MLA

Anna Ehrgott
Sagebrush



Golden State
Water Company
A Subsidiary of American States Water Company

June 25, 2018

Patrick Sheilds
General Manager
West Basin Municipal Water District
17140 S Avalon Blvd
Carson, CA 90746

Subject: Ocean Water Desalination Draft Environmental Impact Report

Dear Mr. Sheilds:

Golden State Water Company (Golden State Water) appreciates the opportunity to comment on West Basin Municipal Water District's (West Basin) draft Environmental Impact Report (EIR) for its proposed ocean water desalination project. Golden State Water provides water service to over 250,000 customers located within 75 communities throughout 10 counties in Northern, Coastal and Southern California. Within West Basin's service area, Golden State Water serves approximately 65,000 customers, including the cities of Culver City, Gardena and Lawndale, and portions of Carson, Compton, El Segundo, Hawthorne, Inglewood, Redondo Beach, and the unincorporated communities of Athens, Del Aire, El Camino Village, Lennox and Gardena Heights. Golden State Water offers these comments in order to help facilitate a productive outcome on this important effort.

As the primary project location is not within Golden State Water Company's service area, we have few comments on the draft EIR itself. One area that could impact our customers relates to the Transportation and Traffic (Section 5.15). Section 5.15.1 indicates that "Depending on the final alignments and site selection, the proposed desalinated water conveyance facilities and regional pump station optional sites would traverse or be sited within the city of El Segundo and/or the following other surrounding jurisdictions:

- Gardena
- Hawthorne
- Lawndale
- Los Angeles County Department of Public Works
- Redondo Beach
- Torrance
- Del Aire – an unincorporated community of Los Angeles County
- El Camino Village – an unincorporated community of Los Angeles County"

GSW-1

As stated above, Golden State Water serves several of these areas, thus would likely have customers who are impacted by this construction work. During water pipeline construction, customers do not necessarily know which water utility is performing the construction, thus may contact Golden State Water with questions or concerns. This has been an issue in the past when West Basin has installed recycled water pipeline in our service area. If this project is

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constructed, Golden State Water requests that West Basin communicates closely with Golden State Water while laying pipeline and/or constructing pumping stations within our service area. This will help Golden State Water to better inform our customers if we receive questions about the project. GSW-1

Additionally, West Basin may be installing pipeline in alignments where Golden State Water also has potable water pipeline. The addition of new pipeline in the streets could limit Golden State Water when planning infrastructure improvements in the future, as finding locations to install new pipeline may be more difficult with West Basin's desalinated water pipeline also in place. Golden State Water requests that West Basin work closely with our Engineering Planning Department if planning for desalinated water pipeline within the Golden State Water service area. This could help to ensure that Golden State Water is better able to provide infrastructure improvements to our customers in the future. GSW-2

Though not addressed specifically in the draft EIR, Golden State Water remains concerned about the costs related to designing and operating a desalination plant, particularly its impact on our customers' rates. We also must ensure that distributing desalinated water within our service area does not negatively impact the quality of the water served to our customers. We request that West Basin continue to engage with Golden State Water to address these concerns. GSW-3

As stated in our letter to West Basin dated April 20, 2016, Golden State Water would support a desalination program that increases local water supply reliability in a cost effective and environmentally responsible manner. We look forward to working with West Basin as you continue to examine the feasibility of this project. GSW-4

Once again, thank you for providing us the opportunity to provide these comments. If you have any questions, please contact me at knutting@gswater.com or (310) 767-8200 x500. GSW-5

Katherine Nutting
General Manager, Southwest District
Golden State Water Company

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June 25, 2018

Zita Yu, Ph.D., P.E.
Project Manager
West Basin Municipal Water District
17140 South Avalon Boulevard, Suite 210
Carson, California 90746-1296

Sent via e-mail to: DesalEIR@WestBasin.org

RE: West Basin Municipal Water District Ocean Desalination Draft Environmental Impact Report

Dear Dr. Yu:

On behalf of Heal the Bay, we submit this letter in response to the West Basin Municipal Water District (West Basin) Desalination Draft Environmental Impact Report (DEIR). We appreciate the opportunity to provide comments and for the extended public comment period granted by the West Basin Board of Directors in May 2018.

For over 30 years, Heal the Bay has worked to ensure that our coastal waters and watersheds are clean, healthy, and safe. With over 15,000 members, we have worked to protect our waterways in Los Angeles. Since our inception, we have been actively working on water quality and ecosystem health issues for the region. We recognize the need for increased local water supply in Los Angeles, and are very supportive of the Mayor's Sustainability pLAn to reduce our reliance on imported water supply by 50% by 2025, and supply 50% of our water locally by 2035.[1] Through Heal the Bay's Know the Flow initiative, we have educated over 30,000 Angelenos since 2016 about where our water comes from in LA, the challenges we face with our old infrastructure and dependence on an increasingly unreliable imported water supply, and the solutions we need to invest in as a community to build a water resilient city.[2] We identify the need to capture, conserve, reuse and restore as the path to success in achieving these goals. HTB-1

West Basin has done exemplary work with wastewater recycling projects, stormwater capture projects, and conservation programs. We applaud the decision to increase their yield from Hyperion from 40 MGD to 70 MGD, and their support of conservation programing. However, we are opposed to ocean water desalination in Los Angeles County, as it is the most expensive and energy intensive process to establish local water, as identified in the Pacific Institute Report

[1] Sustainability pLAn, p. 17, http://plan.lamayor.org/wp-content/uploads/2017/03/the-plan.pdf.
[2] Know the Flow, Presented by Heal the Bay. http://knowtheflow.la.

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on Seawater Desalination in California.[3] Considering these drawbacks as well as the direct environmental impacts, ocean water desalination must be a last resort, after all other resources have been exhausted. We are far from exhausting other sustainable ways of sourcing water; desalination is not the answer.

HTB-1

We specifically oppose the desalination plant proposed in West Basin's DEIR (the Project), based on significant concerns about the impact it will have on public and environmental health. Heal the Bay staff identified multiple areas of concern in reviewing the DEIR. We have identified six major themes of concern throughout the DEIR:

- No true ANALYSIS of CUMULATIVE impacts
- Exclusion of analysis of any Alternative Project other than the construction and operation of a desalination plant
- Vague language surrounding inadequate mitigation efforts
- Lack of clarity on the scope and scale of the project (the local project versus the regional project)
- Arbitrary and narrow/inadequate scope of environmental setting
- Vague promises and commitments surrounding testing and compliance protocol, eliciting our concern about enforcement

HTB-2

The Project area is hazardous due to erosion and seismic risk, and therefore unsuitable for the construction and operation of a large-scale near-shore project. The Project also poses the potential for significant water quality degradation, with no documentation or analysis made to support the claim that the Project will comply with all NPDES and anti-degradation regulations. There is no substantial evidence to support that the brine discharge and the ocean intake will have less than significant impacts on all forms of marine life, even with suggested mitigation strategies included, potentially impacting both commercially valuable and endangered species. The analysis of cumulative impact is insufficient, as it only addresses one small section of the Santa Monica Bay, and does not evaluate how the impacts of all projects listed could affect the region cumulatively. And the screening guidelines for the proposed alternatives use standards that unreasonably exclude more cost-effective, energy efficient, and environmentally sound options. We request that the DEIR be revised and recirculated to address these concerns.

In this letter, we offer a technical review of the DEIR, focusing on the above areas of concern in the following topics:

- Geology, Soils and Seismicity
- Hydrology and Water Quality
- Marine Biological Resources

[3] Heather, Cooley & Matthew Heberger, Key Issues in Seawater Desalination in California: Energy and Greenhouse Gas Emissions (Pacific Institute 2013), *available at* http://pacinst.org/wp-content/uploads/2013/05/desal-energy-ghg-full-report.pdf.

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- Environmental Justice
- Cumulative Impacts
- Alternatives
- Discrepancies and Missing Information

HTB-2

We thank you for your consideration of these comments, which are discussed in further detail below.

Geology, Soils, and Seismicity

Geologic Conditions

The beach near the Project area is geologically unstable as a result of 1) long-shore erosion due to wave action, 2) subsurface composition that has been known to cause liquefaction in the event of seismic activity, and 3) slope instability leading to a possible landslide hazard (DEIR, 5.6-9, 5.6-11, 5.6-12). Large scale near-shore construction, which would be necessary to complete the Project, could trigger a hazardous event or increase the severity of natural hazardous processes. Additional steps must be taken to address and mitigate these effects, which will broaden the scope of the Project. Even if these additional steps are taken, the increased risk for environmental degradation cannot be completely eliminated. Furthermore, the El Segundo Local Coastal Program (ESLCP) identifies the beach in front of the Project as hazardous due to erosion, an issue "greater than local significance." ASLCP expects few, if any, future projects of significant development due to this sensitivity.[4]

HTB-3

The Chevron Groin, located at the beach directly in front of the proposed facility, already makes the beach much shorter than the surrounding areas, preventing accumulation naturally from littoral drift, and more likely to reach eroded conditions (which were noted in Appendix 5B as having higher adverse effects than accreted conditions). The groin effects on the sea level rise projections were never specifically addressed within the DEIR or in the Sea Level Rise Appendix (Appendix 5B). We would like to see the DEIR recirculated, addressing this concern.

Seismic Hazards

The DEIR states that there will be a less than significant impact from the Project in the event of seismic activity, citing compliance with existing regulations (DEIR, 5.6-16). West Basin is assuming compliance with existing regulations and conditions without providing supporting documentation, so **there is still risk for significant environmental and public impacts if compliance is not met**. Additionally, compliance with regulation can mitigate these impacts, but **not eliminate them entirely**. There is an unfortunate history in Los Angeles of public and environmental catastrophes occurring when large-scale projects are built in areas that are not

HTB-4

[4] http://www.elsegundo.org/civicax/filebank/blobdload.aspx?blobid=3731 *Id.* Staff Summary and Recommendation at 9 and at 30.

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geologically stable (e.g. the failure of St. Francis Dam[5]). Clear and substantial environmental hazards have been identified within the Project area, as discussed above in the Geologic Conditions section. Therefore, the construction of a large-scale project in this area creates considerable unnecessary risk to public and environmental health.

HTB-4

Hydrology and Water Quality

Water Quality Impacts

West Basin states that the quality of surface water is primarily a function of land uses in the Project Area and points to stormwater and urban runoff as a major source of pollution (DEIR, 5.9-30). The report also acknowledges that the Dominguez Channel Watershed is on the Clean Water Act (CWA) 303(d) list as impaired for copper, ammonium, diazinon, bacteria, lead, zinc and toxicity; and that the Santa Monica Bay is on the CWA 303(d) list as impaired for debris, sediment toxicity, dichlorodiphenyltrichloroethane (DDT), and polychlorinated biphenyls (PCBs) (DEIR, 5.9-1, 5.9-2). Other contaminants of concern within the Santa Monica Bay include polycyclic aromatic hydrocarbons (PAHs), chlordane, tributyltin (TBT), cadmium, chromium, copper, lead, nickel, silver, zinc, pathogens, total suspended solids (TSS), nutrients, trash and debris, chlorine, oil and grease. Oxygen demand is also a concern within the Santa Monica Bay (DEIR, 5.9-34).

HTB-5

Construction activity will have adverse effects on water quality. Even with utilizing the existing water tunnels, extensive offshore construction is needed to complete the Project. The potential effects of this underwater construction will degrade water quality during construction activity throughout a 12-month period.

Increased turbidity during off-shore construction can affect marine life directly by obstructing the capacity of fish gills, and by blocking sunlight from reaching marine plant life and phytoplankton that rely on the process of photosynthesis.[6] Degradation of this basic food source, the base of the aquatic food chain, also disrupts the ecosystem indirectly. Santa Monica Bay is on the CWA 303(d) list as impaired for sediment toxicity, DDT and PCBs. Disturbing the sediment would release additional DDT and PCBs into the water column and eventually into fish tissue.[7] Increasing contaminant concentrations within the water column can affect public health either

HTB-6

[5] Rogers, David J. 2006. Lessons Learned from Fantastic Failures: Lessons Learned from the St. Francis Dam Failure. https://web.mst.edu/~rogersda/st_francis_dam/lessons_learned_from_the_st_francis_dam_failure(geostrata_mar-apr_2006).pdf.

[6] Erftemeijer, Paul and Lewis, Roy. 2006. Environmental impacts of dredging on seagrasses: A review: Marine Pollution Bulletin, v. 52, p. 1553-1572.

[7] Ramboll Environ US Corporation. 2015. Sampling and Analysis Report for Surface Sediment Characterization and Polychaete Tissue Collection Program at the Greater Los Angeles and Long Beach Harbor Waters. https://www.waterboards.ca.gov/losangeles/board_decisions/basin_plan_amendments/technical_documents/128_New/01ENVIRONReportSedimentandPolychaeteSpecialStudy(062915).pdf.

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directly through contact with contaminated water, or indirectly through the consumption of fish that have been exposed to increased contamination within the water column. HTB-6

The Santa Monica Bay Restoration Commission recognizes that the level of dissolved oxygen within the Santa Monica Bay is an issue of concern.[8] Offshore construction activities can reduce dissolved oxygen levels, which would affect marine life. Additionally, off-shore construction will occur over a 12-month period, providing sufficient potential for the accidental release of hazardous construction related materials (DEIR, 5.9-44). In view of the fact that the Project is a single-purpose water supply project that is unnecessary, considering all of the alternatives (i.e. stormwater capture, conservation, recycling, and remediating brackish groundwater), exposing the public and the environment to these potential hazards is reckless. We request that the draft EIR be recirculated, with a comprehensive analysis of the cumulative impacts of construction activities on both public and environmental health and safety. HTB-7 HTB-8 HTB-9

Operation and Maintenance of the Project will also have adverse effects on water quality. The DEIR specifically cites how the brine discharge could result in areas of hypoxia and that the brine could contain increased concentrations of constituents that originated in the ocean and that are regulated under the California Ocean Plan (DEIR, 5.9-50). Dilution of this contaminated brine using the surrounding ocean water is a short-sighted and short-term remediation approach because dilution is not the solution to pollution. Returning these contaminants to the ocean at a single source will cause accumulation of that contamination in the surrounding water and sediment, even if it is diluted at the moment of release, which can have a significant long-term effect on public and environmental health.[9] Analysis and modeling of ocean currents within the Santa Monica Bay would be necessary to determine if subsurface flow is consistent enough to disperse the increasingly concentrated ocean water near the discharge point to prevent accumulation of sediment toxicity. HTB-10

Some of the material that would be used during off-shore operations for the Project may cause an accumulation of toxic material within the sediment and the water column. For example, copper leaching from the intake screen structure would release copper ions into the surrounding waters. The DEIR claims that because this would be a very slow process in seawater, it would not result in exceedances of the California Ocean Plan water quality objectives for copper (DEIR, 5.9-56, 5.9-57). Copper is already considered a contaminant of concern within the Santa Monica Bay. Copper is toxic to phytoplankton and other aquatic vegetation by disrupting the process of photosynthesis.[10] Copper toxicity of this basic food source could have a detrimental ripple effect HTB-11 HTB-12

[8] The Santa Monica Bay Restoration Commission Bay Restoration Plan. https://www.smbrc.ca.gov/about_us/smbr_plan/docs/smbrplan_execsum2008.pdf.

[9] State Water Resources Control Board. 2018. ADOPTION OF AMENDMENTS TO THE WATER QUALITY CONTROL PLAN FOR ENCLOSED BAYS AND ESTUARIES: SEDIMENT QUALITY PROVISIONS. https://www.waterboards.ca.gov/water_issues/programs/bptcp/docs/sediment/060518_drft_reso.pdf.

[10] Marcela Brandão Costa, Francesca Valêncio Tavares, Claudia Bueno Martinez, Ioni Gonçalves Colares, Camila de Martinez Gaspar Martins. 2018. Accumulation and effects of copper on aquatic macrophytes Potamogeton pectinatus L.: Potential application to environmental monitoring and phytoremediation, Ecotoxicology and Environmental Safety. https://doi.org/10.1016/j.ecoenv.2018.01.062.

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up the food chain, affecting the entire aquatic ecosystem. Copper has also been shown to adversely impact salmon populations by causing larval deformities and delayed hatching, and affecting sensory organs which potentially compromises their ability to return to spawning streams and to avoid predators.[11] **The fact that copper is already a contaminant of concern within a waterbody does not justify the initiation of a project that will discharge additional copper into the waterbody.** HTB-12

Heal the Bay was a key proponent in the State Water Resources Control Board adopting the decommissioning of once-through cooling (OTC) due to its devastating environmental effects, as OTC was no longer "best technology available for minimizing adverse environmental impact" as required by Section 316(b) of the CWA,[12] requiring closed cycle cooling instead. The open ocean intake system was decommissioned due to its adverse environmental impacts, making it inherently flawed to claim that there would be no significant impacts on utilizing this screened open ocean intake system. The DEIR notes that there has not been any proper assessment to evaluate the effectiveness of wedgewire screen's performance, as it is a new technology to be used, making the conclusion of no significant impact illogical (DEIR, 5.11-52). HTB-13

Based on the many potential water quality impairments discussed above, **we do not agree that the Project will have no significant impact on the water quality**, contrary to what is claimed in the DEIR. We request that the DEIR be revised and recirculated with a comprehensive analysis of cumulative water quality effects. HTB-14

Regulatory Compliance

This project further degrades water quality, and therefore it may not be feasible for the project to adhere to the NPDES permit requirements. The requirements of an NPDES permit depend on the sum total of contaminant discharge into that water body. West Basin has already acknowledged that the Santa Monica Bay is on the CWA 303(d) list, and they have identified multiple other sources of contamination. This project, taken in isolation, may not have a significant long-term effect on the water quality. However, if it is taken in context with the existing contamination as well as the other sources that have not yet reached compliance, it could. There is no evidence that suggests it will be in compliance, as claimed, and no alternative to brine discharge into the ocean is presented in the DEIR, if compliance is not met and discharge is restricted. We request that the DEIR be revised with alternative brine discharge locations and options. HTB-15

[11] Urma Mahrosh, Merethe Kleiven, Sondre Meland, Bjørn Olav Rosseland, Brit Salbu, Hans-Christian Teien, Toxicity of road deicing salt (NaCl) and copper (Cu) to fertilization and early developmental stages of Atlantic salmon (Salmo salar): Journal of Hazardous Materials. https://doi.org/10.1016/j.jhazmat.2014.07.076.

[12] St. Water Resources Control Board, Res. No. 2015-0018, Adoption of an Amendment to the Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling, https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/appendix_a.pdf.

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Additionally, the fact that these waters are contaminated from previous and current pollutant loading from surface runoff does not mean that additional pollution will not harm the ecosystem. In fact, it requires that the Project meet additional anti-degradation requirements. The State Water Resources Control Board recognizes that there are serious contamination issues in both Santa Monica Bay and the Dominguez Channel Watershed. We believe that it may not be feasible for the project to adhere to the NPDES permit requirements. If the claim of no significant impact is made on the basis that regulatory requirements will be met, there must be proof of feasibility that these requirements *can* be met. Consultation with Regional Board Staff and supporting documentation must be included in the DEIR. HTB-16

Coastal Flooding

By 2100, the ESGS North and South Sites would be located in an area at risk of potential coastal flooding, but mitigation efforts can be made to protect against these flooding risks (DEIR, 5.9-37). With an operational life span of only approximately 50 years, it is not viable to initiate a coastal-adjacent project that will require mitigation efforts within the next 100 years, especially considering a project that is supposedly addressing long term water supply concerns, with climate change impacts (such as sea level rise) that span beyond the life of this project. Steps to mitigate flood potential due to rising sea levels will broaden the scope of the Project, and even if these additional steps are taken, the risk of flooding cannot be completely eliminated. HTB-17

Additionally, the risk of flooding due to climate change induced sea level rise adds to the growing list of natural disasters that are likely to occur within the Project area and that require mitigation efforts: beach instability, liquefaction, landslide, and flooding. This further identifies the Project area as unsuitable for the construction, maintenance and operation of a large-scale, near-shore project.

Marine Biological Resources

Brine Discharge

Physical and chemical effects on larvae and phytoplankton are expected from the brine discharge.[13] There is also concern about the effects on marine life from contaminated discharge; both from antifouling agents (DEIR, 5.11-60, 5.11-61) and/or brine containing concentrated pollutants originally found in the intake ocean water (DEIR, 5.11-49, 5.11-56, 5.11-58). These effects on larvae may in turn affect the recruitment of new individuals into the populations of ecologically and economically important fish (such as CA halibut, croaker and CA Sheephead) and invertebrate species (lobster and market squid). Further, the DEIR recognizes that the intakes will have impacts to larvae and phytoplankton. Specifically, the speed of intake of 30 feet/min is fast, and at a size of ~1.0 mm larvae will still pass through (DEIR, 5.11-52, 5.11-53). The DEIR HTB-18

[13] Heather, Cooley & Matthew Heberger, Key Issues in Seawater Desalination in California: Energy and Greenhouse Gas Emissions (Pacific Institute 2013), available at http://pacinst.org/wp-content/uploads/2013/05/desal-energy-ghg-full-report.pdf.

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cites these impacts as less than significant, with mitigation incorporated, but the mitigation strategy itself is unclear. Page 5.11-52 states that "Regardless of the magnitude of the impact of discharge-induced entrainment, it would be expected to be reduced through the application of mitigation to restore or enhance marine or coastal habitat, which could include a local coastal marsh restoration project such as the Ballona Wetlands Restoration Project. Therefore, the implementation of Mitigation Measure BIO-M2 would reduce Project related entrainment impacts of non-special-status taxa, to less than significant after mitigation." We disagree; **these are significant impacts that the mitigation actions do not address effectively**. This is just one example of the vague language used around mitigation, which is then asserted to result in less than significant impacts. Other mitigation strategies proposed, such as paying the "appropriate fees" to the "appropriate agencies," are not mitigation strategies that reduce the impacts to be less than significant. This is something that can be mandated if an agency is hit with incompliance, but should not be considered a mitigation strategy.

HTB-18

HTB-19

Endangered Species

Populations of species like black abalone (Federal Endangered Species Act listed) and giant/black seabass in CA are very low. There are State Marine Reserves (SMR) and State Marine Conservation Areas (SMCA) north and south of the proposed site. Abalone Cove in Palos Verdes is 7 miles away and Pt. Dume in Malibu is 22 miles away from the proposed Project location. The DEIR mentions that abalone larvae have not been documented through their studies but that they may occur in the area, just not often. The table on p.5.11-30 lists four species of abalone, and under the column "potential to occur in study area," it reads "not expected." **While the habitat for the adult species may not be found in the study area, the larvae may.** The SMRs and SMCAs may be assumed to be a likely source of abalone larvae. Abalone were historically found on rocky areas along the coast. [14] The potential for the larvae to recolonize historic range may be hindered by the project activities (DEIR, 5.11-30, 5.11-42).

HTB-20

Noise

We have serious concerns about the negative effects of underwater noise on marine mammals and marine reptiles (e.g. turtles) from construction and operation activities; and particularly when added to other ongoing projects, creating a magnified effect. The project timeline should be compared to and analyzed with other projects expected to generate noise levels that may affect marine life; such as the U.S. Navy 5-Year Military Readiness Training and Testing Program currently under consideration by the California Coastal Commission (DEIR, 5.11-39, 5.11-46). **This is just another example of how true cumulative impacts and analysis are not included in the DEIR.**

HTB-21

[14] California's Living Marine Resources: A Status Report, Abalones, 1-17 (2011), https://www.wildlife.ca.gov/Conservation/Marine/Status/2001.

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Emissions

Greenhouse gas emissions (GHGE) are contributing to changing conditions in ocean water, which in turn may affect coastal marine populations by reducing their resilience.[15] There are expected cumulative impacts at the global level from an increase in the number of desalination plants; and their contribution though GHGE is expected to have an effect on marine ecosystems at the local level.[16] In addition, increased storm activity off the CA coast may increase the likelihood of machinery malfunctions during construction or plant operation, which can potentially further affect marine life. The Project is expected to have very high energy demands, and an accompanying high GHGE (refer to coalition letter on energy and emissions). **Section 5.11 of the DEIR fails to address how West Basin plans to mitigate for any potential negative effects on marine systems as a result of their GHGE.**

HTB-22
HTB-23
HTB-24

Moreover, the Project would directly oppose the City of Los Angeles Carbon-Neutrality by 2050 goal.[17] While West Basin has stated they will implement mitigation efforts to offset their carbon footprint, not emitting carbon in the first place is a much better approach. In addition, as we state throughout this letter, there are other, better water supply projects that do not emit as much (if any) carbon, and many that will actually increase carbon sequestration; this includes nature based solutions that create healthy soils and vegetation.

HTB-25

Subsurface Intake and Screened Intake

The DEIR does not assess an alternative that would support subsurface intake. According to the California Water Code, all new desalination facilities must use the best available technology to "minimize the intake of all forms of marine life." (Cal. Water Code § 13142.5(b).) The Ocean Plan considers subsurface intake as the preferred technology, and requires new plants to evaluate the feasibility. The DEIR asserts infeasibility for a plant with the design capacity of 40 MGD intake (20 MGD plant). However, the DEIR should have examined a plant of reduced capacity (5-15 MGD) as an alternative that could support subsurface intake. We ask that the final EIR include this alternative.

HTB-26

As mentioned earlier in this letter, the DEIR notes that there are no current studies that examine the effectiveness of wedgewire screens at an active facility, nor the magnitude of the reduction of larval intake that would result (DEIR 5.11-52, 5.11-53). The *Intake Effects Assessment Report* (Tenera 2014) completed by consultants examined a model plant with an intake of 0.511 MGD of seawater, which was then used to assess the Project which would intake 45.4 MGD. This is an

HTB-27

[15] Climate Change 2014 Synthesis Report Summary for Policymakers, Intergovernmental Panel on Climate Change, 1, 2 (2014) https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf.

[16] Heather, Cooley & Matthew Heberger, Key Issues in Seawater Desalination in California: Energy and Greenhouse Gas Emissions (Pacific Institute 2013), *available at* http://pacinst.org/wp-content/uploads/2013/05/desal-energy-ghg-full-report.pdf.

[17] "L.A. to Go Carbon-Neutral by 2050." Office of Los Angeles Mayor Eric Garcetti, Office of Los Angeles Mayor Eric Garcetti, 7 June 2018, www.lamayor.org/mayor-garcetti-announces-la-go-carbon-neutral-2050.

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89% increase from the demonstration facility, but the DEIR states no significant impact based on this model. That is an unreasonable conclusion, as the Project volume intake is much larger, and the wedgescreen is untested intake technology at that scale. **All of these stressors combined pose a cumulative threat not addressed by the DEIR marine section.** HTB-27

Enforcement

Experience suggests that agencies such as the California Coastal Commission (CCC) and California Department of Fish & Wildlife (CDFW) have very limited resources for enforcement. What are the enforcement capabilities of the relevant agencies to ensure West Basin complies with regulations/permit requirements and conditions? (DEIR, 1-10) We recommend that any research completed addressing mitigation or compliance be completed by a third party, to ensure transparency. HTB-28

Environmental Justice

We have a number of environmental justice concerns, including: HTB-29

1. Only half of a page throughout the entire 1,000+ draft environmental impact report addresses analysis of environmental justice impacts and mitigation measures (DEIR, 6-13).
2. The DEIR only addresses impacts of census tracts where above ground infrastructure would be built (Hawthorne and El Segundo), failing to include impacts to other low-income communities in their service area (DEIR, 5-13).
3. The Project will cost half-a-billion dollars to build, which will increase water rates for rate payers. **The cost will disproportionately impact low-income communities in the service area.** And as more affluent water users tend to have higher water demands, this effect will be exasperated (ex. PV- 200 R-GPCD vs. Hawthorne- 62 R-GPCD (DEIR, 7-13).[18]

Cumulative Impacts

As noted throughout this comment letter, **there lacks a true review of cumulative impacts and analysis.** The Basis of Cumulative Analysis (Section 4 of the DEIR) was simply a laundry list of projects (construction and intake/discharge in the Southern CA Bight). Cumulative effect is even defined using the California Coastal Act on p. 4-1 as "the incremental effects of an individual project (that) shall be reviewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." But the "analysis" in each section discussed thus far only examines the impacts of the local project within the arbitrarily chosen environmental setting. **There lacks any analysis of how all the regional projects impact the environment cumulatively.** It is far too narrow in scope, resulting in insufficient analysis. And HTB-30

[18] State Water Resources Control Board, *August Supplier Conservation*, 9, 10 (2017), https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/2017oct/supplierconservation_100317.pdf.

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although promises of cumulative impacts are made in Section 4 regarding analysis of ocean intake and discharge in Section 5.11, cumulative analysis of these projects is lacking. HTB-30

In addition, the DEIR specifically mentions that it won't be analyzing the impacts of the regional project, as there are many details that have not been determined, but then uses language throughout as if the regional project is inevitable. The way the DEIR is written seems to suggest that one DEIR would be sufficient for both the local and the regional project, when only looking at adverse effects of the local 20 MGD project. This is absolutely not the case. We want to point out and ensure that another DEIR would be required for an expanded project, as it was not sufficiently addressed in this DEIR due to the undetermined details. Tripling the intake for a regional project would have cumulative impacts that would be far more significant than that of a 20 MGD plant. HTB-31

The DEIR assumes that "rather than provide additional capacity, the desalinated potable water would replace imported water use in West Basin's service area in the future," replacing 11% of imported demand (DEIR, 4-10). However, this is an unsubstantiated claim, with no evidence to support it. Adding desalination to the water portfolio does not necessarily reduce the purchase of imported water, nor negate impacts associated. They are not mutually exclusive. In fact, there is evidence that suggests otherwise. After the Poseidon Plant in Carlsbad was approved by the Coastal Commission, it came to light that they knowingly misled the agency with illusions to a 1-1 ratio (desalination vs imported) when they had an agreement with Metropolitan Water District (MWD) through 2035 that specifically included a clause where no new desalination water could replace the water purchase from MWD in that time frame (see Attachment A, California Coastal Commission Staff Report). HTB-32

Alternatives

The only alternatives considered in this DEIR involve the operation and construction of a desalination plant, ruling out more cost-effective and efficient options such as conservation, stormwater capture, recycling, and brackish water desalination to remediate groundwater supplies, or any combination of these possibilities. These would meet most of the Project objectives and avoid many of the associated environmental impacts of this desalination plant. And yet they were screened as infeasible options, as they did not meet at least one of seven requirements, some of which were arbitrary. We believe it is insufficient to use these particular requirements as the basis of excluding valid alternatives. HTB-33

Looking at this project as part of a larger issue, the purpose of creating a desalination plant is to address the water supply issue in Southern California. However, if water quality is compromised, that water is no longer available as a water supply benefit; therefore, water quality is a water supply issue. Our resources cannot be put towards these single-benefit projects when so many multi-benefit project options are available to us that can address water quality and water supply while also providing community investments. HTB-34

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Stormwater capture projects are well suited for Los Angeles. A few of these projects have been implemented, improving our ability to capture, store and reuse rainwater, not only increasing water supply, but also decreasing pollutant runoff, improving water quality in our rivers, lakes and ocean. Some of these projects involve nature-based solutions, providing additional community investments. It is a win-win-win situation. Heal the Bay, as a member of OurWaterLA, is helping the county draft a stormwater funding measure that would provide the funding for the construction, operation and maintenance of these multi-benefit projects. LA County also has 147 billion gallons of unused groundwater storage, which can be augmented with both recycled wastewater and captured stormwater. We need to take advantage of the amazing storage capacity we have, which many other cities are not afforded.[19] Additionally, conservation needs to be a way of life, and not just something we practice in a year that is declared by the governor as a drought emergency. These are just a few of the water sources local to Los Angeles that are currently being underutilized. We want to see increased water conservation, and increased water reuse via stormwater recycling (e.g. the Santa Monica Urban Runoff Recycling Facility) and wastewater recycling (e.g. West Basin's Edward C. Little Water Recycling Facility). HTB-35

The DEIR asserts that the alternatives that Heal the Bay supports (as mentioned above) were not included in the analysis because they did not meet at least one of the seven screening criteria. The first is the requirement of supplying 21,500 AFY, and the third includes meeting the five objectives set for this project. We have issues with this reasoning: HTB-36

- The 21,500 AFY need for a new water supply is unsubstantiated. It is not required by the 2015 Urban Water Management Plan (UWMP) nor the Integrated Water Management Plan. This number seems to be used to specifically exclude conservation, stormwater capture, and recycling as alternatives.
- The new expansion of the Edward C. Little's recycling program from 40 MGD to 70 MGD was not included in this analysis. We are very supportive of this expansion, but would love to see it go further, as the design capacity is for 100 MGD,[20] which would more than eliminate the need for a 20 MGD desalination project. HTB-37
- And two of the five objectives for the Project pertain to **control**; control of water (2) and control of pricing (3). These are not sufficient justifications to exclude more cost effective and environmentally sound alternatives. It is unreasonable to use this as a basis for exclusion from the analysis. HTB-38

Thus, the criteria for assessing alternatives are flawed and can only lead to the predetermined outcome that West Basin would like to see, the creation of a desalination plant. We would like to see conservation, stormwater capture, increased recycling, and brackish water desalination, or a combination of such alternatives, proposed as an official alternative in a recirculated DEIR. HTB-39

[19] Provided by MWD in creation of Know the Flow materials, 2016.
[20] CH2M HILL, Water Reuse Case History: West Basin Water Recycling/Petroleum Refinery Reuse Program (Water Match).

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Discrepancies and Missing Information

Reading through the DEIR, Heal the Bay found many discrepancies and missing information. We have included just a few examples for review and improvement here:

- Table 4-1 starting on page 4-4 is not up to date, using language like "expected completion date 2017" for the listed construction documents. The last updates seem to be reflecting projects finished in 2016. This is surprising for a document released in the spring of 2018. HTB-40
- Page 4-10 Table 4-2 – the "Ultimate Yield/Capacity (MGD)" column is inconsistent, resulting in misleading figures and potentially resulting in inaccurate comparisons and conclusions by the reader. Specifically, 230 MGD is provided for Hyperion Wastewater Treatment Plant (which is the average yield). It is later specified in the document beneath the table that design capacity is 450 MGD, with peak weather flow at 800 MGD. HTB-41
- Conversely, the ultimate capacity for Joint Water Pollution Control is reflected in the table, at 400 MGD. On pg. 4-13, the DEIR mentions that "in 2015, the JWPCP had an effluent flow of 259 MGD (Sanitation Districts 2016)." The table is provided with the intent to allow the reader to more easily compare and contrast between facilities. However, you cannot compare yields if you are comparing different baselines. The table should reflect either the Average Yield or Ultimate Capacity, rather than alternating arbitrarily between the two. Consistency is needed for sensible analysis. And the effluent flow for JWPCP cited quotes 2015 with no context (was this a particular day? The average flow for the year?) from a study in 2016. Is there more recent data that could be included or referenced? HTB-42
- Page 9 in Appendix 5B reads "At the year 2100 planning horizon for critical infrastructure, low range projections in Figure 9 (green curve) indicate that mean sea level increases to MSL = +3.91 ft NAVD while extreme high water increases to EHW = +8.84 ft. NAVD, while mean higher high water increases to MHHW = + 6503 ft. NAVD." The text is missing a decimal point. It should read MHHW= + 6.503 ft, as we are not expecting 6,503 foot water levels in 2100. HTB-43

These mistakes make the document feel rushed, not thoroughly reviewed, and based on outdated information.

Conclusion

The Project area is hazardous due to erosion and seismic risk, and therefore unsuitable for the construction and operation of a large-scale near-shore project. The Project also poses the potential for significant water quality degradation, with no documentation or analysis made to support the claim that the Project will comply with all NPDES and anti-degradation regulations. There is no substantial evidence to support that the brine discharge and the ocean intake will have less than significant impacts on all forms of marine life, even with suggested mitigation strategies included, potentially impacting both commercially valuable and endangered species. The analysis of cumulative impact is insufficient, as it only addresses one small section of the HTB-44

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Santa Monica Bay, and does not evaluate how the impacts of all projects listed could affect the region cumulatively. And the screening guidelines for the proposed alternatives use standards that unreasonably exclude more cost-effective, energy efficient, and environmentally sound options.

HTB-44

We respectfully request that the DEIR be revised and recirculated, due to the reasons outlined above, as well as those noted in Los Angeles Waterkeeper's comment letter and the environmental NGO coalition letter submitted by Los Angeles Waterkeeper. We encourage West Basin to further pursue the principles of capture, conserve, reuse, and restore, examining additional alternatives and creating a diverse water portfolio by increasing opportunities for conservation, stormwater capture, recycling, and brackish water desalination, in lieu of the proposed desalination project. Thank you for your time and consideration.

HTB-45

Sincerely,

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Heal the Bay

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Attachment A

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W6a

Filed:	December 8, 2009
Staff:	Tom Luster – SF
Staff Report:	January 28, 2010
Hearing Date:	February 10, 2010

STAFF REPORT: REQUEST FOR REVOCATION

APPLICATION NUMBER: **R2-E-06-013**

APPLICANT: **Poseidon Resources (Channelside) LLC/Cabrillo Power II LLC**

PROJECT LOCATION: Site of Encina Power Plant, adjacent to Agua Hedionda Lagoon, in the City of Carlsbad, San Diego County.

PROJECT DESCRIPTION: Construct and operate a 50 million gallon per day seawater desalination facility.

PERSONS REQUESTING REVOCATION: Surfrider Foundation, San Diego Coastkeeper, and the Coastal Environmental Rights Foundation.

SUMMARY OF STAFF RECOMMENDATION

On November 15, 2007, the Commission granted to Poseidon Resources (Channelside) LLC ("Poseidon") Coastal Development Permit ("CDP") E-06-013 to construct and operate a seawater desalination facility on the site of the Encina Power Station, adjacent to Agua Hedionda Lagoon, in the City of Carlsbad. One of the Commission's key concerns in its review of the project was the adverse coastal resource effects caused by project-related greenhouse gas ("GHG") emissions. The Commission found that the electricity needed to operate the facility would produce a significant amount of GHG emissions that would adversely affect a number of coastal resources. However, Poseidon characterized its project as being "net carbon neutral", and stated that it would fully mitigate for its project's net GHG emissions. Poseidon offered a proposed *Climate Action Plan* in which the single largest mitigation measure, representing about two-thirds of its total net emission reductions, was that the project be automatically credited with a decrease in GHG emissions resulting from a one-for-one reduction in State Water Project ("SWP") water imports to the region. Poseidon also asserted that if, despite the project's water production, those water imports continued, those continued imports would be subject to review and mitigation through CEQA.

Commission approval of the project CDP required the facility to be "net carbon neutral" and required Poseidon to submit a plan for further Commission review and approval showing how it would meet that standard. The Commission later approved an *Energy Minimization and Greenhouse Gas Reduction Plan* (the "Plan") that considered the comments of the California Air Resources Board and the State Lands Commission and that required Poseidon to implement various measures to ensure the project was "net carbon neutral". In approving the Plan, the Commission required Poseidon to directly account for other emission reduction measures, but automatically credited Poseidon with these asserted reductions from reduced SWP imports.

The above-referenced Environmental Groups request that the Commission revoke Poseidon's CDP, based primarily on a contention that Poseidon intentionally misrepresented that its project would be "net carbon neutral" and that the project would result in one-for-one emission reductions from the SWP. This revocation request focuses on whether Poseidon provided the Commission with complete and accurate information with respect to how its "net" GHG emissions should be calculated.

In investigating this revocation request, Commission staff learned that a 2005 MWD agreement included a provision prohibiting desalination projects from reducing MWD's entitlements or usage of water imported from the SWP or any other sources. The Poseidon project is dependent on its customers obtaining a subsidy from MWD, and Poseidon knew that such subsidies would be subject to agreements modeled on the 2005 MWD Agreement, but it failed to provide such agreement to the Commission.

MWD's allocation of SWP water is determined based on its rights to such water as laid out in a long-term contract with DWR, which is valid through 2035. As MWD explained in a January 20, 2010 letter, it anticipates continuing to take its full SWP entitlements and allotments for the foreseeable future, due to current water shortage conditions in Southern California. MWD also explained in this letter that it also seeks other sources of water – e.g., transfers, exchanges, and other "marginal" water supplies – and on a "long-term average basis", the Poseidon project is likely to reduce its need to supplement its SWP allocation through these supplies. Thus, the Poseidon project will not reduce the amount of water MWD is entitled to or that it will take from its annual SWP allocation (which is the basis of Poseidon's emission reduction measure), but it may, on an average, long-term basis, result in a reduction in MWD's need for expanded transfers and exchanges. Poseidon failed to explain to the Commission that the water it produces will in fact only "displace" imported water if MWD is able to reduce its reliance on marginal water supplies that it obtains through the SWP. Poseidon's representations to the Commission asserted that there would be a reliable, one-for-one reduction in water imported to Southern California through the SWP as the result of Poseidon's project, but this does not appear to be the case.

In addition, given that MWD will continue to import its full allocation of SWP water, regardless of the impact of Poseidon's project, and that it is entitled to such water under a long-term contract with DWR, it is not as clear as Poseidon claimed that water its project "displaces," but continues to be imported into Southern California, will be subject to CEQA review. There is no evidence that the water MWD will continue to import to Southern California will be used solely for "new" or "expanded" uses, as Poseidon claimed, rather than fulfilling MWD's existing obligations that it has not fulfilled due to the ongoing water shortage. As a result, and contrary to

Poseidon's claims, there is not clear evidence that CEQA will apply to require mitigation for the GHGs emitted by the "additional" 56,000 acre feet of water pumped into Southern California after Poseidon's project begins operations.

Nonetheless, Commission staff determined that the Commission's approval of Poseidon's proposed emission reduction measure also relied on letters of support from the agencies cited above, and that the Commission's decision would not have changed based on Poseidon providing complete or accurate information about the project's effects on SWP-related emissions or about the role of CEQA in reducing emissions. Although Commission staff concludes that Poseidon misrepresented or omitted material information related to its claimed reduction of imported water, staff also concludes that even if more accurate information had been provided to the Commission, it would not have required additional or different conditions on Poseidon's permit. Staff therefore recommends the Commission ***deny*** the revocation request.

EXHIBITS

EXHIBIT 1: Coastal Development Permit E-06-013.
EXHIBIT 2: December 8, 2009 Environmental Groups' Request for Revocation (without attachments).
EXHIBIT 3: January 13, 2010 Poseidon Response to Revocation Request (without attachments)
EXHIBIT 4: Letters of Support for Poseidon's GHG Approach

STAFF NOTE – REVOCATION REGULATIONS

The California Code of Regulations, Title 14, Division 5.5, Section 13105(a) states that the grounds for the revocation of a coastal development permit (or permit amendment) are as follows:[1]

> *Grounds for revocation of a permit shall be:*
> *a) Intentional inclusion of inaccurate, erroneous or incomplete information in connection with a coastal development permit application, where the Commission finds that accurate and complete information would have caused the Commission to require additional or different conditions on a permit or deny an application;*

The three elements of Section 13105(a) that must be satisfied before a permit can be revoked are:

1) That the applicant provided incomplete or false information; AND
2) That false or incomplete information was supplied intentionally; AND
3) That if the Commission had known of the information, it would have denied the permit or imposed different conditions.

[1] The Commission's regulations at Section 13105(b) provide additional grounds for revocation based on inadequate notice; however, the Environmental Groups do not request revocation based on these grounds. Section 13105(b) states: "*Failure to comply with the notice provisions of Section 13054, where the views of the person(s) not notified were not otherwise made known to the Commission and could have caused the Commission to require additional or different conditions on a permit or deny an application (14 Cal. Code of Regulation Section 13105).*"

Because of the impact on a permittee, the grounds for revocation are narrow, and are confined to information in existence at the time of the Commission's action. The rules of revocation do not allow the Commission to have second thoughts on a previously-issued permit based on information that comes into existence after the granting of a permit, no matter how compelling that information might be. Similarly, a violation of the Coastal Act or the terms and conditions of a permit, or an allegation that a violation has occurred, are not grounds for revocation.

Revocation of a permit removes a previously granted permit. Even if a permit is vested – i.e., the permittee has started construction of the project – if the Commission revokes the permit, the permittee is required to stop work and, if wishing to continue, to reapply for a new permit for the project. Section 13108 of these regulations establish that, if at a public hearing the Commission finds that grounds for revocation exist, it may revoke the permit.[2] It may also determine that additional investigation is necessary and continue the matter to a future hearing.[3]

TABLE OF CONTENTS

[2] Section 13108(a) of these regulations state that the revocation request is to be heard at the next regularly scheduled meeting. Staff received the revocation request on December 8, 2009, and on December 14, 2009, both Poseidon and the Environmental Groups agreed to a February 2010 hearing.

[3] Section 13108(c) states: "*The commission shall ordinarily vote on the request at the same meeting, but the vote may be postponed to a subsequent meeting if the commission wishes the executive director or the Attorney General to perform further investigation.*"

I. STAFF RECOMMENDATION

Staff recommends that the Commission determine that no grounds exist for revocation.

MOTION:

I move that the Commission grant revocation of Coastal Development Permit E-06-013.

The staff recommends a **NO** vote on the motion. Failure of this motion will result in denial of the request for revocation and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

RESOLUTION TO DENY REVOCATION:

*The Commission hereby **denies** the request for revocation of the Commission's decision on Coastal Development Permit E-06-013 on the grounds that:*

a) *Although there was intentional inclusion of inaccurate, erroneous or incomplete information in connection with the subject coastal development permit application, the Commission finds that the accurate and complete information would not have caused the Commission to require additional or different conditions on the permit or deny the application.*

b) *There was no failure to comply with the notice provision of Section 13054 where the views of the person(s) not notified were not otherwise made known to the Commission and would have caused the Commission to require additional or different conditions on a permit or deny an application (14 Cal. Code of Regulations Section 13105).*

II. FINDINGS AND DECLARATIONS

The Commission hereby finds and declares as follows:

A. REVOCATION REQUEST

On December 8, 2009, the Surfrider Foundation, San Diego Coastkeeper, and Coastal Environmental Rights Foundation (collectively "Environmental Groups" or "Groups") filed with the Commission a joint request to revoke the Commission's approval of CDP E-06-013. The Environmental Groups' stated grounds for revocation are summarized below and are provided in full in Exhibit 2.[4]

The Environmental Groups contend that Poseidon intentionally withheld accurate and complete information from the Commission and that the Commission would have placed different conditions on the CDP or denied the application had Poseidon disclosed accurate and complete information. The Environmental Groups' specific contention is that Poseidon asserted to the Commission that its project should be credited for greenhouse gas ("GHG") emission reductions from reducing State Water Project ("SWP") water imports while not disclosing to the Commission that a 2005 agreement from the Metropolitan Water District ("MWD") showed that a project such as Poseidon's would be prohibited from interfering with MWD's ability to import water from the SWP or other sources. The Groups contend that had Poseidon disclosed this agreement ("MWD Agreement") to the Commission, the Commission would have likely placed different conditions on the CDP or denied the permit.

In a January 13, 2010 letter (see Exhibit 3), Poseidon responds to the Environmental Groups' contention.[5] Poseidon does not dispute that it did not provide the MWD Agreement to the Commission, but contends that the Environmental Groups' revocation request meets none of the three tests of Section 13105(a). Poseidon claims that the Commission was "fully aware" that the MWD would not relinquish its ability to import available water, and that Poseidon's proposed approach, adopted by the Commission, was consistent with CEQA principles, given that any continued imports that may occur would be subject to CEQA review and mitigation. Thus, Poseidon claims that if it were required to mitigate for its GHG emissions without obtaining credit for reduced emissions from the imported water its project would replace, that there would be "double mitigation" for such "replaced" water, given that both Poseidon and any new or expanded user would be required to mitigate for its impacts.

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[4] In its January 13, 2010 response to the revocation request, Poseidon claims that the Coastal Environmental Rights Foundation is not a proper party to the revocation request and should be removed as a party from the revocation proceeding under Section 13106 of the Commission's regulations. Since the revocation request was also submitted by the Surfrider Foundation and the San Diego Coastkeeper, who each raise the same contentions as the Coastal Environmental Rights Foundation, these contentions are validly before the Commission.

[5] Poseidon also provided a January 7, 2010 letter in response to Commission staff's request that Poseidon submit a CDP amendment application to address this GHG mitigation issue. Many of the two letters' contentions and responses are similar, and Poseidon's January 13 letter incorporates the January 7 letter by reference.

B. PROJECT APPROVAL BACKGROUND

COMMISSION REVIEW

CDP Approval: On November 15, 2007, the Commission granted to Poseidon Resources (Channelside) LLC ("Poseidon") Coastal Development Permit ("CDP") E-06-013 to construct and operate a seawater desalination facility on the site of the Encina Power Station, adjacent to Agua Hedionda Lagoon, in the City of Carlsbad.

One of the Commission's key concerns in its review of the project was the adverse coastal resource effects caused by project-related GHG emissions. Seawater desalination is a relatively energy intensive source of water,[6] and the electricity needed to produce desalinated water can produce significant amounts of GHG. The Commission found that the electricity needed to operate the facility would produce from about 60,000 to 90,000 tonnes (or about 130 million to 200 million pounds) of GHG emissions annually[7] and that those emissions would adversely affect a number of coastal resources. However, Poseidon characterized its project as being "net carbon neutral", and stated that it would fully mitigate for the net GHG emissions resulting from the facility's operations.[8] In October 2007, Poseidon offered a proposed *Climate Action Plan* in which the single largest proposed mitigation measure, representing about two-thirds of its total mitigation, was Poseidon's proposal that its project be credited with the decrease in GHG emissions resulting from a one-for-one reduction in SWP water imports to the region.[9]

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[6] See, for example, California Sustainability Alliance, *The Role of Recycled Water in Energy Efficiency and Greenhouse Gas Reduction*, produced for the California Public Utilities Commission, May 2, 2008.

[7] See Commission Final Adopted Findings, page 3. This amount is expected to change each year, and presumably decline, as existing power sources are replaced with sources that emit fewer or no GHG emissions.

[8] "Net carbon neutral" generally refers to a broader range of emissions and mitigation measures than are addressed in Poseidon's Plan and usually includes both direct and indirect emissions resulting from a project. However, the vast majority of this project's emissions are the indirect emissions resulting from Poseidon's use of electricity generated and purchased to operate the facility. For purposes of the Commission's review – in these Recommended Findings, in its Final Adopted Findings for the project CDP, and in its approval of Poseidon's Plan – "net carbon neutral" refers only to those indirect emissions and to the mitigation measures meant to "zero out" those emissions.

[9] The plan stated that Poseidon's expected production of 56,000 acre-feet of water each year would use about 250,000 megawatt-hours of electricity, which would produce about 61,000 tonnes of annual GHG emissions. Poseidon asserted that it should receive credit for reducing SWP imports by the same 56,000 acre-feet of water each year, which would reduce SWP electricity use and its GHG emissions by about 47,200 tonnes. Poseidon proposed to offset the net remaining 13,800 tonnes of emissions through other measures, including purchasing renewable energy credits, providing carbon sequestration through reforestation, etc.

The expected GHG emissions are based in part on the average "emission rate" of the generating sources used by the electricity provider. For example, electricity generated by a natural gas-powered facility generally has a lower GHG emission rate than a coal-powered facility – roughly several hundred pounds of emissions per megawatt-hour versus two thousand pounds per megawatt-hour. Renewable energy sources generally have an emission rate at or close to zero. A provider's average emission rate changes as its generating sources change – for example, through new technology or by using a different mix of sources due to plant shutdowns, seasonal differences, etc. Annual emission rates for various providers are certified by the California Climate Action Registry. At the time of the Commission's review, Poseidon's provider, San Diego Gas & Electric, had an average emission rate of about 780 pounds per megawatt-hour and the SWP's rate was somewhat lower.

In approving the project CDP, the Commission found that project-related GHG emissions adversely affected a number of coastal resources. As stated in the Commission's Final Adopted Findings (at page 75):

> "*The global heating, sea level rise, and ocean acidification resulting from greenhouse gas emissions affects public access (Coastal Act Sections 30210-30214), recreation (Sections 30212.5, 30213, 30220-30222), marine resources (Sections 30230-30231), wetlands (Sections 30231, 30233), ESHA (Section 30240), agriculture (Sections 30241-30242), natural land forms (30251), and existing development (Sections 30235, 30253).*"

The Commission also found in approving the project that the project would be inconsistent with Coastal Act Section 30233(c) due to its effects on wetlands, but that this inconsistency could be "overridden" through application of Coastal Act Section 30260 because the project was a coastal-dependent industrial facility. One of the tests of that section requires the Commission to determine that the project's adverse environmental effects are mitigated to the maximum extent feasible. As stated in its Findings, the Commission concluded that the project met this test in part due to the requirement that Poseidon "submit to and obtain from the Commission approval of a revised Energy Minimization and Greenhouse Gas Reduction Plan that results in reduction in electrical use and reduction or offset of greenhouse gas emissions associated with the project's operations to the maximum extent feasible through Poseidon's agreement that the project will be net carbon neutral."

To bring the project into conformity with the Chapter 3 policies of the Coastal Act, the Commission required Poseidon to meet 17 Special Conditions included in the CDP (see Exhibit 1). The Commission did not accept Poseidon's proposed *Climate Action Plan* but instead required through **Special Condition 10**[10] that Poseidon submit for additional Commission review and approval an *Energy Minimization and Greenhouse Gas Reduction Plan* (the "Plan") that was to include measures to ensure the facility operations would be "net carbon neutral". As stated in the Findings (at pages 89-90):

> "*Poseidon's revised plan shall establish that the project will avoid, minimize, or mitigate adverse impacts to a wide range of coastal resources, including public access, recreation, marine resources, wetlands, ESHA, agriculture, natural land forms, and existing development associated with its minimized and mitigated energy consumption. Based on the above, the Commission finds that the project, as conditioned, will conform to Coastal Act provisions related to minimizing energy use and mitigating any adverse effects on coastal resources from greenhouse gas emissions.*"

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[10] **Special Condition 10** states:

> ***Energy Minimization and Greenhouse Gas Reduction Plan:*** *PRIOR TO ISSUANCE OF THE PERMIT, the Permittee shall submit to the Commission a Revised Energy Minimization and Greenhouse Gas Reduction Plan that addresses comments submitted by the staffs of the Coastal Commission, State Lands Commission and the California Air Resources Board. The permit shall not be issued until the Commission has approved a Revised Energy Minimization and Greenhouse Gas Reduction Plan after a public hearing.*

Approval of Energy Minimization and Greenhouse Gas Reduction Plan: On August 6, 2008, pursuant to the Final Adopted Findings and **Special Condition 10** of the CDP, the Commission approved Poseidon's *Energy Minimization and Greenhouse Gas Reduction Plan*. A key component of the Plan, and the measure that accounted for the majority of project-related emission reductions, was Poseidon's proposal that its project be "automatically" credited with a decrease in GHG emissions resulting from the SWP reducing its water imports to the region. Poseidon asserted that it should receive credit for reducing MWD's imports from the SWP by the same amount of water Poseidon produced each year, which would thereby reduce SWP's electricity use and its GHG emissions.

In approving the Plan, the Commission accepted Poseidon's characterization that the SWP reduction was a "project-related measure" that should not be subject to independent review.[11] The Commission's Findings state, at pages 11-12, that "[t]he Commission is satisfied that these project-related measures will reduce the GHG emissions attributable to the project and that they therefore should be included in the calculations used to determine the project's net GHG emissions." The Findings also acknowledge letters supporting this approach from the Chair of the California Air Resources Board and the Chair of the State Lands Commission, pursuant to **Special Condition 10**, as well as letters from the Executive Director of the California Energy Commission and the General Manager of the MWD (see Exhibit 4).

As part of Plan approval, the Commission required Poseidon to submit an annual report that provides a direct accounting of other emission reduction measures, though not the SWP-related measure. For this SWP measure, the Plan assumes the reductions will occur. Poseidon's emission reduction "credit" will be based each year on the amount of water the project produces and the emissions associated with that production as compared to the emissions caused by the SWP pumping an equal amount of water from Northern California to the MWD service area. At the time of the Commission's review, this "credit" would have represented about 47,000 tonnes of GHG emissions, or about two-thirds of Poseidon's expected emissions.

MWD Approval of Subsidy For Poseidon

On November 10, 2009, the MWD approved a contract with member agencies that have agreed to purchase water from Poseidon's project. The contract, based on MWD's Seawater Desalination Program, provides a subsidy of up to $250 per acre-foot for purchase of Poseidon's water. It also includes a provision meant to protect MWD's ability to import water, consistent with the 2005 MWD Agreement. This November 2009 MWD contract approval brought to light the 2005 Agreement and its provision allowing MWD to terminate the subsidy if the project impaired MWD's ability to import or use its full water entitlement. This raised Commission staff concern that the project would no longer be "net carbon neutral" and would not adequately mitigate its GHG emissions. On November 13, 2009 Commission staff requested Poseidon address this project change by submitting an application to amend its CDP, but Poseidon declined. On December 8, 2009, the Environmental Groups filed their revocation request.

[11] The Commission's Adopted Findings at pages 3-4 state that "project-related measures identified in the Plan are used to calculate the project's net GHG emissions and therefore are not subject to the CARB, CCAR, or Air District requirements for offsetting the net GHG emissions."

C. ANALYSIS OF REVOCATION CONTENTIONS

The revocation contention states Poseidon's assertion that the project would be "net carbon neutral", which was based largely on GHG emission reductions from reduced SWP imports, was an intentional misrepresentation. In support of this assertion, the Environmental Groups point to the undisclosed 2005 MWD Agreement that allows MWD to terminate the Agreement if its entitlements or usage of imported water supplies are reduced due to the production of desalinated water. Poseidon relied on its customers' ability to obtain similar agreements from MWD for its project to be economically viable. Thus, the 2005 Agreement explicitly ensures that MWD's full entitlement to imported water will be maintained, regardless of the new water produced through a desalination project. This Agreement was part of an MWD program on which Poseidon was relying during the Commission's review. This 2005 Agreement came to light in November 2009 when the MWD approved a contract providing a subsidy of up to $250 per acre-foot for water from Poseidon's project. The contract was between the MWD and several of its member agencies and provided the subsidy to those agencies towards the cost of Poseidon's water. This subsidy is part of the MWD's Seawater Desalination Program, which it established in 2004 to provide incentives for local water supplies.

Recent letters from the MWD and the San Diego County Water Authority (SDCWA) provide some clarification as to the role of the MWD Agreement and Poseidon's project. A December 17, 2009 letter from MWD confirms that the above-referenced 2005 MWD Agreement includes the provision prohibiting covered projects from reducing MWD's ability to import water, and states that the provision's "sole purpose is to protect Metropolitan's imported water supply rights and entitlements", including those provided through its contract for SWP water supplies. A January 20, 2010 MWD/SDCWA letter states:

> "*As MWD described in a prior communication, MWD's SDP agreement with the Water Authority and their local retail agencies includes a provision protecting MWD's imported water rights and entitlements. Given current shortage conditions, we expect MWD to take its full SWP and Colorado River rights and entitlements for the foreseeable future. However, MWD supplements its SWP Table A entitlement by pursuing transfers, exchanges, and other marginal supplies also transported through the SWP delivery system. It is the demand for these additional supplies that is likely to be offset by the project.*"

It appears, therefore, that while Poseidon's project will not automatically reduce SWP imports and thereby reduce emissions, MWD believes that it is likely to reduce MWD's need for transfers or exchanges, on a long-term, average basis, thereby potentially resulting in reduced emissions. Whether emission reductions occur will depend in part on the relative costs of those sources compared to the cost of Poseidon's water, the location of those sources and the amount of electricity needed (and GHG emissions generated) to deliver them to the MWD, the availability of storage for MWD supplies, and other factors.

The record before the Commission shows that Poseidon consistently characterized its project as being "net carbon neutral", due largely to crediting the project with emission reductions from reduced SWP imports. This was the largest of Poseidon's proposed and approved mitigation measures, representing about two-thirds of its expected "net" emission reductions. Regarding the MWD Agreement, Poseidon deliberately chose not to provide it to the Commission, despite Staff's request that Poseidon document its asserted emission reductions,[12] and Commission questions about Poseidon's assertion that it should "automatically" receive credit for the reductions.[13] Poseidon also did not disclose to the Commission that the MWD Agreement allowed MWD to terminate its subsidy if its project caused MWD to reduce its imports or usage from the SWP or other water sources.

Further, Poseidon did not fully describe to the Commission that MWD would continue to have its full allocation of SWP water to which it is entitled under a long-term contract with the Department of Water Resources ("DWR"), regardless of the amount of water produced by Poseidon. It failed to explain to the Commission that any reduction in MWD's demand for imported water would result from MWD's possible reduced demand for "marginal" sources of imported water, such as water exchanges, transfers, purchases, etc., instead of a one-for-one reduction in its use of its SWP allocation As stated in the January 20, 2010 MWD/SDCWA letter, these agencies believe that the Poseidon project will allow it to reduce its need for such marginal imports "on a long-term average basis." Therefore, while MWD believes that the Poseidon project is likely to result in a reduction of the volume of water imported into Southern California, such reductions will not be in a consistent, one-for-one manner, as Poseidon represented to the Commission.

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[12] Commission staff requested at a June 2008 meeting that Poseidon document its proposed emission reductions and Poseidon offered to provide this MWD Agreement. At the time of the Commission's review, there were five MWD agreements in place with different member agencies, each with identical provisions prohibiting projects from limiting MWD's right to imported water. A July 11, 2008 memo from Commission staff memorializing the meeting showed Poseidon initially offered an agreement (referred to in the memo as an MWD Contract). Poseidon later modified to memo to change its offer to more general documentation, which did not include the MWD Agreement or the provision.

The relevant portion of the memo is shown below, with Commission staff's original language in regular text and Poseidon's changes in strikethrough and underline.

From July 11, 2008 memo to Peter MacLaggan from Tom Luster:

> **"Page 15, Avoided Emissions from Displaced Imported Water:**
>
> *Commission staff:* As currently proposed, any emissions reductions that may occur from this element of the Plan cannot be verified. Staff recommends that Poseidon provide verification from the Metropolitan Water District of Southern California (MWD) or other sources showing this measure would meet the AB 32 criteria.
>
> *Poseidon:* Will provide staff with ~~MWD's Contract with Long Beach to provide an example of available verification data~~documentation from MWD demonstrating that the water produced by the Project would replace an existing demand or prevent a new demand on MWD with respect to Poseidon's customers."

[13] See August 6, 2008 Commission hearing transcript, pages 226-29.

Poseidon also asserted to the Commission that even if the water its project "displaced" continued to be pumped into Southern California, it would only be for "new or expanded" uses, so those uses would be subject to CEQA procedures and required to mitigate for GHGs produced by importation of such water. Given that MWD is entitled to continue to import its full allocation of SWP water, regardless of how much water is produced by the Poseidon project, it is unclear that CEQA would, in fact, apply to MWD's continued distribution of such water to its existing customers. Despite what it represented to the Commission, it is speculation on Poseidon's part that such water would be used solely for new or expanded uses that would be subject to CEQA.

APPLYING THE THREE-PART TEST OF SECTION 13105(A)

Commission staff reviewed the record available to the Commission during its November 2007 review and approval of Poseidon's CDP and its August 2008 review and approval of Poseidon's *Energy Minimization and Greenhouse Gas Reduction Plan*. Poseidon's characterization of relevant project components during those Commission's reviews are applied to Section 13105(a)'s three-part test and summarized below, followed by a more detailed analysis:

- **Ground for Revocation #1 – Did the applicant provide incomplete or false information?:** Poseidon did not disclose to the Commission the full nature of MWD's rights to SWP water allocations or that the Poseidon project's claimed reductions in imported water are not expected to be on an automatic, one-for-one basis. Poseidon also did not disclose the MWD Agreement, although Poseidon was relying on its customers' ability to obtain substantially similar agreements from MWD. Thus Poseidon did not inform that Commission that this agreement allows MWD to terminate its subsidy if Poseidon's project causes MWD to lose its entitlements to, or reduce its usage of, water imported from the SWP or any other source. The Agreement shows that MWD would maintain its full imported water entitlements and allotments, but Poseidon still described as "speculative" whether imports would continue. Rather than providing the Commission with the MWD Agreement, Poseidon provided other information that did not clearly show MWD's intent to maintain its full entitlement and usage of imported water.

- **Ground for Revocation #2 – Was the inaccurate or incomplete information supplied intentionally?:** Despite questions and discussion by the Commission, staff, and the public about how and whether the project would actually reduce SWP imports, Poseidon did not disclose the above-referenced MWD Agreement or that MWD would to continue to have its full allocation of SWP water so that any reductions in imported water would not necessarily take place on an automatic, one-for-one basis. When Commission staff requested that Poseidon document its expected emission reductions, Poseidon initially agreed to provide the MWD Agreement; however, Poseidon later provided only more general documentation from MWD that did not include the MWD Agreement. When asked by the Commission about "automatically" crediting Poseidon's project with the SWP reductions, Poseidon did not disclose that those reductions were unlikely to take place on a yearly, one-for-one basis. These nondisclosures appear to be intentional. With regards to Poseidon's CEQA assertions, it is unclear from the record whether Poseidon intentionally mischaracterized the role of CEQA processes in determining whether emissions from continued SWP imports would be subject to separate review and mitigation.

- **Ground for Revocation #3 – If the Commission had known of the information, would it have denied the permit or imposed different conditions?:** As shown in its Final Adopted Findings, the Commission based its project approval in part on requiring the facility to be "net carbon neutral". The Commission required Poseidon to directly account for other GHG emission reduction measures, but not the purported SWP-related reductions, and without those reductions, the project will not be "net carbon neutral". In approving Poseidon's Plan, the Commission relied on Poseidon's above-referenced characterizations of the expected SWP reductions and on Poseidon's CEQA-related assertions, and also relied on the letters of support from the other involved agencies. Had the Commission fully understood MWD's water allocation entitlements and process for water importation and distribution, on which Poseidon was relying, the Commission could have either imposed different conditions or denied the project. However, the Commission also relied on the aforementioned support from other involved agencies, which was a specific requirement of **Special Condition 10**, and served as the basis for the Commission's decision. Therefore, complete or accurate information about the SWP emission reductions would likely not have altered the Commission's reliance on those letters and its resulting decision.

The application of the three Section 13105(a) tests is provided in more detail below.

1. GROUNDS FOR REVOCATION #1: DID THE APPLICANT PROVIDE INCOMPLETE OR FALSE INFORMATION?

As noted above, one of the key issues during Commission consideration of the CDP was whether project-related GHG emissions would result in adverse effects to coastal resources and be inconsistent with Coastal Act policies. Poseidon characterized its project operations as "net carbon neutral", based largely on its contention that the project would reduce, on a one-for-one basis, SWP water pumping to the region, which would thereby reduce the SWP's GHG emissions. Poseidon also described several CEQA-related provisions that would apply, should the "displaced" water continue to be imported. Poseidon submitted several documents in support of its contention, which the Commission cited in its Findings.[14]

[14] The Commission's Final Adopted Findings, at page 85, refer to several of these documents in support of the Commission's decision to approve the project:

> *"In its October 21, 2007 memorandum, Exhibit D to its November 9, 2007 letter to the Commission, and in its presentation to the Commission at the November 15, 2007 hearing, Poseidon presented its proposal to offset or reduce the proposed project's energy use and greenhouse gas production so that the facility's operations would be net carbon neutral. Poseidon states that it will develop a Climate Action Plan that (1) would ensure the project minimizes energy consumption in compliance with Coastal Act Section 30253(4), and (2) would render the project net carbon neutral."*

POSEIDON'S CHARACTERIZATIONS REGARDING SWP EMISSION REDUCTIONS

Poseidon's relevant characterizations about reducing SWP emissions included those provided below:

November 2007 Commission CDP Hearing:

- **Poseidon's November 2007 proposed *Climate Action Plan*:** Prior to the Commission's CDP hearing, Poseidon submitted a November 2007 proposed *Climate Action Plan* that included mitigation measures it stated would result in "net carbon neutral" project operations. This proposed plan stated, at page 4:

  "*One major source of carbon reductions results from the fact that the Project is introducing a new, local source of water into the San Diego area; water that will displace imported water from the State Water Project (SWP) – a system with its own significant energy load and related carbon emissions.* ***For every acre-foot of SWP water that is replaced by water from the proposed project, 3.4 MWh of energy use is avoided, along with associated carbon emissions.***" [emphasis added.]

- **Poseidon's November 9, 2007 *Response to Staff Report*:** Before the Commission's CDP hearing, Poseidon provided its *Response to Staff Report*, which stated, at page 52:

  "*The Carlsbad facility will supply 56,000 acre-feet of water per year to the San Diego region, water that would otherwise have to be pumped into the region through either the State Water Project or the Colorado River Aqueduct.*"

  Exhibit B of that letter included Poseidon's responses to specific sections of the staff report, and provided Poseidon's further assurances that its project would decrease imported water supplies to the region. At page 52 of that document, Poseidon responded to a statement by Commission staff that "Poseidon's project does not ensure a decrease in imported water supplies to the San Diego Region" by stating:

  "*This is not correct. The Carlsbad facility will supply 56,000 acre-feet of water per year to the San Diego region, water that would otherwise have to be pumped into the region through either the State Water Project or the Colorado River Aqueduct. As stated by all Carlsbad desalination project water agency partners in letters to the State Lands Commission dated November 6 and November 7, 2007, that were provided to the Coastal Commission,* ***water from the desalination plant will provide direct, one-for-one replacement of imported water*** *to meet the requirements of their Urban Water Management Plans, thus eliminating the need to pump 56,000 acre feet of water into the region. See Poseidon Resources Corporation. Letter to Paul Thayer Re: Desalination Project's Impact on Imported Water Use, November 8, 2007. including attachments from eight water agencies. Conversely, if the project is not approved the demand for imported water by the eight public water agencies will increase by 56,000 AF/Y starting in 2010.*" [emphasis added.]

- **Poseidon's November 15, 2007 Handout to the Commission:** A handout Poseidon provided to the Commission at the CDP hearing stated, on pages 29 and 30:

  "*Measuring Energy Use:* ***The project will supply 56,000 AFY that would otherwise have to be pumped from California State Water Project (SWP)*** *– energy savings 3.4 mWh/AF*" [emphasis added.]

  " *Measuring the Carbon Footprint: ...* ***The project will supply 56,000 AFY that would otherwise have to be pumped from California State Water Project (SWP) – with corresponding reduction in carbon emissions of 47,240 metric tons of CO_2 per year.***" [emphasis added.]

August 2008 Commission Hearing on Energy Minimization and Greenhouse Gas Reduction Plan: Poseidon later provided similar documentation and testimony for the August 2008 Commission review and approval of Poseidon's proposed Plan, including:

- **Poseidon's July 3, 2008 letter to the Commission:** In preparing for the August 2008 hearing at which the Commission would consider the proposed plan, Poseidon stated in a letter to the Commission that its proposed Plan "ensures that all net indirect Greenhouse Gas ("GHG") emissions from the Project will be offset" and that "The Plan Appropriately Credits Avoided Carbon Emissions from the 56,000 Acre-Feet That Will No Longer Be Imported to the San Diego Region." The letter also stated, "[w]hen the Project is built, it will result in an increase in energy use due to the electricity that will be purchased from SDG&E to operate the desalination facility, and a decrease in energy use because the Project's water will replace water that would otherwise have been imported from the SWP to the Project's customers", and "if all indirect GHG emissions from the Project are zeroed out by its avoided emissions and carbon offsets, the Project will not increase net GHG emissions relative to existing conditions and there will be no adverse impact."

- **Poseidon's July 2008 proposed plan:** In this proposed plan, which accompanied the above letter, Poseidon based its proposed emission reduction on fully replacing the pumping needed to move imported water from Northern California to the MWD service area. The plan states, at pages 13-14:

  "*Avoided Emissions from Displaced Imported Water:* ***Another source of Avoided Emissions will result from the Project's introduction of a new, local source of water into the San Diego area; water that will displace imported water now delivered to Customers from the State Water Project (SWP) – a system with its own significant energy load and related carbon emissions***... *The proposed Project will supply 56,000 acre-feet of water per year to the San Diego region.* ***The Project will provide direct, one-to-one replacement of imported water to meet the requirements of the participating water agencies, thus eliminating the need to pump 56,000 acre feet of water into the region.***" [emphasis added.]

- **Poseidon Testimony at August 2008 hearing:** At the hearing, Poseidon referred to another MWD letter of July 29, 2008 and stated (see August 6, 2008 hearing transcript, pages 91-92):

> "*[t]he replacement of the imported water is not only reasonably anticipated, but it has been confirmed by MWD – and here is the language in their letter. They have committed to provide Poseidon's customers – the water district – with a financial incentive. Receipt of that financial incentive requires the water district to demonstrate that they are replacing an equivalent amount of water from MWD. MWD's program will also verify and audit to insure that the water is replaced.*"

The cited letter also states:

> "*Metropolitan believes it is appropriate for the Project's GHG Plan to be based on offsetting net carbon emissions because San Diego County will use 56,000 acre-feet per year less imported water upon Project start up. By net, we mean the difference in energy related emissions required for moving water through the State Water Project compared to operating the seawater desalination project.*"

At the hearing, and in response to questions about whether the Commission should require in the Plan that Poseidon account for the SWP-related emission reductions, Poseidon requested the Commission adopt its proposed approach that would "automatically reduce" water foregone from the SWP as part of its emission reductions (see August 6, 2008 hearing transcript, page 228).

POSEIDON'S NONDISCLOSURE OF THE MWD'S AGREEMENTS

During the Commission's review of both the CDP and Plan, Poseidon did not fully describe the MWD's process or entitlements for importing water to Southern California or the 2005 MWD Agreement, and did not explain how MWD obtains water through the SWP or that MWD's long-term contract with DWR establishes how much water MWD is able to import. That contract provides MWD with a water "entitlement", or maximum annual amount of SWP water, and an "allotment", which is the amount MWD is to receive each year (through 2035) based on water availability. These aspects of MWD's deliveries are not affected by Poseidon's project. As explained in the January 20, 2010 MWD/SDCWA letter to the Commission, MWD expects to continue taking the full allocation of water to which it is entitled under its contract with DWR. Poseidon failed to disclose to the Commission that MWD would continue to be supplied with its full allocation of SWP water and that any reduction in imported water would only come through possible reductions in MWD's demand for "marginal" water sources.

Poseidon also failed to disclose the 2005 MWD Agreement or its provision that allows MWD to terminate its subsidy if the project limits MWD's entitlements to import or use water from the SWP or other sources. This Agreement includes the following provision:

> "*The Parties agree that this Agreement shall terminate forthwith if Metropolitan reasonably determines that as a result of Water Authority's or LRA's action or support, Metropolitan is required by any statute or administrative order, court, or other entity to*

> *reduce, defer, or exchange entitlement to or reduce usage of Colorado River water, State Water Project water, or other water supplies Contracted for by Metropolitan as a result of expected or actual production of the Desalinated Seawater by the Project.*"

The MWD Agreement also defined water that would be eligible for the subsidy – i.e., the "eligible yield" – as water that would "augment" (not replace) imported water. Section 1.4 of the MWD Agreement states:

> "*'Eligible Yield' shall mean the amount of Desalinated Seawater actually delivered to an LRA's or Water Authority's local potable water distribution system from the Project in a Fiscal Year,* ***excluding any Desalinated Seawater that Metropolitan reasonably determines will not augment water supply available to Metropolitan's service area, including Metropolitan's imported water.***" (emphasis added)

The MWD Agreement therefore specifies that in order for a project to be eligible for the subsidy, it must augment MWD's imported water supplies and not cause a reduction in those supplies.[15]

Although Poseidon states in its January 13, 2010 response to the revocation request that it provided "complete and accurate information regarding MWD's continuing right to use its imported water entitlements after the Project commences operations", Commission staff's review shows that none of the cited documents provide this MWD Agreement's unequivocal statement that MWD could terminate the subsidy if the project caused MWD to reduce its entitlement or usage of imported water. This provision, in conjunction with a full understanding of MWD's intention to maintain its full water entitlements and allotments, would have been important considerations for the Commission to determine whether Poseidon's project should automatically receive credit for reducing SWP-related emissions. Disclosure would have also clarified several other elements of Poseidon's proposed approach. For example, although the above-referenced July 2008 MWD letter seems to suggest MWD would be reducing its SWP imports due to the project, disclosure of this MWD Agreement provision would have shown that the project would not necessarily reduce those imports. Moreover, MWD itself states that water produced by the Poseidon project is only likely to reduce marginal water imports and that such reductions will only be on an average, long-term basis.

Poseidon also states in its January 17, 2010 response to the "incomplete information" contention that the MWD agreements have "consistently required" MWD's imported water entitlements not be relinquished. While it is correct that this has been a consistent requirement of these agreements, Poseidon did not provide the Commission with those agreements, which resulted in the Commission acting on Poseidon's project based on incomplete information.

[15] The November 2009 MWD Contract, which is based on the 2005 Agreement, also describes how it will calculate the "reasonable costs" costs for which the subsidy can be awarded. They include a project's costs for mitigation and may also include a project's "net electrical energy" costs, which are defined as costs of energy purchases minus costs of energy recovered; however, they do not specify any SWP-related electricity reductions.

POSEIDON'S ADDITIONAL CEQA-RELATED CHARACTERIZATIONS OF ITS EXPECTED CREDITS FOR EMISSION REDUCTIONS

Along with the its characterizations that the project would reduce SWP pumping and emissions and would be "net carbon neutral" due to those reductions, Poseidon offered several additional explanations in support of its expected credits for those reduced emissions, based largely on contentions related to CEQA principles or procedures. For example, Poseidon asserted that it would be "speculative" to assume the same amount of imported water would continue to be delivered from the SWP to MWD, and that if water that was supposedly displaced by the Poseidon project was still delivered to Southern California, any necessary GHG mitigation would be identified through CEQA review and would be the responsibility of users of that water. Poseidon further described its proposal as appropriate under a CEQA baseline approach, which recognized the need to account for "net" rather than "gross" emissions. These characterizations, however, generally do not accurately describe the role of CEQA on the purported SWP import reductions.

Regarding "speculative" deliveries, for example, Poseidon stated in its July 3, 2008 letter to the Commission:

> "*It is speculative to predict whether some or all of the replaced water would still be imported to the San Diego region after implementation of the Project. However, even assuming the replaced water does continue to be imported into the region, the question before the Commission is whether it has the authority under California law to require Poseidon to mitigate the GHG emissions associated with those water imports for uses separate and entirely unrelated to the Project or whether the purchasers of that water should be responsible for mitigating those emissions.*"

Regarding mitigation by other users, for example, Poseidon stated at the August 2008 hearing, (see August 6, 2008 hearing transcript, pages 92-93):

> "*If water continues to be pumped to Southern California from the state water project, it would be for new or expanded uses. Those new uses would be required under CEQA to address the impacts of importing the new water... According to staff's proposal, Poseidon would need to offset carbon emissions associated with imported water it is replacing, but since only new or expanded projects would be using this imported water, and those projects are required to mitigate the carbon impacts under CEQA, staff's proposal would result in double mitigation for the same impacts.*"[16]

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[16] Poseidon similarly stated in its November 9, 2007 letter to the Commission:

> "*If the replaced water is pumped into the region for other uses, then the associated carbon emissions from such pumping should be and is the responsibility of those other uses. Any other result would be an unfair and unwarranted 'double counting' of carbon emissions, requiring Poseidon to offset emissions caused by other activities not associated with their operations.*"

At the August 2008 hearing, Poseidon also cited CEQA in responding to public comments that MWD had not confirmed a reduction of pumping from the SWP.[17] Poseidon stated (on pages 165-66 of the transcript):

> "*What we have said is that Poseidon's customers, the water districts, have agreed to replace the water, and therefore that the water that is replaced, where that goes is speculative, but wherever it goes, CEQA will apply to require those people to mitigate it... In addition, this Commission determined that the project was not growth inducing. That was part of your findings. The requirement that Poseidon be assigned the mitigation for the replaced water is just not consistent with the determination that you have already made that the project is not growth inducing.*"

Poseidon also characterized its "net" emissions approach as being based on a CEQA baseline approach requiring mitigation for "net" rather than "gross" emissions,[18] and stated that this approach "is consistent with CEQA in that it does not require MWD to relinquish water entitlements in the amount of water the Project replaces, and instead places the obligation of providing mitigation for emissions associated with importing the replacement water into other parts of MWD's service territory on hypothetical future users of that water." Poseidon also stated in its August 2, 2008 letter to the Commission:

> "*When the Project is built, it will result in an increase in energy use due to the electricity that will be purchased from SDG&E to operate the desalination facility, and a decrease in energy use because the Project's water will replace water that would otherwise have been imported to the Project's customers. Under CEQA principles, the Project's impact should be assessed by considering the net contribution of GHG emissions relative to the existing baseline, factoring in both increases and decreases in energy use the Project will cause.*"

As noted previously, there does not appear to be support in the record for Poseidon's assertions that it was speculative to assume that the volume of water MWD imported into Southern California would be directly reduced, on a one-for-one basis, due to Poseidon's project.

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[17] For example, from the August 6, 2008 hearing transcript, public comment from Mr. Jonas Minton, pages 96-97:

> "*You have received a letter from the Metropolitan Water District indicating that they consider that the water supply from the Carlsbad project to be an offset. But, a very careful reading of that letter does not indicate that they will reduce their pumping of water all the way from northern California to Southern California. This is the one very important reason: San Diego is not their only customer. Even if San Diego did not take the water, Metropolitan is required by its act, its organic act, to provide water supplies to its other customers in Southern California...*"

[18] Regarding "net" versus "gross", Poseidon has mischaracterized the difference between its proposed approach and Commission staff's approach as "net" versus "gross" – that is, a "net" approach that accounts for both the increase and decrease in emissions caused by the project as opposed to a "gross" accounting for just the increase. It appears, however, that all parties supported the "net" approach. Poseidon's approach differed from Commission staff's primarily by how it accounted for the "net emissions – i.e., Poseidon asserted it should "automatically" receive emission offsets from SWP reductions, whereas Commission staff recommended the Commission require Poseidon to document those reductions in determining its "net" emissions, due largely to the uncertainty about whether those reductions would occur.

Poseidon did not disclose to the Commission the provision of the MWD Agreement that allows MWD to terminate its subsidy if the desalination project results in a reduction of MWD's entitlements or usage of SWP water. This provision shows that MWD anticipates that continued imports are likely and that emission reductions are therefore unlikely. MWD recently stated in its January 2010 letter that it is likely to be able to offset some of its marginal water supplies due to the Poseidon project, but it still intends to take its full allocation of SWP water, even after the Poseidon project is operating.

Regarding the contention that the continued imports would undergo CEQA review, this, too, appears to be speculation on Poseidon's part. MWD's deliveries from the SWP are governed by a long-term contract specifying the maximum amount of water MWD is entitled to each year, and the annual allotment of water provided each year. These mechanisms are not subject to CEQA review. In addition, Poseidon has not substantiated its claim that any water displaced by its project would be used in new or expanded projects, which could be subject to CEQA review, rather than being used by MWD's existing customers in a manner that likely would not be subject to CEQA review. As stated in its January 20, 2010 letter, MWD believes that it is likely to be able to reduce its reliance on finding marginal water supplies as a result of having Poseidon's water available; however, this will likely depend on many other factors, including the availability of such supplies, MWD's storage capacity for water not immediately used in its distribution system, and the cost of such supplies relative to the costs for Poseidon's water.

2. GROUNDS FOR REVOCATION #2: WAS THE INACCURATE OR INCOMPLETE INFORMATION SUPPLIED INTENTIONALLY?

Neither the Coastal Act nor the Coastal Commission regulations define the term "intent" for purposes of determining whether an applicant has intentionally submitted inaccurate, erroneous or incomplete information to the Commission. The law related to fraudulent misrepresentation, however, explores the definition of intent in the context of misrepresentation of facts, which is what is at issue in a revocation hearing. As a result, this area of law is instructive to the Commission when it considers a revocation request.

One element of a claim for fraudulent misrepresentation is the intent to defraud or induce reliance. *Cicone v. URS Corporation* 183 Cal. App. 3d 194, 200 (1986). In establishing this element, "the only intent by a defendant necessary to prove a case of fraud is the intent to *induce reliance*. Moreover, liability is affixed not only where the plaintiff's reliance is intended by the defendant but also where it is *reasonably expected* to occur." *Lovejoy v. AT&T Corp.* (2001) 92 Cal. App. 4th 85, 93 (2001). (emphasis in original). Thus, a defendant may be liable for fraud even for unanticipated reliance by a plaintiff. *Id.* at p. 94. In addition, a party's intent to induce reliance may be inferred from his or her failure to disclose facts as required by statute. *Lovejoy v. AT&T Corp.* 119 Cal. App. 4th 151 (2004). Thus, the Commission may infer that Poseidon intentionally submitted inaccurate, erroneous or incomplete information if it finds that Poseidon failed to disclose facts as required by the Coastal Act.

At several points during the Commission's review of both the CDP and the Plan, questions were raised by the Commission, Commission staff, and the public as to whether Poseidon's project would result in actual SWP emission reductions, and Poseidon had opportunities to disclose its understanding of MWD's water entitlements and intention to continue to take its full SWP allocation or the provision in the MWD Agreement that allows MWD to terminate the Agreement if the project reduces its entitlements or usage of SWP water. For example, as explained in footnote 12 above, Commission staff worked with Poseidon and several agencies after the Commission's November 2007 CDP approval to develop a plan that would conform to the Commission's Findings and **Special Condition 10**. Commission staff requested Poseidon verify its various proposed emission reduction measures, including the asserted emission reductions from reduced SWP imports. While Poseidon initially offered to verify the reduction by providing a copy of an MWD Agreement, it later modified its offer so as not to provide the MWD Agreement but to instead provide more general MWD documentation. It later submitted the July 2007 MWD letter mentioned above; however that letter did not reference the MWD Agreement's provisions.

Later, at the Commission's August 2008 hearing, several Commissioners, Commission staff, and members of the public raised doubt as to whether Poseidon's project would reduce SWP emissions. During Commission deliberation about this particular measure, Commissioners asked Poseidon about providing independent verification of the SWP reduction, but Poseidon requested that it be allowed to automatically receive credit for the reduction (see August 6, 2008 hearing transcript, pages 226-29). Poseidon referenced the July 29, 2008 MWD letter, and asserted that this letter confirmed the project would reduce regional demand for imported water by 56,000 acre feet (see August 6, 2008 hearing transcript, pages 82-83). Again, however, Poseidon did not disclose that MWD did not intend to directly reduce its imports due to the water produced by Poseidon or that the MWD Agreement would allow it to terminate its subsidies if the Poseidon project resulted in a reduction of its entitlements or usage of imported water.

The Commission's record and other documents clearly show that during the Commission review, Poseidon was relying on the subsidies its customers could obtain through a mechanism similar to the 2005 MWD Agreement. For example, a November 9, 2007 letter from Poseidon to the Commission states that the June 22, 2007 MWD letter confirmed MWD's intent to provide the project with the subsidy subject to the 2005 Agreement and made available through MWD's Seawater Desalination Program. Poseidon's July 3, 2008 letter to the Commission also refers to Poseidon's reliance on this program and states that "[t]he MWD rebate and audit system contribute to the substantial evidence in the record establishing that the Project's water will in fact replace imported water."[19]

[19] Commission staff review of this revocation request also produced other documents showing that Poseidon was relying on this MWD Agreement and subsidy during or before the Commission's review. These include minutes from SDCWA meetings (e.g., December 6, 2001 and September 26, 2002) describing Poseidon's involvement in a possible project with SDCWA and Poseidon's and SDCWA's reliance on the MWD subsidy.

Regarding Poseidon's CEQA assertions, it is unclear on what basis Poseidon claimed that any use of water "displaced" by the Poseidon project would be for a new or expanded use, subject to CEQA requirements. Given that MWD is able to continue taking its full allocation of SWP water, without CEQA review, regardless of the amount of water produced by Poseidon, it is speculative to assume that CEQA would apply to the use of any of this water. Because the basis for Poseidon's assertions is questionable, one could infer that it was intentionally misrepresenting the nature of the required CEQA review. The evidence does not definitively show, however, that such statements were intentional misrepresentations.

3. GROUND FOR REVOCATION #3: IF THE COMMISSION HAD KNOWN OF THE INFORMATION, WOULD IT HAVE DENIED THE PERMIT OR IMPOSED DIFFERENT CONDITIONS?

The key issue before the Commission is whether it would have made a different decision – i.e., would have denied the project or required additional or different conditions – had Poseidon: 1) described MWD's intention to continue to take its full allocation of SWP water; 2) provided the MWD Agreement; or 3) correctly recognized that it was unlikely that any entity would be required to undertake a CEQA review for use of water "displaced" by the Poseidon project. Had the Commission known of the differences between Poseidon's assertion that its project should "automatically" receive credits for SWP import reductions and MWD's understanding that the Poseidon project is only likely to offset marginal water sources on an average long-term basis, or if the Commission had known of the MWD Agreement provision that allowed MWD to terminate its subsidy if the desalination project resulted in a reduction of its entitlement or usage of water imported from the SWP, it could have reached a different decision on the CDP. Similarly, had the Commission known that MWD's deliveries from the SWP were governed by a long-term contract whose annual deliveries are not subject to CEQA review, it could have required Poseidon to directly account for its expected SWP emission reductions. However, it is not clear that the Commission would have made a different decision, given Poseidon's presentation to the Commission of support from other entities for Poseidon's proposed approach, including agencies specified in **Special Condition 10**.

D. CONCLUSION AND RECOMMENDATION

The Commission finds that the non-disclosed MWD Agreement was part of the complete and accurate information needed to determine the project's Coastal Act conformity. The Commission also finds that Poseidon intentionally withheld the MWD Agreement Poseidon's assertions about the role of CEQA in determining necessary mitigation were also speculative and potentially incorrect, though the record does not indicate whether these assertions were intentional. However, based on its reliance on the aforementioned letters of support from involved agencies, the Commission finds it would not have imposed additional or different conditions or denied the project had the Agreement been provided. Therefore, the Commission finds that the revocation request does not meet all three grounds for revocation.

COASTAL ENVIRONMENTAL RIGHTS FOUNDATION

1984 2009

SAN DIEGO COASTKEEPER

December 8, 2009

Peter Douglas
Executive Director
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Via Electronic Mail
pdouglas@coastal.ca.gov, tluster@coastal.ca.gov

RE: Poseidon/City of Carlsbad Desalination Project
Second Request for Revocation of Coastal Development Permit
Application E-06-013

Please accept this (second) request for revocation ("Request") of Poseidon Resources (Channelside) LLC's (Poseidon) Coastal Development Permit (CDP), Application E-06-013, on behalf of Surfrider Foundation, San Diego Coastkeeper, and Coastal Environmental Rights Foundation (collectively "Environmental Groups"). Environmental Groups request the Coastal Commission revoke the existing CDP. 14 CCR § 13104.

As detailed below, based upon Poseidon's intentional submission of inaccurate, incomplete, or erroneous information, adequate grounds for revocation exist. Environmental Groups therefore request a full hearing before the Commission on the Request.

I. Background

Poseidon's proposed project is a seawater desalination facility to be constructed and operated at the site of the Encina Power Station ("EPS") in Carlsbad, San Diego County.[1] The Carlsbad Desalination Project ("Project") will withdraw about 304 million gallons per day (MGD) of water from Agua Hedionda Lagoon. The Project was originally proposed to co-locate with EPS. The Project will require 104 MGD of the EPS discharge to produce 50 MGD of potable water. The remaining 200 MGD are needed to dilute the Project's brine discharge, a byproduct of the desalination process.

In 2001, the Metropolitan Water District approved a Seawater Desalination Program to, among other things, promote and provide financial incentives for seawater desalination.[2] In 2005, MWD authorized an agreement between MWD and the San Diego County Water Authority ("SDCWA") for development of seawater desalination.[3] This agreement contained standard contract conditions, to be incorporated into a final agreement once Poseidon completed environmental review documentation.[4]

[1] EPS is a once-through cooling (OTC) power plant that uses water to cool its generators. It draws in water from Agua Hedionda Lagoon, which passes "once-through" the power plant, absorbs heat from the generators, and is discharged thereafter. Coastal Commission Final Adopted Findings for CDP Approval, August 6, 2008, p. 23-25
[2] November 10, 2009 MWD Board Meeting, Attachment 2.
[3] November 10, 2009 MWD Board Meeting, p. 1.
[4] November 10, 2009 MWD Board Meeting, Attachment 3, p. 3.

On November 14, 2007, against staff and the Executive Director's recommendation, the Commission approved the CDP for the Project.[5] In addition to standard conditions of approval, the Commission imposed 17 special conditions upon the Project through the CDP.[6] Specifically, pursuant to Coastal Act sections 30253(4), the Commission imposed a special condition, requiring an Energy Minimization and Greenhouse Gas Reduction Plan ("GHG Plan"). The Commission found the Project would result in an estimated 61,000 to 90,000 metric tons of carbon dioxide equivalent per year.[7]

Because the Commission voted against the recommendation of staff, new findings were required. 14 CCR 13096(c). Commission staff and Poseidon disagreed about the Commission's basis for approval, necessitating staff's preparation of five different versions of the findings before final approval.[8] On August 6, 2008, the Commission approved findings for its November 14, 2007 CDP approval. The Commission also approved the GHG Plan at the August 6th meeting. As the Commission made revisions to Poseidon's GHG Plan as submitted, the Commission approved final findings for its August 6, 2008 decision on December 10, 2008. [9]

On November 10, 2009, MWD approved an agreement with all water districts contracted to purchase Project product water.[10] The executed agreement contains a provision terminating the agreement if MWD is required to reduce, defer, or exchange entitlement to or usage of imported water supplies as a result of the Project water.[11] Because the November 2009 agreement is an embodiment of the 2005 contract terms, Poseidon knew at the time of CDP and GHG Plan approval its Project water would not offset any imported water.

At the time the GHG Plan was approved, Poseidon was required to offset the Project's "net" GHG emission, as opposed to the "gross" emissions. Poseidon represented its water was replacement water, offsetting imports from MWD, in both 2007 at the time of the initial CDP approval and in 2008 when the Commission approved the GHG Plan. However, the 2001 MWD Seawater Desal Program and final subsidy agreement signed in November 2009 evidence the supplemental nature of the Project product water.

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[5] November 2, 2007 Coastal Commission Recommended Findings, p.3; http://www.coastal.ca.gov/meetings/mtg-mm7-11.html

[6] Coastal Commission Final Adopted Findings for CDP Approval, August 6, 2008, p. 8-13.

[7] Coastal Commission Final Adopted Findings for CDP Approval, August 6, 2008, p. 3; http://www.coastal.ca.gov/meetings/mtg-mm8-8.html

[8] Findings prepared: on February 21, 2008 for hearing on March 5, 2008; on April 24, 2008 for hearing on May 8, 2008; on May 22, 2008 for hearing June 12, 2008; on July 17, 2008 for hearing on August 6, 2008; on August 5, 2008 as an addendum to July 17, 2008 findings.

[9] http://www.coastal.ca.gov/meetings/mtg-mm8-12.html

[10] http://edmsidm.mwdh2o.com/idmweb/cache/MWD%20EDMS/003702264-1.pdf; Board Action, November 10, 2009.

[11] Draft SDP Agreement No. 70025, October 29, 2009. p. 21 (Environmental Groups have not been able to obtain the final version of the agreement, but understand the draft to be the same as the final agreement approved on November 10, 2009)

Therefore, Poseidon's GHG Plan is no longer accurate or adequate. More importantly, Poseidon's intentional submission of inaccurate, incomplete, and/or erroneous information to that extent requires CDP revocation, as detailed below.

II. Request for Revocation and Initial Review

Section 13105 of the Commission's regulations defines the "grounds" for consideration of a request for revocation:

> *Intentional inclusion of **inaccurate, erroneous, or incomplete information** in connection with a coastal development permit application, where the commission finds that accurate and complete information would have caused the commission to require additional or different conditions on a permit or deny an application.*

14 CCR 13105 (emphasis added). Additional regulations further clarify parties who may submit a Request for Revocation and the process for initial review of the Request. Eligibility to Request Revocation:

> *Any person who **did not have an opportunity to fully participate in the original permit proceeding by reason of the permit applicant's intentional inclusion of inaccurate information** or failure to provide adequate public notice as specified in section 13105 may request revocation of a permit by application to the executive director of the commission specifying, with particularity, the grounds for revocation.*

14 CCR 13106 (emphasis added). In regard to initial review:

> *The executive director shall review the stated grounds for revocation and, **unless the request is patently frivolous and without merit, shall** initiate revocation proceedings. The executive director may initiate revocation proceedings on his or her own motion when the grounds for revocation have been established pursuant to the provisions of Section 13105.*

Id. As detailed below, the grounds for revocation are easily met. Poseidon intentionally included inaccurate, erroneous and/or incomplete information during the proceedings before the Commission that, had information been fully disclosed, would have required at a minimum different conditions of approval. Environmental Groups have been denied an opportunity to fully participate in the original proceedings by reason of Poseidon's submittal of this inaccurate, erroneous, and/or incomplete information.[12] The information, detailed in this Request for Revocation is significant—it cannot be dismissed as "patently frivolous and without merit". Therefore, the Executive Director, in accordance with the clear language of the Commission's regulations, must initiate revocation proceedings.[13]

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[12] Environmental Groups provided both written and oral testimony throughout the Commission's review of the CDP, and participated at the Commission's November 14, 2007 and August 6, 2008 hearings on the matter. Environmental Groups also have a revocation request currently pending before the Commission regarding the Project's impingement impacts, velocity calculations, and capacity.

[13] The term "shall" in the regulations is commonly interpreted to limit the discretion of the decisionmaker. It is effectively an affirmative order.

III. Applied Elements Of The Request For Revocation

Detailed below are specifics related to Poseidon's intentional submittal of information, mandating a revocation hearing.

1. Intentionally Withheld Accurate and Complete GHG Data

The Coastal Act and recent statewide developments related to global warming informed and mandated the Commission's review of the Project's energy consumption and resultant GHG emissions. During CDP review, the Commission found the Project's contribution to global warming attributable to its energy use would impact coastal resources:

> The global heating, sea level rise, and ocean acidification resulting from greenhouse gas emissions affects public access (Coastal Act Sections 30210-30214), recreation (Sections 30212.5,30213,30220-30222), marine resources (Sections 30230-30231), wetlands (Sections 30231, 30233), ESHA (Section 30240), agriculture (Sections 30241-30242), natural land forms (30251), and existing development (Sections 30235, 30253).[14]

Indeed, the Project is more energy intensive than any other water supply option.[15]

However, at the time of GHG Plan approval, Poseidon argued against the Commission staff suggestion to require offset of all of the Project's emissions because "the Project [would] produce 56,000 AFY of desalinated water that [would] directly replace, on a one-for-one basis, water that would have been imported to the Project's customers from the State Water Project."[16]

In response to Commission staff's suggestion, Poseidon intentionally submitted inaccurate, erroneous, and/or incomplete information regarding the Project's GHG emissions. Poseidon's repeated assertions, and MWD's complicit involvement, regarding the Project's offset of imported water were made with the full knowledge no such offset would occur. Indeed, in 2005, the MWD entered into a Seawater Desalination Program agreement with the SDCWA which outlined the basic contract terms, including protection of MWD's imported water supply related to Project implementation.[17]

By failing to provide the Commission and the public with accurate information, necessary for both meaningful analysis and true evaluation of the Project under the Coastal Act, Poseidon impeded the public's ability to fully participate in the original permit proceedings. 14 CCR § 13106. Further, had Poseidon presented the Commission information that was not incomplete, inaccurate, and/or erroneous,

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[14] Coastal Commission Final Adopted Findings for CDP Approval, August 6, 2008, p. 75.
[15] Coastal Commission Final Adopted Findings for CDP Approval, August 6, 2008, p. 75.
[16] Poseidon Resources Letter to Commission Re GHG Plan, August 2, 2008, pp. 4-5.
[17] MWD and SDCWA Seawater Desalination Program Basic Contract Terms, Attachment 2 of MWD July 12, 2005 Board Action, p. 8-12.

it would have denied the application, or alternatively imposed different or additional conditions upon the CDP. 14 CCR 13105.

a. Poseidon Intentionally Provided Inaccurate Information Regarding the Project Water Intended Use

In November 2009, Poseidon signed a contract with MWD for a $250 per acre-foot subsidy under the MWD Seawater Desalination Program.[18] The agreement contains the following termination provision: "Metropolitan has right to terminate agreement if: (iii) Operation of the project impairs Metropolitan's existing water supply entitlements."[19] This language mirrors that of the MWD agreement with the SDCWA in 2005, requiring "protection of Metropolitan's imported water supplies as related to project implementation." [20]

Thus, Poseidon and MWD knew in 2007, at the time of CDP approval, and in 2008 at the time of GHG Plan approval, the Project water would never replace MWD imported water. Nonetheless, Poseidon claimed its water would replace imported water on a one-for-one basis.[21] Poseidon Vice President, Peter MacLaggan maintained at the November 2007 hearing:

> The water is to be provided at a guaranteed price throughout that 30-year term, at a price not to exceed what [the water districts] would have paid for the imported water that they no longer require. All water will be appropriated for public use...This water supply will result in a one-for-one replacement of imported water purchases for these agencies, or by these agencies...[22]

The GHG Plan presented to the Commission and approved in 2008 also relied on the Project's offset of imported water.[23] Poseidon's GHG Plan detailed the reduction in State Water Project water being conveyed to the SDCWA due to such offset.[24] The Project's GHG emissions were thus reduced from nearly 100,000 metric tons to 30,000 metric tons of carbon dioxide equivalent.[25]

Poseidon further pointed to MWD's ability to audit the individual water districts to purchase water from Poseidon, and MWD's letter to Executive Director Peter Douglas as support for its contention regarding offsets. The July 29, 2008 MWD letter stated "[o]ffsetting demand for imported water is a condition for receiving [MWD's] financial incentives" and therefore MWD and Poseidon recommended net carbon neutrality as the appropriate mitigation measure.[26]

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[18] http://edmsidm.mwdh2o.com/idmweb/cache/MWD%20EDMS/003702264-1.pdf; Board Action, November 10, 2009.
[19] MWD Proposed Agreement Terms, November 10, 2009, Attachment 2, Project-specific term 3.b.iii.
[20] MWD and SDCWA Seawater Desalination Program Basic Contract Terms, Attachment 2 of MWD July 12, 2005 Board Action, p. 8-12.
[21] Poseidon Resources Letter to Commission Re GHG Plan, August 2, 2008, p. 5.
[22] Peter MacLaggan Testimony November 14, 2009; Court Reporting Services, p.56.
[23] Poseidon's GHG Plan, July 30, 2008; pp. 13-14.
[24] *Id.*
[25] Poseidon's GHG Plan, July 30, 2008; p. 32 (Table 1).
[26] MWD Letter to Peter Douglas, July 29, 2008, p.2.

Both Poseidon and MWD's intentional misrepresentation of the 2005 agreement terms at the time of CDP approval and GHG Plan approval constitute submission of inaccurate, incomplete, and/or erroneous information. The 2005 MWD agreement terms directly contradicted Poseidon's promise to offset imported water supplies. The 2009 MWD agreement now affirms what Environmental Groups and Commission staff knew at the time of CDP approval – Poseidon's Project would provide surplus rather than replacement water.

b. The Commission Relied on Poseidon and MWD's Representations of Offsets to Establish Baseline Conditions for Project GHG Emissions

The July 30, 2008 GHG Plan is premised on the offset of State Water Project water, equivalent to annual emissions of approximately 67,000 metrics tons of carbon dioxide equivalent.[27] Poseidon defended these calculations though it knew MWD would not reduce its supply of imported water due based upon production of Project water. Indeed, the 2005 MWD general contract terms forbade interference with MWD imported water supplies. [28]

Nonetheless, Poseidon opined its water would provide a "one-for-one" offset of imported water before the Commission at all relevant hearings. Such promises became the basis for the Commission's approval of the GHG Plan offset for a "net" carbon-neutral Project, as opposed to a truly carbon neutral Project. Indeed, the Commission's Deputy Director recently sent a letter to Poseidon reflecting this concern:

> As you know, the Commission's approval last year of Poseidon's [GHG Plan] provided Poseidon with emission credits for reduced water imports, based in part on Poseidon's characterization that its facility would result in MWD importing less water to Southern California. However, with this new agreement in place, import reduction is no longer a part of Poseidon's project, and therefore requires a modification in the approved GHG Plan.[29]

The Commission's reliance on Poseidon's intentional submission of incomplete, inaccurate, and/or erroneous information regarding its offset of imported water and GHG emissions thus necessarily impacted the Commission's approval of the CDP and its imposition of mitigation measures. At the very least, Poseidon would have been required to offset all GHG emissions attributable to the Project – not a calculation excluding energy consumption attributable to State Water Project imports. Poseidon's CPD must therefore be revoked.

IV. Environmental Groups Pursue This Request with Due Diligence

The MWD agreement was signed on November 10, 2009. This request is submitted less than one month after the MWD decision, approving the terms of the agreement. A separate revocation request is currently

[27] Poseidon's GHG Plan, July 30, 2008; pp. 13-14; see also, Findings to support the GHG Plan approval, http://documents.coastal.ca.gov/reports/2008/12/W16b-12-2008.pdf
[28] MWD and SDCWA Seawater Desalination Program Basic Contract Terms, Attachment 2 of MWD July 12, 2005 Board Action, p. 8-12.
[29] Letter from Alison Dettmer, Deputy Director, Commission Energy, Ocean Resources, and Federal Consistency Division to Poseidon, November 13, 2009.

pending before the Commission, to be heard at the December Commission hearing. This request is filed in time for scheduling at the next available Commission hearing in January 2010.

In addition, Environmental Groups also believed the Commission would require Poseidon to submit a CDP amendment in response to the 2009 MWD agreement. Such reliance was based in part on the Commission's letter to Poseidon on November 13, 2009. Environmental Groups have recently learned Poseidon will not be submitting a permit amendment application.

Therefore, Environmental Groups pursue this request with due diligence.

V. Conclusion

In conclusion, the elements of a Revocation Request have been met:

- Poseidon intentionally provided incomplete, inaccurate, and/or erroneous information in connection with its Coastal Development Permit; and

- That information, had it been disclosed, would have led to different conditions placed on approval of the CDP, or resulted in denial of the application.

Further, the omission of such information resulted in Environmental Groups' denial of the opportunity to "fully participate in the proceedings." 14 CCR § 13106. Given the above facts and circumstances, the Executive Director may not find this Request for Revocation "patently frivolous and without merit." 14 CCR § 13106. The Director must proceed with a revocation hearing and suspend the CDP until such hearing. 14 CCR § 13107.

Respectfully Submitted,

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Attachments:

1. Coastal Commission Letter to Poseidon, November 13, 2009
2. MWD October 2009 Draft Agreement with Member Agencies
3. November 10, 2009 MWD agenda item documents
4. August 6, 2008 GHG Plan submissions: http://documents.coastal.ca.gov/reports/2008/8/W5a-8-2008.pdf
5. MWD 2005 Action re agreement with SDCWA

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January 13, 2010

VIA FEDEX AND EMAIL

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Re: Carlsbad Desalination Project (Coastal Development Permit No. E-06-013): Response to December 8, 2009 Permit Revocation Request

Dear Chairperson Neely, Honorable Commissioners, and Mr. Douglas:

On behalf of Poseidon Resources (Channelside), LLC ("Poseidon"), we are responding to the December 8, 2009 revocation request ("Revocation Request") regarding the Carlsbad Desalination Project's (the "Project") Coastal Development Permit ("CDP") submitted by Surfrider Foundation, Coastal Environmental Rights Foundation and San Diego Coastkeeper (the "Opponents"). As discussed in detail in this submittal and in Poseidon's January 7, 2010 letter to Alison Dettmer and Tom Luster (which is attached hereto as **Exhibit 1**[1]), Opponents' assertions have no merit and are contrary to the overwhelming evidence in the Project's administrative record.

Opponents' claims are based entirely on their misreading and misunderstanding of a Seawater Desalination Program ("SDP") Agreement for the Project approved by the Metropolitan Water District of Southern California ("MWD") on November 10, 2009, as well as required terms for the Agreement that MWD approved in July 2005 (the "July 2005 Required Contract Terms"). Opponents admit the SDP Agreement merely memorialized the July 2005 Required Contract Terms, which required MWD to preserve its own imported water entitlements,[2] and then fail to acknowledge that the Coastal Commission approved the Project's

[1] Poseidon's January 7, 2010 letter to Alison Dettmer and Tom Luster ("January 7, 2010 Letter") responds to Commission staff's November 13, 2009 letter requesting that Poseidon submit a permit amendment application to modify its Energy Minimization and Greenhouse Gas Reduction Plan ("GHG Plan"), and is incorporated as part of this response by this reference.

[2] Revocation Request, p. 5.

EXHIBIT NO. 2
APPLICATION NO.
R2-E-05-013
California Coastal Commission

Energy Minimization and Greenhouse Gas Reduction Plan ("GHG Plan") with the full understanding that MWD would not forgo its imported water entitlements or its right to redirect imported water the Project replaces to other locations within MWD's service territory. As nothing has changed regarding this issue since the Commission approved the GHG Plan, and the Project's customers still must reduce their water imports from MWD under the SDP Agreement, Opponents' Revocation Request is nothing more than a sham to delay the Project, force Poseidon to bear significant additional expense responding to frivolous claims, and to improperly force the Commission to use its scarce time and resources to revisit an issue (i.e. "gross" v. "net" GHG offsets) it already decided. For those reasons and the other numerous reasons set forth below, the Revocation Request should be deemed frivolous and denied.

The Revocation Request Is Patently Frivolous And Without Merit

On its face, the Revocation Request is "patently frivolous and without merit", and as such, no revocation hearing before the Commission is necessary or required.[3] The Coastal Commission's regulations (the "CCC Regulations") set a very high standard for CDP revocation, which requires Opponents to prove three elements under CCC Regulations Section 13105(a): (1) that the applicant intentionally submitted inaccurate, erroneous or incomplete information to the Commission; (2) that the information intentionally submitted is in fact inaccurate, erroneous or incomplete; and (3) that the Commission would have required additional or different conditions or denied the CDP had accurate and complete information been submitted.[4] The Opponents bear the burden of proving ***all three prongs*** to establish that revocation is necessary, and have failed to satisfy any of those prongs or show that Poseidon has engaged in any conduct that meets the grounds for revocation.

Most significantly, the Revocation Request ***does not present a single material fact*** that demonstrates Poseidon has engaged in any conduct whatsoever, intentional or otherwise, that falls within the scope of CCC Regulation Section 13105(a), and Opponents ***have not cited to any single instance where Poseidon provided inaccurate, erroneous or incomplete information*** to the Commission or shown how the Commission could have reached a different result. By failing to show any such necessary evidence in their Revocation Request, Opponents have failed to satisfy any of the three prongs necessary for revocation, and therefore their request must fail. Without citing a single material fact supporting the standard for revocation, the Revocation Request is patently frivolous and without merit, and the Executive Director should not initiate revocation proceedings.

The Grounds For Revocation Have Not Been Met

Even if the Executive Director decides to initiate revocation proceedings, which Poseidon strongly contends is contrary to the facts before the Commission, Opponents have not shown that any of the grounds for revocation have been met. Accordingly, and based on the arguments

[3] See CCC Regulations § 13106.

[4] See CCC Regulations § 13105, subd. (a).

below and the facts already in the Commission's record, the Executive Director should recommend to the Commission that Opponents' request is without merit and should be denied. Further, since the grounds for revocation have not been met, the Executive Director should not and may not suspend Poseidon's CDP because the CCC Regulations only allow for the suspension of a CDP where the Executive Director has found that "grounds exist for revocation of a permit."[5]

I. OPPONENTS' REQUEST IS PATENTLY FRIVOLOUS AND WITHOUT MERIT BECAUSE THEY CANNOT MEET THEIR BURDEN OF PROOF

Section 13106 of the CCC Regulations provides that when a revocation request is submitted to the Commission, "[t]he executive director shall review the stated grounds for revocation and, ***unless the request is patently frivolous and without merit***, shall initiate revocation proceedings."[6] Thus, the Executive Director has the authority to deny a revocation request upon his determination that the request is "patently frivolous and without merit." Opponents' Revocation Request is patently frivolous and without merit because it is clear that Opponents have not cited a single fact to support that any of the grounds for revocation of the CDP have been satisfied.[7]

A. Opponents Have Not and Cannot Satisfy Any of Section 13105(a)'s Elements

Section 13105(a) of the CCC Regulations is divided into three elements: (i) intentional inclusion; (ii) of inaccurate, erroneous or incomplete information in connection with a coastal development permit application; (iii) where the Commission finds that accurate and complete information would have caused the commission to require additional or different conditions on a permit or deny an application. While the CCC Regulations do not provide a definition of the phrase "patently frivolous and without merit," a revocation request that fails to provide any evidence supporting any one of the three required prongs in Section 13105(a) should be considered patently frivolous and without merit because the request cannot succeed if any one of the three prongs remains unproven. The Revocation Request submitted by Opponents fails to provide evidence supporting any of the three required elements in Section 13105(a) as follows:

1. No Intent. As discussed in detail in Section II(A) below, Opponents do not cite to a single piece of evidence that demonstrates in any way that Poseidon intentionally provided the Commission with inaccurate, erroneous or incomplete information regarding the Project's GHG emissions or MWD's imported water entitlements. As demonstrated in Poseidon's January 7, 2010 Letter to the Commission (Exhibit 1), Poseidon and MWD consistently maintained during the Commission's GHG Plan approval process that MWD would

[5] See CCC Regulations § 13107; Section III, below.

[6] CCC Regulations § 13106 (emphasis added).)

[7] The Revocation Request focuses solely on the revocation grounds contained in CCC Regulations Section 13105(a). Since Opponents do not assert any defects in noticing the Project's CDP as governed by CCC Regulations Section 13105(b), there are no grounds for revocation of Poseidon's CDP based on those issues.

not relinquish any imported water entitlements in connection with the Project or give up the right to redirect imported water the Project replaces to other locations. The Opponents cannot show that Poseidon intended to convince the Commission otherwise. Failure to demonstrate intent is a fatal defect to the Revocation Request, and thus the Executive Director should find it to be patently frivolous and without merit.

2. No Inaccurate, Erroneous or Incomplete Information. As discussed in detail in Section II(B) below, Opponents have falsely claimed that Poseidon submitted inaccurate, erroneous and/or incomplete information to the Commission, ***but have not provided a single fact to support their claims***. Contrary to Opponents' assertions, and as shown in Poseidon's January 7, 2010 Letter, Poseidon provided the Commission with accurate and complete information regarding how the Project's desalinated water would offset corresponding demand for water imports into the San Diego region, and about how MWD would not relinquish any imported water entitlements in connection with the Project or give up the right to redirect imported water the Project replaces to other locations There are no facts supporting a finding that any of this information is inaccurate, and thus the Executive Director should find the Revocation Request to be patently frivolous and without merit.

3. No Different Result. As discussed in detail in Section II(C) below, Opponents also have not made the required showing that the Commission would have reached a different result regarding the Project's CDP. Opponents cannot make this showing because (i) the record shows the Commission had full knowledge that MWD would not relinquish any of its imported water entitlements when the Commission approved the Project's GHG Plan; and (ii) even if the SDP Agreement did alter any of the GHG Plan's water import reduction assumptions, which it does not, CDP Special Condition 10 does not address the GHG Plan's specific contents, including MWD's water supply entitlements or the Project's GHG offset requirements. As the Revocation Request has not and cannot overcome the burden of showing that the Commission would have required additional or different conditions on the CDP or denied the application (or even would have changed the GHG Plan's content), the Executive Director should find the request patently frivolous and without merit.

B. The Opponents Made the Revocation Request with Improper Motive

In addition to failing to satisfy their administrative burden in the Revocation Request, Opponents' request also should be found "patently frivolous and without merit" because Opponents have brought it with improper motive. In the context of judicial appeals, courts have found an appeal to be frivolous "when it is prosecuted for an improper motive—to harass the respondent or delay the effect of an adverse judgment. . ."[8] The Revocation Request admits that Opponents are pursuing revocation of Poseidon's CDP not because the standards for revocation have been satisfied, but because Opponents had believed "the Commission would require Poseidon to submit a CDP amendment in response to the 2009 MWD Agreement."[9] Opponents

[8] *Avila v. Continental Airlines, Inc.* (2008)165 Cal.App.4th 1237, 1262.

[9] Revocation Request, p. 7.

also admit that when they learned that Poseidon "would not be submitting a permit amendment application,"[10] it pursued the Revocation Request. As Commission staff is aware, revocation of a CDP is only appropriate where specific regulatory requirements have been satisfied.

While Opponents claim that the grounds for revocation of the CDP have been satisfied, those claims belie Opponents' actual intent to delay the Project. The fact that Opponents' filed their Revocation Request only after Commission staff recommended that the Commission deny Opponents' prior revocation request filed on October 8, 2009, demonstrates that Opponents are only seeking to delay or stop the Project and not to inform the Commission of some alleged intentional misrepresentation or inaccuracy by Poseidon (which would be impossible since no such intentional misrepresentation or inaccuracy has occurred.) ***Seeking CDP revocation only for purposes of delaying or stopping a Project that Opponents do not like is an improper motive,*** and therefore the Executive Director also should find that the Revocation Request to be patently frivolous and without merit on that basis.

II. OPPONENTS HAVE FAILED TO SHOW THAT THE GROUNDS FOR REVOCATION HAVE BEEN MET

Even if the Executive Director determines that the Revocation Request is not patently frivolous and without merit, which Poseidon contends it is, based on the facts before the Commission the Executive Director must conclude that the grounds for revocation do not exist and recommend denial. For the following reasons, the Revocation Request fails to demonstrate that any of the three required grounds have been satisfied.

A. Opponents Have Not Demonstrated Intent

While the Revocation Request claims that "Poseidon intentionally submitted inaccurate, incomplete and erroneous information regarding the Project's GHG emissions",[11] ***Opponents do not cite to a single piece of evidence that demonstrates such intent.*** Instead, the Revocation Request inaccurately claims that statements Poseidon and MWD made to the Commission regarding how the Project's desalinated water would offset demand for imported water in the San Diego region are inconsistent with an unrelated contract term included in MWD's November 10, 2009 SDP Agreement with the San Diego County Water Authority ("Water Authority") and nine local retail water agencies ("LRAs"), as well as in the MWD's July 2005 Required Contract Terms for the SDP Agreement, both of which protect MWD's own imported water entitlements.[12] As demonstrated below and detailed in Poseidon's January 7, 2010 Letter

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[10] *Id.*

[11] Revocation Request, p. 4.

[12] On July 12, 2005, the MWD Board authorized MWD staff to enter into SDP agreements with five of its member agencies, including the Water Authority. The Board's approval of each of the agreements included a set of required contract terms (the "July 2005 Required Contract Terms") to be used consistently in all of the agreements. Article 14 of the July 2005 Required Contract Terms states: "Metropolitan's Imported Water Entitlements. Protection of Metropolitan's imported water supplies as related to project implementation." Section 13 of the SDP Agreement

(Exhibit 1), Commission staff, the Opponents, Poseidon and MWD expressly conveyed to the Commission at the Commission's GHG Plan hearing that MWD would not relinquish its imported water entitlements in connection with the Project or give up its right to redirect imported water the Project replaces to other locations within MWD's service territory. [13]

Thus, Poseidon and MWD's statements are fully consistent with MWD's July 2005 Required Contract Terms that require "[p]rotection of Metropolitan's imported water supplies as related to project implementation," and with the SDP Agreement that memorializes and implements that requirement. Since the record clearly shows that Poseidon explained MWD's consistent position on its imported water entitlements to the Commission at the Commission's GHG Plan hearing, the Opponents have not and cannot demonstrate intent. As this is a required finding under CCC Regulations Section 13105(a), and it has not been met, the Executive Director cannot determine that this ground for revocation exists.

B. Opponents Have Not Identified Any Inaccurate, Erroneous Or Incomplete Information

As summarized in Section I(2) above, the Revocation Request does not demonstrate the ***"inclusion of inaccurate, erroneous or incomplete information in connection with . . ."*** Poseidon's CDP application.[14] Opponents falsely claim that Poseidon submitted inaccurate, erroneous or incomplete information regarding the Project's GHG Plan and the reduction in GHG emissions the Project would achieve by replacing imported water that the Water Authority would otherwise receive from MWD. However, the Opponents ignore the overwhelming evidence in the Commission's administrative record showing that:

- (i) the "net" emissions approach in the GHG Plan – for which Poseidon advocated and which the Commission ultimately approved – is consistent with CEQA principles in that it does not require MWD to relinquish water entitlements in the amount of water the Project replaces, and instead places the obligation of providing mitigation for emissions associated with importing the replaced water into other parts of MWD's service territory on hypothetical future users of that water;

- (ii) the fact that MWD would not relinquish its rights to its imported water entitlements or its ability to direct imported water the Project replaces to other

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implements and memorializes Article 14 of the July 2005 Required Contract Terms and permits MWD to terminate the SDP Agreement if it reasonably determines that:

> [A]s a result of Water Authority's or LRA's action or support, Metropolitan is required by any statute or administrative order, court, or other entity to reduce, defer, or exchange entitlement to or reduce usage of Colorado River water, State Water Project water, or other water supplies contracted for by Metropolitan as a result of expected or actual production of the Desalinated Seawater by the Project.

[13] See January 7, 2010 Letter, pp. 7-9, 15-16.

[14] CCC Regulations § 13105, subd. (a).

locations within MWD's service territory was a key issue the Commission considered when it approved Poseidon's "net" emissions approach in the GHG Plan without restricting MWD's rights to its imported water entitlements; and

- (iii) MWD has consistently required in each of the SDP agreements it has entered into with its member agencies that it would not relinquish its imported water entitlements as a result of any desalination project, and MWD's position has not changed since the Commission considered the Project and the GHG Plan.

This evidence is presented in explicit detail in Sections I and II of the January 7, 2010 Letter,[15] and is hereby incorporated into this letter. Nevertheless, we take this opportunity to revisit some of the key facts which support the conclusion that Opponents have not demonstrated that Poseidon intentionally submitted inaccurate, incomplete, or erroneous information to the Commission.

1. The Coastal Commission Approved The GHG Plan With Full Knowledge That MWD Would Not Contractually Relinquish Any Water Entitlements.

Testimony at the GHG Plan hearing and Poseidon's prior written submissions demonstrate that Poseidon provided complete and accurate information to the Commission regarding MWD's continuing right to use its imported water entitlements after the Project commences operations. Prior to the Commission's approval of the GHG Plan, Poseidon argued that emissions reductions from the Project's replacement of imported water must be analyzed by determining the "net" change in GHG emissions relative to existing conditions, or the "baseline", factoring in both increases and decreases in emissions caused by the Project.[16] Poseidon explained that existing emissions associated with energy used to pump 56,000 acre-feet of water per year into the San Diego Region that the Project's water will replace are part of the existing "baseline", and thus should be "netted-out" when determining the Project's GHG emissions because that water will no longer be pumped to the Project's customers once the Project is operating.[17] Poseidon also argued that this "net" approach is appropriate under CEQA because (i) it is speculative that the replaced water would be pumped into the region; and (ii) even if the replaced water is pumped into the region, the associated carbon emissions from such pumping should be the responsibility of the uses that require the water to be imported.[18]

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[15] See January 7, 2010 Letter, pp. 2-17.

[16] See *id.*, pp. 7-9.

[17] See Letter from Poseidon to Coastal Commission, Aug. 2, 2008, pp. 4-5. Various state agencies, including the Air Resources Board, California Energy Commission, and Department of Finance, as well as the Lieutenant Governor supported the "net" approach. See January 7, 2010 Letter, pp. 10-11 and Exhibits C – F thereto. MWD and the Water Authority further supported this approach. See Letter from MWD to Peter Douglas, dated July 29, 2008, at p.1, attached to January 7, 2010 Letter as Exhibit M; Letter from San Diego County Water Authority to Coastal Commissioners, dated July 24, 2008, at p. 1, attached to January 7, 2010 Letter as Exhibit N.

[18] See January 7, 2010 Letter, p. 8.

Commission staff and the Opponents argued, however, that Poseidon should be responsible for offsetting the Project's "gross" GHG emissions, which included emissions associated with the imported water the Project replaces, because Poseidon could not guarantee that the replaced water would no longer be imported into MWD's service territory for another use.[19] Commission staff and the Opponents asserted that Poseidon should only be allowed to reduce this "gross" emissions requirement for the imported water if Poseidon could show that the reduction measure was verifiable and enforceable under AB 32 criteria – such as through a contractual agreement from MWD relinquishing its imported water entitlements.[20] After considering all of the arguments on this issue, the Commission approved Poseidon's "net" approach in the GHG Plan, and did not require MWD to relinquish any of its water entitlements.[21]

In its presentation to the Commission at the GHG Plan hearing, Poseidon corrected inaccurate information provided by certain Project opponents and made clear that the "net" approach is appropriate under CEQA, and that Poseidon's proposed GHG Plan would not affect MWD's ability to redirect water the Project replaces to other locations within MWD's service territory:

> Rick Zbur: "Staff asserts that Poseidon must offset the carbon from the imported water, because it cannot guarantee that it will not be used. . . . If water continues to be pumped to Southern California from the State Water Project, it would be for new or expanded uses. Those new uses would be required under CEQA to address the impacts of importing the new water. . . [S]ince only new or expanded projects would be using this imported water, and those projects are required to mitigate the carbon impacts under CEQA, staff's proposal would result in double mitigation for the same impacts.
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> . . . .
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> **First point I wanted to address was Mr. Mitton's assertion that we have asserted that water will not be used in other places. That is actually not accurate. What we have said is that Poseidon's customers, the water districts, have agreed to replace the water, and therefore that the water that is replaced, where that goes is speculative, but wherever it goes, CEQA will apply to require those people to mitigate it.**
>
> So, our view is that the new users of the water should be responsible for the environmental mitigation of that. That is consistent with CEQA methodology. That is consistent with -- we have assurances that the attorney general will enforce that.

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[19] See *id.*, pp. 4-7.

[20] *Id.*

[21] See *id.*, pp. 11-13.

> In addition, this Commission determined that the project was not growth inducing. That was part of your findings. The requirement that Poseidon be assigned the mitigation for the replaced water is just not consistent with the determination that you have already made that the project is not growth inducing.
>
> Another point that we wanted to address is the request by Mr. Massara that the AB32 criteria should apply to the energy reduction from replaced water. This is really the key issue related to the [gross][22] versus net issue, and is the crux of what is before the Commission. Essentially what the staff does is they apply these vague principles to the replaced water, which in effect, would impose the [gross][23] requirements, because the principles would require that the replaced water have contractual agreements that the replaced water would be retired and not used by anyone. That effectively would not allow – it effectively imposes the [gross][24] requirement . . . Each of the agencies that are responsible for the implementation of AB 32 have supported Poseidon's ability to take credit for the replaced water . . ."[25]

Poseidon advanced these same arguments in its written submissions to the Commission.[26]

During their deliberations concerning the Project's GHG Plan, various Coastal Commissioners confirmed that they understood and made clear for the full Commission that the "net" approach that Poseidon advocated in the GHG Plan did not require MWD to relinquish any water entitlements or prevent MWD from redirecting water the Project replaces to other locations.[27] For example:

- Commissioner Shallenberger: "Metropolitan Water District is going to, and needs to, and has a right to take all of the water that is available to them out of the delta."[28]

- Commissioner Scarborough: "In essence, what I understand from a Resources perspective -- indeed we are arguing within our family as well -

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[22] The word "growth" was inaccurately transcribed here in the Reporter's Transcript of Proceedings. Mr. Zbur used the word "gross" at the hearing.

[23] The word "growth" was inaccurately transcribed here in the Reporter's Transcript of Proceedings. Mr. Zbur used the word "gross" at the hearing.

[24] The word "growth" was inaccurately transcribed here in the Reporter's Transcript of Proceedings. Mr. Zbur used the word "gross" at the hearing.

[25] Testimony of Rick Zbur, Reporter's Transcript of Proceedings, State of California Coastal Commission, Aug 6., 2008, at pp. 92:5-17; 93:3-6; 165:16-166:21, 166:23-167:1 (emphasis added).

[26] *See* Letter from Poseidon to Coastal Commission, Aug. 2, 2008, at Exhibit B: Response to Staff Report, pp. 8-9.

[27] See January 7, 2010 Letter, at pp. 9-10.

[28] Testimony of Commissioner Shallenberger, Reporter's Transcript of Proceedings, State of California Coastal Commission, Aug. 6, 2008, at p. 222:15-17.

> - is that, yes, Met will continue to receive that water. They are not going to turn the state tap off. Other projects that will then need to use that water will then have to go through a process by which they get the okay to use that water. And, it is that new project that will then have to be in compliance with CARB and APCD, or whatever local district, on their greenhouse gas emission reductions for that project."[29]

Following the Commission's deliberations, the Commission approved the GHG Plan containing the "net" approach that Poseidon proposed by a ten to two vote. Because the Project will displace imported water by the Project's nine LRA customers, the GHG Plan reduces Poseidon's emissions offset obligations in the amount of GHG emissions that are avoided from imported water the Project replaces.[30] Notably, there is no text in the GHG Plan that in any way limits or restricts MWD's management of its imported water supply, or that requires MWD to relinquish any of its imported water entitlements. Accordingly, there is no foundation for any claim that the Commission did not understand, or was not fully aware of this issue when the Commission approved the GHG Plan, and the record shows that Poseidon did not submit any inaccurate, incomplete, and/or erroneous information to the Commission.[31]

2. The Requirement In The SDP Agreement That MWD Not Relinquish Water Entitlements Has Not Changed Since The GHG Plan's Approval.

The Revocation Request bases its claim of inaccurate, erroneous and/or incomplete information on Opponents' own inaccurate understanding of a provision contained in MWD's July 2005 Required Contract Terms for all SDP agreements that protects MWD's imported water entitlements, which MWD implemented and memorialized in its November 10, 2009 approval of the SDP Agreement with the Water Authority and nine LRAs. Specifically, Opponents incorrectly conclude that because the SDP Agreement allows MWD to terminate the Agreement if MWD's rights to its own water entitlements are impacted by the Project, then the Project must be providing "surplus rather than replacement water" to the San Diego region.[32] However, contrary to the Opponents' flawed understanding, the SDP Agreement only confirms what Poseidon clearly conveyed to the Commission – that MWD would not relinquish its imported

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[29] Testimony of Commissioner Scarborough, Reporter's Transcript of Proceedings, State of California Coastal Commission, Aug. 6, 2008, at p. 225:1-9.

[30] The quote Opponents use in the Revocation Request from Poseidon Vice President Peter MacLaggan is fully consistent with the Commission's decision. Mr. MacLaggan stated that the Project's "water supply will result in a one-for-one replacement of imported water purchases for these agencies or by these agencies." (Revocation Request, p. 5.) The Project will continue to result in a one-for-one replacement of imported water purchases by the LRAs, and the Opponents have not cited to any evidence that shows otherwise.

[31] Furthermore, the Commission adopted revised findings regarding its approval of the GHG Plan on December 10, 2008, which confirmed that Poseidon would be required to offset only its "net" emissions. See January 7, 2010 Letter, pp. 11-13.

[32] Revocation Request, p. 6.

water entitlements or its right to redirect imported water the Project replaces to other locations within MWD's service territory.[33]

The Revocation Request also fails to recognize that MWD's approval of the SDP Agreement does not change in any way any of the Commission's bases for approving the GHG Plan. The MWD Board's final approval of the SDP Agreement on November 10, 2009, which the Revocation Request admits "mirrors that of the MWD agreement with the SDCWA in 2005, requiring 'protection of Metropolitan's imported water supplies as related to project implementation,'"[34] did not change MWD's water import reduction obligations, the obligations of any of the other parties to the SDP Agreement or Poseidon's obligations under the GHG Plan approved by the Commission. As discussed above and in detail in Poseidon's January 7, 2010 Letter, the Commission approved the GHG Plan on August 6, 2008 with the complete understanding that, while the Project would result in water import reductions by the LRAs, MWD would not relinquish any imported water entitlements.[35] Because nothing has changed, there is no merit to any claim by the Opponents that the Commission did not have complete and accurate information before it regarding MWD's ability to use its water entitlements or redirect imported water the Project replaces when the Commission approved the GHG Plan.

MWD's General Manager also confirmed in a December 17, 2009 letter to Executive Director Douglas that the SDP Agreement protects MWD's rights to its imported water entitlements consistent with the July 2005 Required Contract Terms, which is also consistent with Poseidon's testimony and prior submissions to the Commission:

> "In 2005, Metropolitan authorized agreements with the SDCWA and four other member agencies that included a uniform provision to protect Metropolitan's water rights and entitlements. This provision appears as Section 13 of the draft SDP Agreement. . . . Section 13's sole purpose is to protect Metropolitan's imported water supply rights and entitlements."[36]

It is because the July 2005 Required Contract Terms already had been approved at the time of the Coastal Commission hearing on the GHG Plan and that Article 14 of those Terms required all SDP agreements to protect MWD's imported water supplies, which Poseidon believed could not be altered, that Poseidon, MWD, the Water Authority and the LRAs all acknowledged during the Commission's proceedings on the GHG Plan that MWD would not contractually relinquish its imported water entitlements.[37] Commission staff also conveyed this

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[33] See January 7, 2010 Letter, pp 7-9.

[34] Revocation Request, at p. 5.

[35] See, e.g., January 7, 2010 Letter, pp. 9-13.

[36] See December 17, 2009 Letter from Jeffrey Kightlinger to Peter Douglas, attached to January 7, 2010 letter as Exhibit H (emphasis added).

[37] See, e.g., *id.*, pp. 15-16.

same information to the Commission in its arguments against Poseidon's GHG Plan during the August 6, 2008 hearing:

> Commission staff Tom Luster: "As you have heard several times today, the state water project will not necessarily reduce its electrical use or its emissions, due to Poseidon's project
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> . . . .
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> Met describes its desal program as allowing Metropolitan to redirect imports, not necessarily reduce them. For example, Met's recent integrated water resources plan from 2004 -- which staff is adding to the record -- states that desal is expected to offset water use in one area of its service area, and allow it to send additional imported water to other parts of its service area."[38]

We also understand that Opponents wrongly believe that the definition of "Eligible Yield" in Section 1.4 of the SDP Agreement demonstrates that the Project's water is not replacing water that would have otherwise been imported to the San Diego region. The SDP Agreement defines "Eligible Yield" as "the amount of Desalinated Seawater actually delivered to an LRA's or Water Authority's local potable water distribution system from the Project in a Fiscal Year, excluding any Desalinated Seawater that Metropolitan reasonably determines will not augment water supply available to Metropolitan's service area, including Metropolitan's imported water." Opponents incorrectly claim that the use of the word "augment" in this definition indicates that water produced by the Project will supplement water already imported to the region, rather than replace it.

Section 1.4 of the SDP Agreement confirms that desalinated water supplies from the Project must displace demand otherwise placed on Metropolitan, or the desalinated water supplies will not qualify as "Eligible Yield" that is entitled to Metropolitan's financial incentives under SDP Agreement Sections 6 and 7. This understanding is supported by Recital O of the SDP Agreement, which provides that MWD established the Seawater Desalination Program "to provide financial incentives for seawater desalination projects that reduce demand for imported water supplies from Metropolitan through the State Water Project and Colorado River Aqueduct."[39] The Opponents' narrow reading of the term "augment" fails to take into account

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[38] Testimony of Tom Luster, Reporter's Transcript of Proceedings, State of California Coastal Commission, Aug. 6, 2008, at p. 172:18-20; 173:6-12.

[39] This understanding finds further support in a letter from MWD's General Manager to the Commission's Executive Director, dated July 29, 2008, which states that "water agencies receiving desalinated supplies from the Project must demonstrate that the water offsets an equivalent amount of water imported from Metropolitan." Letter from MWD to Peter Douglas, dated July 29, 2008, at p.1, attached to the January 7, 2010 Letter as Exhibit M. In addition, MWD's 2001 Request for Proposals for its Seawater Desalination Program states: "Project production for any beneficial use must replace an existing demand or prevent a new demand on Metropolitan's imported supplies."

the larger context of the SDP Agreement, which shows that the Project must actually deliver additional water supply to Metropolitan's customers for Metropolitan to reduce its imported water supplies to those customers and provide them with financial incentives to purchase the replacement water.

In light of the significant evidence in the record that the Commission was fully aware that MWD would not relinquish its imported water entitlements at the time it approved the GHG Plan, and the fact that nothing has changed since MWD approved the July 2005 Required Contract Terms to protect its rights to those entitlements, the Opponents have failed to demonstrate in any way that Poseidon submitted inaccurate, incomplete, or erroneous information to the Commission.

C. Opponents Have Not Shown That The Commission Would Have Reached A Different Result

The third element the Opponents must prove to establish grounds for revocation is that the Commission would have reached a different result. Even if Poseidon intentionally submitted inaccurate, erroneous or incomplete information to the Commission, which it did not, under CCC Regulations Section 13105(a), the standard for revocation requires:

> "Intentional inclusion of inaccurate, erroneous or incomplete information in connection with a coastal development permit application ***where the Commission finds that accurate and complete information would have caused the commission to require additional or different conditions on a permit or to deny an application*** . . ." (emphasis added).

Opponents cannot meet this burden because the record clearly shows that the Commission approved Poseidon's "net" emissions approach in the GHG Plan with the full knowledge that MWD would not forgo its imported water entitlements or limit its ability to redirect imported water the Project replaces. Moreover, as discussed above, nothing has changed with respect to the requirement that desalinated water supplies from the Project displace demand otherwise placed on Metropolitan in order for those supplies to qualify for the financial incentives provided under the SDP Agreement. Accordingly, the fact that MWD's SDP Agreement with the Water Authority and the LRAs protects MWD's imported water entitlements would not alter the Commission's endorsement of the "net" approach in the GHG Plan.

Further, even if the SDP Agreement did alter any of the GHG Plan's water import reduction assumptions, which it does not, Section 10 of the CDP only requires the approval of an Energy Minimization and Greenhouse Gas Reduction Plan and does not place restrictions or limitations on the assumptions to be used in that plan. More specifically, Special Condition 10 does not require that MWD relinquish any of its water supply entitlements, obligate Poseidon to demonstrate that the desalinated water produced by the Project results in a reduction of imported

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See MWD Seawater Desalination Program Request for Proposals, November 2001, attached to the January 7, 2010 Letter at Exhibit L.

water to the San Diego region, or require Poseidon to offset the Project's "gross" GHG emissions. Instead, Special Condition 10 states:

> PRIOR TO ISSUANCE OF THE PERMIT, the Permittee shall submit to the Commission a Revised Energy Minimization and Greenhouse Gas Reduction Plan that addresses comments submitted by the staffs of the Coastal Commission, State Lands Commission and the California Air Resources Board. The permit shall not be issued until the Commission has approved a Revised Energy Minimization and Greenhouse Gas Reduction Plan after a public hearing.

Commission staff proposed this language to the Commission in its Staff Report regarding the November 15, 2007 hearing on the CDP, and the Commission adopted it verbatim when it approved the CDP.

Opponents can point to no evidence that shows the Commission would have altered Special Condition 10's requirements in any way. Accordingly, since the Opponents cannot meet the burden of proof under the third element of CCC Regulations Section 13105(a) for either the CDP or the GHG Plan, the Revocation Request must be denied.

III. THERE IS NO BASIS TO SUSPEND THE CDP

The legal requirement for suspending the Permit cannot be met because: (1) the Executive Director is not initiating revocation proceedings on his or her own motion; and (2) as discussed in Sections I and II above, there is no basis for the Executive Director to recommend revocation. The standard for suspension of the Permit presents a very high bar. In order to suspend the CDP under CCC Regulations Section 13107, the Executive Director must affirmatively determine "that grounds exist for revocation of a permit." Unlike the standard for setting a revocation request for hearing, which requires a review of the request and a determination of whether it is "patently frivolous and without merit," in order to suspend a CDP, the Executive Director must engage in an affirmative analysis and determine that the grounds do in fact exist for revocation, meaning that staff must be prepared to recommend revocation. As discussed in Sections I and II above, there are no grounds that support revocation of the CDP. Therefore, the CDP cannot be suspended.

We also note that even if grounds to revoke and suspend the CDP existed under the Commission's existing regulations, which they clearly do not, any "automatic suspension" of the CDP without Commission or judicial review would violate Poseidon's procedural due process rights. Poseidon has acquired a fundamental vested right in the Coastal Commission's November 2007 CDP approval, as it has invested substantial money and resources in reliance on that final approval.[40] Case law is clear that important rights, such as a medical or other

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[40] See *Goat Hill Tavern v. City of Costa Mesa* (1992) 6 Cal.App.4th 1519, 1526 ("When an administrative decision affects a right which has been legitimately acquired or is otherwise vested, and when that right is of a fundamental nature from the standpoint of its economic aspect or its effect...then a full and independent judicial review of that

professional license or permit, cannot be suspended automatically upon a mere allegation or claim.[41] Because of its vested right, Poseidon is entitled to a hearing before a nonbiased decision maker before any suspension can occur.[42] Commission regulations should be interpreted in a manner which does not conflict with procedural due process rights, and therefore, automatic suspension should not be considered.

IV. COASTAL ENVIRONMENTAL RIGHTS FOUNDATION DOES NOT HAVE STANDING

Poseidon believes that Coastal Environmental Rights Foundation ("CERF") is not a proper party to the Revocation Request. Section 13106 of the CCC Regulations only allows revocation requests to be brought by "[a]ny person who did not have an opportunity to fully participate in the original permit proceeding. . . ." As shown on the California Secretary of State's website (a printout of which is attached as **Exhibit 2**), CERF was not registered as a business in California until October 17, 2008 – well after the Commission's November 15, 2007 hearing on the Project's CDP and its August 6, 2008 hearings on the Project's mitigation plans. Accordingly, CERF is not a proper party to the Revocation Request because it did not exist at the time of those hearings, and thus could not have even had an "opportunity to fully participate" in those hearings. Thus, we request that the Revocation Request be dismissed as to CERF.

V. CONCLUSION

In sum, the evidence from the Commission's administrative record conclusively shows that Poseidon and MWD consistently maintained to the Commission that, while the Project's water supply would result in the replacement of imported water purchases by the Project's customers, MWD would not relinquish its imported water entitlements or limit its ability to redirect water the Project replaces to other locations within MWD's service territory. The Revocation Request provides no new information that shows Poseidon's testimony and submissions on this issue were inaccurate, incomplete or erroneous in any way. Moreover, the Revocation Request is an improper attempt to revisit the debate concerning whether Poseidon should be required to offset the Project's "gross" or "net" greenhouse gas emissions – a debate which was settled when the Commission approved Poseidon's "net" approach in the GHG Plan

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decision is indicated because the abrogation of the right is too important to the individual to relegate it to exclusive administrative extinction.").

[41] *See, e.g., Goat Hill Tavern*, 6 Cal.App.4th at 1525 ("If an administrative decision substantially affects a fundamental vested right, the trial court must exercise its independent judgment on the evidence and find an abuse of discretion if the findings are not supported by the weight of the evidence..."); *Raley v. California Tahoe Regional Planning Agency* (1977) 68 Cal.App.3d 965, 975; *Santa Monica Pines, Ltd. v. Rent Control Board* (1984) 35 Cal.3d 858, 866.

[42] Courts have also upheld this procedural due process right in other contexts (*See, e.g., Gray v. Superior Court* (2005) 125 Cal. App. 4th 629 (holding that professional licenses cannot be immediately suspended without due process, and a showing of danger to the public requiring immediate suspension).)

and rejected staff's and Opponents' "gross" approach.[43] Accordingly, and for the reasons set forth above, the Revocation Request is a frivolous and completely meritless attempt to delay Poseidon's Project, and we therefore request that you decline to set the Revocation Request for hearing. Finally, we also respectfully request that you deny the request for suspension, which has no basis in law or in fact.

Very truly yours,

Rick Zbur /WPS

Rick Zbur
of LATHAM & WATKINS LLP

Attachments

cc: Governor Arnold Schwarzenegger
President Pro Tempore Darrell Steinberg, California State Senate
Speaker Karen Bass, California State Assembly
Senator Dennis Hollingsworth, California State Assembly
Senator Christine Kehoe, California State Assembly
Senator Mark Wyland, California State Assembly
Senator Denise Moreno Duchen, California State Assembly
Assemblymember Kevin Jeffries, California State Assembly
Assemblymember Nathan Fletcher, California State Assembly
Assemblymember Mimi Walters, California State Assembly
Assemblymember Martin Garrick, California State Assembly
Assemblymember George Plescia, California State Assembly
Assemblymember Lori Saldana, California State Assembly
Assemblymember Joel Anderson, California State Assembly
Assemblymember Marty Block, California State Assembly
Assemblymember Mary Salas, California State Assembly
Secretary Lester Snow, Natural Resources Agency
Andrew Sienkiewich, Metropolitan Water District
Ken Weinberg, San Diego County Water Authority
Alison Dettmer
Tom Luster
Peter MacLaggan

[43] As noted above and in footnote 17, various state agencies, including the Air Resources Board, California Energy Commission, and Department of Finance, as well as the Lieutenant Governor, MWD, and the Water Authority all supported the "net" approach.

STATE OF CALIFORNIA--THE NATURAL RESOURCES AGENCY ARNOLD SCHWARZENEGGER, GOVERNOR

CALIFORNIA COASTAL COMMISSION
45 FREMONT, SUITE 2000
SAN FRANCISCO, CA 94105-2219
VOICE AND TDD (415) 904-5200
FAX (415) 904-5400

November 3, 2009
Permit: E-06-013

COASTAL DEVELOPMENT PERMIT

On November 15, 2007, by a vote of 9-3, the California Coastal Commission granted to Poseidon Resources Coastal Development Permit #E-06-013, subject to the attached standard and special conditions, for development consisting of:

Seawater desalination facility and associated pipelines.

The development is located at and near the Encina Generating Station in the City of Carlsbad, San Diego County.

Issued on behalf of the Coastal Commission on November 3, 2009.

PETER DOUGLAS
Executive Director

By: ALISON J. DETTMER
Deputy Director
Energy, Ocean Resources, and Federal Consistency Division

EXHIBIT NO. 3
APPLICATION NO.
R2-E-06-013
California Coastal Commission

Acknowledgment:

The undersigned permittee acknowledges receipt of this permit and agrees to abide by all terms and conditions thereof.

The undersigned permittee acknowledges that Government Code Section 818.4, which states in pertinent part, that: "A public entity is not liable for injury caused by the issuance... of any permit..." applies to the issuance of this permit.

IMPORTANT: THIS PERMIT IS NOT VALID UNLESS AND UNTIL A COPY OF THE PERMIT WITH THE SIGNED ACKNOWLEDGMENT HAS BEEN RETURNED TO THE COMMISSION OFFICE (14 Cal. Admin. Code Section 13158(a).)

11/3/09
Date

Signature of Permittee or Representative

STANDARD CONDITIONS

1) **Notice of Receipt and Acknowledgment:** This permit is not valid until a copy of the permit is signed by the Permittee or authorized agent, acknowledging receipt of the permit and the acceptance of the terms and conditions, and is returned to the Commission office.

2) **Expiration:** Construction activities for the proposed project must be initiated within two years of issuance of this permit. This permit will expire two years from the date on which the Commission approved the proposed project if development has not begun. Construction of the development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made at least six months prior to the expiration date.

3) **Interpretation:** Any questions of intent or interpretation of any condition will be resolved by the Executive Director of the Commission (hereinafter, "Executive Director") or the Commission.

4) **Assignment:** The permit may be assigned to any qualified person, provided the assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5) **Terms and Conditions Run with the Land:** These terms and conditions shall be perpetual, and it is the intention of the Commission and the Permittee to bind all future owners and possessors of the subject property to the terms and conditions.

SPECIAL CONDITIONS

1) **Liability for Costs and Attorneys Fees:** The Permittee shall reimburse the Coastal Commission in full for all Coastal Commission costs and attorneys fees – including (1) those charged by the Office of the Attorney General, and (2) any court costs and attorneys fees that the Coastal Commission may be required by a court to pay – that the Coastal Commission incurs in connection with the defense of any action brought against the Coastal Commission, its officers, employees, agents, successors and assigns challenging the approval or issuance of this permit. The Coastal Commission retains complete authority to conduct and direct the defense of any such action against the Coastal Commission.

2) **Proof of Legal Interest:** PRIOR TO ISSUANCE OF THE PERMIT, the Permittee shall provide for Executive Director review and approval documentation of the Permittee's legal interest in all property within the coastal zone needed to construct and operate the project, including:
   - Lease(s) from the California State Lands Commission for structures on state tidelands. Any conflicts between conditions of the lease(s) and those adopted by the Coastal Commission shall be presented to the Coastal Commission for resolution.
   - Lease(s) or other forms of approval from the power plant owner allowing the Permittee to use portions of the power plant site and Agua Hedionda Lagoon.
   - Lease(s) or other forms of approval from the City of Carlsbad and other local governments for the project's water delivery pipelines.

3) **Lease and Deed Restriction:** PRIOR TO ISSUANCE OF THE PERMIT, the applicant shall provide to the Executive Director for review and approval documentation demonstrating that the applicant has executed and recorded against its leasehold interest(s) in the property governed by this permit a lease restriction (in which any private owner of the fee interest in such property shall join or to which it shall agree to be bound), in a form and content acceptable to the Executive Director (a) indicating that, pursuant to this permit, the California Coastal Commission has authorized development on the Property, subject to terms and conditions that restrict the use and enjoyment of the Property; and (b) imposing all of the Special Conditions of this permit as covenants, conditions and restrictions on the use and enjoyment of the Property. The restriction shall include a legal description of the Property. It shall also indicate that, in the event of an extinguishment or termination of the deed restriction for any reason, the Standard and Special Conditions of this permit shall continue to restrict the use and enjoyment of the Property so long as either this permit or the development it authorizes – or any part, modification, or amendment thereof – remains in existence on or with respect to the Property.

4) **Other Approvals:** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval documentation showing that the project has obtained final approvals for project construction and operation from the City of Carlsbad, the Regional Water Quality Control Board, the California Department of Health Services, the National Marine Fisheries Service, and the U.S. Fish and Wildlife Service, or documentation showing that these approvals are not needed.

5) **Assumption of Risk and Waiver of Liability:** The Permittee acknowledges and agrees, on behalf of itself and all successors and assigns: (i) that the project site may be subject to hazards from seismic events, liquefaction, storms, waves, floods and erosion; (ii) to assume the risks to the Permittee and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) that any adverse effects to property caused by the permitted project shall be fully the responsibility of the landowner.

6) **Limits of Development:** This permit authorizes the construction and operation of the Poseidon Carlsbad Desalination Project and associated infrastructure as described in the project description of this staff report, as clarified and modified by these conditions.

7) **Final Plans:** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval final plans for the project components located in the coastal zone. The Permittee shall undertake development in accordance with the approved plans and any changes shall be reported to the Executive Director. No material changes within the coastal zone shall occur without a Commission-approved amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary. Changes to the project requiring review for amendment would include changes in the physical, operational, or delivery capacity increases, or extension of water supply distribution pipelines beyond those shown on the final plans.

8) **Marine Life Mitigation Plan:** PRIOR TO ISSUANCE OF THE PERMIT, the Permittee shall submit to and obtain from the Commission approval of a Marine Life Mitigation Plan (the Plan) that complies with the following:
   a) Documentation of the project's expected impacts to marine life due to entrainment and impingement caused by the facility's intake of water from Agua Hedionda Lagoon. This requirement can be satisfied by submitting a full copy of the Permittee's Entrainment Study conducted in 2004-2005 for this project.
   b) To the maximum extent feasible, the mitigation shall take the form of creation, enhancement, or restoration of aquatic and wetland habitat.
   c) Goals, objectives and performance criteria for each of the proposed mitigation sites. It shall identify specific creation, restoration, or enhancement measures that will be used at each site, including grading and planting plans, the timing of the mitigation measures, monitoring that will be implemented to establish baseline conditions and to determine whether the sites are meeting performance criteria. The Plan shall also identify contingency measures that will be implemented should any of the mitigation sites not meet performance criteria.
   d) Requires submittals of "as-built" plans for each site and annual monitoring reports for no less than five years or until the sites meet performance criteria.
   e) Defines legal mechanism(s) proposed to ensure permanent protection of each site -- e.g., conservation easements, deed restriction, or other methods.

   The Permittee shall comply with the approved Plan. Prior to implementing the Plan, the Permittee shall submit a proposed wetlands restoration project that complies with the Plan in the form of a separate coastal development permit application for the planned wetlands restoration project.

9) **Change in Seawater Withdrawal:** If at any time during the life of the project Poseidon proposes or is required to withdraw more than an average flow of 304 MGD of seawater, it must obtain first an amendment to this permit.

10) **Energy Minimization and Greenhouse Gas Reduction Plan:** PRIOR TO ISSUANCE OF THE PERMIT, the Permittee shall submit to the Commission a Revised Energy Minimization and Greenhouse Gas Reduction Plan that addresses comments submitted by the staffs of the Coastal Commission, State Lands Commission and the California Air Resources Board. The permit shall not be issued until the Commission has approved a Revised Energy Minimization and Greenhouse Gas Reduction Plan after a public hearing.

11) **Public Access Enhancements:** PRIOR TO COMMENCEMENT OF OPERATIONS, Poseidon shall cause to be dedicated, in accordance with the City of Carlsbad's Precise Development Plan PDP 00-02, the below-described parcels of land. The dedications shall be in the form of easements, title transfers, and/or deed restrictions, whose purpose is to further Coastal Act goals of maximizing public access and recreational opportunities along the coast in the South Carlsbad Coastal Resource Redevelopment Area and maintaining, restoring and enhancing marine resources. The four sites are:
   - Fishing Beach: public access and parking easement in favor of the City of Carlsbad covering approximately 2.4 acres of land along the west shore of Agua Hedionda Lagoon.

- Bluff Area: approximately 10.2 acres of land on the west side of Carlsbad Boulevard opposite the power plant, which shall be dedicated in fee title to the City of Carlsbad for recreational and coastal access uses.
- Hubbs Site: approximately 2 acres of land along the north shore of Agua Hedionda Lagoon to be used for a fish hatchery, aquatic research, and public access, which shall be deed restricted to uses such as fish hatchery, aquatic research, and trails.
- South Power Plant Parking Area: an access easement over approximately 0.3 acres of land on the east side of Carlsbad Boulevard near the south entrance of the power plant that shall be dedicated to the City of Carlsbad for public parking.

12) **Dredging:** This permit does not authorize dredging that may be needed to maintain flows to the desalination facility's intake structure. The Permittee shall submit separate coastal development permit applications for proposed dredging operations.

13) **Visual Resources:** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval a Screening Plan. Desalination plant exterior mechanical equipment and facilities, including tanks, heating, air conditioning, refrigeration equipment, plumbing lines, duct work and transformers, shall be screened from view on all sides visible to the public. The design and material used for screening shall be architecturally compatible with the building.

14) **Lighting Plan:** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit a Lighting Plan to the Executive Director for review and approval. Exterior lighting for the desalination facilities shall serve the purpose of operations, security and safety only. The Lighting Plan shall demonstrate that project lighting is shielded from surrounding areas, and that only the minimum amount of lighting required for safety purposes is provided to avoid adverse effects on surrounding areas. In general, lighting fixtures shall be shielded downward and away from the ocean, Lagoon and adjacent properties. Construction of the desalination plant and related facilities and improvements shall be in conformance with the approved plan.

15) **Construction Plan:** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit to the Executive Director for review and approval a Construction Plan. The Construction Plan shall identify the specific location of all construction areas, all staging areas, and all construction access corridors in site plan view in the coastal zone. The Plan shall identify any expected disruptions to public access to the shoreline and shall include measures to avoid, minimize, or mitigate for those disruptions.

The Plan shall also identify the type and location of erosion control/water quality best management practices that will be implemented during construction to protect coastal water quality, including the following:

- Silt fences, or equivalent apparatus, shall be installed at the perimeter of the construction areas to prevent construction-related runoff and/or sediment from entering the dunes and/or the Pacific Ocean.
- Grading and land alteration outside of the approved construction zone is prohibited.

- Equipment washing, refueling, and/or servicing shall not take place on the beach or sandy dune area. All construction equipment shall be inspected and maintained at an off-site location to prevent leaks and spills of hazardous materials at the project site.
- The construction site shall maintain good construction housekeeping controls and procedures (e.g., clean up all leaks, drips, and other spills immediately; keep materials covered and out of the rain (including covering exposed piles of soil and wastes); dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather; remove all construction debris from the beach).
- All erosion and sediment controls shall be in place prior to the commencement of construction as well as at the end of each workday. A copy of the approved Construction Plan shall be kept at the construction job site at all times and all persons involved with the construction shall be briefed on its content and meaning prior to commencement of construction. The Permittee shall notify the Executive Director at least three working days in advance of commencement of construction, and immediately upon completion of construction. The Permittee shall undertake construction in accordance with the approved Construction Plan. Any proposed changes to the approved Construction Plan shall be reported to the Executive Director. No material changes to the approved Construction Plan shall occur without a Commission amendment to this coastal development permit unless the Executive Director determines that no amendment is necessary.

16) **Storm Water Pollution Prevention Plan:** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit for Executive Director review and approval a Storm Water Pollution Prevention Plan (SWPPP). At minimum the SWPPP shall include the following Best Management Practices (BMPs):
- Gravel bags, silt fences, etc. shall be placed along the edge of all work areas as determined appropriate by the City's construction inspector in order to contain particulates prior to contact with receiving waters.
- All concrete washing and spoils dumping will occur in a designated location.
- Construction stockpiles will be covered in order to prevent blow-off or runoff during weather events.
- A pollution control education plan developed by the General Contractor and implemented throughout all phases of development and construction.
- Severe weather event erosion control materials and devices shall be stored onsite for use as needed.

17) **Water Quality Technical Report:** PRIOR TO COMMENCEMENT OF CONSTRUCTION, the Permittee shall submit for Executive Director review and approval a Water Quality Technical Report as specified in the City of Carlsbad Standard Urban Stormwater Mitigation Plan (April 2003) (Carlsbad SUSMP) for the post construction desalination facility, prepared by a licensed Civil Engineer, which shall include plans, descriptions and supporting calculations. The Storm Water Management Plan shall incorporate all feasible Best Management Practices (BMPs) designed to reduce, to the maximum extent practicable, the volume, velocity and pollutant load of stormwater leaving the developed areas of the site. The plan shall include the following criteria:
- Post-Development peak runoff rates and average volumes shall not exceed pre-development conditions.

- Runoff from all parking areas, turnouts, driveways and other impermeable surfaces (e.g., roofs) shall be collected and directed through a system of structural BMPs including vegetated and/or gravel filter strips or other media filter devices or other equivalent means. The filter elements shall be designed to 1) trap sediment, particulates and other solids and 2) remove or mitigate contaminants through infiltration and/or biological uptake. The drainage system shall also be designed to convey runoff in excess of this standard from the developed site in a non-erosive manner.
- Provisions for maintaining the drainage and filtration systems so that they are functional throughout the life of the approved development. Such maintenance shall include the following: 1) the drainage and filtration system shall be inspected, cleaned and repaired prior to the onset of the storm season, but not later than September 30th each year and 2) should any of the project's surface or subsurface drainage/filtration structures fail or result in increased erosion, the applicant/landowner or successor-in-interest shall be responsible for any necessary repairs to the drainage/filtration system and restoration of the eroded area.
- A drainage system approved by the City Engineer to ensure that runoff resulting from 10-year frequency storms of 6 hours and 24 hours duration under developed conditions, are equal to or less than the runoff from a storm of the same frequency and duration under existing developed conditions. Both 6-hour and 24-hour storm durations shall be analyzed to determine the detention basin capacities necessary to accomplish the desired results.

The Permittee shall implement and maintain the Plan for the life of the project.

R2-E-06-013

Poseidon Resources (Channelside) LLC

EXHIBIT 4

Letters of Support

STATE OF CALIFORNIA – THE RESOURCES AGENCY

ARNOLD SCHWARZENEGGER, Governor

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

July 29, 2008

Patrick Kruer, Chairman
California Coastal Commission
North Central Coast District
45 Fremont, Suite 2000
San Francisco, CA 94105-2219

John Chiang, Chairman
California State Lands Commission
100 Howe Ave Suite 100 South
Sacramento, CA 95825-8202

Re: Carlsbad Seawater Desalination Project CDP Application No. E-06-013
Energy Minimization and Greenhouse Gas Reduction Plan

Dear Chairman Kruer and Chairman Chiang:

After sending you both my July 18, 2008 letter regarding Poseidon's Carlsbad Desalination Project's *Energy Minimization and Greenhouse Gas Reduction Plan* (Plan), as revised July 3, 2008, I had an opportunity to meet with representatives of Poseidon Resources. The meeting, which occurred on July 23, 2008, was informative and left me with clarifications and a better understanding of the Plan. Consequently, by this letter, I wish to retract the comments in my July 18, 2008 letter.

First, it is notable that the Poseidon Project demonstrates that desalination of ocean and brackish water is becoming an important component of the state's strategy to meet its water needs. Indeed, the Energy Commission has long studied ocean and brackish water desalination and invested in research to improve technologies and address issues associated with desalination. The Poseidon Project is consistent with our efforts to improve the efficiency and environmental effects of desalination and lower its costs to customers. Towards those ends, the project and the plan for mitigation are laudable.

At the July 23, 2008 meeting, representatives of Poseidon Resources and I discussed the desalination project, the City of Carlsbad's environmental impacts report (EIR), and the comments in my July 18, 2008 letter. Subsequently, Poseidon Resources sent me additional information and a letter on July 25, 2008, further amplifying what we had discussed. Based on clarifying information and further consideration of the environmental review done on the project, I am persuaded that Poseidon's commitment

EXHIBIT NO. 4
APPLICATION NO.
R2-E-06-013
California Coastal Commission

to offset 100 percent of its "net" or incremental increase in greenhouse gas emissions above baseline conditions is reasonable under the California Environmental Quality Act (CEQA). Indeed, the approach is consistent with how the Energy Commission, itself, analyzes the significance of impacts under CEQA, for example, in its power plant licensing cases.

More specifically, I understand the "baseline" under CEQA is typically the existing conditions as of the start of environmental analysis of the project. Accordingly, Poseidon's Plan to mitigate the carbon emissions from the increase in electricity required to deliver the project's water to customers, as compared with the "baseline" of current electricity required to serve those customers with State Water Project water, is supportable by the Energy Commission. Any implication in the Energy Commission's comments that Poseidon should further mitigate impacts yet to be ascertained from the diversion of State Water Project water for use elsewhere is not intended. Poseidon's Plan to mitigate the project's indirect impacts, as discussed, appropriately focuses on what is reasonably foreseeable, which is what I understand CEQA requires in an environmental analysis.

Finally, Poseidon's point about both the City's and the Coastal Commission's environmental analyses concluding the project would not cause growth inducing impacts is salient. In deference to the City's EIR and the Coastal Commission's substantiated conclusions, I accept the point. Please consider the comments in my July 18, 2008 letter regarding the project's growth-inducing impacts as having been withdrawn. Understandably, such comments fuel unnecessary speculation of impacts, which departs from the reasonably foreseeable impacts that Poseidon proposes to mitigate. Moreover, the Plan for mitigation represents an approach acceptable to the permitting agencies. The Energy Commission, with no evidence to contradict the Plan, takes no issue with it.

The representatives I met with also informed me that Poseidon has applied to become a member of the Climate Action Registry and is committed to following the accounting protocols for reporting emissions and reductions. Compliance with the accounting protocols enhances the credibility of Poseidon's Plan. I see Poseidon's membership with the Registry as an important step, not only in implementing the Plan, but also in supporting the role of the Registry in furthering the accountability of emissions reductions used to meet the state's goals under AB'32.

We appreciate the efforts of Poseidon Resources to address our concerns and those of your staff to consider the points we have raised regarding this important project. If you have any questions, please contact me at (916) 654-4996.

Sincerely,

MELISSA JONES
Executive Director

cc: Paul D. Thayer, Executive Officer, SLC
Peter M. Douglas, Executive Director, CCC
Mike Chrisman, Secretary for Resources
Jackalyne Pfannenstiel, Chairman, California Energy Commission
Pat Perez, Assistant Director, California Energy Commission
Lorraine White, Senior Water-Energy Lead, California Energy Commission
Cynthia Bryant, Governor's Office of Planning and Research
Walter Winrow, President and COO, Poseidon Resources
Peter MacLaggan, Senior Vice President, Poseidon Resources

MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Executive Office

July 29, 2008

Mr. Peter Douglas
Executive Director
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Dear Mr. Douglas:

Carlsbad Desalination Project's Energy Minimization and Greenhouse Gas Reduction Plan

The Metropolitan Water District of Southern California (Metropolitan) and the San Diego County Water Authority are statewide leaders in water conservation, recycling, and brackish groundwater desalination. However, in addition to these demand management achievements, our resource strategy benefits from other progressive actions including seawater desalination. Metropolitan's responsibility to the public is to manage future challenges including population growth, climate change impacts, increased uncertainty in the Bay-Delta, and earthquake disruptions to imported water pipelines.

The proposed Carlsbad Seawater Desalination Project (Project) would help secure supply reliability in Southern California by mitigating against these uncertainties. Metropolitan has previously supported and continues to support the project.

Metropolitan has committed to providing incentives of $250 per acre-foot for locally-developed seawater desalination supplies that offset the demands for imported supplies, up to $14 million annually to support the Project. To receive the incentive, water agencies receiving desalinated supplies from the Project must demonstrate that the water offsets an equivalent amount of water imported from Metropolitan.

Coastal Commission staff have questioned if it is appropriate for the Carlsbad Desalination Project's proposed Energy Minimization and Greenhouse Gas Reduction Plan (GHG Plan) to account for the fact that seawater desalination would lessen the need for additional water to be imported into the region. Metropolitan believes it is appropriate for the Project's GHG Plan to be based on offsetting net carbon emissions because San Diego County will use 56,000 acre-feet per year less imported water upon Project start up. By net, we mean the difference in energy related emissions required for moving water through the State Water Project compared to operating the seawater desalination project.

700 N. Alameda Street, Los Angeles, California 90012 • Mailing Address: Box 54153, Los Angeles, California 90054-0153 • Telephone (213) 217-6000

Offsetting demand for imported water is a condition for receiving Metropolitan's financial incentives. Reduced demand will assist Metropolitan's ability to store wet-year water, improve operational flexibility and reduce requirements for dry-year water transfers delivered through State Water Project infrastructure. If the Project is not approved, regional demand for imported water will not be reduced by the 56,000 acre-feet per year to be produced by the Project.

The conditions placed on the Carlsbad Desalination Project set an important precedent for seawater desalination development in California. In that light, Metropolitan supports the Project's GHG Plan, which we believe will achieve carbon neutrality by offsetting the Project's net greenhouse gas emissions.

Thank you for considering our comments.

Yours truly,

Joffrey Kightlinger
General Manager

WAT:tw
o:\wat\c\2008\WAT_CCC - Carlsbad Support Letter 7-23-08.doc

cc: Ms. Maureen A. Stapleton
General Manager
San Diego County Water Authority
4677 Overland Avenue
San Diego, CA 92123

Mr. Peter M. MacLaggan
Poseidon Resources Corporation
501 West Broadway, Suite 840
San Diego, CA 92101

Air Resources Board

Mary D. Nichols, Chairman
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

August 5, 2008

Mr. Patrick Kruer, Chairman
California Coastal Commission
45 Fremont, Suite 2000
San Francisco, CA 94105-2219

Re: Carlsbad Desalination Project-Poseidon Resources
Energy Minimization and Greenhouse Gas Reduction Plan

Dear Chairman Kruer:

State law charges the Air Resources Board (ARB) with implementing the Global Warming Solution Act of 2006 (AB 32). AB 32 requires ARB to develop a plan to achieve reductions in emissions based on projected growth in the population and economy of the State. According to the Draft Scoping Plan we released in June, California needs to achieve 169 million metric tons CO_2 equivalent ($MMTCO_2E$) reduction from a projected 596 $MMTCO_2E$ business-as-usual (BAU) case to meet the Legislative mandate to return to 1990 levels by 2020. The Draft Scoping Plan provides a preliminary recommendation for achieving these reductions through a mix of regulatory measures, including market mechanisms.

Working with the Governor's Office of Planning and Research, ARB is also examining the thresholds of significance and appropriate mitigation measures that can be applied under the California Environmental Quality Act (CEQA) to address new projects. We are also working with local and regional government organizations to address the role of land use and transportation planning in meeting our climate goals. These discussions are ongoing; nevertheless, it is important to address new projects while recognizing that relevant policies are still under development.

As part of our efforts to reduce GHG emissions, ARB is working with other agencies to seek opportunities to improve the efficiency and GHG impact of our State water supply. We will continue to evaluate options, including appropriate sector-wide policies for new water development projects. This evaluation will include the appropriate mechanisms for providing GHG credits for displacing existing water supplies.

ARB staff has reviewed Poseidon Resources' Energy Minimization and Greenhouse Gas Reduction Plan (Plan). We appreciate their voluntary pledge to reduce their contribution to greenhouse gas (GHG) emissions. Since there are minimal direct emissions associated with the project, the primary contribution is from indirect emissions associated with electricity use.

For this project, we believe the amount of emissions reduction that should be required need not exceed the net impact; that is, the direct emissions and any new indirect emissions from the project, less emissions that would be associated with providing an equivalent amount from existing supplies.

Thank you for this opportunity to comment on this matter before the Commission. If you have any questions, please call Mr. Robert D. Fletcher, Chief, Stationary Source Division, at (916) 324-8167 or via email at rfletche@arb.ca.gov.

Sincerely,

/s/

Mary D. Nichols
Chairman

cc: Mr. John Chiang, Chairman
California State Lands Commission
100 Howe Avenue, Suite 100 South
Sacramento, CA 95825-8202

Ms. Cindy Tuck
Undersecretary
California Environmental Protection Agency

Mr. Robert D. Fletcher, Chief
Stationary Source Division

LIEUTENANT GOVERNOR JOHN GARAMENDI

July 31, 2008

Patrick Kruer, Chairman
California Coastal Commission
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Re: Poseidon Desalinization Project

Dear Chairman Kruer:

There appears to be confusion over the issue of achieving a carbon neutral desalinization project. I want you to know my views on this issue.

I believe that the greenhouse gas emission resulting from the project should be mitigated. In determining the amount of mitigation, the calculation should be based on the assumption that the water delivered to the contracting water agencies *replaces* water that the water agencies currently and in the future would received from Metropolitan Water District (MWD). The amount of mitigation is therefore the net not the gross power consumed.

The argument that the desalinization's plant water is new water is based upon the assumption that the replaced water would be used elsewhere in the MWD service area. Even if this were true, it is not the desalinization's plant to mitigate that new use. It is the responsibility of the entity that receives that water. Furthermore, the most likely scenario is that the replaced water will stay in the river as ordered by the federal courts.

Sincere

Signature on File

JOHN GARAMENDI
Lieutenant Governor

cc: Paul Thayer, State Lands Commission

STATE CAPITOL, ROOM 1114, SACRAMENTO, CALIFORNIA 95814 • PHONE (916) 445-8994

DEPARTMENT OF FINANCE
OFFICE OF THE DIRECTOR

ARNOLD SCHWARZENEGGER, GOVERNOR
STATE CAPITOL ■ ROOM 1145 ■ SACRAMENTO CA ■ 95814-4998 ■ WWW.DOF.CA.GOV

August 5, 2008

Mr. Patrick Kruer, Chairman
California Coastal Commission
North Central Coast District
45 Fremont Street, Suite 2000
San Francisco, CA 94105-2219

Dear Chairman Kruer:

As the Department of Finance representative on the State Lands Commission (SLC), I am writing the about the Poseidon Desalinization Project currently pending before the California Coastal Commission. Specifically, I would like to address the sponsor's greenhouse gas mitigation plan.

During the SLC's hearing last October in San Diego, the sponsors of the project committed to our Commission that the project would be "carbon neutral". Needless to say as the Schwarzenegger administration's representative on the SLC, such a commitment is critical in meeting the goals of AB 32, the California Global Warming Solutions Act of 2006.

However, since the time of our meeting, there has been much discussion as to how "carbon neutral" should be interpreted. While one perspective is that the project should mitigate all the greenhouse gas emissions from the electricity required to serve those current water customers in the San Diego region, such an approach is beyond what the sponsors proposed and a more stringent standard than seems equitable under the circumstances. Poseidon has agreed to mitigate its "net" or incremental increase in greenhouse gas emissions for this project. This approach is consistent with practice under the California Environmental Quality Act (CEQA) and appears appropriate to satisfy permit conditions. At our meeting in October, SLC directed staff to provide additional information on this issue which we will consider at our August 22nd meeting.

This desalinization project is an historic opportunity for the State of California to meet two critical environmental goals; an additional source of water to meet our growing demand and a real reduction in greenhouse gas emissions. Thank you for your consideration.

Sincerely,

Anne Sheehan
Chief Deputy Director

cc: Paul Thayer, SLC

From: Melissa Kelly
To: West Basin Desal EIR; Patrick Sheilds
Subject: Desal DEIR Comment Period Extension Request
Date: Friday, April 27, 2018 10:28:05 AM
Attachments: image001.jpg
WB Ocean Desal DEIR_Comment Period Extension Request 04.27.2018.pdf

Please find attached a request to extend the comment period for the draft Environmental Impact Report for West Basin's proposed Ocean Water Desalination Project. LAW-1

Thank you,
Melissa Kelly

MELISSA KELLY
Staff Attorney
(310) 394-6162 x105
@LAWaterkeeper

April 27, 2018

West Basin Municipal Water District
17140 South Avalon Boulevard
Carson, CA 90746

Sent via e-mail to *desalEIR@westbasin.org*; *PatrickS@westbasin.org*

Board President Dear, Vice President Houston, and Board Members:

I am writing on behalf of the Smarter Water LA Coalition (Los Angeles Waterkeeper, Surfrider Foundation – South Bay Chapter, Desal Response Group, and Heal the Bay) to request a 30-day extension to the comment period for the Draft Environmental Impact Report (DEIR) for West Basin Municipal Water District's (WBMWD) proposed Ocean Water Desalination Project. We are requesting that the deadline for comments be extended to 5 p.m. on June 25, 2018.

WBMWD's proposed Ocean Water Desalination Project involves a commitment of a significant amount of limited resources and impacts the future of Los Angeles County's water supply. As such, the Smarter Water LA Coalition is committed to providing thorough comments on this DEIR.

To date, our review of the DEIR has required locating and reviewing an extensive number of lengthy documents that, while referenced in the DEIR, are not included in the DEIR or the appendices. Preliminary review of such documents has revealed that they bear directly on analyses at issue in the DEIR. In light of this, we believe the current 60-day comment period does not allow adequate time to provide meaningful comments and request that the comment period be extended to 5 p.m. on June 25, 2018. Because the DEIR is a culmination of WBMWD's Ocean Water Desalination Program that initially began in 2002, a brief 30-day extension will promote more thoughtful public comments without significantly impacting the project schedule.

LAW-1

Thank you for your consideration.

Sincerely,

Melissa Kelly
Staff Attorney
Los Angeles Waterkeeper

LOS ANGELES WATERKEEPER®

June 25, 2018

Zita Yu, Ph.D., P.E.
Project Manager
West Basin Municipal Water District
17140 South Avalon Boulevard, Suite 210
Carson, California 90746-1296

Sent via e-mail to: DesalEIR@WestBasin.org

RE: Los Angeles Waterkeeper Comments on West Basin Municipal Water District Ocean Desalination Draft Environmental Impact Report

Dear Dr. Yu:

Los Angeles Waterkeeper (LAW or Waterkeeper) thanks you for this opportunity to comment on West Basin Municipal Water District's (West Basin) Draft Environmental Impact Report (DEIR) prepared pursuant to the California Environmental Quality Act (CEQA) for the proposed Ocean Water Desalination Project (Project). LAW appreciates that West Basin extended the comment period from 60 days to 91 days.

Founded in 1993, LAW is an environmental non-profit with over 3,000 members dedicated to protecting and restoring Los Angeles County's inland and coastal waterways and ensuring an environmentally sustainable water supply for the region. LAW advocates for a "4R approach" to our water supply: Reduce, Reuse, Recycle, Restore. This approach includes increasing conservation and efficiency measures to alleviate demand, greater investment in multi-benefit stormwater capture projects, expanding recycling of wastewater (including West Basin's successful water recycling program), and remediating groundwater, including through brackish desalination.

LAW does not oppose ocean desalination under appropriate circumstances, rather, LAW believes West Basin should use the 4R approach to pursue more cost-effective and environmentally sound options to increasing our local water supplies first. Ocean desalination not only adversely impacts marine life, but it is the most energy-intensive and expensive method of meeting our local water supply needs.[1] At a time when we must be doing everything in our

LAW2-1

[1] See Attachment A at pages 15 and 22; HEATHER COOLEY ET AL., KEY ISSUES IN SEAWATER DESALINATION IN CALIFORNIA: MARINE IMPACTS (Pac. Inst. 2013), *available at* http://pacinst.org/wp-content/uploads/2013/12/desal-marine-imapcts-full-report.pdf; HEATHER COOLEY & MATTHEW HEBERGER, KEY ISSUES IN SEAWATER DESALINATION IN CALIFORNIA: ENERGY AND GREENHOUSE GAS EMISSIONS (Pac. Inst. 2013), *available at*

power to reduce our carbon footprint, LAW does not support investing limited resources in a project whose energy demand will exacerbate climate change impacts, the burden of which will disproportionately impact the communities least equipped to deal with them. Ocean desalination should only be used as a last resort, once more cost-effective water supply options have been exhausted.[2] LAW2-1

Waterkeeper submits the following comments on the DEIR:

While the stated Project objectives (DEIR, 1-2) appear to be sound water supply management goals, it becomes clear that the DEIR is ultimately aimed at West Basin building an ocean desalination plant and that the Project objectives are interpreted accordingly. The purpose of CEQA is to disclose to decision makers and the public the significant environmental impacts of a proposed project and to require agencies to avoid or reduce those environmental impacts by implementing feasible alternatives or mitigation measures. (CEQA Guidelines § 15002(a).) The DEIR asserts that the only significant and unavoidable impacts of the Project are construction-related air quality and noise impacts. (DEIR, 1-8–1-9; 1-24–1-26.) However, the DEIR does not provide substantial evidence to support its conclusion that all other environmental impacts of the Project are less than significant or that mitigation will address the impacts. The DEIR fails to analyze the Project's significant and unavoidable impacts to greenhouse gas emissions, energy consumption, land use, marine biological resources, water quality, environmental justice, and climate change. As a result, the DEIR does not evaluate alternatives to the Project that would avoid or substantially lessen those impacts and the only 'build' alternatives the DEIR analyzes are variations on building an ocean desalination plant. (See DEIR, Section 7.) The DEIR thus fails to uphold the main objectives of CEQA by failing to disclose the Project's significant and unavoidable impacts and the alternatives that would address those impacts. LAW2-2

I. The Greenhouse Gas Emissions Analysis and Energy Analysis Are Inadequate.

Ocean desalination is *the* most energy-intensive means of increasing local water supplies.[3] As the DEIR itself states, "the Project would consume more energy to desalinate water than is currently consumed (or would be consumed in the future) by importing water." (DEIR, 5.5-19.) The 20 million gallons per day (MGD) ocean desalination plant would contribute as much as 44,702 metric tons of CO_2e emissions per year and the 60 MGD plant would contribute as much as 146,879 metric tons per year.[4] The strain an ocean desalination plant places on the energy grid and the greenhouse gas (GHG) emissions it would contribute to the atmosphere create an LAW2-3

http://pacinst.org/wp-content/uploads/2013/05/desal-energy-ghg-full-report.pdf; HEATHER COOLEY & RAPICHAN PHURISAMBAN, THE COST OF ALTERNATIVE WATER SUPPLY AND EFFICIENCY OPTIONS IN CALIFORNIA, (Pac. Inst. 2013), *available at* http://pacinst.org/wp-content/uploads/2016/10/PI_TheCostofAlternativeWaterSupplyEfficiencyOptionsinCA.pdf.

[2] *See* CAL. STATE ASSEMBLY SELECT COMM. ON WATER CONSUMPTION AND ALTERNATIVE SOURCES, NEW SOURCES FOR CALIFORNIA'S WATER SUPPLY 3 (2016), *available at* https://mavensnotebook.com/wp-content/uploads/2016/04/Final-Report-Select-Committee-on-Water-Consumption-and-Alternative-Sources.pdf (making the policy recommendation that desalination should be used as an option of last resort).

[3] NAT. RES. DEF. COUNCIL, ET AL., PROCEED WITH CAUTION II: CALIFORNIA'S DROUGHTS AND DESALINATION IN CONTEXT 3–4 (2016), *available at* https://www.nrdc.org/sites/default/files/california-drought-desalination-2-ib.pdf.

[4] Attachment A, p. 21.

insidious cycle that exacerbates climate change, which in turn, increases the occurrence of the hazards that stress our water supply—the very thing ocean desalination is attempting to address in the first place. The Project would result in significant adverse environmental impacts due to wasteful, inefficient, and unnecessary consumption of energy, and as such, the energy analysis, GHG analysis, and the mitigation measures proposed are inadequate. Conservation, stormwater capture, recycling, brackish desalination, or any combination of these are far more environmentally responsible and economically viable alternatives to the Project. Further, these alternatives would diversify West Basin's water supply portfolio and reduce dependency on imported water, improve climate resiliency, increase water reliability, and improve water security as well as long-term price stability. LAW2-3

A. ***The Project's Energy Impacts Should be Considered Significant.***

i. <u>The Project Would Result in Inefficient, Wasteful, and Unnecessary Consumption of Energy.</u>

Appendix F of the CEQA Guidelines "requires that EIRs include a discussion of the potential energy impacts of proposed projects, with a particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy." (See Pub. Res. Code § 21100(b)(3).) The DEIR energy analysis fails to comply with these directives in light of the water supply alternatives available. These alternatives are not only far less energy-intensive than ocean desalination, but also would allow West Basin to achieve most of its basic Project objectives.

Water conservation provides the starkest contrast to the proposed Project because conservation results in energy savings, as opposed to energy consumption. Between June 2015 and May 2016, when statewide conservation measures were in place, California's conservation rate of 24.5% over 2013 levels resulted in electricity savings of 1,830 GWh or the electricity use of 274,000 average Californian homes for a year.[5] As explained in detail in Section V.D. below, West Basin has significant unrealized conservation opportunities, and consequently, energy savings opportunities. Thus, pursuing the most energy-intensive option to increasing water supplies, when alternatives exist that would not only have less energy impacts than the Project, but would also have the benefit of energy savings, is inefficient, wasteful, and unnecessary. LAW2-4

Mere compliance with federal and state energy standards does not cure the fact that the 20 MGD plant (Local Project) would have the electricity demand of as much as 18,185 homes and the 60 MGD plant (Regional Project) would have the electricity demand of as many as 59,751 homes.[6] (See *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109 ["In each instance, notwithstanding compliance with a pertinent threshold of significance, the agency must still consider any fair argument that a certain environmental effect may be significant."].) This demand is a significant energy impact that is inefficient, wasteful, and unnecessary due to the numerous opportunities available in increasing conservation,

[5] Edward S. Spang et al., 2018 *Environ. Res. Lett.* 13 014016, 2, 5–6.
[6] Attachment A, p. 19.

stormwater capture, recycling, and brackish water desalination that the DEIR fails to adequately analyze, and which are explored further in Section V below. LAW2-4

ii. The Energy Analysis is Not Supported by Substantial Evidence.

The DEIR finds the Project has less than significant impacts with respect to energy demand and infrastructure. The DEIR states the Project would have a significant energy impact if it would "[r]esult in an increase in demand for electricity or natural gas that exceeds available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects." (DEIR, 5.5-10.) The DEIR then concludes that because the Project will comply with state and federal energy efficiency standards and mitigation measures will be in place, the impacts would be less than significant. The DEIR also emphasizes the Project's electricity in comparison to the electricity use of all of LA County. (DEIR, 5.5-22.)

The DEIR fails to provide substantial evidence that the Project does not trigger the significance threshold. In fact, the DEIR states that "[i]t is anticipated that the SCE electrical power grid may require upgrades to supply the Project operations," but that SCE could not "confirm the necessary upgrades to their power grid" and thus, "subsequent evaluation of these upgrades may be required." (DEIR, 5.5-21.) SCE has stated that available generation may not be sufficient to meet peak summer demand within a few years, and yet the DEIR does not factor in the recent SoCalGas Aliso Canyon natural gas storage facility blowout and the fact that the "grid operator may now impose limits on natural gas usage by electric generators under certain peak demand conditions."[7] This omission is significant given that the California Public Utilities Commission is currently investigating the feasibility of either minimizing or shutting down operations at the facility.[8] Governor Brown has also asked the Energy Commission to "plan for the permanent closure of the Aliso Canyon Facility" and the Commission has recommended that it be closed within the next ten years.[9] The DEIR's discussion of cumulative energy impacts also fails to discuss this. (DEIR, 5.5-24–5.5-25.) The Local Project's energy intensity at 4,867 kWh/AF to 5,477 kWh/AF and the Regional Project's at 5,358 kWh/AF to 5,998 kWh/AF is a significant increase in demand on the energy grid, and the DEIR does not provide substantial evidence for its conclusion that the Project's energy impacts would be less than significant.[10] LAW2-5

iii. The Energy Analysis Improperly Defers Mitigation.

Considering the known limitations of SCE's energy generation capacity and the additional energy strain resulting from the construction and operation of the Project, the DEIR's lack of discussion about anticipated upgrades to SCE's power grid (DEIR, 5.5-21) constitutes an improper deferral of environmental analysis and mitigation. The absence of information in the LAW2-6

[7] Attachment A, pp. 22–23.
[8] *Aliso Canyon Well Failure Order Instituting Investigation*, CALIFORNIA PUBLIC UTILITIES COMMISSION, http://www.cpuc.ca.gov/AlisoOII/ (last visited June 19, 2018).
[9] Press Release, Cal. Energy Comm'n and Cal. Pub. Utilities Comm'n, Agencies Release Energy Assessment for Southern California, Express Concern about Existing Pipeline Outages (Nov. 28, 2017).
[10] *See* DEIR, 5.5-12–5.5-13; Attachment A, p. 19.

DEIR about possible future upgrades precludes the public from commenting on the likely impacts that these subsequent projects may have. Mention of "subsequent evaluations" provides no assurance that mitigation measures will be implemented in the event that significant impacts are later found. (*Sacramento Old City Assn v. City Council* (1991) 229 Cal.App.3d 1011; *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296.) This is particularly troubling given the high likelihood of major upgrades due to the large amount of energy required to power the Project's operations. (DEIR, 5.5-20–23.) The possibility for further EIRs if the Project moves forward "does not excuse [West Basin] from adequately analyzing reasonably foreseeable significant environmental effects." (CEQA Guidelines § 15152(b).) While the DEIR need not provide every detail, the brief mention about possible upgrades neither adequately assures that West Basin is committed to mitigating any resulting impacts nor establishes standards for acceptable results. (*Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777 [where a deferral of mitigation was improper because there was no indication of commitment to mitigation or established standards for future plans].)

LAW2-6

The DEIR's lack of analysis of the foreseeable impacts and likely mitigation necessary due to upgrades to SCE's power grid, in combination with the lack of substantial evidence and the failure to comply with Appendix F, render the energy analysis inadequate.

B. ***The Project's GHG Impacts Should be Considered Significant.***

i. <u>The GHG Analysis Uses an Improper Baseline.</u>

The DEIR erroneously applies a "net zero" threshold of significance to evaluate whether the Project would have significant GHG impacts. The DEIR states, "West Basin is committed to reducing the Project's GHG emissions to 'net zero' (net carbon neutral) *compared to continued use of imported water supplied by M[etropolitan] W[ater] D[istrict]*" (MWD). (DEIR, 5.7-20 [emphasis added].) The DEIR GHG analysis assumes that the Project will reduce MWD imported water on a one-to-one basis. By that logic, the "net GHG emissions" are equal to the Project's gross GHG emissions minus the GHG emissions associated with importing an equivalent amount of water. This calculation is inherently flawed because the DEIR fails to provide any evidence that MWD will reduce the volume of imported water as a result of the Project. In fact, there is evidence to the contrary.

LAW2-7

While the DEIR references the Carlsbad Desalination Plant's (Poseidon) plan to compare the plant's electricity usage to that required to deliver State Water Project (SWP) water, the DEIR fails to mention that after the California Coastal Commission approved the plan, it came to light that Poseidon intentionally misrepresented that it would be net carbon neutral. An MWD agreement, which is in place through 2035, prohibits "desalination projects from reducing MWD's entitlements or usage of water imported," and MWD "anticipates continuing to take its full SWP entitlements and allotments for the foreseeable future, due to current water shortage conditions in Southern California."[11] Thus, just as the Poseidon plant does not reduce the amount of MWD imported water, West Basin's Project will not result in a one-to-one reduction

[11] *See* Attachment B, p. 2.

in the amount of MWD imported water. The DEIR GHG analysis is not supported by substantial evidence that the Project's GHG emissions will be reduced to "net zero." As a result, the DEIR underestimates the GHG impacts of the Project.

LAW2-7

The Project would result in a greater contribution of GHG emissions into our atmosphere than importing water over hundreds of miles through the SWP.[12] Even in the DEIR's flawed "net zero" scenario, the Local Project would still contribute at least 15,064 metric tons of CO2e emissions and the Regional Project would contribute at least 45,192 metric tons of CO2e. (DEIR, 5.7-24, 5.7-27.) Once again, water conservation provides the starkest contrast to ocean desalination when it comes to GHG impacts. The energy savings from water conservation when statewide conservation measures were in place from June 2015 to May 2016, as described in Section I.A.i. above, represent 521,000 metric tons in avoided GHG emissions, which is the equivalent of taking 111,000 cars off the road for a year.[13] The Project would result in significant GHG impacts that could be avoided by pursuing alternatives such as conservation, stormwater capture, recycling, or brackish groundwater desalination, which is discussed in Section V below.

LAW2-8

The DEIR should have compared the GHG impacts of the Project to the baseline: the existing environmental setting. (CEQA Guidelines § 15064.4(b)(1).) The existing baseline includes the imported water supplies and is therefore additive—the Project emissions must be added to the existing imported water emissions. First, as explained above, the Project will not result in an offset in imported water supplies. Further, even if the Project would result in such offsets (it does not), nothing in the record establishes that such water would remain in the San Joaquin Valley or Colorado River. Indeed, MWD recently voted (with the help of member agency West Basin) to invest heavily in twin tunnels to bring water to Southern California.[14] MWD and West Basin's willingness to invest $11 billion to bring SWP water to the region undermines the DEIR's speculation that the Project would offset imported water supplies. The DEIR's attempt to conceal the Project's true GHG impacts by using an improper baseline is disingenuous at best.

LAW2-9

ii. <u>The GHG Impacts Analysis is Inadequate.</u>

The DEIR should have determined the Project's energy and GHG impacts, and consequently the Project's impacts on climate change, to be "*cumulatively* considerable in the sense that 'the incremental effects of [the] individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.'" (*Ctr. for Biological Diversity v. Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 219, emphasis in original.) In light of the Project's increase in GHG emissions (even under the flawed "net" carbon neutral analysis) is also squarely at odds with the Supreme Court's recognition that new projects should be more, not less efficient. (*Id*. at 226 ["Indeed, it seems that new development must be more GHG-efficient than this average, given that past and current

LAW2-10

[12] Attachment A, p. 22.
[13] Spang et al., *supra* note 5 at 7.
[14] Bettina Boxall, *Southern California Water Agency Votes to Fund Controversial Plan to Build Two Delta Tunnels*, L.A. TIMES (Apr. 10, 2018, 8:15 PM), http://www.latimes.com/local/lanow/la-me-delta-tunnel-mwd-20180410-story.html.

sources of emissions, which are substantially less efficient than this average, will continue to exist and emit."].)

LAW2-10

iii. The Project Conflicts with Applicable Plans and Polices Adopted for the Purpose of Reducing GHG Emissions.

Because the Project would create a new, more energy-intensive water supply, it further frustrates the State's GHG reduction goals and the 2017 Scoping Plan. (See 2017 SCOPING PLAN 93–95 (2017) ["Water conservation and management strategies that are energy efficient can also ensure a continued supply of water for our health and well-being."].) The DEIR fails to acknowledge this inconsistency, instead claiming (i) provision of an essential service is paramount and (ii) the end-user is ultimately responsible for the greatest energy use associated with water supply. (See DEIR, 5.5-15, 5.7-10.) Such concealment is a direct assault on CEQA's requirement of a good faith reasoned analysis and disclosure. (*Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 712 [CEQA requires an EIR to reflect a good faith effort at full disclosure].) First, the Project will increase energy use and GHG emissions using any baseline. Further, the Project includes conveyance. Thus, there is substantial "potential for water-related energy savings" in the context of the Project. (DEIR, 5.7-10.)

LAW2-11

In addition, all member agency Local Climate Action Plans ("CAP") rely on increased water conservation as a measure to reduce GHG emissions.[15] Not only will the Project result in greater GHG emissions related to water supply, it will disincentivize conservation. (DEIR, p. 5.7-37.) As a major capital investment allocated to all member agencies, the Project will encourage inefficient water use as a sunk cost.[16] Though not all such jurisdictions have direct permitting authority over the Project, the Project nonetheless has the potential to frustrate the goals and implementation of such local CAPs. And some of these local agencies will rely on the DEIR to authorize conveyance infrastructure and assess consistency with their local regulations and policies, including their CAPs. (See DEIR, 3-41; CEQA Guidelines §§15080, 15124(d)(1)(C).) The DEIR's failure to include such analysis for responsible agencies and the public renders it insufficient. "The EIR's function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been taken into account." (*Banning Ranch Conservancy, supra*, 2 Cal.5th 918, 941.) The DEIR's failure to disclose the

LAW2-12

[15] CITY OF CARSON, CLIMATE ACTION PLAN (2017); CITY OF EL SEGUNDO, CLIMATE ACTION PLAN (2017); CITY OF GARDENA, CLIMATE ACTION PLAN (2017); CITY OF HAWTHORNE, CLIMATE ACTION PLAN (2017); CITY OF HERMOSA BEACH, ENERGY EFFICIENCY CLIMATE ACTION PLAN (2015); CITY OF INGLEWOOD, ENERGY AND CLIMATE ACTION PLAN (2013); CITY OF LAWNDALE, ENERGY EFFICIENCY CLIMATE ACTION PLAN (2015); CITY OF LOMITA, ENERGY EFFICIENCY CLIMATE ACTION PLAN (2015); CITY OF MANHATTAN BEACH, ENERGY EFFICIENCY CLIMATE ACTION PLAN (2015); CITY OF PALOS VERDES ESTATES, CLIMATE ACTION PLAN (2018); CITY OF RANCHO PALOS VERDES, EMISSIONS REDUCTION ACTION PLAN (2017); CITY OF REDONDO BEACH, ENERGY EFFICIENCY CLIMATE ACTION PLAN (2015); CITY OF ROLLING HILLS, ENERGY EFFICIENCY CLIMATE ACTION PLAN (2015); CITY OF ROLLING HILLS ESTATES, ENERGY EFFICIENCY CLIMATE ACTION PLAN (2015); CITY OF WEST HOLLYWOOD, CLIMATE ACTION PLAN (2011).

[16] Ceres, *Does Water Conservation Have to Be the Enemy of Financial Stability?*, NAT'L. GEOGRAPHIC: CHANGING PLANET (July 16, 2014), https://blog.nationalgeographic.org/2014/07/16/does-water-conservation-have-to-be-the-enemy-of-financial-stability/.

Project's significant impacts related to its increased energy use and GHG emissions only compounds this prejudicial error. LAW2-12

C. ***DEIR Fails to Adopt Adequate Mitigation for Energy and GHG Impacts.***

The mitigation measures proposed in the DEIR's energy and GHG analyses are inadequate. The DEIR uses an improper baseline in determining the energy consumption and GHG emissions subject to mitigation because it relies on the flawed calculation used in claiming the Project's GHG emissions would be reduced to "net zero." Because the DEIR incorrectly assumes the Project would reduce MWD imported water on a one-to-one basis without providing any evidence, the GHG emissions and energy consumption that must be mitigated is actually greater than is analyzed in the DEIR. Therefore, the DEIR fails to analyze and adopt adequate mitigation measures and to serve its informational purpose, (Pub. Res. Code §§ 21002.1(a), 21061) and as a result, significant impacts remain significant and unmitigated. LAW2-13

II. Land Use Impacts Should Be Considered Significant.

A. ***Land Use Impacts Should Be Considered Significant Because the Project Conflicts with El Segundo's Local Coastal Program.***

The DEIR states that the Project would have a significant adverse environmental impact if it would "[c]onflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the Project . . . adopted for the purpose of avoiding or mitigating an environmental effect." (DEIR, 5.10-13.) The California Coastal Act of 1976 (Coastal Act) was adopted for the purpose of protecting the resources of California's coastal zone and public access to the ocean. (See Pub. Res. Code § 30001.) Development within the coastal zone requires a Coastal Development Permit issued by the California Coastal Commission or a local government that has a certified Local Coastal Program. (Pub. Res. Code § 30600(a), (d).) El Segundo has a certified Local Coastal Program (ESLCP).[17] LAW2-14

i. El Segundo's Local Coastal Program Was "Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect."

The DEIR states that because "there are no El Segundo LCP policies or regulations adopted for the purpose of avoiding or mitigating a construction-related impact," no impact would occur with respect to construction of the ocean water desalination facility. (DEIR, 5.10-21.) The LCP is a planning mechanism through which development in the coastal zone is regulated to ensure the requirements of the Coastal Act are met. (See Pub. Res. Code § 30108.6.) The regulation of development in the context of the Coastal Act inevitably contemplates construction-related impacts on coastal zone resources and public access to the ocean. The ESLCP specifically states that "applicable Coastal Act policies place a very high priority on maximum access to the shore and protection of the beach area," and even more specifically that any shoreline erosion prevention structures "be designed to eliminate or mitigate, to the maximum extent feasible,

[17] See Attachment C.

adverse impacts on adjacent beach areas."[18] Thus, there are in fact ESLCP policies and regulations adopted for the purpose of avoiding and mitigating construction-related impacts of new development in the coastal zone in El Segundo. Because there are such policies and regulations, the land use analysis should have evaluated the construction-related impacts' potential to conflict with the ESLCP.

LAW2-14

ii. El Segundo's Local Coastal Program Did Not Anticipate Construction of an Ocean Desalination Facility.

The onshore coastal zone within El Segundo is approximately 50 acres and is "extensively developed with energy facilities.[19] Thus, "[t]hose provisions of the Coastal Act which address the locating and planning of new development have only limited applicability in El Segundo due to the fact the area is already extensively developed."[20] The El Segundo Generating Station (ESGS) site, the proposed location for the Project, is designated as "Power Plant" with the following designated uses: 1) electrical generating station; 2) accessory buildings and uses customarily incidental to electrical generating station; 3) on-site repowering; and 4) on-site modifications to existing facilities.[21] As such, the "only new developments expected to occur within the El Segundo portion of the coastal zone are minor modifications of existing energy facilities, minor public works projects,[22] or possibly construction of shoreline protective structures."[23]

LAW2-15

The shoreline area is protected as open beach area.[24] However, "the entire length of shoreline in El Segundo, due to the potential for erosion, could be considered to be a hazard area."[25] The ESLCP "identifies shoreline erosion as being an issue of greater than local significance" and states that "shoreline structures and beachfront protective devices will be allowed where necessary to provide protection for existing energy facilities and the bike path."[26] It further notes that "[i]t is anticipated that very few, if any structures will be developed in the shoreline area in the future. The susceptibility of the shoreline area to coastal erosion will preclude any significant new developments."[27]

Despite the ESLCP's clear designation of the ESGS site as "Power Plant" and the fact that the ESLCP expressly states that "[a]ny new developments in the coastal zone will be limited to

[18] Attachment C, Section IV. City of El Segundo Coastal Zone Specific Plan, p. 28–29.
[19] Attachment C, Section III. Issue Identification, p. 3.
[20] *Id.* at 8.
[21] Attachment C, Section IV. City of El Segundo Coastal Zone Specific Plan, p. 27; Appendix 9, p. 32.
[22] Attachment C, Staff Summary & Recommendation, p. 11 ("All public works necessary to serve the coastal zone in El Segundo are existing. Therefore, Section 30254 of the Coastal Act is not relevant.").
[23] *Id.* at 10.
[24] *Id.* at 4.
[25] *Id.* at 9.
[26] *Id.* at 8.
[27] Attachment C, Section IV. City of El Segundo Coastal Zone Specific Plan, p. 30.

modifications of existing facilities or limited shoreline recreational development,"[28] the DEIR does not find land use impacts to be significant. (DEIR, 5.10-16.) LAW2-15

iii. El Segundo's Local Coastal Program Would Need to Be Amended to Allow for Construction of an Ocean Desalination Facility.

Waterkeeper believes, and the DEIR itself seems to confirm,[29] that the ESLCP would need to be amended before a Coastal Development Permit (CDP) could be issued for the Project. The California Coastal Commission also comes to this same conclusion in its comments on the DEIR. The proposed Project location is within a parcel zoned exclusively for Power Plants, adjacent to shoreline that the ESLCP has identified as hazardous due to erosion, and accordingly, the ESLCP anticipates only minor new developments related to the existing energy facilities and construction of shoreline protective structures. The Project is clearly not an energy facility or energy-related development.

The DEIR relies on the bare assertion that the Project represents a "use of greater than local importance and a coastal-dependent use which has priority under Coastal Act Section 30255." (DEIR, 5.10-22.) While the Project is coastal-dependent and may be a "use of greater than local significance," the ESLCP is "almost completely developed with energy facilities,"[30] which the ESLCP identifies as coastal-dependent uses of greater than local significance. The existing energy facilities "have been in place for many years . . . The Coastal Act indicates that in general where energy facilities currently exist, preference should be given to the onsite intensification of existing facilities rather than the construction of entirely new facilities."[31] Construction of a 20 to 60 MGD ocean desalination facility is not a minor development allowed by the ESLCP. Thus, the Project conflicts with the ESLCP, and the ESLCP would need to be amended before a CDP could be issued. The DEIR, however, brushes off the significance of the incompatibility with the ESLCP by claiming that any future amendment to the ESLCP would ensure consistency, and thus there is no conflict with the ESLCP. This argument is circular and applies an incorrect baseline to the analysis. The conflict with the ESLCP triggers the significance threshold. Therefore, the DEIR should have evaluated the significant land use impacts of the Project in the event of an amendment to the ESLCP. LAW2-16

B. ***The DEIR's Failure to Consider the Impacts of an Amendment to the ESLCP Might Constitute a Violation of CEQA and the Coastal Act.***

In *Banning Ranch Conservancy v. City of Newport Beach* (2017) 2 Cal.5th 918, the City of Newport Beach argued it was inappropriate to consider a project's impacts on environmentally sensitive habitat areas (ESHA) in the project's EIR on the basis that only the California Coastal Commission could make ESHA determinations, and that ESHA impacts would be considered LAW2-17

[28] Attachment C, Section V. A Resolution of the City Council of the City of El Segundo Submitting the City's Total Local Coastal Program to the Coastal Commission for Approval, p. 33.
[29] DEIR, 5.10-22; 3-41 (noting LCP amendment and LCP "consistency" review by El Segundo and Coastal Commission will be required).
[30] Attachment C, Staff Summary & Recommendation, p. 1.
[31] *Id.* at 15.

before the Coastal Commission later, during the permitting phase. Here, the DEIR has entirely deferred consideration of the impacts of an LCP amendment without offering any explanation, despite admitting an amendment to the ESLCP will be required. (DEIR, 5.10-22; 3-41.) This failure constitutes a violation of both CEQA and the Coastal Act.

Just as the City of Newport Beach was ultimately required to consider ESHA impacts in its EIR, West Basin is required to consider the impacts of an LCP amendment in its DEIR. (*Banning Ranch Conservancy*, *supra*, 2 Cal.5th 918.) CEQA mandates that local agencies have a duty to "integrate [CEQA requirements] with planning and environmental review procedures otherwise required by law or by local practice so that all those procedures, to the maximum feasible extent, run concurrently, rather than consecutively." (*Id.* at 936 [citing Pub. Res. Code § 21003, subd. (a)].) By deferring consideration of the impacts of an LCP amendment to consideration by the City of El Segundo and Coastal Commission later, West Basin has "ignored its obligation to integrate CEQA review with the requirements of the Coastal Act." (*Id.* at 936 [stating that the City of Newport Beach's failure to consider ESHA impacts in an EIR violated the Coastal Act].)

That West Basin has no authority to enact LCP amendments does not obviate the need to consider an amendment's impacts in the DEIR. Pursuant to *Banning Ranch*, lead agencies are not required to make legal determinations in an EIR, such as whether a project site is ESHA, or whether an LCP should be approved, but still must discuss potential impacts and their ramifications for mitigation measures and alternatives when there is credible evidence that impacts might be present. (*Banning Ranch*, *supra*, 2 Cal.5th at 938 [rejecting an argument that the City of Newport Beach could decline to consider ESHA impacts in its EIR on the basis that only the Coastal Commission had authority to make ESHA determinations].)

LAW2-17

Likewise, the fact that the City and Coastal Commission will consider the impacts of an LCP amendment in the future does not justify the DEIR's failure to do so now. (See CEQA Guidelines §§15080, 15124(d)(1)(C).) As in *Banning Ranch*, "such a delay is inconsistent with CEQA's policy of integrated review . . . [as a] lead agency must consider related regulations and matters of regional significance when weighing project alternatives." (*Banning Ranch*, *supra*, 2 Cal.5th at 939 [rejecting a City of Newport Beach argument that declining to consider ESHA in their project's EIR was justifiable on the grounds that ESHA would be fully considered later in the permitting phase of the project, citing Pub. Resources Code § 21300, subd. (a), and CEQA Guidelines, § 15126.6].) To comply with CEQA and the Coastal Act, the DEIR must consider the impacts of an ESLCP amendment.

The DEIR failed to analyze the significant land use impacts of the Project in the event of an amendment to the ESLCP. Notwithstanding the requisite LCP amendment, the ESLCP clearly does not anticipate any major development in the El Segundo coastal zone, let alone a major development—such as the Project—unrelated to the existing energy facilities. Thus, the land use impacts from both construction and operation of the Project are significant, and the DEIR's land use analysis is inadequate for failing to analyze these significant impacts.

C. ***The DEIR Fails to Adopt Adequate Mitigation Measures for Land Use Impacts.***

The only mitigation measures adopted for land use impacts pertain to the aesthetic impacts of the Project. (DEIR, 5.10-23.) Because the DEIR erroneously concludes that the Project does not conflict with the ESLCP, the DEIR fails to account for the significant construction and operation-related land use impacts and resulting measures required to mitigate such impacts. As such, the land use mitigation measures in the DEIR are inadequate to address the potential significant impacts. LAW2-18

In light of the fact that the Project conflicts with the ESLCP, thus triggering the significance threshold, the DEIR should have considered the significant land use impacts of the Project and analyzed and adopted mitigation measures accordingly. With the hazards of sea-level rise and the fact that the ESLCP identifies the shoreline in El Segundo as being susceptible to erosion, it is unwise to invest half-a-billion dollars to build infrastructure that will exacerbate these very conditions that threaten the Project location.

III. The Marine Biological Resources and Hydrology and Water Quality Analyses Are Inadequate.

A. ***The DEIR Uses an Improper Baseline to Determine Significant Impacts and Thereby Fails to Evaluate a Reasonable Scope of Potential Impacts.***

The DEIR uses an improper baseline to determine the potential significant marine biological resources and water quality impacts of the Project. A project's environmental setting "will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." (CEQA Guidelines § 15125(a).) The DEIR describes the environmental setting as the Santa Monica Bay, but instead of assessing impacts on the baseline physical conditions of the Santa Monica Bay, the DEIR arbitrarily limits the analysis to "the marine study area"—a small 1 by 1.5 nautical mile rectangle immediately offshore of the ESGS site. (DEIR, 5.11-10.) The DEIR does not present substantial evidence to support limiting the marine study area to a small rectangular portion of the Santa Monica Bay. As a result, the scope of the potential impacts analyzed in the DEIR is unreasonably narrow and fails to account for the interconnectivity between biological communities and marine habitat and ecosystems within Santa Monica Bay as a whole, as described in Hermosa Beach's comment letter and incorporated by reference herein. LAW2-19

In particular, the DEIR fails to analyze the significant impacts to the Mugu Lagoon to Latigo Point Area of Special Biological Significance, the Point Dume State Marine Conservation Area (SMCA) and State Marine Reserve (SMR), the Point Vicente SMCA, and the Abalone Cove SMCA. The Marine Life Protection Act was enacted with the purpose of increasing the network of Marine Protected Areas' (MPAs') "coherence and its effectiveness at protecting the state's marine life, habitat, and ecosystems." (Cal. Fish & Game Code § 2853.) Waterkeeper, along with other groups, worked for years to build support for these critical reserves, which are designated areas where fishing and other consumptive activities are limited or prohibited to combat decades of pollution, overfishing, and habitat degradation. The DEIR's limited marine

study area, fails to account for the interconnectivity between this network of marine protected areas. Therefore, at a minimum, the DEIR should have analyzed the impacts to marine biological resources and water quality in the Santa Monica Bay at a whole. However, for the reasons explained in Hermosa Beach's comment letter and incorporated by reference herein, the physical conditions of the Southern California Bight is the more appropriate baseline for evaluation of the significant regional impacts of the Project.

LAW2-19

B. ***The Objective of the California Ocean Plan Desalination Amendment Should be Included as a Key Threshold of Significance.***

The California Ocean Plan Desalination Amendment (Ocean Plan) is the regulatory framework adopted specifically to address the water quality and marine biological effects of seawater desalination facilities.[32] It requires that desalination plants be sited, designed, utilize technology, and be operated to "minimize intakes and mortality to all forms of marine life."[33] Although the DEIR's marine biological resources and hydrology and water quality analyses discuss the Ocean Plan requirements, the significance thresholds do not include the Ocean Plan's requirement to reduce impacts to all forms of marine life. As described in Hermosa Beach's comment letter and incorporated by reference herein, the DEIR's marine biological resources and hydrology and water quality analyses should have evaluated the extent to which the Project will "minimize intakes and mortality to all forms of marine life" and applied this as a threshold of significance.

LAW2-20

C. ***Impacts to Marine Biological Resources and Water Quality Should be Considered Significant.***

The DEIR does not provide substantial evidence to support its conclusion that impacts to marine biological resources and water quality would be less than significant. As described in Hermosa Beach's comment letter and incorporated by reference herein, the impacts of wedgewire screen intakes are uncertain and may be significant.

> The impacts of impingement and entrainment from desalination plants on the marine environment are not well understood. Much of what is known has been drawn from studies on coastal power plants that use once-through cooling (OTC) systems. In an analysis of coastal and estuarine power plants in California, York and Foster (2005) find that "impingement and entrainment impacts equal the loss of biological productivity of thousands of acres of habitat" (York and Foster 2005).[34]

LAW2-21

[32] *See* ST. WATER RESOURCES CONTROL BOARD, FINAL STAFF REPORT INCLUDING THE FINAL SUBSTITUTE ENVIRONMENTAL DOCUMENTATION FOR THE AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE WATERS OF CALIFORNIA, ADDRESSING DESALINATION FACILITY INTAKES, BRINE DISCHARGES, AND THE INCORPORATION OF OTHER NON-SUBSTANTIVE CHANGES, Adopted May 6, 2015, (hereinafter "Final Staff Report for Desal Amendment"), *available at* https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/rs2015_0033_sr_apx.pdf.

[33] *Id.* at 11.

[34] COOLEY ET AL., *supra* note 1, at 3.

Similarly, the impacts of brine discharges from desalination plants are also uncertain and may be significant.

> Because of a lack of baseline ecological data, most of the available studies are based on a comparative analysis of environmental conditions at the discharge location and at least two other nearby locations believed to be unaffected by brine discharge. Most of these studies report some sort of environmental degradation due to exposure to desalination discharge (Fernandez Torquemeda et al. 2005, Gacia et al. 2007, Sanchez-Lizaso et al. 2008, Ruso et al. 2007, 2008). In a recent review, Roberts et al. (2010) conclude that both laboratory and field studies "clearly demonstrate the potential for acute and chronic toxicity and small-scale alterations to community structure in marine environments."[35]

The fact that such technology is permissible under the Ocean Plan does not preclude the potential for significant impacts. LAW2-21

The DEIR states that the intake and discharge system will consist of "repurposing and upgrading existing offshore intake and discharge tunnels that would deliver raw ocean water to the desalination facility and discharge concentrated seawater back to the ocean." (DEIR, 3-1.) These "existing offshore intake and discharge tunnels" are decommissioned OTC infrastructure. Such infrastructure was phased out because it was not considered the "best technology available for minimizing adverse environmental impact" as required by Section 316(b) of the Clean Water Act.[36] Instead, closed cycle cooling is required.[37] The DEIR asserts that the Project will not have significant impacts despite the fact that the Project is replacing an open ocean intake system that was decommissioned due to its adverse environmental impacts with another open ocean intake system. It is difficult to imagine the impacts to marine biological resources and water quality will not be significant, particularly in light of the analytical gaps on wedgewire screens and brine discharge. Additionally, while admitting that the construction of the intake and discharge system "would temporarily disturb both soft-bottom and hard-bottom habitat in the area," the DEIR declines to further analyze these impacts on the unsupported basis that "pelagic species and groundfish are anticipated to avoid the Project area." (DEIR, 5.10-36–5.10-37.) The DEIR's unsubstantiated position amounts to sheer speculation, which obscures the Project's likely significant impacts to such species. (Pub. Res. Code §21082.2(c); CEQA Guidelines §§15064(f), 15384 ["Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate . . . does not constitute substantial evidence."].) The DEIR marine biological resources and hydrology and water quality analyses should have analyzed all the above potential significant impacts. LAW2-22

[35] *Id.* at 14.
[36] ST. WATER RESOURCES CONTROL BOARD, Res. No. 2015-0018, ADOPTION OF AN AMENDMENT TO THE WATER QUALITY CONTROL POLICY ON THE USE OF COASTAL AND ESTUARINE WATERS FOR POWER PLANT COOLING, https://www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/appendix_a.pdf.
[37] *Id.*

For these reasons and those described in Hermosa Beach's and Heal the Bay's comment letters, the marine biological resources and hydrology and water quality analyses are inadequate.

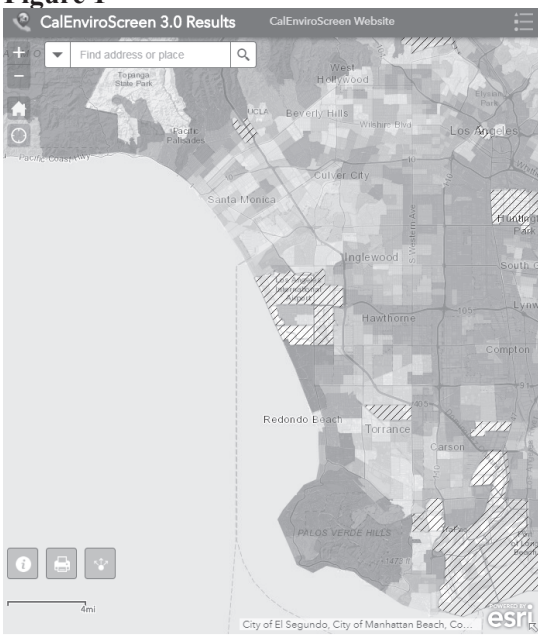
LAW2-22

IV. The Environmental Justice Analysis is Inadequate.

West Basin's service area is a study of the 'haves' and 'have nots.' Eleven of the cities in West Basin's service area have populations with 0% to 0.4% disadvantaged communities (DAC), while four cities (Inglewood, Hawthorne, Gardena, and Lawndale) are 100% DAC and Carson is 82.1% DAC.[38] Figure 1, below, shows the CalEnviroScreen Map of West Basin's service area. The California Communities Environmental Health Screening Tool, CalEnviroScreen 3.0, "uses a science-based method for evaluating multiple pollution sources in a community while accounting for a community's vulnerability to pollution's adverse effects."[39] The map in Figure 1 shows that areas within West Basin's service area have some of the highest CalEnviroScreen scores (areas in red), indicating populations in such areas experience a much higher pollution burden than areas with the lowest scores (areas in green). The DEIR environmental justice analysis does not even attempt to evaluate the Project's impacts on the areas within West Basin's service area with the highest CalEnviroScreen scores and DAC percentages relative to those areas with the lowest CalEnviroScreen scores and DAC percentages.

LAW2-23

Figure 1[40]



LAW2-24

[38] Attachment D.
[39] JOHN FAUST ET AL., CALENVIROSCREEN 3.0 1 (Allan Hirsh & David Siegel eds., 2017), *available at* https://oehha.ca.gov/media/downloads/calenviroscreen/report/ces3report.pdf.
[40] OFFICE OF ENVTL. HEALTH HAZARD ASSESSMENT, CALENVIROSCREEN 3.0 MAP, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30 (last visited June 6, 2018).

A. ***The DEIR Uses an Improper Baseline to Determine Significant Environmental Justice Impacts.***

The DEIR describes the environmental setting as the cities where aboveground infrastructure would be implemented—El Segundo and Hawthorne—because "the environmental analysis focuses on the permanent impacts to the low-income and minority populations. The proposed conveyance pipelines would have temporary construction impacts but would be returned to pre-project conditions once in operation so the tracts in which the pipelines would occur are not included in the analysis." (DEIR, 6-10.) This is not an appropriate baseline by which to determine whether environmental justice impacts of the Project are significant. LAW2-25

i. <u>The Environmental Justice Analysis Arbitrarily Excludes an Analysis of Temporary Impacts to Low-Income and Minority Populations.</u>

The DEIR does not provide any support for limiting the environmental justice analysis to "permanent impacts." Temporary impacts still have the potential to significantly and disproportionately impact low-income or minority populations. Considering the DEIR's finding of significant and unavoidable construction-related, air quality impacts (DEIR, 5.2-29–35), at a minimum, the DEIR should have analyzed the environmental justice impacts from the significant and unavoidable construction-related air quality impacts, even if considered "temporary." More appropriately, the environmental justice analysis should have evaluated the Project's potential for permanent *and* temporary disproportionate impacts to low-income or minority populations in all 17 of the impacted census tracts, as opposed to only those in the 6 tracts impacted by what the DEIR deems "permanent" impacts. LAW2-26

ii. <u>The Environmental Setting is Unreasonably Geographically Limited.</u>

Further, by limiting the environmental setting to the cities where aboveground infrastructure would be implemented and comparing those impacted census tracks "to the overall characteristics of their respective cities," the DEIR fails to evaluate a reasonable scope of potential environmental justice impacts. (DEIR, 6-13.) Comparing one section of Hawthorne to Hawthorne as a whole seems to assume that environmental justice impacts related to, for example, air quality, energy, GHG, and climate change, are confined to the census tracks in which aboveground infrastructure would be implemented. This is not only unreasonable, but is contrary to the other sections of the DEIR in which such environmental impacts are discussed in the context of environmental settings that extend beyond the immediate census track. The DEIR's limited environmental setting in the environmental justice analysis results in its failure to adequately inform the public of the relative impacts of the Project on additional low-income and minority populations within West Basin's service area, such as Carson and Inglewood. LAW2-27

B. ***At a Minimum, West Basin's Service Area as a Whole is the Appropriate Environmental Setting for Analysis of the Project's Environmental Justice Impacts.***

The DEIR states that "West Basin's goal is to guarantee future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the

West Basin supply portfolio." (DEIR, 1-2.) The Project is intended to provide a water supply to all customers in West Basin's service area. However, the adverse environmental impacts of an energy-intensive and costly ocean desalination plant will inevitably impact DAC populations differently than more affluent populations. West Basin's service area is made up of cities with diverse demographics and median incomes. Therefore, the more appropriate environmental setting would encompass, at a minimum, all of West Basin's service area to more accurately capture the relative impacts of the Project on the different cities in West Basin's service area. As explained further below, the environmental setting for the environmental justice analysis may need to encompass areas outside of West Basin's service area as well.

LAW2-27

C. ***The DEIR Applies a Narrow and Unsupported Interpretation of the Significance Threshold.***

The DEIR describes the significance threshold as follows: the Project "would be considered to have a significant effect on environmental justice if it would: Affect the health or environment of minority or low-income populations disproportionately." (DEIR, 6-12.) However, in its analysis, the DEIR applies a narrow interpretation of "disproportionately" stating, "an area is considered to have a significantly greater minority population if the affected census tract or group of tracts has a minority population of at least 10 percent greater on average than the overall city or census-designated place." (DEIR, 6-10.) The DEIR does not provide any information as to the source of this criterion or an explanation as to why "at least 10 percent greater" is an appropriate threshold.

LAW2-28

The DEIR then applies this interpretation in looking at Hawthorne. The DEIR compares the demographics of the 3 impacted census tracts in Hawthorne to the demographics of the city of Hawthorne as a whole. (DEIR, 6-10–6-11.) However, in doing so, the DEIR averages the minority population percentages of the 3 impacted census tracts *before* comparing them to the minority population percentage of the whole city of Hawthorne, thus diluting the actual minority percentages of the individual, impacted tracts. (DEIR, 6-11.) This allows the DEIR to find that the impacted census tracts do not meet the "at least 10 percent greater" threshold, and thus, do not have significantly greater minority populations. (DEIR, 6-10.) As a result, the DEIR finds that the Project does not disproportionately impact minority populations. (DEIR, 6-13.)

This Hawthorne-to-Hawthorne comparison is disingenuous. Hawthorne's population is 100% DAC. The narrow and unsupported interpretation of the significance threshold coupled with the unreasonably limited environmental setting does not adequately account for disproportionate impacts to Hawthorne's DAC population relative to non-DAC populations and fails to account for impacts to DAC communities in Carson, Inglewood, Gardena, and Lawndale.

D. ***The DEIR Fails to Account for a Reasonable Scope of Environmental Justice Impacts.***

LAW2-29

As discussed in other sections of the DEIR, the Project's potential impacts stem from construction and operation of the ocean water desalination facility, the offshore intake and discharge facilities, and the inland conveyance system, and include environmental impacts discussed in Section 5 of the DEIR. The environmental justice analysis, however, does not

address any of this. Instead, using an improperly limited baseline and applying an unsupported criterion for determination of "significantly greater minority population," the DEIR concludes environmental justice impacts would be less than significant. This conclusion is unsupported by substantial evidence.

LAW2-29

i. The DEIR Does Not Analyze the Environmental Justice Impacts Related to the Project's Air Quality or Energy Impacts.

Ocean desalination is the most energy-intensive option for increasing local water supplies.[41] The continuous energy demand of the 20 MGD desalination plant is equivalent to the average annual energy demand of almost twice the number of households in Lawndale.[42] Many of West Basin's low-income and minority customers are among those most disproportionately burdened by multiple sources of pollution.[43] These communities already suffer from poor air quality.[44] Southern California Edison (SCE) would supply the energy needed by the Project, and while the DEIR discusses SCE's power mix, it does not identify the specific plants on which SCE relies. (DEIR, 5.5-6–5.5-7.) The communities in or near where these plants are located, will be disproportionately impacted by the Project's adverse impacts to air quality. Yet, the DEIR does not disclose which communities these are or analyze the impacts.

LAW2-30

ii. The DEIR Does Not Analyze the Environmental Justice Impacts Related to the Project's GHG and Climate Change Impacts.

The 20 MGD ocean desalination plant would contribute as much as 44,702 metric tons of CO_2e emissions per year and the 60 MGD plant would contribute as much as 146,879 metric tons per year.[45] The Project's significant GHG emission contributions will exacerbate climate change, and disproportionately impact low-income and minority communities, which are least able to adapt to or recover from climate change impacts.[46]

LAW2-31

iii. The DEIR Does Not Analyze the Environmental Justice Impacts Related to the Project's Water Rates Impacts.

Ocean desalination is the most expensive option for increasing our local water supplies at $2,100 to $2,500 per acre-foot.[47] West Basin estimates the cost to build the Project will be half-a-billion dollars. The Project will inevitably increase water rates for West Basin's ratepayers. This increase in water rates will disproportionately impact low-income populations in West Basin's service area relative to the more affluent populations, and yet, the DEIR does not analyze these

LAW2-32

[41] COOLEY & HEBERGER, *supra* note 1; NAT. RES. DEF. COUNCIL, ET AL., *supra* note 3.
[42] *See* Attachment A, p. 19.
[43] CALENVIROSCREEN 3.0, https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30 (last visited June 4, 2018).
[44] *Ibid.*
[45] Attachment A, p. 21.
[46] U.S. GLOBAL CHANGE RESEARCH PROGRAM, THE IMPACTS OF CLIMATE CHANGE ON HUMAN HEALTH IN THE UNITED STATES: A SCIENTIFIC ASSESSMENT (2016), *available at* https://health2016.globalchange.gov/.
[47] COOLEY & PHURISAMBAN, *supra* note 1, at 13.

impacts. The DEIR also does not account for the cumulative impact on water rates that the Project may have in light of, for example, MWD's commitment to funding the multi-billion-dollar twin-tunnels project, as discussed in I.B.i above.

LAW2-32

iv. The DEIR Does Not Account for the Fact that the Project Will Effectively Result in DACs Subsidizing Affluent Communities' Excessive Water Consumption.

As described further in Section V.D. below, DACs in West Basin's service area generally have a lower residential per capita water usage, while some of the more affluent populations have a residential per capita water usage almost four times greater than world-wide best practice. There are significant unrealized conservation savings in some of these affluent communities in West Basin's service area. Increasing water rates by building a half-a-billion-dollar ocean desalination plant would effectively result in low-income communities subsidizing affluent communities' excessive water consumption.

LAW2-33

For all of these reasons, the DEIR environmental justice analysis is inadequate and fails to comply with the Government Code,[48] CEQA, and the California Attorney General's instructive Fact Sheet, *Environmental Justice at the Local and Regional Level Legal Background*.[49]

V. The Alternatives Analysis is Inadequate.

It is evident from the alternatives analysis that this DEIR is "a document of post-hoc rationalization" for a decision already made to build an ocean desalination plant. (*Save Tara v. W. Hollywood* (2008) 45 Cal.4th 116, 136.) Unfortunately, this is not surprising. While the Project has not yet been approved, West Basin has repeatedly, publicly expressed its pro ocean desalination position. West Basin's Board members have asked their member cities for support for the agency's ocean desalination program;[50] Board members currently serve and have served on the CalDesal Executive Committee;[51] for a number of years, West Basin had posted on its

LAW2-34

[48] "'[E]nvironmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." (Gov. Code, § 65040.12(e)).

[49] OFFICE OF THE CALIFORNIA ATTORNEY GENERAL, ENTVL. JUSTICE AT THE LOCAL AND REG'L LEVEL LEGAL BACKGROUND (2012), *available at* https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/ej_fact_sheet.pdf.

[50] City of Palos Verdes Estates, *City Council Meeting – Feb 28th, 2017*, CITY OF PALOS VERDES ESTATES 0:28:55-0:29:20 (Feb. 28, 2017) http://pvestates.granicus.com/MediaPlayer.php?view_id=1&clip_id=924 (showing Richard Nagel stating, "So we're here to ask you for your consideration in the future for—for conditional support for responsible desal, and those conditions are . . . meet and surpass the most environmentally protective regulations in the world, we will be at least carbon-neutral to the water we're offsetting, and we'll be cost-competitive with West Basin's current re—world-renowned water recycling program"); City of Inglewood, *5-7-16 City of Inglewood Council Meeting*, YOUTUBE 1:08:05-1:08:18 (May 17, 2016) https://www.youtube.com/watch?v=yzip7hX9-rw (showing Gloria Gray stating, "I ask for consideration of your support to actually take an action today to direct staff to prepare a letter of conditional support for responsible ocean water desalination"); City of Hawthorne, *City Council - May 10th, 2016*, CITY OF HAWTHORNE 0:44:42-0:45:21 (May 10, 2016), http://hawthorne-ca.granicus.com/MediaPlayer.php?view_id=2&clip_id=390&meta_id=26601 (showing Donald Dear stating, "West Basin requests that the Council consider supporting our [Ocean Water Desalination] program").

[51] *Harold C. Williams*, WEST BASIN MUN. WATER DIST., http://www.westbasin.org/board-directors/harold-c-williams (last visited June 19, 2018).

website that it was "committed to ocean-water desalination";[52] and West Basin Board members even wore "I [heart] desal" buttons at a conference on Direct Potable Reuse.[53] To date, West Basin has invested the last 17 years and $63 million in ocean desalination. "When an agency has not only expressed its inclination to favor a project, but has increased the political stakes by publicly defending it over objections, putting its official weight behind it, devoting substantial public resources to it . . . the agency will not be easily deterred from taking whatever steps remain toward the project's final approval." (*Id.* at 135.) West Basin's institutional momentum and bias behind open ocean desalination has prevented the DEIR from properly assessing a reasonable range of alternatives. Except for the "no project" alternative, *all* of the alternatives considered are minor variants on an open ocean desalination facility. It has also prevented West Basin from conducting a proper analysis of the impacts from the various desalination plants proposed. "The core of an EIR is the mitigation and alternatives sections . . . 'The purpose of an environmental impact report is to identify the significant effects of a project on the environment, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided.'" (*Citizens of Goleta Valley v. Board of Supervisors of Santa Barbara County* (1990) 52 Cal.3d 553, 564–65 [quoting Pub. Res. Code § 21002.1(a)].) The flaws in this DEIR's alternatives analysis thwart the very purpose of the environmental impact report. These flaws must be addressed and the DEIR recirculated before advancing to the final EIR stage.

LAW2-34

CEQA Guidelines state that "the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." (Guidelines §15126.6(b).) In selecting a "reasonable range of alternatives to the proposed project," the DEIR "shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects." (Guidelines § 15126.6(c).)

The DEIR alternatives analysis fails to evaluate a reasonable range of alternatives by narrowly interpreting the Project objectives and including an unsupported objective to develop 21,500 AFY of new water supply. The DEIR also fails to evaluate alternatives to the Project that would avoid or substantially lessen the significant environmental impacts of the Project and to integrate such analysis with the requirements of the California Ocean Plan Desalination Amendment, as discussed in Hermosa Beach's comment letter and incorporated by reference herein. Such alternatives include conservation, stormwater capture, recycling, and brackish desalination, which in combination or individually, are capable of accomplishing most of the basic objectives of the Project.

LAW2-35

[52] Attachment E.
[53] NSF Workshop: Engaging the Environmental Community on Direct Potable Reuse January 14, 2016 http://www.nwri-usa.org/nsf_dpr_environment.html. West Basin updated these buttons in 2017 to "I [heart] responsible desal."

A. ***The Project Objectives Are Unreasonably Interpreted to Artificially Constrain the Range of Alternatives Analyzed.***

The CEQA Guidelines require that a project's description include a "clearly written statement of objectives that will help the lead agency develop a *reasonable range of alternatives* to evaluate in the EIR" (emphasis added § 15124(b).) West Basin's Project objectives are to:

- Diversify West Basin's water source portfolio to increase reliability in the near and intermediate term (5–15 years) and the long term (15–30 years) while reducing reliance on imported water.
- Improve water security through West Basin's increased local control of water supplies and infrastructure.
- Improve West Basin's local control of future water costs and long-term price stability.
- Improve climate resiliency by developing a water source that is less susceptible to hydrologic variability.
- Develop a potable water supply that is economically viable and environmentally responsible.

LAW2-36

At first blush, these Project objectives appear sufficiently broad to allow evaluation of a reasonable range of alternatives. However, the DEIR interprets these objectives very narrowly, and includes a requirement for 21,500 acre feet per year of supply as a "shadow objective" even though that requirement is not disclosed as an objective. This is a fundamental flaw in the DEIR, and it dooms the alternatives analysis. (*In re Bay-Delta* (2008) 43 Cal.4th 1143, 1168 ["A lead agency may not give a project's purpose an artificially narrow definition,"]; see, e.g., *North Coast Rivers Alliance v. Kawamura* (2015) 243 Cal.App.4th 647, 654 [EIR violated CEQA by artificially narrowing objective of pest control project to eradication of the target population, instead of protection of California plants and agriculture].) The DEIR ultimately only evaluates three "build" alternatives and <u>all three alternatives evaluated involve construction and operation of an ocean desalination plant</u>.

Despite being able to achieve the Project objectives through smarter, more cost-effective, environmentally sound alternatives, the DEIR screens such alternatives out as infeasible by applying an artificially narrow interpretation of the Project objectives. In its initial screening process, the DEIR imposes nine "criteria," <u>all</u> of which must be met by a given alternative in order to warrant further evaluation. This strict all-or-nothing requirement of adherence to such criteria is neither implicitly nor explicitly required by CEQA. (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 991 ["There is no legal requirement that the alternatives selected must satisfy every key objective of the project"].) Yet, these criteria effectively operate as shadow objectives that the DEIR uses to eliminate alternatives that would otherwise meet the stated Project objectives.

LAW2-37

The first and most restrictive of these shadow objectives is the "[p]otential to achieve at least 21,500 acre-feet per year (AFY) average annual additional potable water supply." The DEIR uses this shadow objective to rule out conservation, stormwater capture, recycling, indirect potable reuse (IPR), and direct potable reuse (DPR), among other alternatives, as infeasible in the initial screening process. As a result, the DEIR does not evaluate such alternatives on their ability to "feasibly attain most of the basic objectives" of the Project and is instead left with only

variations on building an ocean desalination plant to evaluate. Thus, the alternatives analysis fails to evaluate a reasonable range of alternatives. It does not even come close. LAW2-37

B. ***The DEIR Relies on an Unsubstantiated Need for 21,500 AFY of New Water Supply.***

In its initial screening process, the DEIR rejects from further analysis any alternative that it finds cannot, alone, achieve the shadow objective of 21,500 AFY of new water supply. The DEIR's justification for its heavy reliance on this figure is confusing and ultimately circular.

The DEIR references MWD's Integrated Water Resources Plan (IRP) 2015 Update and West Basin's 2015 Urban Water Management Plan (UWMP) as the basis for the 21,500 AFY figure. As an initial matter,

> the data in an EIR must not only be sufficient in quantity, it must be presented in a manner calculated to adequately inform the public and decision makers, who may not be previously familiar with the details of the project. '[I]nformation 'scattered here and there in EIR appendices,' or a report 'buried in an appendix' is not a substitute for 'a good faith reasoned analysis.'

(*Banning Ranch Conservancy v. Newport Beach* (2017) 2 Cal.5th 918, 941 (citations omitted).) The IRP and UWMP are only two of numerous other documents referenced in the DEIR that not only are left out of the DEIR, they are not even "buried in an appendix." Such documents are referenced without pin citations, tables within such documents are referenced and not reproduced anywhere in the DEIR or the appendices, and yet such documents are, at a minimum, integral to the alternatives analysis as evidenced by the reliance on the 21,500 AFY figure. LAW2-38

i. <u>The DEIR Mischaracterizes the Projected Need for New Local Water Supply in MWD's IRP.</u>

The DEIR states,

> [t]he MWD 2015 IRP identifies the need for 230,000 AFY in new local supply from MWD member agencies by the year 2040 . . . West Basin's proposed Local Project is included among the local supply projects noted in the IRP from where the additional 230,000 AFY in additional local supplies will be developed. (DEIR, 2-29.)

In actuality, the IRP states that by 2040, "approximately 200,000 acre-feet of new local supply and water conservation is needed."[54] But the DEIR omits a critical piece of the IRP that breaks down how this 200,000 AF will be achieved. The IRP states, "[t]he water conservation approach . . . will result in approximately 180,000 acre-feet of new water conservation savings" and "the remaining 20,000 acre-feet of additional need" will be met "through recycling, groundwater recovery and seawater desalination."[55] Thus, contrary to what the DEIR states, the IRP projects that a majority of the 200,000 AF

[54] Attachment F, p. 4.5. While it is not the job of commenters to cure the defects in an EIR for the project proponent, relevant outside documents cited, but not included in this DEIR are included as attachments to this comment letter.
[55] Attachment F, p. 4.5.

needed by 2040 will be achieved through increased conservation and only 20,000 AF need to come from new local water supplies.

The IRP states that the "goal for local water supplies is primarily to protect existing resources from future risk."[56] The total local supply target is 2,426,000 AF by 2040 with the vast majority from existing and under construction local supplies (2,406,000 AF) and 20,000 AF from new local water supplies, as explained above. The 2,406,000 AF of existing and under construction local supplies "only includes projects that are currently producing water or are under construction" in order to provide a higher level of certainty of producing as forecasted.[57] Thus, neither West Basin's Local Project nor Regional Project is accounted for in the 2,406,000 AF of existing and under construction local supplies. West Basin's Project would instead count toward the 20,000 AF of new local water supply needed by 2040. Yet, West Basin is proposing to build a costly ocean desalination plant that would produce more water in a single year than the entire amount of new local water supply the IRP projects will be needed by 2040.

The DEIR's reliance on the IRP to justify the shadow objective of 21,500 AFY of additional water supply is unfounded, and the IRP does not provide substantial evidence to support the DEIR's narrow alternatives analysis. In fact, it provides evidence that other water supply alternatives such as recycling and groundwater recovery were improperly omitted from the DEIR alternatives analysis.

LAW2-38

ii. West Basin's 2015 UWMP Also Does Not Provide a Basis for the 21,500 AFY.

The Urban Water Management Planning Act (UWMP Act) in the California Water Code states, "[t]he management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources." (Cal. Water Code § 10610.4(a).) The UWMP Act requires urban water suppliers to prepare water supply management plans "to actively pursue the efficient use of available supplies." (Cal. Water Code § 10610.4(c).) West Basin's 2015 UWMP provides water supply planning for a 25-year planning period and reports on West Basin's present and future water resources and demands.[58]

The DEIR, in the initial screening of alternatives, evaluates each alternative for its ability to "compensate for the water supply projected by the 2015 UWMP to be provided through seawater desalination (21,500 AFY)." (DEIR, 7-7). However, the DEIR does not explain how West Basin arrived at this 21,500 AFY figure other than to 1) reference the need projected in the IRP, which, as explained above, does not in fact support the need for 21,500 AFY of ocean desalination water, and 2) make a circular reference to the

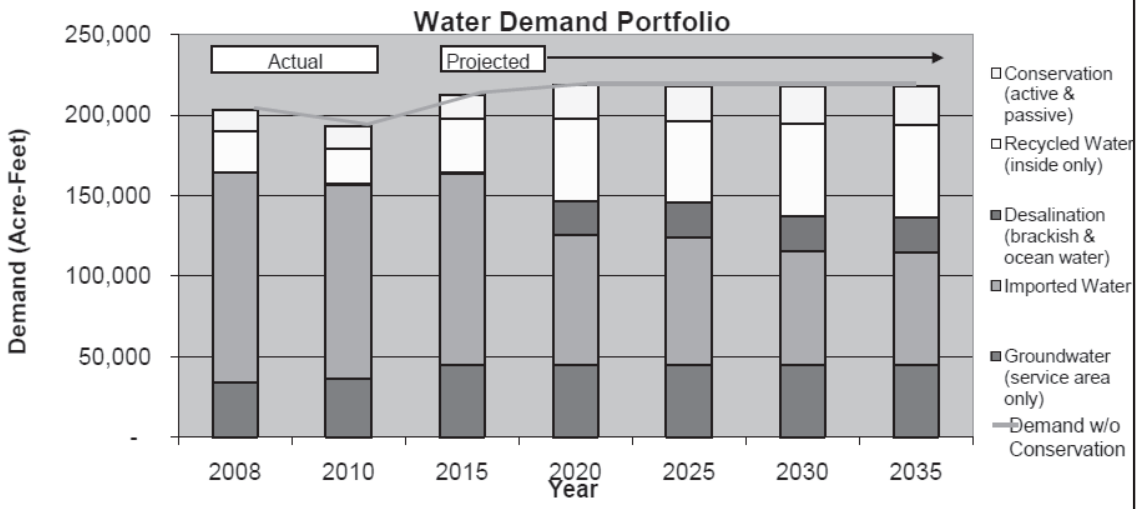
[56] Attachment F, p. 4.5.
[57] Attachment F, p. 3.22–3.23.
[58] Attachment G.

fact that its own UWMP projects development of 21,500 AFY of ocean water desalination supply.

West Basin's 2015 UWMP demonstrates that West Basin does not need 21,500 AFY of ocean desalination water. The 2015 UWMP states that West Basin's "multiple dry year analysis indicates that an appropriately sized 20 MGD ocean desalination facility will provide the quantity of water necessary to make up the expected shortfall in imported water supplies under future drought conditions."[59] However, the analysis actually shows that West Basin can meet ***105%*** of demand in the third year without or with barely any rainfall.[60] West Basin seems to be planning for 100% water reliability with zero reliance on MWD's storage reserves, which is *far* beyond the multiple-year, worst-case-scenario that West Basin is required to plan for in the UWMP. Furthermore, the DEIR states that water use in West Basin's service area "has followed a downward trend despite an increasing population." (DEIR, 7-9.) In fact, despite West Basin forecasting a 20,000 AFY increase in demand between 2010 and 2015 in their 2010 UWMP,[61] demand declined in that time period. As a result, in 2015 West Basin realized the 20,000 AFY imported water demand reduction that it had intended the 20 MGD desalination plant to achieve.[62]

LAW2-38

Figure 2[63]



Despite this, even with less aggressive imported water use reduction targets than the 2010 UWMP, the 2015 UWMP still manages to find a need for 21,500 AFY of ocean

[59] Attachment G, p. 10-2.
[60] Attachment G, Table 5-2.
[61] Attachment H, Figure 3-2.
[62] Attachment A, p. 7–8.
[63] Attachment H, Figure 3-2.

desalination water.[64] This need for 21,500 AFY is not, however, supported by substantial evidence in either the UWMP or the DEIR. Moreover, demand may be further reduced by the permanent conservation bills signed by Governor Brown in May 2018. (*See* Assem. 1668, 2018 Leg., Reg. Sess. (Cal. 2018); S. 606, 2018 Leg., Reg. Sess. (Cal. 2018)). Applying the 21,500 AFY as a de facto narrow project objective in a CEQA review means that virtually the entire DEIR analysis relies on a supposition that is unsupported by substantial evidence.

It is also notable that Urban Water Management Plans are *not* governed by Public Resources Code section 21002 (Cal. Water Code § 10652), and thus the 2015 UWMP was not held to any requirement to consider feasible alternatives that would substantially lessen the significant environmental effects of a 20 MGD ocean desalination facility. As a result, in its 2015 UWMP, West Basin defined its water supply portfolio to include 21,500 AFY of the most expensive, energy-intensive water supply option, and is now relying on that projection of 21,500 AFY of ocean desalination water in the DEIR to rule out alternatives without a CEQA analysis.

LAW2-38

This DEIR is a "post-hoc rationalization for a decision already made." West Basin committed to ocean desalination in its 2010 UWMP and again in its 2015 UWMP. The DEIR now relies on such plans to substantiate the need for the Project. As a result, the DEIR's alternatives analysis is fatally flawed for failing to analyze a conservation alternative, stormwater capture alternative, recycling alternative, brackish desalination alternative, a water supply hybrid alternative, and a reduced capacity desalination alternative that supports subsurface intakes.

C. ***The Alternatives Analysis Fails to Evaluate a Hybrid Alternative.***

Not only does the DEIR apply the improper 21,500 AFY shadow objective to unduly constrain the range of alternatives analyzed, but it also unreasonably evaluates each alternative on its ability to achieve all 21,500 AFY of water supply *on its own*. As explained in greater detail below, a hybrid alternative that includes, for example, a combination of increased conservation, stormwater capture, recycling, and brackish desalination could together achieve 21,500 AFY. The DEIR offers no explanation as to why such a hybrid of the supply alternatives eliminated in the initial screening process was not evaluated. Thus, the DEIR alternatives analysis is inadequate because it fails to evaluate a hybrid alternative that includes any combination of water supply alternatives all of which are capable of avoiding or substantially lessening the significant effects of the Project[65] and would achieve most of the basic Project objectives.

LAW2-39

D. ***The Alternatives Analysis Fails to Evaluate a Conservation Alternative.***

Conservation is not only the most reliable and least expensive means of increasing water supply, but also the most energy friendly, as discussed in Section I above. The DEIR touts West Basin's

LAW2-40

[64] See Attachment G, ES-5; Attachment H, ES-4.

[65] *E.g.*, COOLEY & HEBERGER, *supra* note 1, at 3 ("Communities should consider whether there are less energy-intensive options available to meet water demand, such as through conservation and efficiency, water reuse, brackish water desalination, stormwater capture, and rainwater harvesting").

significant conservation savings over the past 25 years and claims that, as a result, demand has hardened making it difficult to "make up for the 21,500 AFY to be produced under the Project." (DEIR, p. 7-10.) As explained in detail in Section V.B. above, it is not evident that West Basin has a need for 21,500 AFY—most notably, when statewide conservation measures were in place, West Basin's conservation efforts actually eliminated the need for a 20 MGD ocean desalination facility. However, even assuming West Basin does need that amount, West Basin could realize significant conservation savings in its residential per capita water usage (R-GPCD).

The DEIR states that in 2016, West Basin's residential water use was 79 R-GPCD. (DEIR, 7-9.) In 2017, the City of Los Angeles was at 68.3 R-GPCD, the City of Long Beach was at 63.4 R-GPCD,[66] and best practice world-wide is even lower, at 30 to 50 R-GPCD. If West Basin were to reduce its R-GPCD to where the City of Los Angeles is (68.3 R-GPCD) or where the City of Long Beach is (63.4 R-GPCD), with a population of 813,000 in 2015 (DEIR, 2-24), that would already amount to a savings of 8.7 MGD to more than 12.68 MGD.

The DEIR states "[t]here is no evidence to indicate that such additional savings can be reasonably anticipated without significant rationing, imposed consumer lifestyle changes, and economic impacts." (DEIR, 7-11.) This is simply not true. In August of 2017, the average residential per capita water use for the South Coast region was 65.87 R-GPCD, down from 69.63 R-GPCD the previous month.[67] The DEIR alternatives analysis should have explored conservation as an alternative to at least bring West Basin's R-GPCD down to levels that have already been achieved elsewhere in the South Coast region.

LAW2-40

The DEIR also attempts to make an environmental justice argument, claiming reliance on obtaining more water savings from "low-income communities that are already at very low GPCD levels may raise concerns over Environmental Justice issues . . . obtaining significantly more water conservation from these economically disadvantaged communities would impose an additional burden and would raise issues of fairness in water use requirements." (DEIR, p. 7-13.) The DEIR then offers Lomita and Inglewood as examples of cities that are below the federal poverty line and had water use at or below 100 GPCD in 2015 and the City of Hawthorne, which had an R-GPCD of 62 in June of 2016. (*Ibid.*) The DEIR does not, however, reveal that affluent communities in West Basin's service area such as Palos Verdes were at 192 R-GPCD in August 2015, 208 R-GPCD in August 2016, and 226 R-GPCD in August 2017.[68] The true environmental justice issue is West Basin's proposal to perpetuate this excessive residential per capita water usage in more affluent communities by building a 20 to 60 MGD ocean desalination plant and indiscriminately imposing the significant costs of the plant on those in West Basin's service area, whether a resident of Palos Verdes using over 200 gallons per day

[66] These figures were calculated by taking the averages of R-GPCD figures for each month of January through December of 2017, found at https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/conservation_reporting.html.

[67] *Is California Water Use Increasing?* 89.3 KPCC, http://projects.scpr.org/applications/monthly-water-use/region/south-coast/ (last visited June 20, 2018.)

[68] STATE WATER RESOURCES CONTROL BOARD, *August Supplier Conservation*, 9, 10 (2017), https://www.waterboards.ca.gov/water_issues/programs/conservation_portal/docs/2017oct/supplierconservation_100317.pdf.

or a resident of Hawthorne using only 62 gallons per day. While data from cities such as Compton (65 R-GPCD) and some communities in southeast Los Angeles County (less than 45 R-GPCD)[69] suggest that there may still be potential conservation savings even in low-income cities in West Basin's service area that are around 100 R-GPCD, it is clear that the greatest conservation savings should come from cities like Palos Verdes, whose residential per capita water usage is well above the South Coast region average. While it may raise an environmental justice issue if an additional burden were placed on residents of Hawthorne in order to obtain significantly more water conservation, such measures are unnecessary when residents of Palos Verdes use over 200 gallons per person per day.

LAW2-40

In summary, West Basin has significant unrealized, residential conservation savings in its service area. The DEIR should have analyzed a conservation alternative. Even if West Basin does need 21,500 AFY of new water supply, there is no excuse for the failure to evaluate maximizing the least expensive, most energy friendly means of increasing water supply in combination with other alternatives to achieve that amount of water supply.

E. ***The Alternatives Analysis Fails to Evaluate a Stormwater Capture Alternative.***

Every time it rains, billions of gallons of stormwater runoff flow into LA County's waterways and out to the ocean.[70] "[A] one-inch rain event in Los Angeles County can generate more than 10 billion gallons (roughly 30,000 acre-feet) of stormwater runoff."[71] In an average storm year in LA County, more than 500,000 acre-feet of stormwater "picks up pollutants and goes straight into our rivers and coastal waters with no treatment."[72] This is billions of gallons of stormwater that could and should be captured, treated, and reused to increase local water supplies and reduce pollution to our waterways. Furthermore, in the last few years, votes in LA County and the State of California have approved funding for water,[73] transit,[74] and parks[75] that provides funding for green streets and other stormwater capture and reuse projects, and in July 2018, the LA County Board of Supervisors will be voting on whether to place a funding measure on the November ballot that would provide $300 million a year for safe clean water programs.[76] There are significant opportunities available to West Basin to increase its water supply through stormwater

LAW2-41

[69] Matt Stevens et al., *Some Communities May Have to Cut Water Use By 35%, Regulators Say*, LA TIMES (Apr. 7, 2015, 8:44 PM), http://www.latimes.com/local/lanow/la-me-ln-some-california-cities-must-cut-water-use-35-amid-drought-20150407-story.html.

[70] NAT. RES. DEF. COUNCIL & PAC. INST., STORMWATER CAPTURE POTENTIAL IN URBAN AND SUBURBAN CALIFORNIA (2014), *available at* https://www.nrdc.org/sites/default/files/ca-water-supply-solutions-stormwater-IB.pdf; Bettina Boxxall, *When It Rains, Los Angeles Sends Billions of Gallons of 'Free Liquid Gold' Down the Drain*, LA TIMES (Mar. 8, 2017, 3:00 AM), http://www.latimes.com/local/lanow/la-me-ln-stormwater-20170308-story.html; Mark Gold, *New Parklands and Shimmering Transit System Won't Matter If L.A. Doesn't Solve Its Water Woes*, LA TIMES (Nov. 21, 2016, 12:05 PM), http://www.latimes.com/opinion/livable-city/la-ol-water-rain-drought-measure-m-hhh-20161121-story.html.

[71] NAT. RES. DEF. COUNCIL & PAC. INST., *supra* note 70, at 3.

[72] Gold, *supra* note 70.

[73] Proposition 1, 2014 Cal. Stat. 2276 et seq.; Proposition 68, 2017 Cal. Stat. 6293 et seq.

[74] Measure M, Ballot Pamp., Primary Elec. (June 5, 2018) text of Measure M, p. 3.

[75] Measure A, Ballot Pamp., General Elec. (November 8, 2016) text of Measure A, p. 2; Proposition 68, 2017 Cal. Stat. 6293 et seq.

[76] COUNTY OF LOS ANGELES, SAFE CLEAN WATER L.A., http://safecleanwaterla.org/ (last visited June, 19 2018).

capture with the added benefit of reducing pollution. The DEIR's alternatives analysis should have evaluated a stormwater capture alternative and a hybrid alternative that includes maximizing the stormwater capture potential in West Basin's service area.

Instead, the DEIR immediately writes off groundwater recharge through stormwater capture and infiltration without citation to any studies, stating the "local geology overlaying the confined aquifers of the West Coast Basin is not conducive to successful groundwater recharge without the use of injection wells." (DEIR, p. 7-16.) The DEIR then briefly describes the components of a stormwater capture and injection well system, characterizes such a system as "a very costly process," notes that West Basin does not own the storm drain systems, and as such, "would require extensive coordination with individual cities and Los Angeles County," and concludes "centralized stormwater capture for groundwater recharge through injection is technologically and institutionally infeasible." (*Ibid.*)

The DEIR does not contain substantial evidence to support this infeasibility conclusion. "The fact that an alternative may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible." (*Citizens of Goleta Valley v. Bd. of Supervisors* (1988) 197 Cal.App.3d 1167, 1181.) The DEIR does not provide any evidence as to why construction of "an entirely new collection, storage, conveyance, and treatment and injection well system" (DEIR, 7-17–7-18) is any more technologically challenging or costly than constructing an entirely new ocean water desalination facility consisting of a pretreatment system and reverse osmosis system, an ocean water intake system, a brine discharge system, and a conveyance system. (DEIR, 3-1.) Without independent analysis to compare the institutional or technological implications of alternatives to the proposed project, merely citing the existence of technological or institutional considerations is insufficient to establish infeasibility. (See *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 599 [concluding that a claim of economic infeasibility without comparing costs of alternatives to that of the proposed project is insufficient]; see also *Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.3d 1336, 1354 [EIR for proposed home improvement store requiring demolition of a historic building inadequate for lack of detail or meaningful analysis of reduced-size alternative design not requiring demolition].) In fact, the Water Replenishment District's (WRD) Groundwater Basins Master Plan (GBMP) identifies opportunities to develop as much as 30,000 AFY of additional water supply above the current water rights in the West Coast Basin, and includes a planning scenario in which new injection wells are constructed to allow for increased replenishment.[77] The DEIR fails to include any discussion of WRD's plans to reduce dependence on imported water and increase recharge to and pumping from the West Coast Basin to evaluate whether, for example, WRD's new injection well scenario may make stormwater capture less technologically challenging. The mere fact that West Basin does not own the storm drain systems and would have to coordinate with cities and LA County is not sufficient evidence to render centralized stormwater capture institutionally infeasible. (*Save Round Valley Alliance v. County of Inyo* (2007) 157 Cal.App.4th 1437, 1457 ["Even when the project proponent does not own a potential alternative site, the development of the project on the alternative site may nevertheless be feasible when the alternative site can be acquired through a land exchange with a public entity."]; see also *Citizens*

LAW2-41

[77] WATER REPLENISHMENT DIST. OF S. CAL., GROUNDWATER BASINS MASTER PLAN 3-16–3-17 (2016), *available at* http://www.wrd.org/sites/pr/files/GBMP_FinalReport_Text%20and%20Appendicies.pdf.

of Goleta Valley v. Bd. of Supervisors (1990) 52 Cal.3d 553, 574 [alternatives requiring alternate sites are more likely to be feasible when the project proponent is a public entity]; see also *San Bernardino Valley Audubon Society v. County of San Bernardino* (1984) 155 Cal.App.3d 738, 751 [EIR for proposed public gravesite defective because possibility of land trade between proponent and US Forest Service was identified but not adequately discussed].) The DEIR also does not provide any support for its conclusory statement that such physical improvements required for a centralized stormwater capture system "would result in construction impacts that may be more widespread than the Project." (DEIR, 7-18.)

In addition, the DEIR fails to compare the environmental impacts from operation of the Project to operation of a stormwater capture system. A stormwater capture system would have less energy impacts than the Project, would avoid the significant land use and marine impacts of the Project, and would have the added environmental benefit of reducing the amount of polluted stormwater runoff from reaching our waterways, not to mention the multi-benefits of distributed stormwater capture projects such as green streets.[78] Lastly, the DEIR attempts to cut off further discussion of stormwater capture by couching West Basin's lack of groundwater rights to retrieve injected stormwater from the West Coast Basin as an insurmountable obstacle. Groundwater rights can be negotiated and West Basin would be in a good position to do so if they are recharging the West Coast Basin with thousands of acre-feet of water each year. (*Save Round Valley Alliance v. County of Inyo, supra,* 157 Cal.App.4th 1437, 1457; see also *Citizens of Goleta Valley v. Bd. of Supervisors, supra,* 52 Cal.3d 553, 574; see also *San Bernardino Valley Audubon Society v. County of San Bernardino, supra,* 155 Cal.App.3d 738, 751.)

LAW2-41

The DEIR raises the issue of susceptibility to hydrologic variability stating that "stormwater capture would not represent a hydrologically-independent water supply source" and therefore, does not meet the project objective to "improve climate resiliency by developing a water source that is less susceptible to hydrologic variability." (DEIR, 7-17.) However, maximizing stormwater capture as one part of a hybrid alternative does in fact meet this project objective. Furthermore, even on days without any precipitation, "water from excess landscape irrigation, car washing, industrial processes, and other uses flows into storm sewer systems—an estimated 10 million to 25 million gallons flow into Santa Monica Bay alone for each dry-weather day, and more than 100 million gallons flow to the ocean from across Los Angeles County."[79]

The DEIR also minimizes the potential for increasing water supply specifically through distributed sources, concluding that "[u]sing rain barrels and cisterns to capture rainwater for direct non-potable uses is not feasible in the volumes required to replace the potable water supply reliability that the Project could provide." (DEIR, 7-16–7-17.) Once again, the DEIR improperly eliminated distributed stormwater capture from further analysis using the shadow objective of 21,500 AFY of new water supply. The DEIR then cites the Los Angeles

[78] NAT. RES. DEF. COUNCIL & TREEPEOPLE, RAIN TO THE RESCUE: STORMWATER'S POWER TO INCREASE CALIFORNIA'S LOCAL WATER SUPPLIES 1–2 (2016), *available at* https://www.nrdc.org/sites/default/files/stormwater-ca-local-water-supplies-ib.pdf.

[79] NAT. RES. DEF. COUNCIL & PACIFIC INSTITUTE, *supra* note 70, at 3 (citing City of Los Angeles, *Santa Monica Bay Shoreline Monitoring Municipal Separate Storm Sewer System (MS4) Report* (July 1, 2008–June 30, 2009) and City of Los Angeles Bureau of Sanitation, *Stormwater Best Management Practices (BMPs): Home Repair and Remodeling*, san.lacity.org/ watershed_protection/pdfs/homerepr.pdf.)

Department of Water and Power (LADWP) Stormwater Capture Master Plan (SCMP) for the estimate that "the potential offset of imported water in the city of Los Angeles through stormwater capture is 1,000 AFY by 2020 and 7,000 AFY by 2035" and concludes that because of West Basin's smaller square mileage, West Basin's stormwater capture potential would only be a fraction of this. (DEIR, 7-16.) The DEIR also makes a vague, uncited reference to "a recent study" that estimates "only 900 AFY of decentralized stormwater would be available for direct use within the Dominguez Channel/Los Angeles Harbor watershed." (DEIR, 7-17.)

First, distributed stormwater capture encompasses more than just rain barrels and cisterns. It includes green streets, greening schools, park retrofits, building retrofits, as well as residential rain capture systems that have the added environmental benefits of increasing green space, energy savings, and improving air quality.[80] But even if we only look at residential stormwater capture potential, capturing "a portion of the runoff from single-family homes for on-site use . . . would drastically increase overall local water supplies and reduce strain on existing systems."[81] Locally, this is especially true because, "LA families use most of their drinking quality water for nonpotable uses . . . [a]n average Los Angeles family of four uses a whole 68 percent of its water for toilet flushing, landscaping, washing clothes and other non-drinking uses."[82] Thus, maximizing West Basin's distributed stormwater capture potential to reduce residential use of potable water for nonpotable uses would increase potable water supplies.

LAW2-41

Second, it is unreasonable for the DEIR not to analyze the *combined* potential of *both* centralized and distributed stormwater capture—"stormwater capture, using both infiltration to recharge groundwater resources and capture of rooftop runoff for direct nonpotable consumption, is a strong option for improving the resilience and sustainability of water supply for the cities and suburban areas of California."[83] Looking at both centralized *and* distributed stormwater capture, the SCMP shows that LADWP could potentially increase stormwater capture to between 132,000 AFY and 178,000 AFY by 2035.[84] Even if West Basin's centralized and distributed stormwater capture potential is 63% less than the City of LA's, as the DEIR suggests, that would still amount to between 48,000 AFY and 65,000 AFY of stormwater capture potential in West Basin's 185 square-mile service area. (See DEIR 7-16.)

Thus, the DEIR improperly concludes "solely pursuing stormwater capture would not achieve the Project objectives." (DEIR, 7-18.) Once again, the need for 21,500 AFY of new water supply is not supported by substantial evidence, and even if there is a need for 21,500 AFY of water, it is inappropriate to evaluate stormwater capture on its ability to achieve all 21,500 AFY of water supply on its own. The DEIR alternatives analysis should have included an analysis of stormwater capture as an alternative as well as an analysis of stormwater capture in the context of a hybrid alternative.

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[80] NAT. RES. DEF. COUNCIL & TREEPEOPLE, *supra* note 78, at 2.
[81] NAT. RES. DEF. COUNCIL & PAC. INST., *supra* note 70, at 6 (stating that in Southern California and the San Francisco Bay regions, "nearly 145,000 acre-feet could be gained via rainwater capture systems installed in our homes.").
[82] NAT. RES. DEF. COUNCIL & TREEPEOPLE, *supra* note at 78, at 3.
[83] *Id.* at 6.
[84] Attachment I, p. 77.

F. ***The Alternatives Analysis Fails to Evaluate a Recycling Alternative.***

In LA County, we meet only 4% of our water demand with recycled water.[85] However, there is the potential to produce "up to 400,000 acre-feet per year of water for the region" just by reusing the wastewater treated at the Hyperion Water Reclamation Plant (Hyperion), Donald C. Tillman Water Reclamation Plant, and the Carson Joint Water Pollution Control Plant (JWPCP).[86] Hyperion, alone, discharges over 200 million gallons of wastewater into the Bay every day and is located only about one mile from the proposed Project.[87]

i. The DEIR Inadequately Explores the Possibility of a Non-Potable Recycling Alternative.

West Basin has been a leader in recycled water with its Edward C. Little Water Recycling Facility (ECLWRF) that came online in the early 1990s and currently recycles approximately 35 MGD of secondary effluent from Hyperion. (See DEIR, 7-18.) However, since that time, other agencies have taken on even more leadership—Orange County produces 100 MGD of recycled water to augment its groundwater supplies[88] and the proposed Pure Water San Diego would also produce 83 MGD of recycled water to augment local reservoirs.[89] MWD and the Sanitation Districts of Los Angeles County are exploring a Regional Recycled Water Program that would include an advanced water treatment facility at the Carson JWPCP and would produce 150 MGD of recycled water and serve over 335,000 homes.[90] Construction of a half-million gallon per day demonstration facility began in November of 2017.[91] As currently envisioned, 15 MGD (~17,000 AFY) of the 150 MGD regional program would go to West Coast Basin injection wells.[92] This is contrary to the statement in the DEIR that this project "would not provide supplies to West Basin retail agency customers." (DEIR, 7-22).

LAW2-42

As stated in the DEIR, West Basin has entered into an agreement with Los Angeles Bureau of Sanitation and LADWP to increase recycling at ECLWRF to 70 MGD of secondary effluent from Hyperion. (DEIR, 7-19.) Waterkeeper applauds these interagency coordination efforts.

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[85] MARK GOLD ET AL., UCLA INST. OF THE ENV'T AND SUSTAINABILITY, 2015 ENVIRONMENTAL REPORT CARD FOR LOS ANGELES COUNTY: WATER 12 (2015), *available at* https://www.ioes.ucla.edu/wp-content/uploads/report-card-2015-water.pdf.

[86] Gold, *supra* note 70.

[87] CITY OF LOS ANGELES, ENVTL. MONITORING DIV., FALL 2015 HYPERION TREATMENT PLANT EFFLUENT DIVERSION TO THE 1-MILE OUTFALL COMPREHENSIVE MONITORING PROGRAM FINAL REPORT 8 (2017), *available at* http://sccoos.org/media/filer_public/f1/cd/f1cdbf4c-3248-4449-882c-28b8925f37fb/2015_htp_1-mile_outfall_diversion_final_report.pdf.

[88] *About GWRS*, ORANGE CNTY. WATER DIST., https://www.ocwd.com/gwrs/about-gwrs/ (last visited Jun. 21, 2018).

[89] THE CITY OF SAN DIEGO, PURE WATER SAN DIEGO PROGRAM 2 (2017), *available at* https://www.sandiego.gov/sites/default/files/pure_water_brochure_final_3_20_17.pdf.

[90] THE METRO. WATER DIST. OF S. CAL. & SANITATION DISTS. OF LOS ANGELES CTY., A NEW SOURCE OF WATER FOR SOUTHERN CALIFORNIA 3 (2017), *available at* http://mwdh2o.com/PDF_About_Your_Water/Regional_Recyled_Water_Supply_Program.pdf.

[91] *Id.*

[92] ENGINEERING & OPERATIONS COMMITTEE, REGIONAL RECYCLED WATER PROGRAM 18 (2018), *available at* http://www.mwdh2o.com/DocSvcsPubs/rrwp/assets/mwd_board_item_6-b_staff_presentation_march_2018.pdf.

However, ECLWRF is "designed for ultimate expansion to 100 MGD."[93] Expanding ECLWRF to its maximum capacity would more than eliminate the need for the Local Project. Further, as a condition of its ECLWRF permit issued by the Regional Water Quality Control Board, West Basin is required to "investigate the feasibility of recycling, conservation, and/or alternative disposal methods of wastewater and/or use of storm water and dry-weather urban runoff" whenever practicable.[94] By issuing a DEIR that inadequately explores the alternative of expanding ECLWRF capacity and recycling hybrid alternatives, West Basin falls short of the conditions imposed upon it by the ECLWRF permit.

Despite the ECLWRF permit's mandate and the expansion potential at ECLWRF, the DEIR eliminates the "Increased Non-Potable Recycling Alternative" in the initial screening process. The DEIR cites "current secondary effluent water quality, complex partnership with neighboring jurisdictions, additional treatment and distribution costs," and the fact that the "economic viability of this alternative is reduced as it is unlikely that West Basin will identify an additional demand for 21,500 AFY of non-potable recycled water" as major obstacles. (DEIR, 7-20–7-21.) The DEIR should have analyzed increased non-potable recycling in the context of a hybrid alternative, rather than improperly eliminating it from further analysis by repeatedly measuring it against the ability to achieve 21,500 AFY of new potable water.

LAW2-42

As the DEIR itself states, increased recycling of Hyperion secondary effluent at ECLWRF would "relieve pressure on imported supplies by replacing potable water with recycled water." (DEIR, 7-20.) Yet, the DEIR does not include any assessment or quantification of the potential in West Basin's service area for substituting recycled water where potable water is currently being used for non-potable applications. In the context of recycled water for non-potable usage, the DEIR states "West Basin's service area is limited by a finite customer base" and thus, while "West Basin's recycled water sales are anticipated to increase in the future," sales are unlikely to increase by 21,500 AFY. (*Ibid*.) Again, the DEIR fails to explore the extent of that anticipated increase in recycled water sales based on the improper assumption that each water supply alternative must either achieve all 21,500 AFY or be eliminated. (*Ibid*.) The DEIR also fails to discuss the fact that WRD's GBMP contemplates increased replenishment with recycled water from ECLWRF,[95] among other plants, and how WRD's estimated 25,500 AFY of additional replenishment required to meet long-term future pumping demands may create additional demand in West Basin's service area for recycled water for non-potable usage.[96] While Waterkeeper is skeptical of non-potable recycling to the extent it incentivizes poor land use

[93] Attachment J.

[94] CAL. REG'L WATER QUALITY CONTROL BD. L.A. REGION, ORDER R4-2018-XXX, WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM PERMIT FOR WEST BASIN MUNICIPAL WATER DISTRICT, EDWARD C. LITTLE WATER RECYCLING FACILITY, DISCHARGE TO THE PACIFIC OCEAN, VIA THE HYPERION TREATMENT PLANT (HTP) "FIVE MILE OUTFALL" F-14 (2018), https://www.waterboards.ca.gov/losangeles/board_decisions/tentative_orders/individual/npdes/ECLittle/ECLittleRevisedTentative20180530final.pdf [hereinafter ECLWRF PERMIT] (citing Cal. Water Code §§ 13000 (1970); Cal. Water Code §§ 13550-13557 (2015); State Water Resources Control Bd. Res. 77-1 (Cal. 1977) (policy with respect to water reclamation in California); State Water Resources Control Bd. Res. 2009-0011 (2009) (policy for water quality control for recycled water)).

[95] WATER REPLENISHMENT DIST. OF S. CAL., *supra* note 77, at 3-5.

[96] *Id.* at 2-4.

planning, the DEIR alternatives analysis should have evaluated the combined potential for 1) substituting recycled water where potable water is currently being used for non-potable uses and 2) the anticipated increase in sales of recycled water for non-potable uses as an alternative to the Project and in the context of a hybrid alternative.

LAW2-42

ii. The DEIR Inadequately Explores the Possibility of an Indirect Potable Reuse Alternative.

Again, the DEIR cites to the major obstacles in the form of the source water quality, the complexities and institutional issues surrounding interagency agreements, and the lack of groundwater rights as excuses not to explore Indirect Potable Reuse (IPR) as an alternative to the Project. (DEIR, 7-24—7-25.) These are not insurmountable obstacles. Without studies and cost analyses on water quality improvements to source water from Hyperion, the DEIR does not provide substantial evidence to support its conclusion that the challenges presented by the source water quality are such that further analysis is not warranted. (See *Uphold Our Heritage v. Town of Woodside, supra,* 147 Cal.App.4th 587, 599; see also *Preservation Action Council v. City of San Jose, supra,* 141 Cal.App.3d 1336, 1354.) To the contrary, West Basin is currently evaluating several modifications at ECLWRF to produce higher quality product water for the nearby refinery, and it appears that the modifications are feasible.[97] LAW sees no reason why an appropriate level of treatment could not be applied to water from Hyperion to similarly produce product water suitable for indirect or direct potable re-use.

LAW2-43

Moreover, West Basin has already demonstrated its ability to navigate "complex institutional arrangements" by entering into a Memorandum of Agreement (MOA) with LADWP and the Los Angeles Bureau of Sanitation (LASAN) "to investigate treatment improvements at Hyperion that would allow for optimization and expansion of the West Basin Recycled Water Program." (DEIR, 7-19.) Yet, in discussing the complexity of such coordination, the DEIR improperly interprets the project objectives such that improved water security and increased long-term price stability could not be achieved unless West Basin has sole control over the alternative. (DEIR, 7-25.) Further, the DEIR itself states that Hyperion is not the only source of secondary effluent—the JWPCP is located within West Basin's service area. (DEIR, 7-22.) West Basin's lack of groundwater rights also does not render this alternative infeasible—groundwater rights are negotiable. (*Save Round Valley Alliance v. County of Inyo, supra,* 157 Cal.App.4th 1437, 1457; see also *San Bernardino Valley Audubon Society v. County of San Bernardino, supra* 155 Cal.App.3d 738, 751.) Recycling uses the same reverse osmosis technology as ocean desalination, [98] but has a fraction of the carbon footprint, is less energy-intensive, and as even admitted in the DEIR, "would avoid the Project's impacts to marine biological resources." (DEIR 7-26.) The DEIR alternatives analysis should have included an analysis of an IPR alternative, especially in light of the fact that even if West Basin relies on the 21,500 AFY shadow objective, IPR has the potential of developing that amount of water supply.

[97] ECLWRF PERMIT, *supra* note 94, at F-12–F-13.
[98] *See, e.g.*, *Groundwater Replenishment System: Process Steps*, ORANGE COUNTY WATER DIST., https://www.ocwd.com/gwrs/the-process/process-steps/reverse-osmosis/ (last visited June 21, 2018).

iii. The DEIR Inadequately Explores the Possibility of a Direct Potable Reuse Alternative.

In October of 2017, Assembly Bill 574 was signed into law, which set a 2023 deadline for the development of Direct Potable Reuse (DPR) regulations.[99] The DEIR, however, concludes that due to the lack of existing DPR regulations, this alternative is legally infeasible and even if DPR was permitted, West Basin does not own surface water reservoirs, surface water treatment plants, or a Drinking Water Treatment Plant. (DEIR, 7-26–7-31.) The lack of implementing legislation, alone, is not sufficient to render an otherwise reasonable alternative infeasible. (*Save Round Valley Alliance v. County of Inyo, supra,* 157 Cal.App.4th 1437, 1465 [concluding, "even if Congress is required to act to effect an exchange, such requirement, without more, is insufficient to establish infeasibility"]; see also *Citizens of Goleta Valley v Bd. of Supervisors, supra,* 52 Cal.3d 533, 574.)). Likewise, the need to coordinate with another entity, in this case a wastewater facility owner, is an inadequate basis for eliminating DPR from further review. The DEIR, again, relies on the improper assumption that without "full institutional control" over an alternative, increased long-term price stability and improved water security could not be achieved. (See DEIR, 7-29.) As explained above, recycling has less significant environmental impacts than ocean desalination, and the DEIR alternatives analysis should have included analysis of DPR, rather than eliminating it in the initial screening process.

LAW2-44

G. ***The DEIR Failed to Evaluate a Brackish Desalination Alternative.***

Due to seawater intrusion, there is a 650,000 AF brackish groundwater plume in the West Coast Basin.[100] This is currently an untapped source of drinking water that the DEIR should have explored remediating as an alternative to the proposed Project. Extracting and remediating this brackish plume would have the added benefit of creating additional storage space[101] in the West Coast Basin for recharged stormwater or recycled water.[102] Brackish desalination not only meets most of the basic Project objectives and would avoid or substantially lessen the significant environmental impacts of the Project, it would even meet the shadow objective of developing 21,500 AFY of new water supply.

LAW2-45

Through brackish desalination West Basin would develop a new water source that would increase reliability in the near and long-term while reducing reliance on imported water. In fact, WRD is exploring opportunities for remediation of the brackish groundwater plume as a means of reducing dependence on imported water.[103] The DEIR repeatedly assumes that anything less than West Basin's complete control over a water supply source prevents improved water security and control of future water costs and long-term price stability. However, these Project objectives can still be achieved, even in partnership with additional entities such as WRD. Brackish desalination would improve climate resiliency by developing a water source that is less

[99] Assem. 574, 2017 Leg., Reg. Sess. (Cal. 2017).
[100] WATER REPLENISHMENT DIST. OF S. CAL., *supra* note 77, at 2-8.
[101] *Id.* at 1-4 (explaining that there is currently 120,000 acre-feet of unused storage space in the West Coast Basin).
[102] *See*, *id.* at ES-3.
[103] *Id.* at 3-2–3-17; Attachment A, p. 10 n. 55.

susceptible to hydrologic variability "as it would provide West Basin with a locally sourced water supply and would reduce dependence on imported water from the Colorado River and SWP." (DEIR, 7-25.) Brackish desalination would allow West Basin to develop an economically viable water supply despite West Basin's current lack of groundwater rights. Once again, groundwater rights can be negotiated and brackish desalination is much less expensive than the proposed Project due to the lower energy and treatment costs.[104] Brackish desalination is also an environmentally responsible water supply alternative, especially in comparison to the proposed Project. Desalting brackish water has less energy and GHG impacts than the proposed Project due to the lower salinity of brackish water as compared to ocean water.[105] Brackish desalination would also avoid the significant marine impacts of the proposed Project and the significant land use impacts.

LAW2-45

The DEIR alternatives analysis should have included an analysis of a brackish desalination alternative and an analysis of brackish desalination in the context of a hybrid alternative.

H. ***DEIR Failed to Evaluate an Alternative that Would Support Subsurface Intakes.***

The California Water Code states that for new desalination facilities, "the best available site, design, technology, and mitigation measures feasible shall be used to minimize the intake and mortality of all forms of marine life." (Cal. Water Code § 13142.5(b).) The Ocean Plan states that subsurface intakes are the preferred technology and seawater desalination owners or operators shall "evaluate a reasonable range of nearby sites, including sites that would likely support subsurface intakes."[106] The DEIR states that "West Basin has extensively evaluated the . . . feasibility of incorporating subsurface seawater intakes," but ultimately found SSIs to be technically and economically infeasible. (DEIR, 2-37–2-41.) This infeasibility conclusion is based on a "minimum design production capacity" of 20 MGD, "which requires a seawater intake rate of 40 MGD." (DEIR, Appendix 2A, 2.) West Basin, thus, did not explore whether a reduced intake rate would support subsurface intakes. While Waterkeeper does not advocate for West Basin's pursuit of ocean desalination at this time, the DEIR alternative analysis should have explored whether a reduced capacity plant may support subsurface intakes. Other agencies have shown the environmentally preferred subsurface intakes are feasible. The South Coast Water District's proposed 5 to 15 MGD plant will be using subsurface intakes.[107] The DEIR's improper reliance on the need for 21,500 AFY of additional water supply artificially foreclosed an evaluation of reduced capacity alternatives to the Project that may support subsurface intakes. The DEIR alternatives analysis should have evaluated an alternative that would support subsurface intakes.

LAW2-46

I. ***Conclusion***

The DEIR alternatives analysis is inadequate because it fails to evaluate a reasonable range of alternatives by using an unduly narrow interpretation of the project objectives and imposing a

LAW2-47

[104] COOLEY & PHURISAMBAN, *supra* note 1, at 2.
[105] COOLEY & HEBERGER, *supra* note 1, at 7.
[106] Final Staff Report for Desal Amendment, *supra* note 32, at 31, 62.
[107] SO. COAST WATER DIST., DOHENY OCEAN DESALINATION PROJECT DRAFT ENVIRONMENTAL IMPACT REPORT 3.0-1 (2018), *available at* https://scwd.app.box.com/s/au10vuiyco3toasrmosfsiy7yr8w75s6.

requirement that each alternative develop 21,500 AFY of new water supply. The DEIR alternatives analysis eliminates conservation, stormwater capture, and recycling in an initial screening process that is unsupported by substantial evidence, fails to analyze a hybrid alternative that includes a combination of these water supply options, and fails to include any discussion of brackish desalination. Conservation, stormwater capture, recycling, brackish desalination, and a reduced capacity desalination plant that support subsurface intakes are alternatives that meet most of the basic project objects and would avoid or substantially lessen the significant energy, GHG, climate change, marine, water quality, land use, and environmental justice impacts of the proposed Project. The DEIR alternatives analysis is inadequate for failing to include an analysis of such alternatives.

LAW2-47

VI. Conclusion

For the reasons outlined above, LAW urges West Basin to use the opportunity presented by the legal necessity of substantial revisions to the DEIR to comprehensively explore the more environmentally sound and cost-effective alternatives to increasing local water supplies and design a water supply portfolio that more accurately reflects West Basin's commitment to "being an innovative leader in the water industry."[108] LAW thanks you for your careful consideration of our comments.

Sincerely,

Melissa Kelly
Staff Attorney
Los Angeles Waterkeeper

[108] *About Us*, WEST BASIN MUN. WATER DIST., http://www.westbasin.org/about-us (last visited June 21, 2018).

NRG Energy, Inc.
804 Carnegie Center
Princeton, NJ 08540

June 25, 2018

Ms. Zita Yu, Ph.D., P.E.
Project Manager
West Basin Municipal Water District
17140 South Avalon Blvd., Suite 210
Carson, CA 90746-1296

RE: Comments on the Draft Environmental Impact Report for the Proposed Ocean Water Desalination Project, March 2018

Dear Ms. Yu,

NRG Energy, Inc. (NRG) has reviewed the Draft Environmental Impact Report (DEIR) for the Ocean Desalination Project (Project) and provides these high level comments about the overall proposed project which West Basin Municipal Water District (West Basin) proposes to locate on property where the El Segundo Generating Station (ESGS) is located. ESGS and the property on which it is located are owned by an NRG subsidiary.

At this point, NRG is not taking a formal position on the Project and offers no comments on the stated project objectives, proposed technical and economical merits of desalination as a source of new potable water, assumed range of sizes for the project (ranging from 10 million gallons per day [MGD] for Low Capacity alternative to 60 MGD for the programmatic Regional Project), or the proposed preliminary design of the Project. NRG's comments at this time are focused on West Basin's assumptions and analysis of a proposed desalination facility at either the North or South Sites of ESGS.[1] NRG suggests that, based on its comments, further analysis will be warranted and that the DEIR should be recirculated for further comments. NRG-1

First, NRG requests that the ESGS South Site be removed from consideration. Continuation of industrial uses on the former ESGS tank farm site is not the highest and best use of this parcel. This location is better suited for uses that better integrate with Manhattan Beach's El Porto area and transition more smoothly to the heavy industrial activities that exist at ESGS. Consequently, maintaining heavy industrial land use at the North Site - the current location of retired ESGS Units 3 and 4 which are adjacent to El Segundo Energy Center (ESEC) (i.e., El Segundo Energy Center LLC's 560 megawatt [MW] combined cycle power plant constructed in 2013) - is superior land use planning. While NRG understands that the DEIR favors the ESGS North Site over the ESGS South Site, the ESGS South Site should be eliminated, and not considered further as an option or alternative for either the Local Project (20 MGD) or Regional Project (60 MGD). NRG-2

[1] The "North Site" refers to land on which two of ESGS's retired power plant turbines, Units 3 and 4 are located. The "South Site" refers to ESGS's former tank farm area located on the south side of the ESGS perimeter.

Second, the Project Description must more clearly delineate the scope for demolition of Units 3 and 4, subsurface excavation and construction methods, and associated potential environmental, geotechnical and structural impacts and mitigation measures. Demolition of Units 3 and 4, subsurface excavations and dewatering activities, structural/foundations designs, and construction of the Project need to be adequately described and developed to ensure there are no impacts to ESEC's operations, maintenance and general requirements under its obligation to provide electricity to Southern California's grid. ESEC includes not only the gas turbine and steam turbine structures referenced as Units 5-8, but also includes numerous aboveground and below ground tanks, vessels, piping and electrical and fiber optic conduits the DEIR must consider. Furthermore, the Project Description should describe in greater detail soil staging and management proposed for this Project given the estimated volume of earthmoving that is proposed for the Local and Regional Projects. NRG-3

Third, the DEIR's environmental analysis does not adequately account for and evaluate the laws, ordinances, regulations and standards (LORS) that existing assets at the proposed Project site must meet and the Project's ability to ensure that these requirements are not compromised. For example, the DEIR's environmental analysis should consider in detail the California Energy Commission's (CEC) Conditions for Certification for ESEC Application for Certification 00-ACF-14C and the terms of State Lands Lease PRC 858.1 for ESGS's intake and outfall tunnels. NRG-4 The DEIR's environmental analysis should also more fully address ESGS's existing storm water and wastewater National Pollutant Discharge Elimination System (NPDES) permit discharge obligations and how the proposed Project will integrate with those obligations. NRG-5 In addition, the DEIR's environmental analysis should also elaborate on Risk Management Plan requirements for the Project and how those Project requirements will integrate with existing chemical storage and use requirements for ESEC. NRG-6 Finally, the DEIR should describe how the Project will conform to or potentially modify the associated permit conditions, licenses, and leases imposed on the respective permit owner for existing assets. NRG-7

We look forward to your responses to these comments. If you should have any questions concerning these comments, please contact me at George.Piantka@nrg.com or 760-710-2156. NRG-8

Best Regards,

George L. Piantka, PE
Sr. Director, Regulatory Environmental Services
NRG Energy, West Region

cc: Patrick Shields, West Basin
Shivaji Deshmukh, West Basin
Sean Beatty, NRG
Eric Leuze, NRG
Mark Rohrlick, NRG
Ken Riesz, NRG

From:	West Basin
To:	Noemi Luna
Subject:	West Basin Desal Site Comments
Date:	Wednesday, May 23, 2018 11:33:24 PM

Comments - Form from West Basin Desal Site

Name: Ocean Front Strand Properties

Mailing Address:
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: hapey2004@aol.com

Organization:

Comments:
To whom it may concern, I'm not going to waste my time explaining why this desalination plant is a terrible idea for the environment or for the people of Manhattan Beach. It's clear that the people in charge of this project have traded everything that's important in this life for greed and personal gain. I've met with twenty of the deepest pocketed residents of Manhattan Beach and if you choose to try and build this monstrosity anywhere near Manhattan Beach you can expect years of legal battles. We won't hesitate to spend millions of dollars to fight this. So I'll save my arguments for that day. When and if we need to, we'll see you in court! Sincerely, Ocean Front Strand Properties

OFSP-1

From: West Basin

Sent: Thursday, June 21, 2018 2:59 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Attachments: SCWestBasinEIRComments062118.docx

Comments - Form from West Basin Desal Site

Name: Charming Evelyn

Mailing Address: 3250 Wilshire Blvd., Suite 1106
City: Los Angeles
State: CA
Zip: 90020

Telephone # (daytime): 213-385-0903

Email Address: bcharmz@aol.com

Organization: Sierra Club

Comments:
Sierra Club regularly reviews and comments on large scale development projects that pose significant threats to the environment and has developed a national policy specific to ocean desalination that provides guidance on the review of proposed ocean desalination plants. After a review of the project documents the Sierra Club Angeles Chapter Water Committee is submitting the following comments on the project. See attached file. Charming Evelyn Chair Sierra Club Angeles Chapter Water Committee

SCLA-1

June 21, 2018

West Basin Municipal Water District
17140 South Avalon Boulevard, Suite 210
Carson, California 90746

RE: Sierra Club Comments on West Basin Ocean Desalination Project EIR

The mission of the Sierra Club is to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives. Sierra Club regularly reviews and comments on large scale development projects that pose significant threats to the environment. Sierra Club has developed a national policy specific to ocean desalination that provides guidance on the review of proposed ocean desalination plants. After a review of the project documents the Sierra Club Angeles Chapter Water Committee has the following comments on the project. SCLA-2

1. There is a lack of demonstrated need for the water from the project. The EIR states that the proposed project designs of 20-60 million gallons a day of water are necessary for future local and regional demand as documented in West Basins 2015 UWMP. The two proposed sizes for the potential facility are evidence of the lack of a definitive need for the project in the cited plans. Further, the EIR does not take into account the new requirements from SB 606 and AB 1668 that were signed on May 31 2018. This legislation includes requirements to substantially reduce urban water use including achieving a per capita use of 55 gallons per day by 2025 and 50 Gallons per day by 2030. The EIR also relies on speculative predictions of imported water availability from the California Delta and Colorado River. We believe the future use prediction in the EIR is arbitrary and unsubstantiated by identification of specific future water needs or consideration of the recent and future reduced water use in the West Basin service area. Sierra Club policy states that “Ocean desalination should not be used for water supply needs that can be met by water conservation, water recycling, and other water use efficiency practices.” We believe that conservation along with other alternatives can exceed the capacity of the proposed ocean desalination plant rendering it unnecessary. SCLA-3

2. A number of viable alternatives were rejected in the draft EIR. As an example, conservation was rejected even though on page 7-10 it says a 15% reduction in current water use would make up for the 21,500 Acre Feet per year the plant would produce. The EIR pg 7-11 states that “There SCLA-4

is no evidence to indicate that such additional savings can be reasonably anticipated without significant rationing, imposed consumer lifestyle changes, and economic impacts", and on page 7-12 "Another limiting factor that impacts the feasibility of achieving the additional savings necessary under this alternative is the large amounts of CII water demand in West Basin's service area". It is our opinion that the mandatory reduction on water use in 2016-2017 showed otherwise. Residential consumer and industry alike adapted to the mandatory water use requirements without major impacts to consumer lifestyles or industrial processes. Looking at the Figure 7-1, it appears that residential water use is still at about 80 GPCD when new legislation will require that to be 50 GPCD, that leaves a lot of room for improvement. Industrial users are also likely to be able to reduce water use by 15% without significantly impacting their operations. Also, each of the rejected alternatives are examined as a stand alone solution to future water supply when the appropriate analysis would be to consider how a combination of conservation storm water capture, expanded wastewater recycling, increased appliance efficiency, water infrastructure upgrades and other water use efficiency alternatives would meet future needs. The EIR should detail the potential volume of water that could be produced from these alternatives and justify any need for desalinated water in light of full implementation of these alternatives. The sizing of any proposed desalination should be based on the demonstrated need for water over and above the volume that can be produced by alternative means.

SCLA-4

3. The EIR on page 7-13 brings up the issue of Environmental Justice. We agree that Environmental Justice must be a factor in the decision process for this plant. Unfortunately, the EIR ignores the significant impact the increased water costs from the plant will have on low income communities in the West Basin service area. This analysis should be included. It is likely that these communities would derive more benefit from programs to provide new washers, toilets and other indoor water conservation methods that would improve living conditions while reducing their water use.

SCLA-5

4. The project is proposed to be co-located with one of two existing power plants. The national Sierra Club policy specifically calls this out as unacceptable. The California Ocean Plan says the plant must use the best site design and technology to minimize impacts to marine life and that subsurface intakes must be used unless they are not feasible. The primary site consideration for the project must be made based on the feasibility of the use of subsurface intakes not the location of existing, and now outlawed intake structures. A full site analysis, including sites outside the West Basin Service area needs to be completed.

SCLA-6

The cumulative impacts of seawater desalination from existing and proposed desalination plants in the Southern California Bight needs to be analyzed. The EIR states that desalination facilities and other seawater

SCLA-7

intakes in the Southern California Bight are considered as projects within the cumulative scenario but there is no actual analysis, just a list of the plants with a description. The Southern California Bight acts as a transition point between many different water masses, the Pacific Subarctic, Pacific Equatorial and the North Pacific central water masses to name a few. Due to its central location, marine life and fauna includes species native to these other waters. The destruction of marine life from open ocean intakes is well documented. Potential adverse cumulative effects including interruption of plankton transport, species decline, reduction in biodiversity, should be analyzed in detail for desalination projects beyond the Santa Monica Bay. SCLA-7

5. Seawater desalination is energy intensive. The EIR claims West Basin is "committed to reducing the Project's GHG emissions to [net carbon neutral]", and anticipates that "emissions will change over time as California transitions to cleaner energy in accordance with SB 350 and other regulations". However, there is no explanation as to how the project would become carbon neutral or how changes in future energy sources for the plant will determine the carbon footprint. Also since this project is designed to replace imported water it should fully mitigate for the water it is purported to replace continuing to be imported. The MWD has made it clear that it will continue to import all the water it is permitted regardless of new local supplies. Further, the energy demand should be compared to alternative means to achieve a sustainable water supply portfolio locally and regionally. SCLA-8

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6. Sierra Club policy states that seawater desalination plants must not induce growth. The EIR in section 6.2 states that The Project would not provide new homes; therefore, it would not induce direct population growth. The Project would reduce dependency on imported water supplies with desalinated water through its provision of 20 MGD of potable water to the West Basin Municipal Water District (West Basin) service area and a potential additional 40 MGD of potable water to the region. The idea that because the project does not directly produce new homes it would not induce growth is absurd. Augmenting the water supply is integral to increased growth in any area. West Basin Water District says that desalinated water will reduce use of imported water; that needs to be backed up with a real commitment. Specifically, there should be a discussion of the mechanism by which West Basin Water District will work with the MWD for the direct offset of imported water from the State Water Project and/or Colorado River equivalent to the capacity of the plant. SCLA-9

7. The Ocean is a public trust resource. Our marine and estuarine fisheries are in decline, and their habitats are continually being degraded or destroyed by human activities. The EIR does not demonstrate that the proposed plant individually and cumulatively, would be located, constructed, and operated to assure that it will not add further environmental stresses that would jeopardize efforts to restore these SCLA-10

valuable natural resources to be healthy and sustainable. The EIR says the design and operation of the screened ocean intake system with 1 mm open passive wedgewire screens and operating intake flow at < 0.5 fps would eliminate the potential for impingement and greatly reduce the entrainment of plankton and larval fish. This is not true. The state water board expert panel on brine discharges noted that wedgewire screens are only 1% effective in protecting marine life. The EIR needs to acknowledge that wedge wire screens are largely ineffective that the project will have a significant impact on marine life is they are used. SCLA-10

8. Further, the EIR should specifically discuss the potential impacts to state Marine Protected Areas (MPAs). As the EIR mentions, MPAs are located on either side of the proposed project at Point Dume and Palos Verdes but there is no analysis of potential impacts. Both of these locations are within the source water area for the proposed plant. These MPAs are designed to work as a network including connectivity via larval dispersal and an open ocean intake will have a significant impact on this larval connectivity. SCLA-11

9. The EIR must include a detailed analysis of the impacts of brine disposal from the project including impacts to benthic and pelagic species. This analysis should include the potential for accumulation of metals and production related chemicals in the sediment and benthic species. It should also examine the temporal and long term impacts to water quality and marine life from chemicals used to eliminate fouling on screens and intakes/outfalls. Toxicity of the concentrated brine discharge must be addressed. Toxicity tests of the concentrated brine from the Poseidon Carlsbad Desalination plant have shown that the brine is often toxic and Toxicity investigations have been unable to identify the toxin(s). This is applicable to the proposed project as West Basin is proposing to discharge concentrated brine directly to the ocean via a diffuser. The brine from the proposed plant must be regularly tested for toxicity before discharge. Discharge of toxic brine must not be allowed. SCLA-12

10. Use of subsurface intakes is specifically called for in the national Sierra Club Policy. Subsurface intakes are also required under the State Ocean Plan Amendment unless proven infeasible. While surface seawater intakes with screens will prevent larger marine life from entering and fouling the desalination plant they will have a negligible impact on the entrainment of marine life smaller than the screen size. These smaller forms of marine life are entrained into the intake system and killed. The EIR must discuss the full impacts of the use of a surface intake on <u>all</u> marine resources regardless of size. The EIR claims that the proposed locations are acceptable as there are no known endangered, protected or birthing species of coral, fish, marine mammals, invertebrates, or birds; there is no mention of any small organisms that would be affected by the screens. SCLA-13

This is an insufficient level of analysis of marine impacts. The EIR did not consider the cost savings of subsurface intakes by avoiding full conventional pretreatment that is required for the proposed open ocean intake. Studies have concluded that life-cycle cost analyses show significant cost saving over operating periods of 10 to 30 years. California pilot studies have demonstrated subsurface intakes do not require full conventional pretreatment, have cheaper life-cycle costs compared to open ocean intakes, and that subsurface intakes may produce water cheaper than the West Basin proposal. While cost savings may vary based on site specific characteristics, the EIR is void of any consideration of this critical information in their analysis. SCLA-13

11. The EIR must include a detailed description of how West Basin will distribute desalinated water within its service area and a conceptual description of how the desalinated water would be distributed regionally. These descriptions should include proposed pipeline routes, pump stations and other distribution facilities. Distribution of the water is a critical component of the project. The distribution system cannot be considered a separate project. SCLA-14

In closing, Sierra Club has serious doubts regarding the need for the project at all and specific concerns related to its being co-located with an existing power plant with use of existing surface intakes. Additionally, the plant poses larger regional threats to ocean resources, marine protected areas and increased local air pollution along with the global threat of inducing climate change through increased greenhouse gas production. SCLA-15

Thank You,

Charming Evelyn
Chair
Sierra Club Angeles Chapter Water Committee

BUILDING AMERICA®

May 25, 2018

VIA EMAIL ONLY TO: desalEIR@westbasin.org

West Basin Municipal Water District
ATTN: Zita Yu, Ph.D., P.E., Project Manager
17140 South Avalon Boulevard
Carson, CA 90746

Re: Comments regarding the Ocean Water Desalination Project (SCH # 2015081087) located at 301 Vista Del Mar, El Segundo, CA and the surrounding cities of El Segundo, Los Angeles, Manhattan Beach, Hawthorne, Redondo Beach, Garden, Torrance, Hermosa Beach, and portions of unincorporated Los Angeles County (the "Project")

Dear Dr. Yu:

Thank you for allowing Union Pacific Railroad Company ("UP") the opportunity to submit the following comments in response to the notice on the above-referenced Project. UP is a Delaware corporation that owns and operates a common carrier railroad network in the western half of the United States, including the State of California. UP's rail network is vital to the economic health of California and the nation as a whole and its rail service to customers in all of the above named cities is crucial to the future success and growth of those customers.

The proposed Project location is adjacent to UP's operating property. UP asks that the City keep in mind that this is an important rail corridor and nearby land uses should be compatible with continuing rail use. UP has significant concerns about the potential for this Project to negatively impact UP's track structure in the vicinity of where the proposed plant would be built. It also appears that there are plans to place water lines across and under UP property. All improvements located on or under UP land must be specifically reviewed, approved and licensed by UP. In addition, land planning decisions should account for the fact that train volumes, and UP's accompanying utilization of its land, near the Project area may increase in the future.

UPRR-1

Increased Traffic Impact

The safety of UP's employees, customers, adjoining land owners, and the communities we operate through is our top priority. Any increase in traffic from the Project may render inadequate the current safety devices in place on any nearby at-grade crossings. Additionally, an increase of pedestrian and vehicular traffic may conflict with train operations causing trains to proceed more slowly through the City, and/or make more frequent emergency stops, which would make rail service less effective and efficient. Should this Project be approved, UP requests that the Project developer and the City examine any increase in vehicular and pedestrian traffic and the impacts on any nearby at-grade road crossings to see if any additional mitigation measures should be included in the Project.

UPRR-2

UNION PACIFIC CORPORATION
1400 Douglas Street, MS 1580
Omaha, Nebraska 68179

MADELINE E. ROEBKE
Senior General Counsel

P 402-544-1121
E meroebke@up.com

Trespassing

Any increase in pedestrian traffic will increase the likelihood of trespassing onto the railroad right-of-way. UP requests that the developer and the City examine the Project impacts associated with the increased likelihood of trespassing and set forth appropriate mitigation measures. The developer should install vandal resistant fencing at least 8 feet or taller (without impairing visibility), pavement markings and "no trespassing" signs designed to prevent individuals from trespassing onto the railroad tracks. Buffers and setbacks should also be required adjacent to the right-of-way. UPRR-3

Noise and Vibration Impact

UP's 24-hour rail operations generate the noise and vibration one would expect from an active railway. Any increase in pedestrian and vehicular traffic may result in additional horn use by railroad employees. As a mitigation measure, the developer should disclose to the general public the daytime and nighttime noise levels naturally occurring with rail service, including sounding horns at vehicle crossings where required, as well as the pre-existing and predictably-occurring vibration. These disclosures should note that train volume may increase in the future. The Project's development plans should also include appropriate mitigation measures, such as construction of sound barrier walls or landscape buffers, and/or use of sound-proofing materials and techniques. UPRR-4

Drainage and Project Construction

UP requests the City ensure that the drainage plan relating to the Project does not shift storm water drainage toward UP property and infrastructure. Any runoff onto UP's property may cause damage to its facilities resulting in a potential public safety issue. If the Project is approved, we ask that the City require the applicant to mitigate all safety risks and the impacts of the railroad's 24-hour operations during the construction of the Project, including contacting UP to arrange for flaggers for work performed within twenty-five feet (25') of the nearest track. UPRR-5 UPRR-6

UP appreciates the developer and the City giving due consideration to the above concerns, as this proposed Project may result in impacts to land use and public safety. Please give notice to UP of all future hearings and other matters with respect to the Project as follows: UPRR-7

Paul Nahas, Manager Real Estate
Union Pacific Railroad Company
1400 Douglas Street - STOP 1690 Omaha, NE 68179
(402) 544-8627
plnahas@up.com

Please do not hesitate to contact Mr. Nahas if you have any questions or concerns.

Sincerely,

Madeline E. Roebke
Sr. General Attorney
Union Pacific Railroad Company

Response to Letter BP: Brenntag Pacific

Response BP-1

The reverse osmosis treatment process is described in the Draft EIR on page 3-6. Chemicals used in the desalination process are listed in Table 3-2. Ammonium sulfate is not specifically mentioned in the Draft EIR.

Response to Letter EJ: Environmental Justice, Community, and Indigenous Groups

Response EJ-1

The commenter is referred to: *Master Response: Environmental Justice* (see also Final EIR Section 18)*, Master Response: Cost and Rates, Master Response: Greenhouse Gas Emissions and Energy,* as well as *Master Response: Water Supply Alternatives.*

Response EJ-2

Regarding the commenter's concern about the adequacy and determination of the environmental justice impacts as result of the Project, refer to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response EJ-3

Regarding water rates and cost as a result of the proposed Project on communities such as Inglewood, Hawthorne, Lawndale, and Gardena, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18) and *Master Response: Cost and Rates*. The Draft EIR is not responsible for discussing cumulative impacts on water rates.

Response EJ-4

Regarding the effect the Project may have on communities within West Basin's distribution system, particularly in regards to the water consumption rate disparities between communities in the West Basin distribution area, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response EJ-5

Regarding reference populations, demographics, and environmental justice analysis included in the Draft EIR, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

The Cities of Gardena and Lawndale are included in Section 6.3; see *Master Response: Environmental Justice* (see also Final EIR Section 18). While the City of Carson and the City of Inglewood's population is included in West Basin's service area, no Project facilities are proposed and no environmental impacts have been identified in the Draft EIR that would specifically affect either municipality. Therefore, individual census tracts within those cities are not included for analysis of potential environmental justice effects of site-specific physical environmental impacts.

Response EJ-6

Regarding the commenter's concern about the energy intensive process of desalination and the impact that process could have with regards to energy consumption and air quality surrounding the Project area, refer to *Master Response: Environmental Justice*.

Response EJ-7

Regarding the commenter's concern of exacerbated climate change impacts from the Project's greenhouse gas emissions, the commenter is referred to *Master Response: Environmental Justice*. As stated on page 5.7-26 and 5.7-36 of the Draft EIR, any carbon emissions as a result of the Project would be 100 percent offset through a combination of Project design features and mitigation measures resulting in a net carbon neutral greenhouse gas emissions project when compared to an equivalent volume of MWD imported water. The commenter is also referred to *Master Response: Greenhouse Gas Emissions and Energy Use* for further information regarding the proposed Project's greenhouse gas emissions.

Response EJ-8

As described in Draft EIR Subsection 5.11.4, the design and operation of the screened ocean intake system would eliminate the potential for impingement and greatly reduce the entrainment of plankton and larval fish, and the increased salinity from brine discharge is not expected to have any detectable effect on marine habitats and associated biological taxa, including any fish that typically would be caught recreationally or for consumption. Additionally, as described in the Draft EIR on pages 5.11-60 and 5.11-61, the periodic chlorine flush of the intake pipelines would be of no consequence to marine habitat and fish or other organisms in the coastal waters of the Project marine study area. West Basin would be required to implement BMPs for planned discharges to prevent aquatic toxicity by using dechlorination chemical additions, implementing equivalent proven dechlorination methods, and/or ensuring that the chlorine in the discharge dissipates naturally, such that the level of chlorine in the discharge is less than 0.019 mg/L prior to entering a receiving water. Therefore, because no detectable effects on marine biological resources and habitats are expected to occur, no effects are anticipated on fish available to people reliant on subsistence fishing.

Response EJ-9

Regarding compliance with the Government Code and the California OAG Fact Sheet 2012 and impacts related to Environmental Justice, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response EJ-10

The commenter is referred to: *Master Response: Cost and Rates, Master Response: Environmental Justice* (see also Final EIR Section 18)*, Master Response: Greenhouse Gas Emissions and Energy, Master Response: Water Supply Alternatives,* and *Master Response: Non-CEQA Issues.*

Response to Letter EOGB: Environmental Organizations and Green Business:

Response EOGB-1

The commenter's position on West Basin pursuing ocean desalination and other supply and demand-related activities is noted for the record. The commenter is also referred to: *Master Response: Water Supply Alternatives, Master Response: Cost and Rates, Master Response: Greenhouse Gas Emissions and Energy,* and *Master Response: Non-CEQA Issues.* The commenter is also referred to Section 5.11, *Marine Biological Resources*, for a discussion of environmental impacts related to marine biological resources, which were found to be less than significant with implementation of mitigation measures.

Response EOGB-2

Unlike the City of Hollywood in the *Save Tara* case, the District has not committed itself to a "definite course of action regarding the project." The District has not approved an agreement of any kind, conditionally or otherwise, that commits West Basin to move forward with the Project. Rather, the District has spent funds exploring proposed Project feasibility and conceptual design, the products of which are publicly available at: http://westbasindesal.com/research-and-planning.html.

CEQA Guidelines Section 15126.6 explains that the lead agency, in this case the District, is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives (see Draft EIR Subsection 7.1.4). There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553 and *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376). See *Master Response: Water Supply Alternatives.*

Response EOGB-3

With regards to the comment's statement that the proposed Project would result in the inefficient, wasteful, and unnecessary consumption of energy, see response to comment MBCH3-44.

Regarding the comment's statement that there are less energy intensive alternatives than ocean desalination for increasing local water supplies, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response EOGB-4

With regards to the comment's statement that the analysis does not evaluate the potential significant impacts from the SCE electrical power grid upgrades, see response to comment MBCH3-45.

Response EOGB-5

West Basin acknowledges that ocean water desalination is a more energy intensive water supply source than imported water, but ocean water desalination increases water supply stability and

reliability for the overall regional water supply portfolio. The Draft EIR concludes on page 5.5-22 that the expected increase in demand for electricity does not exceed available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. West Basin assumes that upgrades to the SCE delivery infrastructure would be relatively minor, involving the construction of a few additional poles or modifying conductoring that would result in less than significant impacts. Large scale infrastructure implementation such as construction of a large off-site substation, power generating facility, or long-range conveyance installation is not anticipated. Regarding the comment that SCE may not have adequate storage for natural gas due to the reduced capacity and use of the Alisa Canyon facility, the EIR assumes that SCE will provide energy to Southern California, and the Project's increased demand is within SCE's projected future supply capabilities. See response to comment MBCH3-45.

Response EOGB-6

While the comment's statement that the proposed Project would result in a greater contribution of GHG emissions than importing water through the State Water Project is correct, Mitigation Measure GHG-1 would offset the increased GHG emissions to net carbon neutral, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

The CO2e emissions values quoted by the comment from the referenced Powers report (44,702 MT CO2e per year for the 20 MGD plant and 146,879 MT CO2e per year for the 60 MGD plant) appear to be over-estimates. They are based on higher energy values than those presented in the SPI report prepared for West Basin (SPI 2017), while the 2014 electricity emission factor used by the Powers report (729 lb/MWh) is much higher than SCE's publicly reported 2014 value (570 lb/MWh), as well as the more recently reported value for 2016 (529 lbs/MWh) that is used as the basis for analysis in the Draft EIR.

Response EOGB-7

Regarding the comment's assertion that the Draft EIR lacks substantial evidence to show the Project's GHG contribution could be reduced to "net zero," and thus the proposed Mitigation Measure GHG-1 is inadequate, see response to comment CCC-18 and *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response EOGB-8

Regarding the comment's statement that the Draft EIR should have analyzed the proposed Project's energy and GHG impacts in comparison to alternatives that have lower impacts than ocean desalination, including conservation, stormwater capture, recycling, and remediating brackish groundwater, *see Master Response: Greenhouse Gas Emissions and Energy Use.*

Response EOGB-9

See response to comment CCC-31 regarding the Project's potential to conflict with the LCP's Power Plant (PP) land use designation.

Response EOGB-10

While West Basin appreciates the comment, it expresses an opinion and does not speak to the adequacy of the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response EOGB-11

The Draft EIR used the appropriate baseline to evaluate the potential impacts of the Project on marine biological resources. See *Master Response: Marine Biological Resources Study Area*.

Response EOGB-12

As the CEQA lead agency, West Basin will use this EIR to review the potential environmental impacts of the Project and to determine whether to approve the Project and pursue permitting, which will include a request to the Los Angeles Regional Water Quality Control Board (LARWQCB) for California Water Code (CWC) Section 13142.5(b) determination (the "Water Code determination"). The LARWQCB must find that the applicant has complied with the Ocean Plan Amendments in order to make the Water Code determination. More specifically, pursuant to Ocean Plan Chapter III.M.2.a.(2), LARWQCB (not the applicant) must independently analyze a range of feasible alternatives for the best available site, best available design, best available technology, and best available mitigation measures and then must consider all four factors collectively to determine the best combination of feasible alternatives to minimize intake and mortality of all forms of marine life. See *Master Response: CEQA and Ocean Plan Compliance*.

Response EOGB-13

Using the existing ESGS once-through cooling (OTC) infrastructure for the desalination Project will not produce environmental impacts on marine biological resources comparable to impacts produced from the operation of coastal power plants. As described in the Draft EIR Section 3, *Project Description*, the utilization of existing infrastructure for ocean water intake by the Project is deliberate and intended to reduce potential impacts to subtidal and intertidal soft sediment habitats and marine communities by avoiding the installation of a new set of pipelines. The Project solely uses the existing ESGS concrete intake pipelines as conduits to install smaller HDPE pipes that will be used to provide ocean water to the onshore desalinization plant. As further presented in the Project Description, and the impact discussion for Marine Biological Resources, the intake flow rate of <0.5 fps at the screens (which translates to an approach velocity 0.141 fps) and the volume of intake water (approximately 40 MGD for the Local Project) is a fraction (about $1/10^{th}$) of what was typically employed by coastal power plant OTC systems (approximately 400 MGD at El Segundo Generating Station Units 3 and 4). Therefore, desalination ocean water intakes are not similar to power plant intakes.

Response EOGB-14

The Draft EIR analyzes the potential effects of the Project on marine habitats and associated biota for both proposed construction and operational activities as described in the Draft EIR on pages 5.11-36 through 5.11-76, in accordance with the significance thresholds and criteria presented in the Draft EIR. The potential Project effects on marine ecosystems that were assessed included

larval entrainment and impingement, from both the ocean water intake and the brine ocean discharge as well as brine toxicity. In the specific case of these two sources of potential impacts to the marine ecosystem, the Draft EIR concluded that despite the reduced potential for entrainment provided by the use of a wedgewire intake screen, the impact on marine productivity remained potentially significant without mitigation. Mitigation Measure BIO-M2 was developed specifically to clarify the impact of the Project's ocean intake and discharge on marine productivity and to provide commensurate ecological enhancement and improvement to offset any effects of the Project on marine productivity, as required by CEQA, and therein reducing the potential effects of Project related entrainment to less than significant. It should also be noted that the cited reference (Cooley et al. 2013) was prepared as a very broad guidance paper that could be used by project proponents and regulators to direct more project-specific analyses of potential impacts of a desalinization project on marine habitats and biological communities, as was done in this Draft EIR.

Response EOGB-15

There are certainly locations in the world where the discharge of concentrated brine into marine waters has occurred with acute impacts, although ecological impacts of brine discharge vary widely and are a function of several factors as noted by the 2013 Pacific Institute publication cited in the comment, including the characteristics of the brine, the discharge method, the rate of dilution and dispersal, and the sensitivity of organisms (Fernandez-Torquemeda et al. 2005, Gacia et al. 2007, Sanchez-Lizaso et al. 2008, Ruso et al. 2007, 2008 cited within Cooley et al. 2013). However, the Project does not propose to simply discharge brine into the ocean environment. As noted on page 14 in the 2013 Pacific Institute report, the addition of diffusers can promote mixing and improve dilution of the brine and notes there is general consensus among modeling studies that optimal mixing is achieved by discharging the brine in sub-tidal, off-shore environments with persistent turbulent flow, and cites Roberts et al. 2010. The Project proposes to utilize the best available linear diffuser design to minimize the mortality of all forms of marine; see *Master Response: Supplemental Studies* and Final EIR Appendix 14A prepared by Roberts (2019). The impacts of brine discharge have been evaluated in the Draft EIR consistent with the 2015 OPA, and consistent with Roberts, 2018; see response to comment LARWQCB-30.

As discussed in response to comment EOGB-14, the analysis of potential Project-related effects on marine ecosystems included an analysis of potential brine discharge toxicity (Draft EIR pages 5.11-56 through 5.11-58). As presented in the Draft EIR, after reviewing available scientific studies of salinity toxicity on marine taxa, it was determined that the salinity concentrations estimated to occur within the brine mixing zone (BMZ) for the Project did not exceed any documented or known concentrations at which toxic effects on marine taxa or ecosystems would be expected to occur.

Response EOGB-16

Regarding reference populations, demographics, and environmental justice analysis included in the Draft EIR, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response EOGB-17

While the City of Carson and the City of Inglewood's population is included in West Basin's service area, no aboveground or belowground Project facilities are proposed and no environmental impacts have been identified in the Draft EIR that would specifically affect either municipality. Therefore, individual census tracts within those cities are not included for analysis of potential environmental justice effects of site-specific physical environmental impacts. See *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response EOGB-18

Regarding reference populations and demographics for the City of Hawthorne, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response EOGB-19

Regarding impacts related to the Project's GHG emissions the commenter is referred to *Master Response: Environmental Justice.* As stated on page 5.7-26 and 5.7-36 of the Draft EIR, any carbon emissions as result of the Project would be 100 percent offset through a combination of Project design features and mitigation measures resulting in a net carbon neutral greenhouse gas emissions project when compared to an equivalent volume of MWD imported water. Additionally, the Project would not increase GHG emissions over the no project scenario (Draft EIR page 5.7-26). The commenter is also referred to *Master Response: Greenhouse Gas Emissions and Energy Use* for a more robust discussion of the Greenhouse Gas Emissions and Energy Use not strictly relating to environmental justice.

Response EOGB-20

Regarding energy and air quality impacts as result of the Project impacting low-income and minority communities, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response EOGB-21

Regarding water rates and cost as result of the proposed Project the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18) as well as *Master Response: Cost and Rates*.

Response EOGB-22

Regarding water rates and cost as result of the proposed Project the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18) as well as *Master Response: Cost and Rates*.

Response EOGB-23

As explained in the Draft EIR on page 4-2 to 4-3, "[b]oth the list and summary of projections approaches are used in this EIR to determine the Project's cumulative impacts, depending upon which approach is appropriate/relevant for each environmental issue area. Additionally, the

geographic area considered for the cumulative analysis varies according to environmental issue area and was determined based upon the Project's scope and anticipated area in which the Project could contribute to an incremental increase in cumulatively considerable impacts…" The approach to each cumulative analysis is explained for each environmental issue area at the end of each section of Section 5 of the EIR. While true that compliance with regulations is not a panacea for all impacts, for some impacts regulations are so stringent that compliance does ensure that impacts will be less than significant. Examples of regulations that reduce impacts to less than significance include the California Ocean Plan requirements with respect to impacts on marine life and NPDES requirements that regulate discharges and water quality so thoroughly that compliance results in less than significant impacts.

Response EOGB-24

The Draft EIR Subsection 7.2.1 considered 11 alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse (see Draft EIR Table 7-1). See also *Master Response: Water Supply Alternatives.*

Response EOGB-25

The goals of the proposed Project include reducing reliance on imported water and improving water reliability and security in an environmentally responsible manner. The Local Project identifies 21,500 AFY as a target amount that could be increased to 60,000 AFY in a Regional Project in the future. Since West Basin's future water demands are projected to be generally similar to existing demands as described in West Basin's 2015 Urban Water Management Plan (see UWMP Table 3-6), the amount of water provided by ocean water desalination would directly reduce the need for imported water. Contrary to the assertion in the comment, however, the need for 21,500 AFY equates directly to the difference between total supplies and total demands during a multi-dry year event similar to the 2012 – 2015 drought conditions (20,342 acre-feet), as shown in UWMP Table 5-5. This is not a "shadow objective" but rather a clearly stated proposal for water supply diversification. The 20,342 acre-feet shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2010 and 2015 UWMP Table ES-3). As noted in Section 4.5 of the 2015 and the 2010 UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015 and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section 9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its water reliability initiative.

Even with the maximum practicable conservation savings, increases in recycled water production, and expansion of groundwater supplies by retail agencies, West Basin's service area could experience a shortage of 20,342 acre-feet by 2020 and 21,500 acre-feet by 2025 and beyond. In other words, the proposed Local Project is sized at 20 MGD (or approximately 21,500 AFY), to directly respond to the multi-dry year event shortfall. Thus, the proposed Project would provide

the quantity of water necessary to make up the expected shortfall in imported water supplies for what are expected to be more frequent and severe future droughts.

Response EOGB-26

CEQA Guidelines Section 15126.6 requires that an EIR consider alternatives that can avoid or substantially lessen significant impacts of a project. Draft EIR Subsection 7.1.3 explains the proposed Project would result in very few significant and unavoidable impacts. The Draft EIR found that impacts on GHG emissions, the marine environment, water quality and environmental justice would be less than significant, or less than significant with mitigation (see Draft EIR Sections 5.7, 5.11, 5.9 and 6.3, respectively). See also *Master Response: Water Supply Alternatives*.

Response EOGB-27

As explained in Section 7, expanding recycled water use in the region will not completely offset the need for imported water. Even expanding the recycled water production from Hyperion Water Reclamation Plant to its full capacity would not eliminate imported water demands in Southern Los Angeles County. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. As described in Section 7, West Basin as a responsible water supply manager is considering the addition of ocean water desalination to augment water supply reliability in addition to other local water supply development efforts. See also response to comment HTB-37.

Response EOGB-28

The comment requests that the Draft EIR be recirculated. Per CEQA Guidelines Section 15088.5, "New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project's proponents have declined to implement." Furthermore, "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." In response to comments, some changes have been made to the EIR to clarify various issues. Also, in response to comments, additional studies were undertaken that merely amplify or clarify the data in the EIR and confirm its impact analyses; those studies also support future regulatory decisions to be made by other agencies. However, neither the methodologies employed nor the conclusions reached have changed in any way that implicates a significant environmental impact not identified in the Draft EIR, a substantially more severe significant environmental effect than indicated, or a new feasible alternative or mitigation measure. The Draft EIR is comprehensive and robust, compiled by scientists and experts in their respective environmental fields. West Basin as the lead agency under CEQA believes it complies with the requirements of CEQA and is supported with substantial evidence. For these reasons, recirculation of the Draft EIR is not required.

See also *Master Response: Water Supply Alternatives.*

Response to Letter GSW: Golden State Water Company

Response GSW-1

West Basin recognizes the importance of coordinating with Golden State Water Company regarding installation of pipelines and/or pump stations within its service area. In response to this comment, the Draft EIR text in Table 3-11 on page 3-42 is modified as follows:

TABLE 3-11
PERMITS, APPROVALS, AND REGULATORY REQUIREMENTS*

Agency/Department	Permit/Approval	Required for
Other		
Golden State Water Company	Utility Right-of-Way Access	Installation of pipelines and pump station within service areas

Response GSW-2

West Basin will coordinate with Golden State Water Company when the Project is designed to ensure construction does not interfere with existing or planned water infrastructure.

Response GSW-3

CEQA does not consider the cost of a project to be an environmental impact. However, prohibitive costs can be used to determine that a project alternative is infeasible. The proposed Project has been developed to support a balanced water supply portfolio in part to responsibly manage costs of water to West Basin customers. See also *Master Response: Cost and Rates*. Produced water would comply with safe drinking water standards. West Basin will continue to work with its retailers to address cost and water quality concerns.

Response GSW-4

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Response GSW-5

West Basin notes Golden State Water Company's contact information for any future correspondence regarding this comment letter.

Response to Letter HTB: Heal the Bay

Response HTB-1

The comment's statement that desalination should only be used as a last resort is noted for the record. As explained in Draft EIR Sections 1.2, *Executive Summary*, and 3.3, *Project Objectives*, West Basin's goal is to guarantee future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan (UWMP). The 2015 UWMP details how West Basin proposes to manage its water supplies and demands under all hydrology conditions and demonstrates how West Basin proposes to meet its service area's retail demands and provide long-term water reliability over the next 25 years (see Draft EIR Subsection 2.3.2). Draft EIR Table 2-1 outlines West Basin's service area projected water supply to meet that demand, according to supply source, from 2020 through 2040. As shown, West Basin's water supply includes increasing levels of conservation and recycled water, and a reduction in imported water. Desalination as a component of West Basin's future water supply portfolio would offset up to 22,500 AFY[1] of imported water in order to "diversify West Basin's water source portfolio" and would allow West Basin to "increase reliability . . . while reducing reliance on imported water." See also *Master Response: Water Supply Alternatives.*

Response HTB-2

This comment expresses an opinion about the need and appropriateness of the proposed Project, provides a summary of the six major themes of concern the comment has on the Draft EIR, and offers a technical review of those areas of concern. Responses to comments HTB-3 through HTB-43 respond to the specific concerns.

Response HTB-3

Draft EIR Section 5.6 addresses Geology, Soils and Seismicity, and Subsection 5.6.4 discusses the potential for the proposed Project to exacerbate Seismic Hazards, Soil Erosion, Unstable Geologic Units or Soil, Expansive Soils, and impacts on septic Systems, consistent with CEQA Guidelines Appendix G. The Draft EIR concludes that the Project, an essential public utility in an urbanized area subject to seismic activity, would not exacerbate the existing risks for people or existing structures, would not expose people and structures to potential adverse effects involving seismic hazards or unstable geologic units, and expansive soils would not be increased by implementation of the Project. Therefore, the Project impacts related to geology, soils, and seismicity would be no impact, or less than significant.

The Draft EIR addresses the Chevron Groin at page 5.6-9 and explains the instability in the beach sediment is indicated by approximately 250 feet of offset in the position of the coastal margin north and south of the jetty or rock groin adjacent to the ESGS facility (much wider beach north of the jetty; see Figure 3-3). Offset of the beach width and surf zone position on opposite sides of the groin is evidence of substantial southward long-shore erosion and transport of sand and beach

[1] Including 1000 AFY of brackish groundwater desalination that could come from West Basin's existing C. Marvin Brewer Desalter facility.

instability. While the groin does not have any effect on sea level rise, it contributes to the baseline condition considered in the Draft EIR Appendix 5, as well as the supplemental Coastal Hazards Analysis prepared as Final EIR Appendix 15. See *Master Response: Supplemental Studies*. Nothing in this comment or response requires that the Draft EIR be recirculated.

Response HTB-4

As explained in the Draft EIR Subsection 5.6.3, in 2015, the California Supreme Court held that CEQA generally does not require a lead agency to consider the impacts of the existing environment on the future residents or users of a project (*California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal. 4th 369). However, if a project exacerbates a condition in the existing environment, the lead agency is required to analyze the impact of that exacerbated condition on the environment, which may include future occupants of the project. As stated in *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 473: "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project." While the potential for increased exposure of people or structures to risks associated with seismic occurrences and location of people or structures on unstable geologic units as a result of the location of the proposed Project are discussed in this section for informational purposes, the effects of the preexisting hazards on users of the proposed Project and structures are not environmental impacts under CEQA. See response to comment MBCH 3-50.

In addition, compliance with existing regulations is assumed and regulatory agencies are expected to enforce existing regulations to the extent they do now. For example, the preparation of a final geotechnical investigation in accordance with CBC requirements is a required condition of the construction permits. In other words, if West Basin does not submit a final geotechnical investigation with recommendations to address geotechnical issues, the permitting agencies will not issue construction permits and the Project would not proceed.

Response HTB-5

This comment summarizes the ocean water quality setting information from Draft EIR Section 5.9, *Hydrology and Water Quality*, that is relevant to Project area. No further response is warranted.

Response HTB-6

Direct and indirect impacts to water quality as a result of offshore construction activities occurring over a 12-month period are assessed in detail in the Draft EIR under Impact 5.9-1 (Subsection 5.9.4, page 5.9-43 *et seq.)*. The assessment of impacts to water quality from offshore construction activities related to the ocean intake and discharge structures comprehensively applied and considered the applicable regulations presented in the Draft EIR Subsection 5.9.1. The detailed analysis of impacts included assessment of increased turbidity resulting in reduced water clarity and light transmittance; increased dissolved or particulate contaminants that were previously bound to sediments becoming mobilized; reduced dissolved oxygen; water quality degradation from dredge material stockpiling, transport, and disposal; and, the accidental release of hazardous materials associated with standard construction activities. The potential water

quality impact from in-water construction activities for each of the issues assessed (summarized above) would be less than significant. Additionally, as discussed under Impact 5.9-1 (Draft EIR Subsection 5.9.4, page 5.9-44), prior to implementing the Project, West Basin would be required to obtain a Section 10 permit from the USACE, a Section 401 water quality certification from the LARWQCB for the in-water construction, as well as a Section 404 permit from USACE for disposal of dredge material. A Section 401 water quality certification requires that any discharges (such as sediment from dredge operations) comply with all applicable provisions of the Clean Water Act, including Section 303 relating to water quality standards and implementation plans. See also Response LARWQCB-28 for a discussion of discharges within 303(d) listed waters. The biological effects on marine biota from potential water quality impacts are assessed in detail under Impact BIO-M 5.11-1 (Subsection 5.11.4, page 5.11-38 *et seq*.). As discussed in detail in the analyses presented in the Draft EIR, impacts to water quality and marine biological resources from in-water construction, including from reduced light availability, reduced dissolved oxygen concentrations, increased turbidity, and the mobilization of pollutants, would be less than significant.

Response HTB-7

See response to comment HTB-6.

Response HTB-8

The Draft EIR Section 5.8, *Hazards and Hazardous Materials,* discusses the potential for an accidental release of hazardous construction related materials. As discussed in Subsection 5.8.1, there are numerous existing federal, state, and local regulations for the transportation, storage, handling, and disposal of hazardous materials. The existing regulations are designed to handle hazardous materials in a safe and legal manner, and to have established spill response procedures in the event of spills. In addition, the Draft EIR Subsection 5.8.4 includes six mitigation measures (Mitigation Measures HAZ-1 through HAZ-6) that provide additional site-specific plans and procedures to ensure hazardous materials are handled in a safe and legal manner.

Response HTB-9

As explained in the Project Objectives of the Draft EIR within Sections 1.2, *Executive Summary* and 3.3, *Project Description*, West Basin's goal is to ensure future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan (UWMP). Draft EIR Section 7.2 explains that not all the alternatives are new, since some of them are already part of West Basin's ongoing commitment to conservation, recycling and a diversified portfolio. Draft EIR Subsection 7.2.1 considered eleven (11) alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See *Master Response: Water Supply Alternatives*. Cumulative impacts are assessed in detail in all environmental resources sections within the Draft EIR. Specifically, a comprehensive analysis of cumulative construction and operational water quality impacts from implementation of the Project is presented in the Draft EIR Subsection 5.9.5 on page 5.9-78. Similarly, an assessment of

cumulative impacts on marine biological resources is presented in the Draft EIR Subsection 5.11.5 on page 5.11-74.

Response HTB-10

As discussed in the Draft EIR, Santa Monica Bay dissolved oxygen concentrations are generally around 8 mg/l (page 5.9-33). Impacts relating to reduced dissolved oxygen concentrations from the discharge of brine are assessed in the Draft EIR Subsection 5.9.4 under Impact 5.9-2 (pages 5.9-53 and 5.9-54). Based on the receiving water dissolved oxygen content at the proposed diffuser location and the dynamics of brine discharges via a multiport diffuser (Final EIR Appendix 14A), the amount of dissolved oxygen supplied to a discharged dense brine plume by entrained ambient seawater would ensure that dissolved oxygen levels would not be substantially reduced in receiving waters as compared to baseline conditions. Furthermore, the treatment process would involve concentrating source ocean water and hence would not alter the mass loading of organics or oxygen demands. As a result, hypoxia would not occur and impacts relating to decreased dissolved oxygen in Santa Monica Bay would be less than significant.

As discussed in the Draft EIR Subsection 5.9.4, consistent with the requirements of the 2015 California Ocean Plan Amendment, the Project specific dilution analyses assume zero ocean current velocity, representing the worst-case condition in terms of brine dilution with receiving waters. Overall, the effect of ocean currents is to increase dilution compared to the zero current results. Resulting salinities at the Brine Mixing Zone (BMZ) boundary would be substantially lower than those reported in the Draft EIR since greater dilution would be achieved through additional dynamic mixing from waves or ocean currents. Neglecting the effect of currents (assuming zero current), consistent with the required methodology prescribed in the Ocean Plan for assessing salinity impacts from brine discharges, represents the most conservative (i.e., the "worst-case") scenario, and therefore, the Ocean Plan regulations related to salinity would continue to be met for all anticipated ocean currents occurring in Santa Monica Bay.

See also response to comment LARWQCB-11.

Response HTB-11

The water quality impact analysis relating to copper incorporates the findings of a quantified analysis of copper dissolution rates from the proposed copper/nickel wedgewire screens (Draft EIR Appendix 4B). The Project-specific copper dissolution assessment was conducted for the proposed intake structures to determine the potential implications for water quality impacts during operation of the Local and Regional Projects in the context of numeric water quality standards defined in the California Ocean Plan. The analysis of copper dissolution, presented in detail in the Draft EIR Appendix 4B and incorporated into the analysis of impacts under Impact 5.9-2 (Draft EIR Subsection 5.9.4), determined that the dissolution of copper into seawater would not result in exceedances of the California Ocean Plan water quality objectives for copper. Specifically, the mean concentrations of copper-nickel alloy loss were calculated to be 0.03 micrograms per liter (µg/L) for the 90:10 and 0.05 µg/L for the 70:30 copper-nickel alloy wedgewire screens (Draft EIR Section 5.11, Table 5.11-10). Based on these estimates, the use of wedgewire screens composed of copper-nickel alloy would result in some chemical leaching into

the water column, but the impacts would be expected to be orders of magnitude below the California Ocean Plan objectives for copper (6-month median of 3 micrograms per liter (µg/L), daily maximum of 12 µg/L, and instantaneous maximum of 30 µg/L identified as the California Ocean Plan Water Quality Objectives for Protection of Marine Life; see Draft EIR Subsection 5.9.1), which is based on established toxic concentrations to marine biota. Therefore, the potential introduction of copper into ocean waters from the wedgewire screens is considered less than significant. See also response to comment MBCH3-67.

Response HTB-12

See response to comment HTB-11.

Response HTB-13

A coastal power plant once-through cooling (OTC) water intake system, and the proposed Project's screened ocean water intake system, would not have the same impacts on marine ecosystems. The operation of an ocean water intake system equipped with a 1 mm wedgewire screen and operated at a flow rate of <0.5 fps is considered current Best Available Technology for ocean water intakes, as assessed and determined by the SWRCB (Ocean Plan Amendment 2015). The potential entrainment of larval fish and other planktonic organisms is significantly reduced and the occurrence of impingement considered non-existent. Also, the comment's statement that the ESGS power plant and its operation of the OTC intake system was decommissioned due to its "devastating environmental effects" is misleading. Although it is clear that the magnitude of impinged and entrained marine organisms from a coastal power plant OTC system is significant, the cost of mitigating these impacts for an aging facility is what ultimately resulted in the shut-down of Units 3 and 4. The Draft EIR assessed the potential effects that the proposed Project's state-of-the-art screened ocean water intake system would pose to marine taxa (Draft EIR pages 5.11-49 through 5.11-54), and concluded that implementation of Mitigation Measure BIO-M2 will compensate for potential entrainment impacts to marine ecosystems in Santa Monica Bay.

Finally, the commenter misunderstood the Draft EIR statements concerning the effectiveness of 1-mm wedgewire screens in reducing entrainment impacts. Those Draft EIR statements were made to clarify that scientific data do not substantiate the Ocean Plan Amendment position that wedgewire screens only reduce entrainment by approximately 1 percent over an unscreened intake. As part of the technical support for Ocean Plan Amendment the SWRCB cited a study at the Diablo Canyon Nuclear power plant where use of wedgewire screens reduced larval entrainment 4.6 to 15.8 percent over the open intake. However, this study did not employ reduced flow in its assessment of entrainment reductions; with reduced intake flow, entrainment of larval fish could be even less (Ocean Plan Amendment 2015). Other studies cited by the SWRCB demonstrated reductions in entrainment as high as 66 percent. It should be noted that the majority of these studies focused on larval fish body length and not head diameter in assessing percentages of potential reductions occurring when using wedgewire screens. It was because of this uncertainty in the effectiveness of wedgewire screens that the SWRCB concluded that, "*Additionally, even though wedgewire screens can reduce entrainment mortality of juvenile and adult fish and essentially eliminate impingement mortality, intake-related mortality will be site and species-specific. Empirical studies on wedgewire screen efficacy may be required to test the*

models that have been designed to estimate entrainment. There also may be a need to empirically measure entrainment at individual desalination facilities." Consequently, the calculation of APF for an unscreened ocean intake located offshore of the ESGS (Draft EIR Appendix 4D) potentially overestimates the loss of productivity to the marine ecosystem from entrainment, since most of the entrainment would be restricted to larvae < 1 mm in diameter of fish larval head size (Draft EIR Appendix 4A; Tenera 2014).

Response HTB-14

As described in the Draft EIR on page 2-22 *et seq*., the proposed Project is the outcome of a planning process spanning more than a decade. West Basin has conducted extensive pilot testing, siting studies, demonstration testing of full-scale processes, and a comprehensive Program Master Plan (PMP) that have each addressed potential water quality effects. Each of these efforts has concluded that a desalination facility can be operated in conformance with Ocean Plan Amendment water quality objectives. (Draft EIR Subsection 2.10.1, page 2-30). A Demonstration Project was conducted to test implementation of full-scale components for long-term evaluation, integrating the results of a previous Pilot Project (discussed in the Draft EIR Subsection 2.10.2, page 2-30). The Demonstration Project included detailed study of the effects of brine discharge on local marine life from salinity and toxicity to support permitting, design, construction, and operation of West Basin's proposed full-scale desalination facility. The Draft EIR Subsections 2.10.6 and 2.10.8 describe comprehensive Project-specific evaluations (Jenkins 2013; Weston Solutions Inc. 2013) conducted to assess potential short- and long-term exposure effects of high-salinity discharges from the Demonstration Facility on nearshore marine organisms, to support a brine diffuser discharge design, and to minimize the effects of turbulence shear stress and brine toxicity.

The research and evaluations summarized above (incorporated into the Draft EIR by reference, available as part of the Project Administrative Record, and available online at http://westbasindesal.com/research-and-planning.html), were peer-reviewed for accuracy and verification that methodologies and assumptions employed were defensible and appropriate and that the results were valid. Where applicable, the results and findings of the research and evaluations were incorporated into the assessment of water quality impacts. As discussed in the Draft EIR Subsection 5.9.4, *et seq*., the assessment of impacts to water quality comprehensively applied and considered the applicable regulations discussed in the regulatory setting section, such as the Water Quality Objectives of the California Ocean Plan. Additionally, the water quality analysis incorporated a project-specific dilution analyses completed in support of the impact assessment (Final EIR Appendix 14A). A comprehensive analysis of cumulative construction and operation related water quality impacts from implementation of the Project is presented in the Draft EIR Subsection 5.9.5 starting on page 5.9-78. See responses LARWQCB-11 and HBCH-7 for additional details.

Response HTB-15

The evidence presented in the Draft EIR demonstrates the proposed Project would be in compliance with NPDES permit requirements. See response to comments HTB-14, LARWQCB-11, MBCH-66, and HBCH-7. CEQA Guidelines Section 15126.6 requires that an EIR consider alternatives that can avoid or substantially lessen significant impacts of a project. As described on page 7-35, West Basin evaluated other brine discharge locations and determined that co-mingling of brine at Hyperion Water Reclamation Plant would not be feasible. The Draft EIR concludes that the proposed Project would not result in an impact requiring the EIR to evaluate alternative brine discharge locations or options. No change has been made to the EIR as a result of this comment.

Response HTB-16

See response to comment HTB-15 and HBCH-18.

Response HTB-17

Since rising sea levels will increase the potential coastal flooding and flood hazards in the future, West Basin conducted a site-specific Coastal Hazards Analysis for the proposed desalination facility at the ESGS North and South Sites, provided as Draft EIR Appendix 5. In response to this and other comments, however, West Basin also prepared a supplemental Coastal Hazards Analysis which is included as Final EIR Appendix 15; see also *Master Response: Supplemental Studies*. The results of the supplemental study confirmed the inland extent of coastal flooding identified in the Draft EIR, and inform and support strategies to minimize and mitigate exposure to these hazards. *Master Response: Supplemental Studies* provides a description of the results of this study.

Response HTB-18

The comment, at Footnote 13, cites a 2013 Pacific Institute Report as a source for the conclusion that brine discharges result in physical and chemical effects on larvae and phytoplankton. However, that document addresses Energy and Greenhouse Gas Emissions as they relate to desalination in California, and is silent on the issue of larvae and phytoplankton, and on physical and chemical effects. Regardless, the Draft EIR explains in Section 5.9, *Hydrology and Water Quality*, that the brine discharge would contain some antifouling agents and concentrated pollutants; the potential effects of the brine discharge on marine taxa was analyzed and discussed in the Draft EIR Section 5.11, *Marine Biological Resources*, (pages 5.11-49, 5.11-56, and 5.11-58) and concluded that the concentrations of these potential contaminants were not at levels scientifically documented to cause any toxicity in marine organisms, which would include recruitment of fish and commercially important taxa.

Response HTB-19

The Draft EIR Subsection 5.11.4 explains the exact magnitude of Project-related entrainment is currently less than certain since new scientific studies are being conducted to specifically address that question. The Draft EIR acknowledges that entrainment of marine plankton does have an effect on marine productivity and should be mitigated in a way that would offset any such losses;

for example, by the application of a marine enhancement or restoration Project. This approach to mitigating ecological effects is an established and accepted approach identified under CEQA and the OPA. Because of regulatory and political considerations, quite often the implementation of habitat and ecosystem enhancement is delayed or the enhancement Project requires more funding than a single Project may provide. Under these circumstances, the practice of providing the requisite mitigation compensation into an identified fund for future use is an accepted and court-approved approach to meeting the mitigation requirement identified in the CEQA analysis of the Project. See also response to comment LARWQCB-13.

Response HTB-20

There is no suitable habitat for black abalone or giant seabass near or within the Project marine study area. The comment's statement that, "while the habitat for the species may not be found in the study area, the larvae may . . ." is unsupported by scientific studies that have been conducted in Santa Monica Bay (SMB). In fact, the Draft EIR specifically addressed the presence of these species at El Segundo and Scattergood Generating stations by reviewing decades of plankton studies conducted in the vicinity of their intakes (Draft EIR page 5.11-52). In addition, the life histories of both these species were reviewed (Butler et al. 2009; Baldwin 2008), in order to examine the potential for transport of viable larvae based on the current and hydrologic regime of SMB, from Point Dume and Palos Verdes Marine Protected Areas to the Project site (Draft EIR pages 5.11-53 and 54). It was concluded that any black abalone or giant seabass larvae introduced into the water column at either MPA would not be viable when, and if, they reached the Project marine study area.

Response HTB-21

Noise impacts in the marine environment, including impacts to marine mammals and turtles are discussed in the Draft EIR on pages 5.11-44 through 5.11-48. As discussed on pages 5.11-47 to 5.11-48, the most severe construction noise impacts would occur with pile driving. As indicated on page 5.11-39, "[i]nstallation of the buried pipeline extension, the risers, and the wedgewire screens atop the risers would require the driving of six to twelve 12- to 16-inch steel or fiberglass anchor piles. The driving of the anchor piles would primarily be accomplished using a vibratory hammer, although an impact hammer may be required to achieve required burial depth, depending on the underlying geology, such as the compaction and composition of the seafloor sediments." As indicated on page 5.11-45, "[p]ile-driving and the associated generation of underwater noise would be an intermittent activity. On days when piles are installed, activities would occur for only a few hours per day, taking approximately 15 to 60 minutes for a typical 12- to 16-inch-diameter piling, plus time between to set up the next pile. Therefore, the total time of underwater noise would be approximately 10 hours spread over several days."

Noise would also be associated with dredging operations and operation of various tugboats and barges transporting materials to and from the Project area, primarily from the Ports of Los Angeles/ Long Beach (POLA/POLB) 20 miles to the south. Such activities do not require noise mitigation since they are temporary and do not pose health impact risks to marine wildlife. Although Project construction would add temporary noise impacts in the vicinity of the

construction activities, the Project would not be expected to result in a cumulatively considerable contribution to the marine noise environment.

Mitigation Measure BIO-M1 requires pile driving noise reduction measures if calculated noise levels are > 183 dB at ≤ 10 meters or 120 dB at a distance of ≤ 500 meters. As indicated on page 5.11-75, "[o]ther construction activities in the ocean are not anticipated to occur nearby at the same time; therefore, effects from the current Project are not considered to have a cumulatively considerable effect on biological marine resources." The comment references the U.S. Navy 5-Year Military Readiness Training and Testing Program, more specifically the Hawaii-Southern California Training and Testing Project, for which the CCC issued a staff recommendation on June 8, 2019. This U.S. Navy testing program involves an offshore area from Dana Point to the north to San Diego to the south; therefore, the study area does not overlap with the proposed Project's area of impact for noise or vibration. As a result, there is no potential for the U.S. Navy testing program impacts to contribute a cumulatively considerable impact to the Project's construction or operational noise impacts.

Noise impacts during operation would be confined to brief periods of maintenance of the wedgewire screens, involving use of small boats and divers changing the screens. Such activities would be brief and involve limited amounts of noise that would not be cumulatively considerable. Intake/discharge operations would generate negligible noise that would not be cumulatively considerable. As indicated in the Draft EIR on page 5.11-76, "[t]hrough regulatory permitting compliance, including OPA, the Project's geographic scope of marine resource effects would be limited to the immediate area of the Project's intake and discharge facilities, and adverse effects would be fully offset through OPA compliance. For these reasons, Project impacts to marine biological resources are not considered significant nor would they be cumulatively considerable."

Response HTB-22

The Draft EIR evaluates GHG emissions in Section 5.7, concluding that GHG emissions greater than the baseline would result in a significant impact. As a result, Mitigation Measures GHG-1 and GHG-2 are imposed to offset the Project's GHG emissions compared to baseline and to verify the reduction through a third-party auditor. The Draft EIR acknowledges that GHG emissions may have global effects. As described on page 5.7-4 of the Draft EIR, the state of California has initiated several policies aimed at reducing carbon emissions. The proposed project would be consistent with these policies through the application of carbon offsets. See *Master Response: Greenhouse Gas Emissions and Energy Use.*

The Pacific Institute's study cited in the comment concludes that ocean desalination process is energy intensive compared with other water supplies and would as a result increase GHG emissions globally that would affect marine environments around the world. The EIR acknowledges that ocean water desalination requires more energy than importing water in Section 5.5 Energy. However, as the 2017 Scoping Plan recognizes, the right to "safe, clean, affordable, and accessible water . . ." should take precedence over GHG reductions, and providing a portfolio based approach to water supply increases West Basin's overall resiliency as a public utility. See pages 5.7-19 – 5.7-20 of the Draft EIR. Southern California utilities are actively pursuing different types of local water supply augmentation including conservation, water recycling, and

stormwater capture. The project objectives are to diversify water sources in a manner that is economically viable and environmentally responsible. The EIR describes that a diverse water supply portfolio may include sources with varying power requirements and does not preclude any source solely on its energy requirements. The most reliable water source may also have the highest energy demand. This may limit the percentage produced from a particular source, but does not eliminate its value within a diverse and resilient supply portfolio.

Response HTB-23

Impacts relating to tsunami, coastal flooding, wave run-up, and storm tides, including potential future risks from sea level rise, are assessed in detail in the Draft EIR Subsection 5.9.4 under Impact 5.9-6 (page 5.9-72 *et seq*.). The analysis evaluates potential impacts associated with constructing and operating each of the three primary elements of the Project, including offshore, coastal, and inland Project components for both the Local and Regional Projects. As described in the assessment, because sea level rise represents an existing environmental condition, and because the Project will not exacerbate this condition, impacts are not considered potentially significant under CEQA; the analysis presented was provided for informational purposes and West Basin will implement design measures to protect the Project from potential effects of sea level rise. In response to this and other comments, however, West Basin also prepared a supplemental Coastal Hazards study (see *Master Response: Supplemental Studies*) that considered high-risk sea level rise projections and the "extreme risk aversion" scenario known as the "H++" scenario. The results of the study confirmed the Draft EIR flooding and coastal erosion impacts analysis, and inform and support strategies to minimize and mitigate exposure to these hazards. *Master Response: Supplemental Studies* provides a description of the results of this study.

As described in detail under Impact 5.9-6, impacts relating to coastal flooding would be less than significant during Project construction and would be reduced to less than significant during Project operation with implementation of Mitigation Measure HYDRO-1, which requires West Basin to complete a Project-specific Coastal Hazards Resiliency Plan for the final Local and Regional Project design. Incorporation of the recommendations of the study would ensure that the Local Project (and Regional Project) substantially avoid coastal erosion and flooding that could result from future sea-level rise and that proposed Project structures in the coastal zone would not be subject to structural failure caused by future flooding or flood hazards as a result of wave or tsunami run-up and would not cause or increase erosion off-site due to impeding or redirecting flood flows. Mitigation Measure HYDRO-1 would further ensure that the Project would not exacerbate existing flooding and/or flood hazards. As such, there would be no flooding related secondary impacts that could potentially significantly impact marine biological resources.

Response HTB-24

The Draft EIR imposes Mitigation Measures GHG-1 and GHG-2 that offset GHG emissions to net neutral compared with baseline conditions. Eliminating any increase in GHG emissions effectively minimizes the proposed Project's contribution to the cumulative effects of climate change.

Response HTB-25

Regarding the comment's statement that there are alternative water supply projects that do not emit as much (if any) carbon, including many that actually increase carbon sequestration, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response HTB-26

As lead agency, West Basin has evaluated a proposed Project located at the ESGS site that would produce 21,500 AFY. As part of the CEQA Alternatives analysis, the Draft EIR evaluates other site locations and technologies that could avoid significant impacts of the Project while meeting most of the Project's basic objectives. The analysis complies with CEQA Alternatives assessment requirements. If the RWQCB or other permitting agency requires additional analysis of alternative locations to site the treatment plant and intakes, or hybrid intake alternatives, West Basin will work with the regulators to provide the information. As described in Appendix 2A, subsurface intakes were found to be infeasible for several reasons including low yield and therefore not substantially meeting Project objectives. If a regulator during the permitting process requires installation of a hybrid intake system that includes a subsurface contribution in order to fulfill a hybrid intake system requirement, additional analysis may be required. See *Master Response: Supplemental Studies*.

Response HTB-27

The demonstration facility was used to assess the potential reduction in entrainment and impingement effects from the use of a wedgewire intake screen but was not directly used to assess entrainment resulting from operation of the proposed Project. As demonstrated in the *Intake Effects Assessment Report* (Draft EIR Appendix 4A; Tenera 2014), the key factors affecting entrainment are: 1) the size of the intake screen, and 2) the flow rate of the intake water. In the case of the demonstration facility, a 1-mm wedgewire screen was evaluated at an intake flow rate <0.5 fps, as is proposed for the Project. The study concluded that no detectable impingement occurred and that entrainment with the wedgewire screen was less than entrainment at an intake with no screen (Draft EIR Appendix 4A; Tenera 2014). The conclusion in the Draft EIR that the potential ecological impact to the marine ecosystem could be significant was not based on this study. This conclusion was based on a detailed analysis of potential entrainment resulting from the Project based on recent entrainment studies for ESGS that were scaled to the Project's operational parameters. However, these potential significant effects would be rendered less than significant following implementation of Mitigation Measure BIO-M2. Finally, the Draft EIR Subsection 5.11.5 addresses cumulative impacts to marine biological resources; it is unclear what "combined stressors" the commenter believes pose a cumulative threat to marine habitats and associated biological communities.

Response HTB-28

While West Basin will secure all necessary permits prior to Project implementation, West Basin cannot speak to the enforcement capabilities of the agencies with regulatory/permit authority over the Project. The comment's recommendation for a third party entity to address mitigation or

compliance is outside the scope of the environmental analysis contained in the Draft EIR; no further response is warranted.

Response HTB-29

In regards to the environmental justice analysis, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18). Regarding water rates and cost as result of the proposed Project the commenter is referred to *Master Response: Environmental Justice* as well as *Master Response: Cost and Rates*.

Response HTB-30

The cumulative analysis for each issue area is dependent on the potential impacts of the Project as described and analyzed throughout the Draft EIR. The cumulative analysis includes a list of reasonably foreseeable projects as well as planned growth included in the most recent SCAG RTP (see page 4-10). The focus of each cumulative analysis is the contribution that the Project would make to each issue area. See also response to comments MBCH3-9 and EOGB-23. The commenter does not identify what cumulative impacts of the ocean intake and discharge are lacking, and therefore further response is not possible.

Response HTB-31

As explained in the Draft EIR Section 5, *Approach to Analysis*, impacts associated with the Local Project are assessed at a project-level, whereas impacts associated with the Regional Project are assessed at a project-level for those components that are known (such as the physical size of the facility) and a programmatic-level for those aspects of the Project that are not well-defined (such as regional partners). Every topical section in Section 5 (*Environmental Analysis*) distinguishes between the Local Project and the Regional Project when discussing and analyzing the potential impacts of each Project component (Ocean Water Desalination Facility, Screened Ocean Intake and Concentrate Discharge, Desalinated Water Conveyance Components). The assessment of impacts resulting from the Regional Project are assessed in terms of the incremental increase against baseline potentially resulting from the additional build out and operation of the Regional Project in addition to the impacts described for the Local Project facilities. As discussed in Subsection 2.2, *Project-level and Program-level Analyses in This Draft EIR* and Section 5, *Approach to Analysis*, if or when West Basin considers moving forward with a larger (up to 60 MGD) facility and the specific designs of the Regional Project are developed, West Basin will undertake project-level environmental review of the Regional Project. To streamline the review, this EIR would provide the basis for the incremental addition of the Regional Project (CEQA Guidelines Section 15168(d)).

Response HTB-32

West Basin has been considering the addition of ocean water desalination to its water supply portfolio since the 2000 UWMP. West Basin's water supply forecasts for the West Basin service area have remained consistent, actually decreasing slightly since the 2005 UWMP. Water demands within the West Basin have stabilized since the area is largely built-out. As a result, the proposed new water supplied through ocean water desalination would indeed reduce the amount

of water to be purchased annually from MWD. In contrast to the County of San Diego that is receiving water from the ocean desalination facility in Carlsbad noted in the comment, West Basin's service area is projecting very modest growth and water supply increases to 2040. The purpose of the Project is not to support population growth, but rather to diversify water supplies to enhance the District's resiliency. See *Master Response: Water Supply Alternatives.*

Response HTB-33

The Draft EIR Subsection 7.2.1 considered 11 alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See Draft EIR Tables 7-1 and 7-2, and *Master Response: Water Supply Alternatives.* But the need for 21,500 AFY equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in UWMP Table 5-5 and the shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3). As noted in Section 4.5 of the 2015 and the 2010 UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015 and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section 9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its Water Reliability initiative.

Even with the maximum practicable conservation savings, increases in recycled water production, and expansion of groundwater supplies by retail agencies, West Basin's service area could experience a shortage of 20,342 acre-feet. In other words, the proposed Local Project is sized at 20 MGD (or approximately 21,500 AFY), to directly respond to the multi-dry year event shortfall. Thus, the proposed Project would provide the quantity of water necessary to make up the expected shortfall in imported water supplies for what are expected to be more frequent and severe future droughts.

Response HTB-34

As explained in the Draft EIR Section 3.3, West Basin's goal for the proposed Project is to guarantee future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio. The hydrology and water quality analysis in Draft EIR Subsection 5.9.4 concluded water quality would not be compromised; the proposed Project's impacts on water quality would be less than significant with mitigation. See also response to comment HTB-33.

Response HTB-35

The Draft EIR Subsection 7.2.1 considered 11 alternatives, including stormwater capture. See response to comment HTB-33.

Response HTB-36

The Draft EIR Section 7.2 presents the *Initial Screening of Alternatives.* The initial screening process used nine criteria (not seven) to determine which alternatives would be carried forward into the CEQA alternatives analysis. Table 7-2 presents the results of the initial screening. As explained in Draft EIR Section 7.2, if an alternative failed one or more of the screening criteria, then further evaluation was not pursued.

The 2015 Urban Water Management Plan (UWMP) details how West Basin proposes to manage its water supplies and demands under all hydrology conditions, and demonstrates how West Basin proposes to meet its service area's retail demands and provide long-term water reliability over the next 25 years (see Draft EIR Subsection 2.3.2). Draft EIR Table 2-1 outlines West Basin's service area projected water supply to meet that demand, according to supply source, from 2020 through 2040. As shown, West Basin's water supply includes increasing levels of conservation and recycled water, and a reduction in imported water. Desalination as a component of West Basin's future water supply portfolio would offset up to 22,500 AFY[2] of imported water in order to "diversify West Basin's water source portfolio" and would allow West Basin to "increase reliability . . . while reducing reliance on imported water."

Response HTB-37

Draft EIR Section 7.2.1 provides an in-depth analysis on West Basin's current planning efforts to increase recycled water throughput by using West Basin's existing infrastructure coupled with upgrades at Hyperion Water Reclamation Plant using membrane bioreactor treatment processes. As noted in the analysis, the amount of secondary effluent water from Hyperion to be provided to West Basin is limited to 54 MGD with the remainder (16 MGD) going into the City of Los Angeles' Harbor Area under the current agreement to upgrade Hyperion (70 MGD in total) (City of Los Angeles 2018). With the City of Los Angeles's current partnership with Water Replenishment District to evaluate the potential to use the rest of the Hyperion wastewater effluent to produce recycled water for groundwater replenishment purposes, the likelihood for West Basin to receive secondary effluent beyond 54 MGD is unlikely and speculative. West Basin currently recycles approximately 40 MGD of secondary effluent from Hyperion that makes up for the total existing customer demand within West Basin's service area. However, West Basin is committed to expanding its effort to improve water quality that would attract more recycled water customers and increase future demand to 54 MGD. West Basin is also committed to working with other regional partners, such as Metropolitan Water District, to develop ways to maximize the utilization of West Basin's recycled water distribution and treatment systems to further increase recycled water use in the region.

With respect to the reference provided in the comment about the 100 MGD treatment capacity at Edward C. Little Water Recycling Facility (ECLWRF), CH2M (currently known as Jacobs Engineering), the engineer who worked on the project at the time, Brock McEwen, confirmed that the "*Flyer was produced in early 1990's and phase one of this recycling project was put online in 1994. The original West Basin client envisioned 100 MGD ultimate capacity and asked us to conceptually layout a plant that would reserve sufficient space to support such"* (Personal

[2] Including 1,000 AFY of brackish groundwater desalination that could come from West Basin's existing C. Marvin Brewer Desalter facility.

Communication 2019). ECLWRF was commissioned in around 1994 and has gone through multiple expansions based on the growth of its customers in the last 25 years. Currently, ECLWRF has 40 MGD of filtration capacity to produce Title 22 tertiary disinfected water and 30 MGD of advanced treatment capacity to produce three grades of advanced treated recycled water for low pressure and high-pressure boilers as well as for replenishment of the seawater barrier and West Coast Groundwater Basin, respectively. However, based on the current recycled water demand, ECLWRF currently produces approximately 40 MGD of recycled water daily.

As explained in Draft EIR Section 7, expanding recycled water use in the region will not completely offset the need for imported water. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. As described in Section 7, West Basin as a responsible water supply manager is considering the addition of ocean water desalination to augment water supply reliability in addition to other local water supply development efforts.

Response HTB-38

The Draft EIR Table 7-2 presents the results of the initial screening of supply alternatives. The control of water and control of pricing are Project objectives, not screening criteria. In fact, Increased Non-Potable Recycling, and Indirect Potable Reuse were found to meet Screening Criteria 7, Economic Feasibility. Furthermore, none of the alternatives were excluded during the screening process because of cost. *See Master Response: Water Supply Alternatives*.

Response HTB-39

As noted throughout the Draft EIR, West Basin continues to include conservation as an integral component of its water supply portfolio, will continue to provide its service area residents with free rain barrels, and West Basin's recycled water sales are anticipated to increase in the future. West Basin will continue to seek opportunities to diversify its water supply portfolio and as such, the proposed Project represents a combination of alternative components, including desalination. Nothing in this comment or response necessitates recirculation of the Draft EIR. See *Master Response: Water Supply Alternatives*.

Response HTB-40

The cumulative projects listed in Table 4-1 use information available to West Basin at the time the Draft EIR analysis was conducted. The proposed Project information is as concrete and current as the information made available by local agencies and municipalities. Table 4-1 has been modified to reflect comments received by local cities. The revisions do not change the conclusions of the impact analysis, but provide a more accurate summary of local development included in the cumulative impacts analysis.

Response HTB-41

In response to the commenter's concern over consistency in Table 4-2 and the subsequent text, the Draft EIR text in Table 4-2 on page 4-11 is revised as follows:

2	Los Angeles Department of Sanitation Hyperion Water Reclamation Plant	Los Angeles County	~~230~~ Design capacity 450; peak weather flow 800	N/A	Wastewater Discharge	Existing, Active

Response HTB-42

Table 4-2 states that the column includes information on "Ultimate Yield/Capacity (MGD)," which is what the column is intended to show. Other than the correction identified in response to comment HTB-41, the commenter has not provided other revisions needed to the table. Additionally, the detailed descriptions of the projects following the table provide more information or describe average yield and ultimate capacity.

Response HTB-43

The comment is correct; the text in Draft EIR Appendix 5 (Coastal Hazards Analysis of the West Basin Municipal Water District Ocean Water Desalination Project for Sea Levels at Year 2100, 2017) is missing a decimal point. In response to this and other comments, however, West Basin prepared a supplemental Coastal Hazards Analysis which is included as Final EIR Appendix 15; see also *Master Response: Supplemental Studies*.

Response HTB-44

The commenter summarizes comments made in the letter and expresses opinion on the Project's suitability. The commenter is referred to responses to comment HTB-1 to HTB-43. The commenter also is referred to *Master Response: Non-CEQA Issues*.

Response HTB-45

The commenter requests that the Draft EIR be recirculated. Per CEQA Guidelines Section 15088.5, "New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project's proponents have declined to implement." Furthermore, "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." In response to comments, some changes have been made to the EIR to clarify various issues. Also, in response to comments, additional studies were undertaken that merely amplify or clarify the data in the EIR and confirm its impact analyses; those studies also support future regulatory decisions to be made by other agencies. However, neither the methodologies employed nor the conclusions reached have changed in any way that implicates a significant environmental impact not identified in the Draft EIR, a substantially more severe significant environmental effect than indicated, or a new feasible alternative or mitigation measure. The Draft EIR is comprehensive and robust, compiled by scientists and experts in their

respective environmental fields. West Basin as the lead agency under CEQA believes it complies with the requirements of CEQA and is supported with substantial evidence. For these reasons, recirculation of the Draft EIR is not required.

See also *Master Response: Water Supply Alternatives.*

Response to Letter LAW: Los Angeles Waterkeeper

Response LAW-1

West Basin initially provided a Draft EIR review and comment period of 60 days, from March 27, 2018, through May 25, 2018. Based on comments requesting an extension, West Basin granted a 31-day extension for review and comment on the Draft EIR, as requested by the commenter. The public review period ended at 5 p.m. on Monday, June 25, 2018, providing a 91-day public review period.

Response to Letter LAW2: Los Angeles Waterkeeper

Response LAW2-1

The commenter is referred to: *Master Response: Water Supply Alternatives, Master Response: Cost and Rates, Master Response: Greenhouse Gas Emissions and Energy*. The commenter is also referred to Section 5.11, *Marine Biological Resources*, for a discussion of environmental impacts related to marine biological resources, which were found to be less than significant with implementation of mitigation measures.

Response LAW2-2

CEQA Guidelines Section 15126.6 requires that an EIR consider alternatives that can avoid or substantially lessen significant impacts of a project. Draft EIR Subsection 7.1.3 explains the proposed Project would result in very few significant and unavoidable impacts, and as the comment correctly notes, these are identified as air quality and noise during construction. The Draft EIR analyzes, evaluates, provides substantial evidence and found that impacts on GHG emissions, energy, land use, the marine environment, water quality, environmental justice, and climate change (GHG) would be less than significant or less than significant with mitigation (see Draft EIR Sections 5.7, 5.5, 5.10, 5.11, 5.9, and 6.3 respectively). Contrary to the comment's assertion that the Draft EIR "fails to analyze" the significant environmental impacts associated with these topics, the Draft EIR included a comprehensive evaluation that found no significant and unavoidable impacts would occur to these resource areas. See also *Master Response: Water Supply Alternatives*.

Response LAW2-3

With regards to the statement in the comment that the proposed Project would result in the inefficient, wasteful, and unnecessary consumption of energy, see response to comment MBCH3-44.

Regarding the statement in the comment that there are less energy intensive alternatives than ocean desalination for increasing local water supplies, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response LAW2-4

The Draft EIR provides an assessment on wasteful use of energy in Section 5.5, *Energy*. The Draft EIR concludes that the increase energy requirements needed to enhance the reliability of the District's water supply is not wasteful, but rather it is a responsible water management option for a Southern California coastal water district to consider. With regards to the commenter's statement that the proposed Project would result in the inefficient, wasteful, and unnecessary consumption of energy, see response to comment MBCH3-44, MBCH3-45, and EOGB-6.

Regarding the statement in the comment that there are less energy intensive alternatives than ocean desalination for increasing local water supplies, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response LAW2-5

With regards to the statement in the comment that the analysis does not evaluate the potential significant impacts from the SCE electrical power grid upgrades, see response to comment MBCH3-45.

Response LAW2-6

With regards to the statement in the comment that the analysis does not evaluate the potential significant impacts from the SCE electrical power grid upgrades, see response to comment MBCH3-45.

Response LAW2-7

Regarding the statement in the comment that the Draft EIR erroneously applies a "net zero" threshold of significance for evaluating GHG impacts, pointing to a particular MWD agreement in place through 2035, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response LAW2-8

Regarding the commenter's concern over the Draft EIR's "net zero" scenario, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response LAW2-9

Regarding the statement in the comment that the Draft EIR should have compared the GHG impacts of the Project to a baseline that does not include currently imported water that will be displaced by the Project, see *Master Response: Greenhouse Gas Emissions and Energy Use.* The CEQA baseline is required to represent existing conditions. As a result, the Draft EIR baseline includes GHG emissions associated with water imported to West Basin. The Draft EIR concludes that West Basin's GHG emissions inventory would include the new emissions associated with the proposed Project but would not include the replaced imported water inventory.

Response LAW2-10

As stated in Section 5.7.5 of the Draft EIR, it is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA 2008). The State has implemented a vast array of regulations, policies, and programs to reduce the state's contribution to global GHG emissions. The Project, on both a Local and a Regional level, would ensure that there would be no net increase in GHG emissions compared to existing conditions associated with water supplied by MWD, and thus would not represent a cumulatively considerable contribution toward global GHG emissions.

Response LAW2-11

The comment states that because the proposed Project would create a new, more energy-intensive water supply, it would compromise the State's GHG reduction goals and the State's 2017 Scoping Plan.

The Draft EIR includes full disclosure of the energy needs of the proposed Project as presented in Subsection 5.5.4. As discussed in Section 5.2, the Project is consistent with the 2017 Scoping Plan Update, as it incorporates feasible design features to minimize GHG emissions and, through Mitigation Measures GHG-1 and GHG-2, reduces Project GHG emissions to below a threshold of net carbon neutral compared to existing conditions. As noted in the Draft EIR on page 5.7-20, the 2017 Scoping Plan Update does not specify GHG reductions needed from the water sector to meet the goals of AB 32 and SB 32, recognizing that the energy intensity of water varies greatly depending on the geography, water source, and end use, and that "(a)s the energy sector is decarbonized through measures such as increased renewable energy and improved efficiency, energy intensities will also be reduced." Additionally, see *Master Response: Greenhouse Gas Emissions and Energy Use*.

Response LAW2-12

The comment states that the proposed Project will result in greater GHG emissions related to water supply and disincentivize local water conservation efforts, and thus be potentially inconsistent with local regulations and policies, including climate action plans.

The local climate action plans for LA County and El Segundo include measures for water conservation that are intended to reduce the energy use and GHG emissions associated with the conveyance and consumption of potable water. The 2015 El Segundo Energy Efficiency and Climate Action Plan (EECAP) indicates that community-wide GHG emissions associated with the conveyance and consumption of water constituted less than 0.005 percent of the city's total emissions in 2012. Nonetheless, the EECAP includes a community measure to promote water efficiency actions to enable exceedance of the SB X7-7 standard (reduce water consumption 20 percent by 2020), and municipal measures to implement a water leak detection program and to upgrade or incorporate water-conserving landscapes. Similarly, the 2020 Los Angeles County Climate Action Plan (CAP) includes a measure to reduce per-capita water use, consistent with SB X7-7, through strategies that the County, in conjunction with local urban water agencies, will implement to promote water conservation throughout unincorporated areas.

The Project proposes to replace imported MWD water with desalinated water. With desalinated water having a relatively high cost and GHG footprint, there should be additional incentive for conservation, not less. In any case, with mitigation the GHG footprint of the proposed Project's water will have net carbon neutral emissions compared to imported water. There would be no net change in GHG emissions associated with a variation in consumption, and the proposed Project should not disincentivize local water conservation efforts or compromise the GHG emissions goals of local climate action plans. See *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response LAW2-13

Regarding the assertion that the Draft EIR's GHG mitigation measures are inadequate, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response LAW2-14

See responses to comment CCC-31 regarding the Project's potential to conflict with the LCP generally and the scope of the CEQA analysis; response to comment CCC-32, regarding the scope of the LCP's policy prescriptions and the Draft EIR's analysis of potential Coastal Act policy conflicts; and response to comment CCC-33, regarding the Project's potential to conflict with Coastal Act policies and CCC guidance regarding shoreline protection and sea-level rise. As explained in the comment responses identified, the Draft EIR discloses the potential conflict with the El Segundo Local Coastal Program, acknowledges that compliance with the LCP, and by extension the Coastal Act, is mandatory, and explains how adherence to the corresponding procedural requirements for LCP amendment would resolve the potential conflict.

The impact discussion referenced by the commenter concerns the proposed Project's potential to conflict with plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect (Impact LU 5.10-2; pages 5.10-15 through 5.10-26). Consistent with other impact discussions within the Draft EIR, the analysis of potential effects related to the construction phase and operations phase are addressed in separate subsections. Accordingly, for the Impact LU 5.10-2 analysis of potential effects related to construction, the discussion focuses on potential conflicts with provisions of the subject regulation related to the construction phase. The El Segundo LCP contains no policies governing construction activities. Therefore, the discussion in Impact LU 5.10-2 related to potential conflicts with LCP policies concerning construction accurately states, "… there are no El Segundo LCP policies or regulations adopted for the purpose of avoiding or mitigating a construction-related impact" (page 5.10-21). For these reasons, and especially those explained in response to comment CCC-32, the Draft EIR's impact discussion related to conflicts with the LCP's construction-related policies or regulations is sound and the conclusions remain unchanged.

Response LAW2-15

See response to comment CCC-31 regarding the Project's potential to conflict with the LCP's Power Plant (PP) land use designation, and the purview of CEQA with respect to plan and policy conflicts. Also refer to response to comment CCC-34 regarding the Project's conformity with Coastal Act policies and guidelines related to coastal hazards and shoreline protection.

Response LAW2-16

Contrary to the commenter's assertion, the Draft EIR does not "…brush off the significance of the incompatibility with the ESLCP" and instead rely upon a future amendment to assure LCP consistency. As explained in responses to comments CCC-31 and CCC-32, the Draft EIR acknowledges the potential conflict with the LCP's land use designation, and addresses the full range of potential physical adverse environmental effects that could result from Project implementation. While the Draft EIR does acknowledge that an LCP amendment would be

required, and outlines the bases for the expectation that one could be obtained (including evaluating potential conflicts with applicable Coastal Act policies), it does not defer analysis or conclusions regarding whether the Project could have a significant adverse physical environmental effect.

Response LAW2-17

The comment's reference to the *Banning Ranch* case is misplaced. As the comment notes, in that case, "the City ignored its obligation to integrate CEQA review with the requirements of the Coastal Act, and gave little consideration to the Coastal Commission's needs." However, in the present case, as explained in response to comment CCC-31, the Draft EIR identifies the Project's potential conflict with the LCP's Power Plan land use designation and acknowledges an amendment may be required, which would require approval from the CCC (pages 5.10-22 and 5.10-23).

As explained further in response to comment CCC-32, the LCP does not include any obvious resources protection policies or other provisions designed to protect coastal resources, and against which the Project could be further evaluated. Moreover, per Coastal Act Section 30514, the standard of review for an LCP amendment is the Coastal Act, not the LCP. Accordingly, the Draft EIR's Impact LU 5.10-2 identifies related Coastal Act policies with which the Project (and any LCP amendment) would be required to comply in order for the Project to proceed (see Table 5.10-3 on pages 5.10-17 through 5.10-20). Moreover, the table's Footnote No. 5 (page 5.10-21) identifies six other sections of the Draft EIR where additional analysis of Project conformity with relevant Coastal Act policies is presented. And so contrary to the comment's assertion, the Draft EIR does not ignore the City or Coastal Commission's needs; rather, it discloses the potential conflict with the LCP's Power Plant land use designation; acknowledges an amendment may be required, subject to CCC certification; and evaluates Project conformity with the policies of the Coastal Act that comprise the standard of CCC review for any such certification.

As explained further in response to comment CCC-31, a Project's potential conflict with an applicable regulatory requirement does not necessarily equate to a significant impact, unless the conflict indicates the Project would have a "…substantial, adverse change in any of the physical conditions within the area affected by the project…" (CEQA Guidelines Section 15382). At issue in the *Banning Ranch* case was the City's failure to address the Project's potential effects on Environmentally Sensitive Habitat Areas (or ESHAs). ESHAs are defined in the Coastal Act as areas "in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments" (Coastal Act Section 30107.5). Accordingly, a conflict with a policy concerning ESHA may signify the Project would have a substantial *physical* adverse effect on an environmental resource subject to special protections under the Coastal Act. In the *Banning Ranch* case, the City deferred the ESHA analysis. The comment has identified no resource area subject to LCP or Coastal Act policy where the Draft EIR has deferred analysis or otherwise relied upon future LCP amendment in order to avoid drawing a conclusion as to impact significance.

In sum, the *Banning Ranch* EIR deferred disclosure or determination of a potential physical adverse environmental effect. However, as explained in response to comment CCC-31 and CCC-32, the Project's Draft EIR both evaluates Project conformity with the applicable LCP land use designation and Coastal Act policies relevant to an LCP amendment, and evaluates the potential physical adverse environmental effects on the resources subject to Coastal Act regulation. The comment has identified no specific physical effect or resource area that is not disclosed or whose analysis of effects has been deferred. Therefore, the Draft EIR's Land Use impact analysis is not revised in response to this comment.

Response LAW2-18

With respect to adequacy of the Draft EIR's Land Use impact discussion and coastal hazards analysis, please refer to responses to comments CCC-32 and CCC-33.

Response LAW2-19

The Draft EIR uses the appropriate baseline to evaluate the potential impacts of the Project on marine biological resources. See *Master Response: Marine Biological Resources Study Area*.

Response LAW2-20

As the CEQA lead agency, West Basin will use this EIR to review the potential environmental impacts of the Project and to determine whether to approve the Project and pursue permitting, which will include a request to the Los Angeles Regional Water Quality Control Board (LARWQCB) for California Water Code (CWC) Section 13142.5(b) determination (the "Water Code determination"). The LARWQCB must find that the applicant has complied with the Ocean Plan Amendments in order to make the Water Code determination. More specifically, pursuant to Ocean Plan Chapter III.M.2.a.(2), LARWQCB (not the applicant) must independently analyze a range of feasible alternatives for the best available site, best available design, best available technology, and best available mitigation measures and then must consider all four factors collectively to determine the best combination of feasible alternatives to minimize intake and mortality of all forms of marine life. See *Master Response: CEQA and Ocean Plan Compliance*.

Response LAW2-21

As described in the Draft EIR Section 3, *Project Description*, the utilization of existing infrastructure for ocean water intake by the Project is deliberate and intended to reduce potential impacts to subtidal and intertidal soft sediment habitats and marine communities by avoiding the installation of a new set of pipelines. The Project solely uses the existing ESGS concrete intake pipelines as conduits to install smaller HDPE pipes that will be used to provide ocean water to the onshore desalinization plant. This approach reduces the potential impacts to subtidal soft sediment habitat and associated marine biota. As further presented in Section 3, *Project Description*, and the impact discussion for Marine Biological Resources in Subsection 5.11.4, the intake flow rate of <0.5 fps at the wedgewire screens (which translates to an approach velocity of 0.141 fps) and the volume of Project intake water (approximately 40 MGD for the Local Project) is a fraction (about $1/10^{th}$) of what is typically employed by unscreened coastal power plant once-through cooling (OTC) systems (approximately 400 MGD for the El Segundo Generating Station Units 3 and 4). Therefore, desalination ocean water intakes are not similar to power plant intakes.

Regardless, even with reduced intake flow rates, reduced intake volumes and the utilization of 1 mm slot-width wedgewire intake screens, some planktonic organisms will be entrained which will result in some loss of biological productivity. The potential effects of entrainment and impingement of both the intake and discharge water was thoroughly analyzed and discussed in Subsection 5.11.4 on pages 5.11-49 through 5.11-56 of the Draft EIR. This section concluded that the loss of biological productivity from the Project's ocean intake ranged between 14 and 47 acres (Table 5.11-9), not thousands of acres as postulated by the commenter. Finally, this loss in biological productivity, also known as APF, is mitigated to a less than significant level by implementation of Mitigation Measure BIO-M2.

Response LAW2-22

The Draft EIR did not decline to analyze the temporary impacts to the soft-bottom and hard-bottom habitats. The comment references pages in the Draft EIR Section 5.10 which address Land Use and Planning. Specifically, Impact LU 5.10-6 evaluates whether the Project would conflict with any applicable Habitat Conservation Plan (HCP) or natural community conservation plan. The potential for impact and recovery to seafloor habitat and associated marine flora and fauna from construction of the modified offshore intake and discharge pipeline infrastructure is discussed in detail in Draft EIR Section 5.11, *Marine Biological Resources*. As noted on Draft EIR pages 5.11-40 to 5.11-41, dredging activities could be expected to result in the temporary loss of soft sediment benthic habitat, associated marine infauna and epifauna, and habitat used as foraging area for marine invertebrates and fish inhabiting the Project marine study area. The Draft EIR further determines that the benthic community inhabiting those sediments would be expected to recover to pre-dredging composition and abundances within a few months to less than 2 years, depending on when dredging occurs and other ecological factors affecting recolonization (Newel et al. 1998; Blake et al. 1996).

Response LAW2-23

Regarding low-income community populations included in the Draft EIR and environmental justice analysis, see *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response LAW2-24

The comment includes a figure that is intended to contextualize the information presented in comment LAW2-23 by showing the CalEnviroScreen 3.0 scores. Since the graph itself does not address any inadequacy in the Draft EIR, the comment is noted for the record and no further response is warranted.

Response LAW2-25

Regarding the commenter's concern that the Draft EIR only analyzes impacts from aboveground structures, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response LAW2-26

Regarding construction-related impacts as result of the proposed Project on environmental justice, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response LAW2-27

Regarding reference populations and demographics, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response LAW2-28

Regarding reference populations and demographics, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response LAW2-29

Regarding the scope of the environmental justice impacts included in the Draft EIR, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response LAW2-30

Regarding energy and air quality impacts of the Project impacting low-income and minority communities, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response LAW2-31

Regarding the commenter's concern of exacerbated climate change impacts from the Project's greenhouse gas emissions as related to environmental justice, the commenter is referred to *Master Response: Environmental Justice*. The commenter is also referred to *Master Response: Greenhouse Gas Emissions and Energy Use* for further information regarding the proposed Project's greenhouse gas emissions.

Response LAW2-32

Regarding water rates and cost as a result of the proposed Project the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18) as well as *Master Response: Cost and Rates*. The Draft EIR is not responsible for discussing cumulative impacts on water rates.

Response LAW2-33

Regarding water rates and cost as a result of the proposed Project the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18) as well as *Master Response: Cost and Rates*.

Response LAW2-34

The District has been supportive of responsible ocean water desalination, but has not made a decision to build an ocean water desalination plant; the proposed Project described in the Draft EIR has not been approved by the District Board of Directors, conditionally or otherwise. The District's former General Manager and a few of the Board members have over the years asked their member agencies for support for "responsible desalination," and that support is conditioned upon: meeting and or surpassing the most environmentally protective requirements established by the State; being carbon neutral compared to imported water, and renewable sources of energy, and; being cost competitive with West Basin's current water recycling program (City of Palos Verdes 2017). Service on the CalDesal Executive Committee is one of many civic volunteer opportunities that members of the Board of Directors typically engage in. One Board member was appointed by his colleagues to serve as one of two West Basin representatives on the Metropolitan Water District of Southern California (MWD) board of directors and he is also a board member of the National Water Research Institute (NWRI), "a 501c3 non-profit that sponsors projects and programs focused on ensuring safe, reliable sources of water now and for future generations," including the reuse of recycled water for potable as well as non-potable uses. The District is indeed "committed to ***environmentally responsible and innovative technology for*** ocean-water desalination" (emphasis added), as noted on its website; see the comment's Attachment E.

Unlike the City of Hollywood in the *Save Tara* case, the District has not committed itself to a "definite course of action regarding the project." The District has not approved an agreement of any kind, conditionally or otherwise, that commits West Basin to moving forward with the proposed Project. Rather, the District has spent funds exploring proposed Project feasibility and conceptual design, the products of which are publicly available at: http://westbasindesal.com/research-and-planning.html.

CEQA Guidelines Section 15126.6 explains that the lead agency, in this case the District, is responsible for selecting a range of Project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives (see Draft EIR Subsection 7.1.4). There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553 and *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376).

The Draft EIR alternative analysis presented in Section 7 is consistent with the CEQA guidelines and recirculation is not required.

Response LAW2-35

See response to comment HBCH-29 through -32, and *Master Response: Water Supply Alternatives*.

Response LAW2-36

Although a lead agency may not give a project's purpose an artificially narrow definition, a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need, and not study alternatives that cannot achieve that basic goal. For example, if the purpose of the project is to build an oceanfront resort hotel (*Goleta, supra,* 52 Cal.3d at p. 561) or a waterfront aquarium (*Save San Francisco Bay Assn. v. San Francisco Bay Conservation etc. Com.* (1992) 10 Cal.App.4th 908, 924-925), a lead agency need not consider inland locations. As explained in Draft EIR Subsections 1.2, *Executive Summary*, and 3.3, *Project Objectives*, "West Basin's goal is to guarantee future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated water supplies identified in West Basin's 2015 Urban Water Management Plan."

See also response to comment HBCH-29 through -32, and *Master Response: Water Supply Alternatives.*

Response LAW2-37

While several alternatives were eliminated from further consideration, including increased conservation, stormwater capture, and Indirect Potable Reuse and Direct Potable Reuse, each of these eliminated alternatives will continue to be components of West Basin's current, and future, water supply portfolio; they cannot therefore, contribute to the goal to "diversify West Basin's water source portfolio" because they are more of the same. They just don't meet the goal, or the objectives of the proposed Project.

A goal of the proposed Project is to reduce reliance on imported water and improve water reliability and security in an environmentally responsible manner. Since West Basin's future potable and raw water demands are projected to be generally similar to existing demands as described in West Basin's 2015 Urban Water Management Plan[3] (see UWMP Table 3-6), the amount of water provided by ocean water desalination would directly reduce the need for imported water.

Contrary to the assertion in the comment, the need for 21,500 AFY equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in UWMP Table 5-5. This is not a "shadow objective" but rather a clearly stated proposal for water supply diversification. The 20,342 AF multi-dry year event shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3). As noted in Section 4.5 of the 2015 and the 2010 UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015

[3] The 2015 UWMP and other West Basin research and planning documents continue to be publicly available online at: http://westbasindesal.com/research-and-planning.html

and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section 9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its Water Reliability initiative.

Even with the maximum practicable conservation savings, increases in recycled water production, and expansion of groundwater supplies by retail agencies, West Basin's service area could experience a shortage of 20,342 acre-feet by 2020 and 21,500 AF by 2025 and beyond. In other words, the proposed Local Project is sized at 20 MGD (or approximately 21,500 AFY), to directly respond to the multi-dry year event shortfall. Thus, the proposed Project would provide the quantity of water necessary to make up the expected shortfall in imported water supplies for what are expected to be more frequent and severe future droughts.

Draft EIR Subsection 7.3.3 did evaluate a Reduced Capacity Alternative; while the Draft EIR concluded that a 10 MGD facility would reduce operational power demands, a smaller desalination facility would not eliminate the Local Project's significant and unavoidable impacts related to temporary construction noise or air emissions since most of the physical improvements would still be required and as such, construction-related impacts would remain largely the same as the proposed Project. See also response to comment HBCH-29 through -32, and *Master Response: Water Supply Alternatives.*

Response LAW2-38

A goal of the proposed Project is to reduce reliance on imported water and improve water reliability and security in an environmentally responsible manner. Phase 1 of the proposed Project identifies 21,500 AFY as a target amount that could be increased to 60,000 AFY in a Regional Project in the future. See response to comment LAW2-37; the need for 21,500 AFY equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event, as shown in UWMP Table 5-5. As noted in Section 4.5 of the 2015 and the 2010 UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015 and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section 9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its water reliability initiative.

As lead agency, West Basin has evaluated a proposed Project located at the ESGS site that would produce 21,500 AFY. As part of the CEQA Alternatives analysis, the Draft EIR evaluates other site locations and technologies that could avoid significant impacts of the proposed Project while meeting most of the Project objectives. The analysis complies with CEQA Alternatives assessment requirements. If the RWQCB or other permitting agency requires additional analysis of alternative locations to site the treatment plant and intakes, or hybrid intake alternatives, West Basin will work with the regulators to provide the information. As described in Draft EIR Appendix 2A, subsurface intakes were found to be infeasible for several reasons including low yield and therefore not substantially meeting Project objectives. If a regulator during the permitting process requires installation of a hybrid intake system that includes a subsurface

contribution in order to fulfill a hybrid intake system requirement, additional analysis may be required. See *Master Response: Supplemental Studies*. The MWD 2015 IRP, and the West Basin 2015 UWMP are presented in Draft EIR Subsection 2.3.2, and are not buried in an appendix; the UWMP is available online at: http://westbasindesal.com/research-and-planning.html.

Response LAW2-39

West Basin's vision statement from the 2017 to 2022 Strategic Business Plan states the District goal is "sustainable and drought-proof water services enhancing the quality of life and economy of our communities." The water supply alternatives that were discussed in the Draft EIR (including increased conservation, stormwater capture, and IPR and DPR) contribute to the goal of ensuring future water supply reliability, consistent with goals identified in West Basin's 2015 Urban Water Management Plan. The proposed Project would add a locally produced, drought-proof potable water source to diversify the existing West Basin supply portfolio in addition to West Basin's ongoing and continuing conservation and water use efficiency programs, including recycling, water reuse (IPR and DPR), and stormwater capture. See Draft EIR Table 2-1. Therefore, the water supply portfolio inclusive of ocean water desalination (and as analyzed in this EIR) is in fact a hybrid solution.

See also response to comment HBCH-30 through -32, and *Master Response: Water Supply Alternatives.*

Response LAW2-40

West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio. But the expansion of an existing conservation program does not meet the objective of diversification and it puts West Basin at greater risk of relying on customer responses to a rationing program during a drought. For example, in order to achieve the reduction in gallons per capita per day (GPCPD) that has been previously experienced in a drought, it is unlikely that consumer lifestyle/behavioral changes that result from rationing would be sustainable over the long term.

Response LAW2-41

The Draft EIR Subsection 7.2.1 did indeed evaluate a stormwater capture alternative. As described in detail in Section 7 of the Draft EIR and in *Master Response: Water Supply Alternatives,* stormwater capture is problematic within the West Basin service area since percolation is not effective in conveying stormwater from the surface through the clay layers and into the potable aquifer. Stormwater injection would be required. But because West Basin does not possess storage or production rights within the groundwater basin, extraction of any storage would only occur at the discretion of West Basin's groundwater rights-holding retail customer agencies. By its nature, storm water capture would not be available during a multi-dry year events. But West Basin is pursuing stormwater capture opportunities including providing rain barrels as described in *Master Response: Water Supply Alternatives*.

All studies used throughout Section 7 are listed in EIR Section 7.5.

Contrary to the assertion in the comment, the need for 21,500 AFY equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in UWMP Table 5-5. The 20,342 AF multi-dry year event shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3). The 2015 UWMP and other West Basin research and planning documents continue to be publicly available online at: http://westbasindesal.com/research-and-planning.html.

Response LAW2-42

Draft EIR Subsection 7.2.1 did indeed evaluate a recycling alternative and provided an in-depth analysis on West Basin's current planning efforts to increase recycled water. As noted in the analysis, the expansion of West Basin's Recycled Water Program would increase capacity from 40 MGD (current capacity) to 70 MGD of secondary effluent. The amount of secondary effluent water from Hyperion to be provided to West Basin would be limited to 54 MGD with the remainder (16 MGD) going into the City of Los Angeles' Harbor Area under the current agreement to upgrade Hyperion (70 MGD in total) (City of Los Angeles 2018). With the City of Los Angeles's current partnership with Water Replenishment District to evaluate the potential use of the rest of the Hyperion wastewater effluent to produce recycled water for groundwater replenishment purposes, the likelihood for West Basin to receive secondary effluent beyond 54 MGD is unlikely and speculative. West Basin currently recycles approximately 40 MGD of secondary effluent from Hyperion that makes up for the total existing customer demand within West Basin's service area. However, West Basin is committed to expand its effort to improve water quality that would attract more recycled water customers and increase future demand to 54 MGD. West Basin is also committed to work with other regional partners, such as Metropolitan Water District, to develop ways to maximize the utilization of West Basin's recycled water distribution and treatment systems to further increase recycled water use in the region.

As explained in Section 7, expanding recycled water use in the region will not completely offset the need for imported water. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. As described in Section 7, West Basin as a responsible water supply manager is considering the addition of ocean water desalination to augment water supply reliability in addition to other local water supply development efforts.

The 100 MGD "ultimate expansion" that the comment referenced was West Basin's vision in 1990. The Edward C. Little Water Recycling Facility (ECLWRF) was commissioned in around 1994 and has gone through multiple expansions based on the growth of its customers in the last 25 years. The current treatment capacity at ECLWRF is 40 MGD. See response to comment *HTB-37* and *Master Response: Water Supply Alternatives.*

Response LAW2-43

The Draft EIR Subsection 7.2.1 did indeed evaluate an IPR alternative. As explained in Section 7, expanding indirect potable reuse use in the region will not completely offset the need for imported water. Even expanding the recycled water production from Hyperion Water Reclamation Plant to its full capacity would not eliminate imported water demands in Southern Los Angeles County. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. As described in Section 7, West Basin as a responsible water supply manager is considering the addition of ocean water desalination to augment water supply reliability in addition to other local water supply development efforts. See *Master Response: Water Supply Alternatives.*

Response LAW2-44

The Draft EIR Subsection 7.2.1 did indeed evaluate a DPR alternative. As explained in Section 7, regulations do not currently exist that would allow for Direct Potable Reuse (DPR) within the West Basin service area. However, as currently envisioned, future DPR regulations may specify a blending requirement, where highly treated water would be blended with potable water for treatment prior to distribution. Interestingly, the implementation of the proposed Project may position West Basin to support future DPR through use of the desalinated ocean water as a raw water source for blending when such regulations are in place. West Basin supports development of DPR as a part of a diversified water supply portfolio for the region. Development of the ocean water desalination would strengthen West Basin's ability to implement DPR in the future via raw water augmentation. See *Master Response: Water Supply Alternatives.*

Response LAW2-45

As explained in Section 7, expanding other water sources, including brackish desalination, will not completely offset the need for imported water (West Basin currently desalinates brackish groundwater; see Draft EIR Table 7-4). Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. As described in Section 7, West Basin as a responsible water supply manager is considering the addition of ocean water desalination to augment water supply reliability in addition to other local water supply development efforts. *Master Response: Water Supply Alternatives.*

Response LAW2-46

Draft EIR Appendix 2 presents the Feasibility Assessment of Subsurface Seawater Intakes that includes two separate evidence-based studies. In response to this and other similar comments, a supplemental study has been conducted that expands upon the Subsurface Intake (SSI) Feasibility Study provided in the Draft EIR. The findings of this supplemental study (provided as Final EIR Appendix 13) present further evidence that confirms West Basin's conclusions in the Draft EIR, and provide support for future regulatory decisions. See also *Master Response Supplemental Studies*.

As explained in the Draft EIR Sections 1.2, *Executive Summary* and 3.3, *Project Description*, West Basin's goal is to ensure future water supply reliability for service area customers by adding

a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan (UWMP). Desalination as a component of West Basin's future water supply portfolio would offset up to 22,500 AFY[4] of imported water in order to "diversify West Basin's water source portfolio" and would allow West Basin to "increase reliability . . . while reducing reliance on imported water." The EIR is an informational document that is intended to provide public agencies and the public with detailed information about the effect that a proposed project is likely to have on the environment. Comments on the appropriateness of the proposed Project size are not within the scope of CEQA. Nevertheless, these comments are included within the Administrative Record and will contribute to the information that will be considered by the decision-makers in the context of the entire record. See also response to comments LAW2-38, SCLA-3 and EOGB-23 and *Master Response: Water Supply Alternatives*.

Response LAW2-47

CEQA Guidelines Section 15126.6 explains that the lead agency, in this case the District, is responsible for selecting a range of Project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives (see Draft EIR Subsection 7.1.4). There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553 and *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376). The Draft EIR appropriately analyzed the water supply alternatives as initial screening alternatives and dismissed each of the alternatives due to inability to meet Project goals and/or infeasibility. Although a lead agency may not give a project's purpose an artificially narrow definition, a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need, and not study alternatives that cannot achieve that basic goal. The CEQA alternatives (including the No Project Alternative, AES Redondo Beach Generating Station Alternative, Reduced Capacity Alternative, and Reduced Elevation Alternative) were all analyzed in greater detail and meet the range of reasonable alternatives required by CEQA. The water supply portfolio inclusive of ocean water desalination (and as analyzed in this EIR), is in fact, a hybrid solution. See *Master Response: Water Supply Alternatives*.

[4] Including 1,000 AFY of brackish groundwater desalination that could come from West Basin's existing C. Marvin Brewer Desalter facility.

Response to Letter NRG: NRG Energy, Inc.

Response NRG-1

West Basin notes NRG Energy, Inc.'s (NRG) perspective of not providing a formal position on the proposed Project.

In response to comments, some changes have been made to the EIR to clarify various issues. Also, in response to comments, additional studies were undertaken that merely amplify or clarify the data in the EIR and confirm its impact analyses; those studies also support future regulatory decisions to be made by other agencies. However, neither the methodologies employed nor the conclusions reached have changed in any way that implicates a significant environmental impact not identified in the Draft EIR, a substantially more severe significant environmental effect than indicated, or a new feasible alternative or mitigation measure (CEQA Guidelines Section 15088.5). The questions raised by the comment, and any revisions that have been made to the Draft EIR in response, are not significant in a way that would require recirculation of, or supplement to, the Draft EIR because they provide additional clarifications, and do not change any of the impact determinations, previously discussed in the Draft EIR. In addition, the Draft EIR was comprehensive and robust, compiled by scientists and experts in their respective environmental fields. West Basin as the lead agency under CEQA believes it complies with the requirements of CEQA and is supported with substantial evidence. . For these reasons, recirculation of the Draft EIR is not required.

Response NRG-2

West Basin acknowledges NRG's comment about the South Site. The EIR appropriately evaluates the South Site as an equal option to the North Site, and no change has been made to the Final EIR in response to this comment. As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide if either site is appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response NRG-3

The Draft EIR Subsection 3.5.1 describes the demolition and removal of existing NRG Units 3 and 4 at the ESGS North Site, and includes a discussion of initial excavation, construction, backfilling, grading and paving. The comment does not specify what additional information is required. As noted in the Draft EIR Table 3-11, West Basin would be required to complete an Application for Certification (AFC) Consistency Determination with the California Energy Commission (CEC) prior to construction, to determine if demolition would be consistent with the already approved AFC for the existing ESGS power plant. West Basin would also be required to receive a permit from the CEC to modify the existing energy facility, to accommodate the Project. Furthermore, Mitigation Measure HAZ-1 would require implementation of a Waste Management Plan for all hazardous and nonhazardous waste generated during facility construction and demolition activities.

Response NRG-4

Section 15124(d) of the CEQA Guidelines requires that an EIR describe the intended uses of the EIR, including by providing "A list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies." As required, the Draft EIR's Section 3, *Project Description*, Table 3-11 (pages 3-38 through 3-42) provides a summary of the various environmental review and consultation requirements that could be required for the Project.

With respect to the California Energy Commission (CEC), Table 3-11 (page 3-39) acknowledges an action by the CEC may be required in order for the Project to proceed. The table notes that an AFC Consistency Determination may be required, along with a permit modification, as needed. The table goes on to explain the former would be required to determine whether demolition of existing facilities at the ESGS site would be consistent with the ESGS power plant's existing CEC authorization (00-AFC-14C). The table notes the latter would be required for modification of the existing facilities to accommodate Project development.

With respect to the State Lands Commission (CSLC), the table (page 3-38) acknowledges that a General Surface Lease would be required for construction on CSLC lands. In addition, the table explains CSLC approval would be required to modify the existing CSLC lease for the ESGS, for Project use of the existing open-ocean intake system and to allow the change in use/concentrate discharge.

With respect to NRG, the table explains that a real estate lease or purchase agreement would be required. Specifically, the table notes that such agreement would be required for the desalination facility construction and operation on ESGS property.

The CEQA Guidelines Section 15125 instructs that "The EIR shall discuss any inconsistencies between the proposed Project and applicable general plans, specific plans, and regional plans." The EIR's Section 5, *Environmental Analysis*, identifies for each environmental topic the corresponding regulatory framework including related policies, plans, and regulatory requirements that would apply to the Project. Similarly, for each topic, the Draft EIR presents a discussion of impacts and mitigation measures, wherein potential conflicts with such requirements are addressed. To the extent the laws, ordinances, regulations and standards that apply to the existing assets on the Project site would also apply to the proposed Project, they are addressed. However, permits, leases, and other agreements to which the asset holder is subject are not general plans, specific plans, and regional plans subject to consistency review under CEQA.

As acknowledged in the Table 3-11 discussions presented above, the Draft EIR acknowledges that consultation and coordination with various state and local entities, as well as with NRG would be required. At present, it remains to be determined which NRG requirements would apply to the Project or be affected by the Project. Moreover, the terms of any agreements or modifications thereto resulting from such discussions are subject to pending negotiations. As a result, a detailed analysis of Project conformity with existing agreements between NRG and other entities would be premature at this time, and in any case is beyond the scope of CEQA.

Response NRG-5

Impacts relating to water quality during Project operations, including consideration of National Pollutant Discharge Elimination System (NPDES) permit requirements, are assessed in detail in the Draft EIR Subsection 5.9.4 under Impacts 5.9-1 (Project construction) and 5.9-2 (Project operation). As described in detail on pages 5.9-49 to 5.9-50, the onshore areas proposed for development, including the proposed sites for the desalination facility at the ESGS sites, are currently developed and/or disturbed, are largely covered with impervious surfaces, are generally flat, and are served by existing stormwater collection and conveyance systems. Development of the desalination facility would not substantially increase impervious surface area as compared to existing conditions. Therefore, implementation of the Project would not substantially alter the volume or rate of stormwater at the proposed ESGS site and would not alter the general character of stormwater quality as compared to existing conditions. Further, the desalination facility at either of the proposed ESGS sites would be designed, as required, with new on-site stormwater drainage collection and conveyance systems as well as stormwater quality Best Management Practices (BMPs) pursuant to applicable regulatory requirements, including compliance with the County's MS4 permit (described in detail in Subsection 5.9.1). West Basin would be required to prepare and implement a Standard Urban Stormwater Mitigation Plan demonstrating compliance with the City's MS4 permit. In accordance with the NPDES Municipal Stormwater Permit for MS4s, the Local Project would be required to implement post-construction stormwater BMPs, such as the use of pervious surfaces (i.e., concrete or pavement), bio-swales, vegetated buffers, and/or retention basins. A post construction Stormwater Pollution Prevention Plan (SWPPP) would be prepared to ensure appropriate maintenance measures for the BMPs. Compliance with the post-construction stormwater requirements would ensure that stormwater does not transport pollutants that impair or degrade the beneficial uses of receiving water bodies. Mandatory compliance with post-construction MS4 permit requirements would ensure the desalination facility site is developed in a manner consistent with regulations, plans, and policies described in Subsection 5.9.1, which include current and future NPDES waste discharge requirements.

Response NRG-6

The Draft EIR Subsection 3.4.1 provides a list of the chemicals that would be used for the proposed Project in Table 3-2 and discussed on pages 3-8 and 3-9. These chemicals would be stored within the desalination facility and would not be stored with or near El Segundo Generating Station chemical storage. As discussed on page 5.8-5, West Basin would be required to prepare a Risk Management Plan describing spill prevention and response procedures. As a part of the preparation of that Plan, West Basin would work with ESGS to integrate procedures, as needed. Upon completion, the Risk Management Plan would be submitted to the local CUPA (the Environmental Safety Division within the City of El Segundo Fire Department) for its review and approval.

Response NRG-7

Please refer to response to comment NRG-4, regarding the scope of CEQA as concerns Project conformity with authorizations and agreements held by others.

Response NRG-8

West Basin notes NRG's contact information for any future correspondence regarding this comment letter.

Response to Letter OFSP: Ocean Front Strand Properties

Response OFSP-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA issues*.

Response to Letter SCLA: Sierra Club – Angeles Chapter

Response SCLA-1

Responses to individual comments by the Sierra Club Angeles Chapter Water Committee are provided in response to comments SCLA-3 through SCLA-15.

Response SCLA-2

Responses to individual comments by the Sierra Club Angeles Chapter Water Committee are provided in response to comments SCLA-3 through SCLA-15.

Response SCLA-3

One of the goals of the proposed Project is to reduce reliance on imported water and improve water reliability and security in an environmentally responsible manner. West Basin's future potable and raw water demands are projected to be generally similar to existing demands as described in West Basin's 2015 Urban Water Management Plan (see UWMP Tables 3-5 and 3-6), due in part to the Regional Alliance formed by some of West Basin's retail agencies to meet the per capita reporting requirements (see West Basin's 2015 UWMP, Section 3.3). The amount of water provided by ocean water desalination (21,500 acre-feet) equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in UWMP Table 5-5. The 20,342 AF multi-dry year event shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3).

But, to be clear, SB 606 and AB 1688 require the Department of Water Resources (DWR), in coordination with the SWRCB, to conduct necessary studies to recommend to the Legislature a standard for indoor residential use. Contrary to the comment, however, the legislation did not include requirements to achieve any specific gallons per capita per day (gpcpd) water use by 2025 or 2030. The legislation did establish 55 gpcpd as the ***standard for indoor residential use*** until January 1, 2025, and beginning January 1, 2025, established the greater of 52.5 gpcpd ***or a standard recommended by the DWR***, and beginning January 1, 2030, established the greater of 50 gpcpd ***or a standard recommended by the DWR*** as a ***standard for indoor residential use*** **(**emphasis added).

As lead agency, West Basin has evaluated a proposed Project located at the ESGS site that would produce 21,500 AFY. As part of the CEQA Alternatives analysis, the Draft EIR evaluates other site locations and technologies that could avoid significant impacts of the proposed Project while meeting most of the Project objectives. The analysis complies with CEQA Alternatives assessment requirements. If the RWQCB or other permitting agency requires additional analysis of alternative locations to site the treatment plant and intakes, or hybrid intake alternatives, West Basin will work with the regulators to provide the information.

Response SCLA-4

West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio. But the expansion of an existing conservation program does not meet the objective of diversification; it's just more of the same, and puts West Basin at greater risk of relying on customer responses to a rationing program during a drought; see response to comment LAW2-40 and CARS-3.

The need for 21,500 AFY equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in UWMP Table 5-5. This is a clearly stated proposal for water supply diversification. The 20,342 af multi-dry year event shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040. As noted in Section 4.5 of the 2015 and the 2010 UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015 and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section 9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its water reliability initiative.

Even with the maximum practicable conservation savings, increases in recycled water production, and expansion of groundwater supplies by retail agencies, West Basin's service area could experience a shortage of 20,342 acre-feet by 2020 and 21,500 AF by 2025 and beyond. In other words, the proposed Local Project is sized at 20 MGD (or approximately 21,500 AFY), to directly respond to the multi-dry year event shortfall. Thus, the proposed Project would provide the quantity of water necessary to make up the expected shortfall in imported water supplies for what are expected to be more frequent and severe future droughts. See also *Master Response: Water Supply Alternatives*.

Response SCLA-5

Regarding water rates and cost as result of the proposed Project the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18) as well as *Master Response: Cost and Rates*.

Regarding the suggested community-based improvements referenced by the commenter, please refer to Section 7, *Alternatives to the Proposed Project*, which addresses conservation on page 7-6.

Response SCLA-6

In response to this and other comments expressing concern about the siting of the Project and associated intake and discharge structures at the ESGS facility, West Basin reviewed publicly available data for other similar intake and outfall facilities within the Santa Monica Bay. This

analysis compares the existing 316(b) data from the ESGS, the Scattergood Generating Station (SGS), and the Redondo Beach Generating Station (RBGS), and evaluates the differences in planktonic species' variation and densities, and the potential levels of entrainment that could result from a desalination plant at each location. Results of the analysis (see Final EIR Appendix 12) indicate that the preferable location for a project's ocean water intake in coastal California must be as distant as possible from rocky reef/hard substrate habitat, coastal lagoons and estuaries, and marine protected areas (MPAs) in order to minimize the entrainment of larval fish, including special status and managed fish and invertebrate taxa. Based on available data, the evidence indicates the ESGS is the "best available" site in SMB to minimize the intake and mortality of marine life. See *Master Response: Supplemental Studies*.

Response SCLA-7

The Draft EIR Section 4.1 presents the approach to the cumulative analysis. As explained in the Draft EIR on page 4-2 to 4-3, both the list approach and the summary of Projections approach are used to determine the Project's cumulative impacts, depending upon which approach is appropriate/relevant for any one environmental issue area. Potential cumulative impacts on marine resources are presented in Draft EIR Subsection 5.11.5; see also response to comment MBCH3-9.

Response SCLA-8

Regarding the commenter's concern over the Draft EIR's "net zero" scenario, see *Master Response: Greenhouse Gas Emissions and Energy Use.* Regarding the commenter's statement about water supply alternatives, see *Master Response: Water Supply Alternatives* and *Master Response: Greenhouse Gas Emissions and Energy Use*.

Response SCLA-9

The comment's statement that the Draft EIR concludes that direct population growth would not be induced because the Project does not provide new homes only represents a fraction of the analysis presented in Section 6.2. As stated on page 6-8 and 6-9, "While the Project would provide a new water source within West Basin's service area, it would replace imported water distribution through the service area and therefore would not induce future growth. Rather, as a project to support future reliability by creating a new local water source, the Project would accommodate existing demand and a very small (0.4 percent) annual increase in demand such that water infrastructure reliability would not be an impediment to already planned growth. As a water supply agency, West Basin has no authority over the approval of General Plans that forecast population increases. Additionally, the Project would be implemented in phases to ensure the new supply is appropriately keeping up with population growth." The Draft EIR therefore concludes that the Project neither supports nor encourages growth within West Basin's service area to a greater degree than presently estimated by the 2015 UWMP and land use agencies with jurisdiction over the Project area.

The comment summarizes Sierra Club policy that states that seawater desalination plants must not induce growth. As evidenced above and explained on pages 6-2 through 6-9 of the Draft EIR, the proposed Project would not induce growth.

Regarding the comment's statement that the Project's reduction in the use of imported water needs to be "backed up with commitment," and that there needs to be a discussion of the mechanism by which West Basin will work with Metropolitan regarding the water offset, the following description of West Basin's relationship with Metropolitan is provided below.

West Basin purchases imported water from Metropolitan when delivery is taken by a customer water agency (i.e. municipality, water company) at a turnout (meter structure) on a Metropolitan pipeline. If an alternative water supply is made available to the customer water agency for demands that replace or offset imported water, the customer water agency will forgo taking delivery of an equivalent volume of imported water from Metropolitan, and West Basin will not purchase that imported water. This mechanism directly offsets imported water. West Basin's financial commitment to providing replacement water provides an equal offset in imported water use. West Basin's reduction in demand for imported water will also be reflected in Metropolitan's short- and long-term demand forecasts, thus reducing the overall demand for imported water in Metropolitan's service area.[5]

One closely related example is how recycled water produced and sold by West Basin to a customer water agency directly offsets imported water. West Basin financed, constructed and operates its Recycled Water System which similarly required West Basin to sell recycled water to obtain revenue to offset costs. The Recycled Water System has operated for over two decades and has resulted in a consistent offset of what was an equal demand for imported water. When a customer water agency takes delivery of recycled water through a connection to the recycled water system to irrigate a park, for example, the agency forgoes taking delivery of an equivalent volume of imported water for that same end use. Desalinated ocean water effectively offsets imported water demand in a similar fashion as recycled water. As recycled water production increases in the future, the amount of imported water needed to meet local demands will decrease. However, even the combination of maximum recycled water and the proposed Regional Project would not entirely eliminate the need for imported water by Metropolitan to the West Basin service area.

Furthermore, the fact that every acre-foot (approximately 326,000 gallons) of the 37,060 acre-feet of recycled water produced and sold by West Basin (fiscal year 2017-18) offsets imported water is evidenced by West Basin receipt of a monetary incentive from Metropolitan for each unit of recycled water that is contractually only available to West Basin if it replaces the use of imported water[6]. Because of this Metropolitan's short- and long-range demand forecasts do not include the demand associated with West Basin's water recycling service as an imported water demand.

Response SCLA-10

The application of a 1 mm screen slot size on an open ocean water intake, in combination with an intake flow rate of <0.5 fps at the screen (which translates to an approach velocity of 0.141 fps)

5 Metropolitan conducts a short-term water sales forecast to set water rates and conduct water operations planning and a long-term demand forecast in its Integrated Resources Plan (IRP) and Regional Urban Water Management Plan (RUWMP).

6 Local Resources Program Agreement Between Metropolitan Water District of Southern California and West Basin Municipal Water District, (March 17, 2006).

(GHD 2018), will reduce the magnitude of entrainment over an unscreened intake employing higher intake flow rates, as currently used by most once-through cooling operations along the California coastline as required by the OPA. As stated by the comment, the State Water Board currently does allow a 1 percent reduction in entrainment estimates if a wedgewire screen is employed on an ocean intake, and that is based on the Expert Review Panel's qualified conclusion, ***when all organisms in seawater are considered*** (emphasis added). However, as documented in the Draft EIR (Draft EIR pages 5.11-49 through 5.11-54) and specifically in Draft EIR table 5.11-9, many larval fish with head and/or body sizes and diameters > 1 mm would potentially be excluded from entrainment. This exclusion may reduce the potential ecosystem effects of entrainment by ***more than*** 1 percent[7] (emphasis added), which calls into question the State's assignment of that percentage reduction. In addition, as presented in the Draft EIR, the actual magnitude of larval and planktonic entrainment under the application of a 1 mm wedgewire screen and flow rates of <0.5 fps have not been fully studied in California coastal waters. Regardless of the limited availability of actual entrainment data for a Project comparable to the proposed Project, the Draft EIR determined that any entrainment posed a significant impact on marine ecosystems. In fact, the Draft EIR states, "At present, the extent of protection that wedgewire screens could provide to prevent entrainment of larval fish and invertebrates in the Project marine study area is unknown." (Draft EIR page 5.11-53). The Draft EIR further concluded that the application of Mitigation Measure MM BIO-M2 would reduce this potential impact to less than significant after mitigation.

Response SCLA-11

The Draft EIR addresses the presence of marine protected areas (MPAs) within SMB in Subsection 5.11.2 under Significant Ecological Areas and specifically identifies the MPA locations in Figure 5.11-2. As the comment indicated, in some cases, the source water area could include the MPAs that flank SMB. When this occurs, the potential entrainment of those larval organisms is included in the Empirical Transport Modeling (ETM) estimates of entrainment and the associated Area of Production Foregone (APF) calculations. For several species of special concern, such as black abalone and Giant seabass, additional calculations of survivability and transit time from any MPAs to the Project marine study area were made and presented in the discussion of Impact BIO-M 5.11-1. Finally, see *Master Response: Marine Biological Resources Study Area* for clarification on the rationale used to establish the marine study area.

Response SCLA-12

See response to comment HBCH-18.

Response SCLA-13

The threshold for using subsurface intakes is feasibility. As explained and summarized in the Draft EIR Subsection 2.10.10, West Basin since 2007 has extensively evaluated the technical,

[7] The Ocean Plan Final Staff Report and Substitute Environmental Documentation (Adopted May 2015), Appendix H, page H-300, summarizes a similar conclusion: if the entrainment study evaluates organisms larger than 10.0 mm, a 1 mm slot size wedgewire screen reduces entrainment by 100 percent; and if the study evaluates organisms larger than 1.0 mm, entrainment is reduced by 9 percent. And when all organisms in seawater are considered, the entrainment is reduced by 1 percent.

economic, social and environmental feasibility of incorporating subsurface seawater intake (SSI) systems into Project design. In 2015, West Basin initiated a site-specific study of SSIs to evaluate their feasibility for providing feedwater to the proposed desalination facility at the ESGS facility; see Draft EIR Appendix 2. As explained in the Draft EIR Subsection 7.2.3, the site-specific study outlined the local geology and proximity to subsurface ocean water and evaluated numerous technologies that could access subsurface ocean water and concluded that due to the local geology, existing coastal development, subsurface water quality, potential for interference with the operation of the West Coast Seawater Barrier Project, and untested expensive technology, subsurface intakes would be infeasible. In response to this and similar comments on the Draft EIR, West Basin prepared a supplemental Subsurface Intake Study; see *Master Response: Supplemental Studies* and Final EIR Appendix 13.

Additionally, the analysis of potential ocean water intake entrainment as well as discharge shear stress impacts on marine plankton is addressed in the Draft EIR on pages 5.11-49 through 5.11-54 and 5.11-58 through 5.11-60, respectively. The Draft EIR acknowledges that regardless of the magnitude of the impact of entrainment, adequate mitigation to restore or enhance marine or coastal habitat must be implemented pursuant to the OPA, which mandates that impacts on all marine life be mitigated. Therefore, the Draft EIR concludes that implementation of Mitigation Measure BIO-M2 would reduce Project related entrainment impacts of all marine taxa to less than significant after implementation of mitigation measures. The Draft EIR also recognizes that based on the absence of suitable habitat in the Project marine study area, the absence of substantial larval densities of special-status species in the Project marine study area, and the natural life history of special-status species of concern present in the Project marine study area, the potential for entrainment of these special-status species is negligible to non-existent and the impact would be less than significant.

Response SCLA-14

As explained in the Draft EIR Section 2.10, West Basin was formed in 1947 as an imported water wholesaler for the southwestern portion of Los Angeles County. West Basin's 185-square-mile service area is composed of 17 cities and several unincorporated areas. As a regional water wholesaler, West Basin purchases water from the MWD as one of its 26 member agencies. West Basin then sells water to its customers, the local retailers, who in turn sell water to their customers through local distribution systems that currently manage diurnal demands. The local systems would continue to operate as they have; only the West Basin portfolio would be different.

For the Local Project, new conveyance infrastructure would convey product water from the ocean water desalination facility to the existing distribution system that delivers potable water to local area and regional supply feeders owned by MWD. The locations of existing MWD facilities are shown in Figure 3-5; see also Draft EIR Subsection 3.4.1. For the Regional Project, a 48-inch- or 54-inch-diameter Regional Pipeline would be extended from the 54-inch Local Project Pipeline within El Segundo Boulevard to a connection on MWD's existing Sepulveda Feeder on Van Ness Boulevard. The alignment for the Regional Pipeline would be one of the variant alignments shown in Figure 3-5. The new conveyance facilities have been evaluated in all the EIR Section 5 topical sections.

Response SCLA-15

The comment's summary of concerns is responded to thoroughly in the responses to comments presented herein. Regarding the expression of opinion, see *Master Response: Non-CEQA Issues*.

Response to Letter UPRR: Union Pacific Railroad Company

Response UPRR-1

West Basin acknowledges Union Pacific's concern. As noted in Draft EIR Section 3.2 (Project Location), land uses surrounding the Project site include Santa Monica Bay to the west, Vista del Mar and the Chevron El Segundo Oil Refinery to the east, the Chevron Marine Terminal to the north, and 45th Street and the city of Manhattan Beach to the south. Other notable nearby land uses include the Los Angeles Department of Water and Power's Scattergood Generating Station located approximately 0.25 miles north, the City of Los Angeles–owned Hyperion Water Reclamation Plant located 0.5 miles north, and LAX located approximately 2.5 miles north. The El Segundo Branch rail spur is the closest identifiable UPRR facility in proximity to the proposed Project site, that isn't within the Chevron Oil Refinery property. The Abandoned Rails website (www.abandonedrails.com/El_Segundo_Branch) reports the spur is approximately 2 miles long, and extended northwest from the still-active Union Pacific (ex-Pacific Electric, ex-Southern Pacific) El Segundo branch at a point called "Wise Transfer," which is located east of Sepulveda Boulevard and the Chevron Oil Refinery. The website explains passenger service ended in 1930 and it is not known when the last freight train ran on this spur, but in December 1975, there was a "line closing ceremony" at the end of the line in El Segundo. The rails were reportedly removed in 1976. Therefore, the Project is unlikely to impact any existing Union Pacific rail line facilities.

Response UPRR-2

Mitigation Measure TRA-1 requires West Basin to prepare a Traffic Control Plan, which will identify measures that minimize the potential for the Project's construction-related traffic to result in traffic delays or impacts on existing circulation patterns and intersections/roadways Level of Service (Draft EIR page 5.15.-20). The Traffic Control Plan will include potential effects to at-grade railroad crossings.

Response UPRR-3

While Union Pacific's rail facilities at the Chevron facility are located near the proposed Project, none of the construction activities associated with the Project would occur within Chevron's facilities. The Project is located west of Vista Del Mar Boulevard which divides the Project site and the Chevron site. No workers associated with Project construction would be walking anywhere near the vicinity of Union Pacific's railway lines on the Chevron site. As a result, risk of trespassing or vandals resulting from the Project are negligible.

Response UPRR-4

While Union Pacific's rail facilities at the Chevron facility are located near the proposed Project, none of the construction activities associated with the Project would occur within Chevron's facilities. No proposed Project-related trucks or vehicles would be in transit near the vicinity of Union Pacific's railway lines on the Chevron site. As a result, increased noise from train horns would not occur as a result of the proposed Project. Additionally, construction of the proposed Project would occur from the hours of 7 a.m. to 7 p.m. (Draft EIR page 5.12-16), therefore ambient nighttime noise levels would not be impacted by any proposed Project-related noise.

Response UPRR-5

Impacts relating to on-site and off-site flooding and erosion from stormwater runoff and/or altered drainage patterns associated with the Project are assessed for both the Local and Regional Project in the Draft EIR Subsection 5.9.4. As described in detail under Impacts 5.9-2 (page 5.9-49), Impact 5.9-4 (page 5.9-65), and Impact 5.9-5 (page 5.9-69), construction and operation of the Project would not substantially alter the existing on-site drainage patterns or the slope/gradient of the ESGS North or South Site. The ESGS site is currently entirely developed or disturbed, and as a result, surface areas are generally impervious or are compacted earth with low permeability. The site's pre-existing drainage patterns would not be altered significantly compared to existing conditions. The site would continue to be serviced by the existing stormwater system, and the rate, volume, and character of stormwater generated on-site would not be substantially different. Compliance with post-construction MS4 permit stormwater requirements would ensure that on-site drainage patterns are not altered; there would be no substantial increase in stormwater runoff compared to existing conditions and flooding related to altered drainage patterns or changes to stormwater runoff rate or volume would not occur on- or off-site. Impacts relating to erosion, siltation, flooding, or increased stormwater runoff on- and off-site due to altered drainage patterns resulting from construction or operation of the Local and Regional Project would be less than significant.

Response UPRR-6

During construction, West Basin and its contractors will coordinate with the railroad as necessary to ensure that railroad safety protocols are followed and that worker and public safety is maintained.

Response UPRR-7

Union Pacific Railroad will be notified of all future hearings and other matters as required by the CEQA Guidelines.

SECTION 17
Individual Comments and Responses

17.1 Individual

The following comment letters were received from individuals on the West Basin Municipal Water District (West Basin) Ocean Water Desalination Project (Project) Draft Environmental Impact Report (Draft EIR). The comment letters are grouped together and are followed by all responses as indicated in **Table 17-1**.

TABLE 17-1
LIST OF DRAFT EIR COMMENT LETTERS: INDIVIDUAL

Letter Code	Commenting Party	Letter Page Number	Response Page Number
ABD	Abdelnur, Diego	17-7	17-251
ADA	Adams, Gladi	17-8	17-252
AFF	Affonso, Jane	17-9	17-253
AHE	Ahearn, Grant and Lynn	17-10	17-254
ALV	Alvarez, Jose and Liz	17-11	17-255
ANO	Anonymous	17-12	17-256
ARE	Arensdorf, Karen	17-13	17-257
ASH	Ashouri, Aida	17-14	17-258
BAC	Bachelder, Laura	17-17	17-261
BAR	Barisa, Bart	17-18	17-262
BAUJ	Baumann, James	17-19	17-263
BAUL	Baumann, Liane	17-20	17-264
BECB	Becker, Bill	17-21	17-265
BECR	Becker, Richard	17-22	17-266
BES	Beswick, Paul	17-24	17-267
BOO	Boone, Peter	17-26	17-269
BOR	Boroch, Frank	17-27	17-270
BRAD	Brady, Theresa	17-28	17-271
BRAI	Braitman, Samuel J.	17-31	17-273
BRAU	Braunecker, Bonnie	17-32	17-274
BRAU2	Braunecker, Bonnie 2	17-33	17-275
BRI	Bringleson, Niklas	17-34	17-276
BUE	Bueltel, Michelle	17-35	17-277

Letter Code	Commenting Party	Letter Page Number	Response Page Number
CHA	Chang, Peter	17-36	17-278
CHR	Christopher, D.	17-37	17-279
CLA	Clayton, Ben	17-38	17-280
COC	Cochran, Brian	17-39	17-281
COC2	Cochran, Brian 2	17-41	17-282
COHJ	Cohen, Julia	17-42	17-283
COHS	Cohen, Stephen	17-43	17-284
CON	Constant, Terry	17-44	17-285
CROC	Croce, Renee	17-45	17-286
CROF	Croft, Amy	17-46	17-287
CUN	Cunningham, Glenn E.	17-47	17-288
DAV	Davidov, Thomas	17-49	17-290
DEF	DeFrank, Victoria Lynn	17-50	17-291
DEL	Delk, Patricia	17-51	17-292
DOD	Dodd, Clinton D.	17-52	17-293
DOL	Doll, Dina	17-53	17-294
DUN	Dunlap, Lesley	17-54	17-295
DUN2	Dunlap, Lesley 2	17-55	17-296
EVE	Everts, Conner	17-56	17-297
FEA	Feakins, Sarah	17-59	17-298
FER	Ferniany, Michael	17-64	17-305
FON	Fontana, Barbra	17-65	17-306
FOR	Forrest, Christopher	17-66	17-307
FRAN	Francois, Dean	17-67	17-308
FRAN2	Francois, Dean 2	17-68	17-309
FRAS	Fraser, Robert	17-69	17-310
FREE	Freeman, Robert	17-70	17-311
FREG	Frego, Scott	17-71	17-312
GAL	Gallman, Robert	17-73	17-315
GILM	Gilmer, Carrie	17-74	17-316
GIL	Gilmour, Steve	17-75	17-317
GIL2	Gilmour, Steve 2	17-76	17-318
GRA	Grant, Margaret	17-77	17-319
GUR	Gurewitz, David	17-78	17-320
GUT	Gutierrez, Felipe	17-79	17-321
HARD	Hardin, Mary	17-80	17-322
HAR	Harris, Susan	17-81	17-323
HIR	Hirsch, Emanuel	17-82	17-324
HOP	Hopwood, Marsha	17-84	17-325
JASJ	Jasaitis, Jay	17-85	17-326

Letter Code	Commenting Party	Letter Page Number	Response Page Number
JASJ2	Jasaitis, Jay 2	17-86	17-327
JASM	Jasaitis, Maria Dalia Sofija	17-87	17-328
JOH	Johnson, Dave	17-88	17-329
KAR	Karen	17-89	17-330
KEL	Keller, Harry E.	17-90	17-331
KEN	Kendall, Rebecca	17-91	17-332
KER	Kernan, Lindsey	17-92	17-333
KLA	Klafter, Aaron	17-93	17-334
KLI	Klink, Karen	17-94	17-335
KRE	Kreger, Michael	17-95	17-336
LEL	Lelchuck, Andrew	17-96	17-337
LIB	Libbey, Thomas	17-97	17-338
LOM	Lombard, David	17-98	17-339
LON	London, Janet	17-99	17-340
MAGG	Maggay, Kevin	17-100	17-341
MAGI	Magiawala, Dr. Kiran R.	17-102	17-343
MAL	Malpee, Peggy	17-103	17-344
MARA	Marron, Andrea	17-104	17-345
MARA2	Marron, Andrea 2	17-105	17-346
MARJ	Marron, Joseph	17-106	17-347
MAS	Mason, Allan	17-107	17-348
MATL	Matlosz, Shawn	17-108	17-349
MATT	Matthes, Ella	17-109	17-350
MCM	McManis, Craig	17-110	17-351
MCM2	McManis, Craig 2	17-111	17-352
MCP	McPherson, Rachel	17-112	17-353
MER	Merkin, Arthur	17-113	17-355
MIC	Michel, Suzanne	17-114	17-356
MILZ	Miller-Zarneke, Tracey	17-115	17-357
MILE	Miller, Emmett	17-117	17-359
MILM	Millington, Manuela	17-118	17-360
MIT	Mitchell, Jane	17-119	17-362
MOE	Moe, Annelisa	17-120	17-363
MOI	Moir, Elizabeth	17-122	17-364
MOO	Moore, Lynne	17-123	17-365
MURE	Murillo, Esteban	17-126	17-373
MURS	Murillo, Steve	17-127	17-374
MURS2	Murillo, Steve 2	17-128	17-375
MURS3	Murillo, Steve 3	17-129	17-376

Letter Code	Commenting Party	Letter Page Number	Response Page Number
MUP	Murphy Perkins, Bob & Michelle	17-130	17-377
MYE	Myers, Frank	17-133	17-384
NEA	Neal, Jan	17-134	17-385
NEE	Neel, Sean	17-137	17-392
NEL	Nelson, Tennyson	17-138	17-393
NOL	Nolan, Phoebe	17-139	17-394
NOR	Norrie, William Robert	17-140	17-395
ORA	Oram, Kelly	17-141	17-396
ORT	Ortega, Evan	17-142	17-397
PAN	Pancake, Jerry	17-143	17-398
PAN2	Pancake, Jerry 2	17-144	17-399
PAR	Parker, Kathleen	17-145	17-400
PER	Perelson, Cindy	17-147	17-401
PHE	Phelps, Andrew	17-148	17-402
PHE2	Phelps, Andrew 2	17-149	17-403
PHI	Phillips, Wendy	17-153	17-404
POL	Pollard, Linda	17-158	17-411
POM	Pompilio, Joie	17-159	17-412
POP	Pope, Mary	17-160	17-413
RAM	Ramirez, John	17-161	17-414
REN	Reniche, Michele	17-162	17-415
RIZ	Rizzi, Joseph	17-163	17-416
RIZ2	Rizzi2, Joseph	17-164	17-417
SAB	Sabosky, Terri	17-165	17-418
SAC	Sackett, Amanda	17-167	17-419
SALA	Salas, Steve	17-169	17-420
SALO	Salonen, Laura	17-170	17-421
SBE	Sberna, Angelina	17-171	17-422
SCHR	Schroeder, Matthew	17-172	17-423
SCHU	Schultz, Janice	17-173	17-424
SCHUJ	Schulz, Juli	17-174	17-425
SCHUV	Schultz, Vic	17-175	17-426
SEN	Senser, Gary	17-176	17-427
SHA	Shamos, Elias	17-177	17-428
SIE	Sievers, Bob	17-178	17-429
SIE2	Sievers, Bob 2	17-180	17-430
SIEN	Sievers, Nate	17-181	17-431
SLO	Slominski, Marilyn	17-182	17-432
SMI	Smith, K.	17-183	17-433

Letter Code	Commenting Party	Letter Page Number	Response Page Number
SOD	Soderberg, Jane	17-184	17-434
SPI	Spiewak, Aaron	17-185	17-435
STAC	Stanich, Christy	17-186	17-436
STAJ	Stanich, Jim	17-187	17-437
STAN	Stansbury, Travis	17-189	17-438
STAU	Stauber, Nic	17-190	17-439
STAV	Stavropolous, Willliam	17-191	17-440
TEL	Tellis, Ed	17-192	17-441
TIS	Tisdale, Ralph	17-194	17-442
TIS2	Tisdale, Ralph 2	17-195	17-443
UGA	Ugarte, Gregory	17-197	17-445
UNG	Ungoco, Joseph	17-198	17-446
VAN	Van Neas, Debra	17-199	17-447
VIC	Vickers, Norman	17-200	17-448
WAL	Wald, Mark	17-201	17-449
WEI	Weinsheim, Kyle	17-202	17-450
WEN	Wenglikowski, Laura	17-204	17-451
WIC	Wickemeyer, Kelly	17-205	17-452
WILC	Wilcox, John	17-206	17-453
WIL	Williams, Tom	17-207	17-455
WIL2	Williams, Tom 2	17-208	17-456
WIL3	Williams, Tom 3	17-209	17-457
WIL4	Williams, Tom 4	17-210	17-458
WIL5	Williams, Tom 5	17-211	17-459
WIN	Wingate, Carol	17-237	17-482
WOO	Woodcock, Darryl	17-239	17-484
YOCO	Young, Colleen	17-240	17-485
YOJE	Young, Jefferson	17-242	17-491
YOJU	Young, Julie	17-243	17-492
ZAN	Zani, Chad	17-244	17-493
ZAR	Zaremski, Dr. Lori	17-246	17-494
ZAR2	Zaremski, Dr. Lori 2	17-247	17-495
ZUA	Zuanich-Ferrell, Jacqueline	17-249	17-496
ZUA2	Zuanich-Ferrell, Jacqueline 2	17-250	17-497

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Questions

Comment Letter ABDELNUR

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

32

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Diego Abdelnur

Mailing Address 122 E Maple Ave El Segundo Ca 90245
Street City State Zip

Telephone # (daytime) 310 - 365 - 5805

E-mail Address dabdelnur@hotmail.com

Organization/Affiliation citizen

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

In terms of potential effects on marine life and micro-organisms as a result of the intake of seawater and the discharge of brine water the EIR states "Less than Significant with mitigation" ✓ ABD-1

1) If the plant is approved and running, who (or what agency) monitors the surrounding marine life, and if it is determined that the impact is more significant than anticipated, how will that affect the operation of the plant? I.E. would West Basin be obligated to "fix the issue" to lessen impact on the marine life? ABD-2

To mail: fold, staple or tape together, and include a stamp.

Date Submitted	Name	Address	City	State	Zip Code	Comments	
3/29/2018	Dr. Gladi Adams	4020 Ocean Drive	Manhattan Beach	CA	90266	As a homeowner here for the last 43 years, this project will cause enormous harm to our Ocean and the fish. We do not need any artificial water producers as we are self sufficient with our conservation efforts. I am a member of Ocean Conservancy and I completely reject this project. Dr. Gladi Adams	ADA-1

From:	Jane Affonso
To:	West Basin Desal EIR
Subject:	Letter opposed to Desal Plant
Date:	Tuesday, May 01, 2018 11:37:42 PM

Dear West Basin Water District Board:

I am opposed to the proposed desalination plant in El Segundo for 3 reasons:

- environmental concerns which were not fully addressed in the EIR.
- excess use of energy at a time when we are facing climate change
- enormous cost.

There are less toxic, more efficient and cheaper solutions to our need for water. Conservation, waste water purification and storm water recapture are all preferred. Why do we think it is better to convert ocean water to drinking water instead of brackish or waste water which to not have the problematic salinity.

AFF-1

Follow the money. I urge you to reject this plant.

AFF-2

Thank you.

Sincerely,

Jane Affonso
1919 Belmont Lane
Redondo Beach, CA 90278

From: West Basin

Sent: Tuesday, April 24, 2018 1:46 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Grant & Lynn Ahearn

Mailing Address: 420 36th Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 213-703-9628

Email Address: grantahearn56@gmail.com

Organization: Manhattan Beach property owner & resident

Comments:
We object to the proposed West Basin Municipal Water District Ocean Water Desalination Project. Homeowners in north Manhattan Beach already have too much industrial activity adjacent to their properties (refinery, power plant, water plant, and LAX). Adding additional industrial activity - especially the planned south project - is unreasonable. AHE-1

From: West Basin

Sent: Friday, April 6, 2018 6:36 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Jose and Liz Alvarez

Mailing Address: 1503 Goodman ave
City: Redondo Beach
State: CA
Zip: 902778

Telephone # (daytime): 3310-990-3977

Email Address: Eking7@verizon.net

Organization:

Comments:
I am am against This plan! My property is 4113 Highland Ave, Manhattan Beach, ca 90266 ALV-1

Comment Letter ANONYMOUS

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) _____

Mailing Address _____
Street *City* *State* *Zip*

Telephone # (daytime) _____

E-mail Address _____

Organization/Affiliation _____

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

RECYCLE, NOT DESAL ANO-1

To mail: fold, staple or tape together, and include a stamp.

From: West Basin

Sent: Wednesday, April 11, 2018 4:13 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Karen arensdorf

Mailing Address: 562 30th st
City: Manhattan beach
State: CA
Zip: 90266

Telephone # (daytime): 3105465095

Email Address: Mbbarn@verizon.net

Organization:

Comments:
I am extremely unhappy about this plant going in right next to manhattan beach! Please don't do this!!!!

ARE-1

From:	Aida Ashouri
To:	West Basin Desal EIR
Subject:	Desalination Plant Comment
Date:	Monday, June 25, 2018 10:35:48 PM
Attachments:	Desalination Plant Comment.pdf

To whom it may concern,

Please find attached my comment. I did not find any time-specific deadline for comment submission on the website or through the news, only that June 25 is the deadline so I should be able to submit this comment as it is still June 25. ASH-1

Sincerely,

Aida Ashouri

Aida Ashouri
221 38th Place
Manhattan Beach, CA 90266

June 25, 2018

West Basin Municipal Water District1
7140 S. Avalon Blvd., Suite 210
Carson, CA 90746

RE: De-salination Plant Comment Period through June 25

As a resident of Manhattan Beach, I am staunchly against the de-salination plant for the following reasons.

- The plant would be in a non-attainment zone with highly sensitive ozone levels among four other sources of high pollution
- Because the plant is among four other sources of high pollution, any additional plants would have a dramatic impact on the value of the land and quality of life for the vicinity
- The plant is a waste of resources; other countries extensively exhaust alternatives before using ocean water – there is no strong evidence, besides the EIR section on "alternatives" that glosses over their necessity, that alternatives have been assessed before the ocean is utilized
- Construction itself would have a great impact on the area regarding traffic, pollution, obstruction of visibility of the area, and affect property values and quality of life greatly considering the plant's proximity to a high-value residential area
- There is an immense impact on the environment both social quality and environmentally
    - The plant would be in the vicinity of a highly trafficked beach and would impact enjoyment of the area
    - The brine in the ocean will affect beach going and the ocean life
    - The use of ocean water makes Los Angeles county a poor example of environmentalism as it demonstrates that even though Los Angeles has not effectively used alternatives, it is willing to harm the environment and consume more resources

ASH-2
ASH-3
ASH-4
ASH-5
ASH-6

The Clean Air Act requires for areas that already have polluted air (meaning the area is not meeting the National Ambient Air Quality Standards for nitrogen oxides and sulfur dioxides, etc.), then the company must comply with Prevention of Significant Deterioration requirements. The district can't just permit an increase without studying how the increase in pollutants and production will affect the already polluted air in the area.

ASH-7

As a resident in the area, I am already impacted by emissions by the DWP, Chevron refinery, power plant, and the airport among other pollution emitting sources. These sources already affect my health by greatly emitting pollution, smoke, odors, and causing eyesores in the

community. Most significantly, the immense construction of this plant is going to contribute a great deal of pollution, notably dust and odors in a very sensitive and over-inundated area of pollution. The South Bay has been noted to be one of the sources of the greatest amount of pollution in the country.

Southern California is already noted to have very high ozone levels, among the highest in the country. Steve Scauzillo, San Gabriel Valley Tribune, April 18, 2018, *Southern California Still Has Some of the Worst Air Pollution in the Country*, Report Finds, available at https://www.dailynews.com/2018/04/18/southern-california-has-some-of-the-worst-air-pollution-in-the-country-report-finds/. "For the second year in a row, Los Angeles, Riverside, Ventura, San Bernardino and Orange counties recorded the nation's highest number of unhealthy days for ozone, the caustic, lung-damaging gas that cause shortness of breath and in the long term is associated with asthma, COPD and lung cancer." *Id.* Los Angeles is listed as the most pollution city with ozone pollution. Zoë Schlanger, Quartz Media, April 19, 2017, *California Is Home to Eight of the 10 Cities in America Where Air Pollution Is Worst*, available at https://qz.com/963089/california-is-home-to-eight-of-the-10-cities-in-america-where-air-pollution-is-worst/. ASH-7

There are a multitude of reasons that this plant should be blocked. As the bulk of water is used by industry, agriculture, and landscaping, reducing water usage for these sources has also not been exhausted. Industry especially should be either recycling fracking water (instead of agriculture) in making products, or use non-potable water strictly. Landscaping should be limited or a tax be put in place to restrict water usage. Agriculture should be encouraged to use practices the reduce water usage and capture rainfall and condensation. A de-salination plant should be the last resort for Los Angeles, something that a desert island should resort to, not to a metropolitan city with a myriad of alternatives. De-salination results in a dramatic impact on the environment, the plant itself is going to affect an already sensitive area, and it will affect the community that it will be in close proximity with, affecting land value and quality of life, especially during construction. ASH-8

Due to the preceding reasons we adamantly oppose construction.

Sincerely,

Aida Ashouri
Violet Akhondzadeh

Comment Letter BACHELDER

Date Submitted	Name	Address	City	State	Zip Code	Comments
3/29/2018	Laura Bachelder	128 40th street	manhattna beach	CA	90266	Besides the fact that desalinization increases the salinity level of the Ocean, increasing therefore the evaporation process, which at the end will expedite the desertification of the hearth; besides the fact that desalinization will impact and disrupt even further the Ocean life, building a plant so close to LA water depuration system is a recipe for disaster. Consider if the depuration system of LA fails, how will the desalinization plant react? Also, the area is densely populated and highly touristic. The plant will have a highly negative impact on all the residents and visitors to this area. This is the worst plan you can come up with.

BAC-1

Comment Letter BARISA

West Basin Municipal Water District
Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) BART BARISA

Mailing Address 625 ESPLANADE #39 (Street) REDONDO BEACH (City) CA (State) 90277 (Zip)

Telephone # (daytime) (310) 316-2121

E-mail Address

Organization/Affiliation RETIRED

Please provide comments in the section below and leave in comment box or place in mail by Monday, June 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

WITH THE ISSUES OF EARTHQUAKES, TERRORISM AND OTHER CATASTROPHIES, I FEEL THAT YOU SHOULD BUILD 2 PLANTS, POSSIBLY, ONE IN EL SEGUNDO AND ONE IN REDONDO BEACH, SO THAT IF ONE PLANT IS DAMAGED OR DESTROYED, THE OTHER PLANT COULD STILL FURNISH WATER TO THE OTHER BEACH CITIES AS WELL AS THEIR PARTICULAR AREA. IT IS LIKE HAVING A TWIN ENGINE AIR PLANE. IF ONE ENGINE FAILS, THE PLANE ~~CRASH~~ CAN STILL FLY.

THIS IS DESERT COUNTRY, WE CAN'T RELY ON RAIN.

BAR-1

BAR-2

To mail: fold, staple or tape together, and include a stamp.

From: West Basin

Sent: Friday, April 6, 2018 6:41 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: James Baumann

Mailing Address:
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: jameskbaumann12@gmail.com

Organization:

Comments:
Please put in North Location. Not south..

BAUJ-1

From: West Basin

Sent: Tuesday, April 10, 2018 9:04 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Liane Baumann

Mailing Address:
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: Kalenaliane@gmail.com

Organization:

Comments:
I'll agree to a desalination plant if it's swapped out with one of the other eyesores in that general area. You people need to get a clue. No one wants to look at this crap. Find a beach with no accessibility and no residential to destroy instead of our home.

BAUL-1

From: West Basin

Sent: Friday, June 22, 2018 1:48 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Bill Becker

Mailing Address: 2901 Oak Ave
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3106436599

Email Address: Beckerlegal@outlook.com

Organization: Law Office of Willian Becker

Comments:
The reports confirms what we all knew. The project is a wonderful addition to our community. It is an environmentally sound endeavor that recognizes desalinization is the best way to add water until condensation technology advances. Conservation is not an option as our water currently comes from the water project and is unsustainable. We do not need to be patched when we live next to the ocean and power rates makes desalinization green and less expensive than. Imported water. I hope this plant is phase one of a more ch more ambitious project. I like my industrial neighbors; Chevron, west Basin, LAX, Hyperion, Scattergood and NRG. I knew they were here when I arrived and they provide valuable services to our community and beyond. Water needs will continue to rise with population growth. Our goal in the South Bay should be to be self sufficient with our water and power generation. That is the greenest if goals and the only one true environmentalists like me support.

BECB-1

From: West Basin

Sent: Monday, April 23, 2018 7:57 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Attachments: ElSegundoSearise-ClimateCentral.jpg

Comments - Form from West Basin Desal Site

Name: Richard Becker

Mailing Address:
City: Redondo Beach
State:
Zip: 90277

Telephone # (daytime):

Email Address: engrbecker@gmail.com

Organization:

Comments:
1) Make sure the plant is properly designed (100 year event minimum) for earthquakes, tsunamis, liquefaction, and sea level rise. 2) I support the construction of desalination plants; make sure you follow a successful design strategy like those plants in Israel, rather than the unsuccessful attempts in Australia, etc. Why draw water through existing obsolete distribution systems for hundreds of miles, when the water is at your doorstep? www.scientificamerican.com/article/israel-proves-the-desalination-era-is-here/

BECR-1


Surging Seas STAKES RISING: YEAR 2100
21 Rosecrans Ave, El Segundo, CA 90245, I
Comment Letter BECKERR
Download map image
Without big cuts in climate pollution, an unstable Antarctica could double previous sea level projections. This map shows what could be affected.
See report
Choose a scenario:
Unchecked pollution
Sharp carbon cuts
Current coast
Map factors in new Antarctic research
Switch projections
Sea level tools and analysis by CLIMATE CENTRAL
About Us | Disclaimer | Terms | Privacy | Contact
Grand Avenue
West Grand Avenue
West Franklin Avenue
East Franklin Avenue
Binder Place
West el Segundo Boulevard
East El Segundo Boulevard
Vista del Mar Boulevard
N.Sepulveda Boulevard
Highland Avenue
45th Street
Gull Street
44th Street
43rd Street
42nd Street
41st Street
Kelp Street
Ocean Drive
North Crest Drive

17-23

From: West Basin

Sent: Wednesday, June 20, 2018 3:00 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Paul Beswick

Mailing Address: 1729 Pacific Avenue
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 310-545-5229

Email Address: pgb7723@earthlink.net

Organization: Resident/Home Owner/Customer

Comments:
Public Comment In Opposition To Proposed West Basin Desalination Plant - submitted to West Basin Municipal Water District on June 20, 2018 As a 35-year Manhattan Beach resident, chemical engineer, recent retiree, after more than 20 years, from the Metropolitan Water District of Southern California and prior Manhattan Beach Environmental Task Force member, I have considerable interest in and some knowledge on the subject of our drinking water supplies. I have attended a West Basin MWD Public Meeting on the draft Environmental Impact Report (EIR) for their proposed desalination plant and read Beach Reporter articles and letters on this subject, pro and con. While there is truth in a lot of the views that were expressed by the public and West Basin personnel, I am concerned that an accurate picture of our current drinking water supply situation and the options available to us has really not been accurately portrayed. Yes, we do need diverse sources for our drinking water and we do need to reduce our dependence on imported water. We need to increase our water storage, to more aggressively pursue rainwater capture and, very importantly, we need to increase conservation. However, I do not believe that desalination should be the focus by West Basin as an additional drinking water source, but rather increased waste water recycling should be promoted instead. West Basin already has a waste water recycling facility beside the golf course in El Segundo, which is capable of producing drinking water that meets or exceeds State and EPA water quality standards. West Basin should focus its money and resources on expanding and technologically upgrading this facility and educating the public about waste water recycling, instead of wasteful spending on a desalination plant. Numerous scientific studies have shown that waste water recycling is preferable to

BES-1

BES-2

BES-3

17-24

desalination " more economical and with a much smaller environmental footprint (far less energy use and without the toxic brine discharge to the ocean). Furthermore, state drinking water regulators are moving forward on an aggressive timetable for a direct potable reuse (DPR) where recycled waste water can be blended directly with treated drinking water from surface and ground water sources. In summary, West Basin has other less costly, less energy intensive and more environmentally friendly options available to it to achieve its objectives of water source diversification. I believe that the West Basin draft EIR on the proposed desalination project, in its review of alternatives to the proposed project (see EIR Section 7), shows a distinct bias towards the desalination project and does not accurately present the true value of these alternatives. If West Basin were to move forward with the proposed desalination project, the impact on residents in its service area would be a needless increase in water rates to fund the project, as well as an unnecessary, negative environmental footprint in El Segundo and an unnecessary blemish along coast of Santa Monica Bay in an area that might be reclaimed from the soon-to-be decommissioned El Segundo Generating Station. Because of the reasons I have outlined above, I urge West Basin's Board of Directors to oppose the Draft Environmental Impact Report on Ocean Desalination Plant Proposed by the West Basin Municipal Water District. Thank you for allowing me to express my opinion on this very important matter. Please donate hesitate to contact me if you have any questions or would like to discuss this matter with me. Sincerely, -- Paul Paul G. Beswick

BES-3

BES-4

BES-5

From: West Basin

Sent: Thursday, April 26, 2018 12:21 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Peter Boone

Mailing Address: 4308 The Strand
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: ppboone@roadrunner.com

Organization:

Comments:
I strongly oppose putting the plant on 45th Street. I believe it will add to the traffic on 45th (which is sometimes gridlocked by cars waiting to get into the beach parking lot) and will likely reduce the number of parking places on 45th. BOO-1

From: West Basin

Sent: Saturday, April 7, 2018 4:36 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Frank Boroch

Mailing Address: 1728 N Poinsettia
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: Frankboroch@yahoo.com

Organization:

Comments:
The proposed locations for the desalination facility are too close to a residential area - the El Porto section in north Manhattan Beach. The expected impact on residents, such as noise and air pollution is of great concern. Construction of a project of this size would create a major traffic problem affecting one of the major north-south gateways into and out of Manhattan Beach - Vista del Mar/Highland Ave. If the project has to be located at a beach site, why not place it to the north across from the Hyperion Facility or the Scattergood generating station where there are no residences.

BOR-1

From:	Theresa Brady
To:	West Basin Desal EIR
Cc:	theresa brady
Subject:	comments on the west basin ocean water desalination project
Date:	Monday, June 25, 2018 2:07:58 PM
Attachments:	041714-FactSheet.pdf Flush11x17-663x1024.png WasteResource.jpg

June 25, 2018
21844 Corvo Way
Topanga, California 90290

West Basin Municipal Water District
Attn: Zita Yu, PhD P.E., Project Manager
17140 South Avalon Boulevard suite 210
Carson, California 90746
desalEIR@westbasin.org

Dear Zita Yu:

The desalinization plant proposed by West Basin should be postponed for at least 2 years. The climate change impact of the desal plant cannot be mitigated. We are now in the midst of the 6th great extinction. The north pole is nearly ice free for the first time in human history. Use of fossil fuels should be stopped in every possible way as soon as possible. There are significant effects on climate change during the building and the production stages. Large quantities are noted in the EIR of both gasoline for vehicles and equipment and for natural gas. The increased use of natural gas should be completely avoided since natural gas is methane and is even more potent than CO2 as a driver of climate change. Building this desal plant would cause unmitigatable harm to future generations in the form of climate change.

BRAD-1

The discharged water from Hyperion has been proposed as an alternative: to have it treated to point of being potable. This should be more thoroughly studied now.

BRAD-2

Conservation measures should be more thoroughly explored and implemented. Your recent

effort to encourage gray water and to distribute rainbarrels are a good start toward conservation. One more effort that could reduce water use, and make the treatment of Hyperion water easier and more acceptable, is to focus on composting toilets.

BRAD-2

Composting toilets would be another major source of conservation. In two years, the Occidental Arts and Ecology Center will complete their study of the effectiveness of composting toilets. They are doing this study in conjunction with government agencies and a University. In this way, they will also clarify what are the governmental hurdles and make the study repeatable for scientific proof. Composting toilets are a way to reduce fresh water use by 20 gallons per person per day, on average. That is the average amount of water used in the toilet for each person per day according to OAEC. The use of composting toilets takes human excrement out of the water cycle, thereby makes treatment of water for reuse less complex, and makes reused water have lower pathogens.

The OAEC study just began this year in 2018. In two years there will be results from this scientific study on how this technology can best be used.

BRAD-3

Los Angeles County law already allows unincorporated Los Angeles county residents to install a composting toilet as long as they also have a water toilet installed in their home. Many of your customers live in unincorporated Los Angeles County, such as the Del Aire community, so this is a policy that you could implement now. This desal plant should be put on the shelf and conservation methods such as composting toilets should be evaluated and made available to county residents, as a pilot program, as soon as the literature is reviewed and a policy can be adopted.

BRAD-4

Desal plants are costly up front and may be unnecessary if conservation measures are put in place. For example, the conservation measures adopted in San Diego also should be considered since they were very effective at saving water. San Diego did not need the water from the desal plant when they implemented conservation measures. In fact, they found they had 500 million gallons too much. The desal plant, in Carlsbad, the provider for San Diego, turned out to be unnecessary: San Diego had a 500,000,000 gallon surplus due to conservation. They are however,

BRAD-5

locked into a contract and have to buy the more costly desal water from the plant in Carlsbad for many years to come. This is a waste of energy, biological resources and ratepayer funds.

BRAD-5

These are all reasons why the El Segundo desal plant should be reconsidered. When 2 years passes, there may be many conservation measures that would use less energy and have less impact on climate change and marine life than this plant. This plant would cause global warming, waste the dwindling supply of fossil fuel, harm microscopic sea life, (such as krill and young fish,) and has already upset your neighbors. In two years it may more clearly be seen, it is unneeded. If you delay the start of this and then reconsider all the factors to see if it is in fact needed, after studying more conservation measures (like composting toilets)you may save rate payer money and make the neighbors happier, all while reducing your impact on climate change as well.

BRAD-6

Thank you. I am attaching several resources about composting toilets for the record.

BRAD-7

Theresa Brady

'NON-PROPRIETARY' COMPOSTING TOILET FAQ:

1. **What is a composting toilet system?** – A composting toilet does not require the use of water or electricity and is a way to contain and control the composting of excrement, toilet paper, and carbon additive in an unsaturated, aerobic environment.
2. **How does the composting process work?** Thermophilic (bacteria living above 113°F) and/or mesophilic (bacteria living at 68-113°F) aerobic bacteria and fungi break down wastes through the composting process. The composting process requires:
    a. Heat – composting is most efficient at temperatures of 65°F to 135°F (meso-thermophilic). If sufficient mass and food is available the temperature will be maintained by the respective microorganism populations until food resources are consumed.
    b. Aeration – to maintain aerobic microorganism populations which facilitate the processing of the compost.
    c. Moisture – range of 40-70% (like a well-wrung sponge) to maintain microorganisms.
    d. Carbon:Nitrogen Ratio – about 30:1 is ideal.
    e. Microorganisms – To facilitate a quicker start in new composting bins an inoculation with a microbe starter or a shovel of finished compost may be desired.
3. **What is the end product of the composting process and what is its appropriate use?**
    a. Composting toilets remove most of the biological oxygen demand (BOD) and reduce waste volume to 10-30% of original volume.
    b. The result is "humanure" (not the same as treated sewage sludge which may contain industrial wastes). Fecal coliforms and other pathogens are deactivated in the composting process (minimum required composting time is dependent on temperature and intended use).
    c. Humanure is a stable, soil-like material called "humus". Humus is a common soil conditioner critical to agricultural systems.
    d. Recommended to use composted humanure (similar to residential greywater re-use) on-site only, distributed in mulch basins around fruit trees, and not to come in contact with edible portions of food producing plants.
4. **Why would someone in Arizona want to use a composting toilet?**
    a. Conserves potable water by not flushing, ~ 10gpcd, 3650gal/yr/person;
    b. Conserves energy: 45-550 kWh/yr/person (enough energy to light a 100 W bulb for ~450 - 5550 hours) for sourcing water and treating waste water (*depending on pumping distance, depth, quality of source water, and other variations)*(source: Lancaster 2012)
    c. Conserves additional water by conserving energy: 23gal – 282gal/yr/person (*based on coal power*) (source: Lancaster 2012)
    d. Creates a renewable on-site soil building resource, humanure which helps return nutrients to the soil:
        i. An average person can fertilize 15-30ft^2 of crops based on organic content
        ii. Adds a locally-sourced, stable, organic material to soil
    e. Rural: an alternative to septic systems. Septic systems may be too expensive or soil constraints too limiting (e.g. low percolation, high water tables, shallow soil, or rough terrain)
    f. Urban: desire to expand bathroom w/ sustainable technologies, reduce need for new/upgraded waste treatment facility
    g. More cost-effective to treat waste on-site than it is to build and maintain a central sewer system
    h. Nutrients are kept in tight biological cycles without causing problems to receiving waters

i. Moving from disposal based thinking to resource utilization

5. **What regulations exist for composting toilets in Arizona?** Composting toilet regulations in Arizona address performance standards, design requirements, operation, and maintenance requirements as well as the disposition of the non-toilet "wastewater" flow (sinks, laundry, etc).
6. **What is a site-built composting toilet?** A "site-built" composting toilet refers to a system that can be constructed on-site as compared to a pre-fabricated, commercially available composting toilet. The Composting Toilet Research Action Pilot spearheaded by Watershed Management Group (WMG) is evaluating two basic "site-built" designs (designs are publically available for free). If the systems prove to be robust in durability, user likeability, and effectively minimize pathogen risks, the designs will be proposed to ADEQ to be listed as selection options under ADEQ's 4.03 General Permit under Aquifer Protection.
    a. Standard permit cost = $500-$1000+
    b. # of Composting Toilet permits issued between 2005-2007: 35
    c. Non-proprietary Permit cost = $1000 to review design + $1000 for the permit (if design approved)
    d. # of residents who have applied for a non-proprietary composting toilet permit: 0
    e. # of residents with non-proprietary composting toilets in urban Tucson: Estimated 50-100+
7. **Why would someone choose a "non-proprietary" (or "site-built") composting toilet over a commercially purchased and certified system?**
    a. system is cheaper in cost ($200-$400 vs $1,200-$6,000)
    b. desire for simplicity
    c. custom fit or design based on site constraints
    d. often better performance
    e. easily repaired if needed, fewer moving parts, gadgets, and gizmos to break or require costly repairs
8. **What about controlling odors, flies, and common pathogens?**
    a. Odors – odor is considered information in the management of the system. If odors are present then management is required typically in the form of 1) aerating and/or 2) adding carbonaceous cover material to maintain the C:N ratio.
    b. Flies – flies are a potential vector of pathogens to humans. Flies and other insects can be easily controlled by ensuring the system is well sealed. In outdoor environments a fly trap is effective at attracting flies if they gain access and prevents them from exiting the system.
    c. Common pathogens – fecal coliforms (i.e. E.coli), *ascaris lumbricoides* (roundworm), Cryptosporidum and enteric viruses (e.g. norovirus); *According to Dr. Chuck Gerba (UA Research Professor), ascaris is not a common pathogen in Arizona.*
9. **What about the diverted urine from a composting toilet?** – urine accounts for ~90% of N and 50% of P in household wastewater but only 1% of the flow volume. Urine is typically sterile. If stored for a short period of time potential pathogens in urine are deactivated.
    a. Corresponding N-P-K values of urine are 11-1.5-2
    b. The ammonia (NH_4) in urine must undergo nitrification to be plant useable. This occurs in aerobic environments which make it ideal to apply urine to well-mulched soil and promote plant uptake of nitrate.
    c. Conventional septic tanks remove only ~1-3% of nitrogen and then a total of 21-25% if an additional soil absorption system is included. By diverting urine and applying to well-mulched soil a majority of the nitrogen is made plant available.

d. Based on 1 adult consuming 550lbs of cereals per year, ~70% of the consumed cereal crop could be fertilized based on urine alone (and an additional 13% accounting for humanure). (Drangert, 1998)

10. What are the associated environmental and health risks to a community with individuals using and maintaining (site-built) composting toilets and utilizing diverted urine?

a. As long as the composting material remains on site and contained until treatment is complete there are no environmental health risks. If the material has been composted completely all of the pathogens (disease causing organism) should have been destroyed. It is important that the material during composting be contained as to ensure that rainfall events cannot carry the material off-site.

b. Urine utilization: Ingestion of crops contaminated with urine resulted in risks of $<10^{-5}$ after a 3-week ($<10^{-7}$ after 4 weeks) withholding period between fertilizing and harvesting. (Höglund et al, 2002)

11. What does a community gain with the use of 'site-built' composting toilets and a standard permitting process?

a. Potentially reduces number of systems unknown to regulators and ensures specified standards are met

b. Reduces need to import/mine soil nutrient amendments saving 216-621 lbs CO_2 per year

c. Reduces strain on limited potable water supplies and aging waste water infrastructure

12. Where can I learn more?

a. David Del Porto and Carol Steinfeld, The Composting Toilet System Book

b. Drangert, J. 1998. Fighting the urine blindness to provide more sanitation options. Water SA. 24(2): 157-164.

c. Ecosanres.org --> Jönsson et al., 2004. Guidelines on the Use of Urine and Faeces in Crop Production. EcoSanRes. Stockholm Environment Institute.

d. Höglund, C. et al. 2002. Microbia risk assessment of source-separated urine used in agriculture. Waste Management and Research. 20: 150-161.

e. Joseph Jenkins, The Humanure Handbook, http://humanurehandbook.com

f. Brad Lancaster, www.harvestingrainwater.com/water-energy-carbon-nexus

g. David Omick, www.omick.net

h. Recode Oregon, www.recodeoregon.org/composting-toilets-in-oregon

i. Rich Earth Institute, www.richearthinstitute.org

j. U.S. Environmental Protection Agency. 1999. Water Efficiency Technology Fact Sheet, Composting Toilets. EPA 832-F-99-066.

k. Watershed Management Group, www.watershedmg.org/soil-stewards

CALIFORNIA
CAN'T AFFORD TO

FLUSH

WATER

We're in a drought. Yet the average Californian flushes 16 to 24 gallons of clean drinking water down the toilet every day! And that doesn't include the countless gallons lost through leaky pipes & outdated infrastructure.

ENERGY

20% of California's energy is used for water related uses, including transport and treatment. So when we waste water, we waste energy. When we waste energy, we contribute to greenhouse gas emissions and climate change.

SOIL

Deforestation, industrial agriculture, and over-development have broken the natural carbon cycle by polluting, paving over, and eroding California's precious topsoils without putting anything back in return. Aging centralized wastewater treatment facilities are inefficient & ineffective at removing contaminants and degrade the soil nutrient cycle rather than restoring it.

DOWN THE TOILET

Occidental Arts & Ecology Center

COMPOSTING TOILETS CAN:

- Safely process pathogens & ensure public health
- Save billions of gallons of water annually & help cities comply with mandatory conservation measures for drought
- Improve water quality by decreasing pollution of drinking water
- Replace failing septic systems & outdates wastewater infrastructure
- Help meet green house gas reduction goals by reducing energy used for water transport and treatment
- Create affordable, natural alternatives to chemical "porta-potties
- Build topsoil through nutrient capture
- Sequester carbon & help mitigate climate change

WWW.OAEC.ORG/
COMPOST-TOILET-RESEARCH-PROJECT

Occidental Arts & Ecology Center

From: West Basin

Sent: Friday, April 6, 2018 9:55 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: SAMUEL J. BRAITMAN

Mailing Address: 4102 THE STRAND
City: MANHATTAN BEACH
State: CA
Zip: 90266

Telephone # (daytime): (310) 227-7788

Email Address: sjbraitman@hotmail.com

Organization:

Comments:
The proposed locations for the desalination facility are too close to a residential area - the El Porto section in north Manhattan Beach. The expected impact on residents, such as noise and air pollution is of great concern. Construction of a project of this size would create a major traffic problem affecting one of the major north-south gateways into and out of Manhattan Beach - Vista del Mar/Highland Ave. If the project has to be located at a beach site, why not place it to the north across from the Hyperion Facility or the Scattergood generating station where there are no residences.

BRAI-1

From: West Basin

Sent: Thursday, June 21, 2018 1:07 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Bonnie Braunecker

Mailing Address: 1440 E Sycamore Ave
City: El Segundo
State: CA
Zip: 90245

Telephone # (daytime): 3106408770

Email Address: bbraunecker@gmail.com

Organization:

Comments:
I am STRONGLY opposed to the Desalination plan for the El Segundo/Manhattan Beach area! It's a very short sighted proposal with a huge financial and ecological impact. Come up with a more responsibile plan to address this issue. BRAU-1

From: Bonnie Braunecker
To: West Basin Desal EIR
Subject: Manhattan Beach desalinization project
Date: Thursday, June 21, 2018 1:15:23 PM

I STRONGLY oppose the desalination plan for the Manhattan Beach/El Segundo beaches. BRAU2-1
This short sighted proposal is both a financial and ecological disaster.
Come up with a better plan that has long term success, such as an educational program to change the negative association of the Hyperion water that is already clean. That would be money well spent! BRAU2-2
Sincerely,
Bonnie Braunecker

From: West Basin

Sent: Thursday, April 26, 2018 10:04 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: niklas bringleson

Mailing Address: 120 shell street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3105146003

Email Address: niko2son@gmail.com

Organization: Homeowner in El Porto, Manhattan Beach

Comments:
Hi, I have been a homeowner in this neighborhood for over 5 years. Please I urge you to develop the North Site and not the South Site. Developing the South Site will have a detrimental effect on our property values and will cause external obsolesce. The neighborhood will fight you on it all the way. Developing the North Site would be highly preferred by all that choose to live here. Thank you for considering our opinion. Regards, Niklas Bringleson (310)514-6003

BRI-1

From: West Basin

Sent: Tuesday, April 10, 2018 9:20 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Michelle Bueltel

Mailing Address:
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: mmbueltel@gmail.com

Organization:

Comments:
North side is preferable

BUE-1

From: West Basin

Sent: Friday, April 6, 2018 6:00 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Peter Chang

Mailing Address: 45th st, El porto
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: ptchang1@yahoo.com

Organization:

Comments:
Currently as is we have enough to deal with as far as noise and construction. I work from home and haveing something that close to me would be more than an annoyance. I think the plant should be further north past the jetty. I would hate to see the area and beaches affected more than they already are from the current situation. CHA-1

Comment Letter CHRISTOPHER

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) D. CHRISTOPHER

Mailing Address P.O. Box 316 LAWNDALE CA 90260
(Street / City / State / Zip)

Telephone # (daytime) 310. 725-0845

E-mail Address

Organization/Affiliation S.C.A.G Inc.

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

Would AIR TO WATER GENERATORS HELP CREATE MORE WATER? CHR-1

To mail: fold, staple or tape together, and include a stamp.

From: West Basin

Sent: Wednesday, June 20, 2018 1:37 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Ben Clayton

Mailing Address: 18355 South Figueroa St.
City: Gardena
State: CA
Zip: 9

Telephone # (daytime):

Email Address: ben.clayton@ua250.org

Organization: LU 250

Comments:
WE NEED WATER

CLA-1

From: Noemi Luna
Sent: Monday, May 7, 2018 2:00 PM
To: Justin Sumi
Subject: Fw: West Basin Desal Site Comments - Brian Cochran

Follow Up Flag: Follow up
Flag Status: Flagged

WB Comment.

--
Noemi Luna
Project Manager
MBI Media
Covina . Los Angeles . Orange County . San Jose California | (800) 700-1999 www.mbimedia.com
Corporate Headquarters Phone: (626) 967-1510 Fax: (626) 967-1718

From: West Basin <comments@westbasindesal.org>
Sent: Monday, May 7, 2018 1:51 PM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Brian Cochran

Mailing Address:
City: Manhattan Beach
State:
Zip: 90266

Telephone # (daytime):

Email Address: bbcochran@gmail.com

Organization: Self

Comments:

Please name the elected officials, and their contacts, who will be voting on the positioning of the planned Ocean Water Desalination Project? COC-1

From: West Basin

Sent: Wednesday, June 20, 2018 5:07 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Brian Cochran

Mailing Address:
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: Bbcochran@gmail.com

Organization:

Comments:
Why is the proposed Desal plant considering a "South Location" adjacent to North Manhattan Beach? The North Manhattan Beach population will be adversely impacted by Noise and Visual pollution, according to the EIR. Why is this idyllic location even a consideration?

COC2-1

Date Received	Name	Organization	Contact Info	Comment
				8. Why was this site chosen for this plant? Why not Palos Verdes or Redondo Beach? 9. Can the comment period be extended by another 30 days?
April 20, 2018	Dr. Lori Zaremski	Self-Concerned Citizen	3221 Gibson Place Redondo Beach, CA 90278 (310)408-6908 drloriz@aol.com	Creating another environmental man-made disaster to poorly address another man made crisis (drought and insufficient water supply) due to poorly planned development in the California desert is reckless and shortsighted
April 20, 2018	Dr. Lori Zaremski	Self-Concerned Citizen	3221 Gibson Place Redondo Beach, CA 90278 (310)408-6908 drloriz@aol.com	How does the possible financial gain to individual water district members affect their voting. Is possible conflict of interest of District board investigated?
April 20, 2018	Dr. Kiran Magiawala	Private Citizen	4015 W 137th St., Apt. 107 Hawthorne, CA 90250 (310)978-1434 kiran_magiawala@yahoo.com	Suggestion for evaluating complimentary option for reducing GHG sessions: Working with CalFire, USFS and Nature Conservancy CNGOs, combined to evaluate potential for GHG emission mitigation by planting trees in our state forests that have approximately 130 trillion dead trees at present Thank you! 04/25/2018
April 20, 2018	D. Christopher	S.C.A.G. Inc.	P.O. Box 366 Lawndale, CA 90260 (310)725-0845	Would air to water generators help create more water?
April 20, 2018	Dieg Abdelnur	Citizen	122 E Maple Ave. El Segundo, CA 90245 (310)365-5805 dabdelnur@hotmail.com	In terms of potential effects on marine life and micro-organisms as a result of the intake of seawater and the discharge of brine water the EIR states "Less than Significant with Mitigation" If the plant is approved and running, who (or what agency) monitor the surrounding marine life, and if it is determined that the impact is more significant than anticipated, how will that affect the operation of the plant? I.E. would west basin be obligated to "fix the issue" to lessen impact on the marine life?
April 20, 2018	Julia Cohen		119 E. Pine Ave. El Segundo, CA 90245 (213)308-4539 julialillis@gmail.com	You said 5 elected officials will decide if this moves forward. Where can we find the names of those officials or can you tell us their names right now? Related: is councilman Brann or any other El Segundo elected official currently at this meeting?

COHJ-1

From: West Basin

Sent: Monday, May 14, 2018 9:12 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Stephen Cohen

Mailing Address: 5411 Ocean Unit 104
City: Hawthorne
State: CA
Zip: 90250

Telephone # (daytime): 310-283-0353

Email Address: Stephen74@ca.rr.com

Organization: Surfer El porto local.

Comments:
I use the north Manhattan beach every day, 5 years of construction is a significant loss of quality of life for me. I also do not want the effects of the plant and feel we do not need it. Put in a park. There's plenty of room in front of lax for an ugly plant. Use the useless beach north of El Segundo.

COHS-1

From: West Basin

Sent: Sunday, April 29, 2018 3:26 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Terry Constant

Mailing Address: 2811 N. Valley Drive
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 310-985-4000

Email Address: terryconstant@live.com

Organization:

Comments:
I walk these beaches most days and feel that the location by the Hyperion plant (North Location) makes the more sense in terms of less disruption of daily use. Most people use the area south of the "jetty" to surf, run, jog and walk. While the north location gets traffic in the summer there is almost no one there during the other months. But if I were to have any choice the old AES location in Redondo Beach seems like it would be the best as there is no beach at that location to be disrupted. Not sure how that may affect Kings Harbor but in terms of affecting the beaches this one would do the least harm in my opinion. I do think we need a desalination plant - but would prefer the North Location or the AES location as choices compared to the high use south location. Thank you for your consideration. Terry Constant

CON-1

From: West Basin

Sent: Saturday, April 7, 2018 9:53 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Renwe

Mailing Address: 4216 highland avenue unit e
City: Manhattan beach
State: CA
Zip: 90266

Telephone # (daytime): 7148150456

Email Address: renee@reneecroce.com

Organization:

Comments:
Desalinazation...great idea...i do think that it should be placed as far north as possible CROC-1

From: West Basin

Sent: Thursday, June 21, 2018 8:19 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Amy Croft

Mailing Address: W. 235th
City: Torrance
State: CA
Zip: 90505

Telephone # (daytime):

Email Address: californiacroft@gmail.com

Organization:

Comments:
Desalination may be politically popular however more use of recycled /reclaimed water is necessary. We should focus on safe toilet to tap method for tap water. With the ever advancing methods this is the best use of our most important resource. Desalination should be the absolute last resort . Remove the stigma and make it classy toilet to tap is the way to go.

CROF-1

From: West Basin

Sent: Wednesday, May 16, 2018 9:54 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Glenn E. Cunningham

Mailing Address: 5310 Pali Point Lane
City: La Canada
State: CA
Zip: 91011-2818

Telephone # (daytime): 818-790-7613

Email Address: glenn.e.cunningham@usa.net

Organization: Property owner in El Porto section of Manhattan Beach

Comments:

I fully support the use of desalinated ocean water as necessary contribution to the West Basin Municipal Water District water supply portfolio. I also fully and strongly support the selection of the North Site for the plant primarily because I strongly favor a buffer zone of undeveloped, but landscaped, area between the El Porto residential area of north Manhattan Beach and the industrial facilities to the north, much in the manner that Chevron has a large green zone on the western edge of its facility. Relative to Section 5.1: Aesthetics, Light and Glare The visual impact issues of the south site, for both the Local and Regional implementations, are very subjective. The thresholds of impact are not quantitative, and thus very difficult to judge. It is troubling that most visual issues are judged by public impact and not private impact. Thus, the driving threshold established by the Scenic Highway Act is held much more important than the impact to private residences in the El Porto area. This is sad as it seems to ignore the sensitivity of those closest to the project. The use of the assessment, "would not substantial degrade" is extremely hard to evaluate and might be considered to be "white wash" by some. I am concerned that spillage of night-time lighting of the south site facility has not been sufficiently assessed and will be a continuing problem to residents of El Porto during the construction period and, long term, during the operations period. This lighting will be much nearer to residents, and comparison to the ESGS, Chevron and Hyperion plant area lighting is not relevant. Relative to Section 5.11: Marine Biological Resources I am concerned by a comment made by one of the representatives at the site discussion station (who was latter on the technical panel at 5/12/18 public meeting) who said that while the north site was the preferred location but because its

CUN-1

CUN-2

CUN-3

lower elevation relative to sea level there would be a concern by the Coastal Commission that might jeopardize the Commission's approval of the project. My concern is why the north site is touted as the preferred location when this potential road block has not removed by getting the Commission's tentative approval before moving forward to this point. I would suggest that significant effort be applied to become assured that the Coastal Commission will approve the plant at the north site before proceeding further with development of plans for that site. Relative to Section 5.12: Noise Regarding the south site, for both the Local and Regional implementations, should it be selected, I question the impact to residents in the El Porto area from seismic effects of pile driving during the construction phase. I don't think this environmental effect has received sufficient study relative to its potentially induced damage to nearby residences and the Chevron Service Station at the intersection of 45th Street and Vista del Mar. In general, this analysis has been written off because it is very complex to calculate and transmission of vibrations are impacted by boundary phenomena (that) are impossible to foresee.

CUN-3

CUN-4

From: West Basin

Sent: Wednesday, April 25, 2018 8:25 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Thomas Davidov

Mailing Address: 425 26th St
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3103510444

Email Address: tdavidov1@gmail.com

Organization: None

Comments:
Desalinization should only be pursued as a last resort. Why are we focused on capturing more rain water both in southern and northern CA. In addition we have the opportunity to build additional water capture facilities in norther California from the abundant river systems. If A desalinization plant must be built it should be as far from houses as possible. DAV-1

Victoria Lynn DeFrank
420 South Catalina Avenue, Apt 219 Redondo Beach, CA 90277
310-848-3701
victorialdefrank@gmail.com

June 21, 2018

Patrick Shields, General Manager
West Basin Municipal Water District Board of Directors
17140 South Avalon Boulevard
Carson, CA 90746-1296

Re: Draft EIR

Dear General Manager Shields:

I am deeply troubled by the information I received regarding the proposed desalination plant to be built in El Segundo. The draft presented identifies the current laws and regulations but does not explore or address the impact to the local community and the region. DEF-1

It is my understanding that about 63 million dollars have been spent to date. What is the estimated final project cost? Who will be responsible for the cost of operating the facility? How does the building of a four-story plant with adjacent buildings align with the beauty and scenery of the proposed location? As described in the draft, the plan does not address the loss of beach access. DEF-2

I would appreciate your responding to me at your earliest convenience. Because I resided in an industrial setting Western Pennsylvania I am acutely aware of ramifications that occur when a plan is implemented without considering the long term financial and environmental cost. DEF-3

Sincerely,

Victoria Lynn DeFrank

Comment Letter DELK

Date Submitted	Name	Address	City	State	Zip Code	Comments	
3/28/2018	Patricia Delk	764 36th Street	Manhattan Beach	CA	90366	This project is too close to homes. If you must, please opt for the Northern most location.	DEL-1

From: West Basin

Sent: Friday, June 8, 2018 6:56 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Clinton D Dodd

Mailing Address: 211 Eastern Ave
City: Pasadena
State: CA
Zip: 91107

Telephone # (daytime): 626 449-7536

Email Address: clinton@caltech.edu

Organization: None / Caltech retireed

Comments:
I applause the foresight of every city that is looking into desalination plants and every university that improves the process of removing salt from ground water. The future of pure drinking water and crop water needs the commitment. DOD-1

From: West Basin

Sent: Monday, May 7, 2018 8:51 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Dina Doll

Mailing Address: 39th St
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3108391166

Email Address: Dolldina1@gmail.com

Organization:

Comments:
I STRONGLY object to the proposed South location. This will severely impact the value of many multi-million dollar homes. Which you might be liable for if there are any accidents such as the gas leak that occurred last year. A plant should no sxist so close to a residential area. I oppose the plant anywhere near El Porto. DOL-1

From: West Basin

Sent: Saturday, April 7, 2018 5:57 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Lesley Dunlap

Mailing Address: 201 Gull Streeet
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 9495002219

Email Address: lesleydunlap@yahoo.com

Organization: None

Comments:
For the proposed desalination plant, I am against it. If it moves forward, it needs to be at the jetty near the smoke stacks. The Chevron plant keeps us up at night. If it goes behind the Chevron station, it will for sure prevent us from sleeping and affect our property values (ie class action lawsuit). It should be away from residential near the smoke stacks. DUN-1

From: West Basin

Sent: Tuesday, May 15, 2018 6:33 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Lesley Dunlap

Mailing Address: 201 Gull St
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 9495002219

Email Address: Lesleydunlap@yahoo.com

Organization:

Comments:
We do not want a desalination plant in our backyard/adjacent to El Porto. This is a horrible plan and should be rejected. We do not want to live next to anotherplant and should not be subjected to the noise, safety risk, pollution, eye sore and everything associated with living next to a plant. DUN2-1

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

5b

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Conner Everts

Mailing Address 2613 6th St. (Street) Santa Monica (City) CA (State) 90405 (Zip)

Telephone # (daytime) 310.804.6615

E-mail Address connerc@gmail.com

Organization/Affiliation Desal Response Group

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

will provide oral comments -
extension of DEIR deadline to June 25

EVE-1

To mail: fold, staple or tape together, and include a stamp.

Donald: So, I'll call the meeting to order, the special board meeting of West Basin, and, uh, we – now a quorum of four. And, uh, under public content – comment, we have three requests to speak under agenda item 5B. Is anyone else with the public, wants to comment? Okay, we'll go on to presentations, there are none. Item 5A, I think 5B first, so we can move things along, if that's okay with you, and, uh, it was Connor Everts, I believe, is the first speaker.

Connor: Thank you very much. Connor Everts with the Desal Response Group. Um, I just wanted to refer to our, um, letter from our coalition asking for an extension of 30 days until June 25th. Um, for the comments, um, you all have, I know, worked very long and hard on putting together a draft EIR. Uh, we were having some problems. Um, one, downloading some of it, and then having access, the items, the **[inaudible] [00:01:04]**, so we're asking for more time on that. EVE-2

I also wanted to commend your staff. I realized that you weren't here, but for the first public meeting in El Segundo, we had a very large turnout. People wanted to speak and, uh, staff let them do it, and I thought that was a good interchange we had, a little contentious at times, but, uh, we appreciate that. And I also wanted to, um, commend you on your continuing, um, water barrels, uh, rain water workshops, and even the water bottle filling stations, and, uh, I think that helps, uh, us and you to interact with the public. Thank you very much. EVE-3

Donald: Thank you. Who's next? Do we have who's next?

Julie: Thank you, Director Dear. The next speaker is Annelisa Moe.

Annelisa: Good morning, madam chair and members of the board. Um, I've met a few of you at this point, but I just wanted to introduce myself. My name's Annelisa Moe, uh, and I work with **[inaudible]** as a water quality scientist. Um, and on behalf of **[inaudible]** I just wanna reiterate some of, um, Mr. Everts comments that we would like to, um, be able to extend the comment period for the draft EIR, um, and also, commend you guys for the work that you have done. Um, I am new to a lot of this. I got hired about two months ago, but seeing some of the presentations this morning, um, it was, uh, great to see some of the projects that you guys are putting forward, so thank you very much.

Steve: Uh, sure. The, uh, this is the time where the agency is taking comments and we're in the, in the preparation phase of – or, excuse me, we're still receiving comments that we're gonna have to respond to. We expect that to be a pretty lengthy period with a lot of comments and that is a staff activity. The staff and our experts have to get together and respond to those comments. The board will be the ultimate arbiter of whether or not the, uh, document will be finalized and, and a project, uh, accepted.

And so, at this point, uh, our recommendation is that the staffs continue to, uh, staff the workshops, take input, and receive comments that we will add to the admin record that'll be the record underlying the final document in the project.

Julie: Mr. Chair?

Donald: Before you, you comment, I'm gonna give another minute to Connor Everts if he has something to say, if you don't mind.

Connor: Since the public doesn't come here, I thought it was a good opportunity. My other question was, I didn't know if there was a, a, recording of the comments that were made when people got up and spoke. I know that you hand out those short sheets that people could, um, put written comments on, but if you were actually recording, because how else are the board gonna know with the 50 or 60 people that were there that night, let's say? Thank you. EVE-4

Donald: Respond to that?

Patrick: Yeah, uh, comment cards were filled out by the participants and those will all be incorporated as part of the, uh, EIR process and addressed, and, uh, our, um, project manager, Zita, if you wanna add anything to that, of how this – those comments are gonna be handled.

Zita: Thanks, uh –

Patrick: Two mics.

Zita: Well, it works now. Thank you very much, uh, Mr. **[inaudible] [00:07:39]**. Uh, yes, uh, so, uh, the public, uh, public meeting that was planned for the, uh, April 25th meeting, uh, the original plan

Dr. Sarah J. Feakins
Resident within West Basin MWD
228 38th Pl, Manhattan Beach
CA 90266

23rd June 2018

Re: Public Comment on West Basin Seawater Desalination Proposal Draft EIR
http://westbasindesal.org/draft-eir.html

To whom it may concern,

I am writing to participate in the public comment period on the West Basin Draft EIR issued March 27th 2018. I attended the first public town hall meetings during the public comment period. The meeting was revealing about the process. I thank the decision of the West Basin staff to follow their powerpoint presentation with a session in which they publicly (rather than 1-on-1 as planned) answered public concerns which is the expected format of a 'town hall' meeting. West Basin's 1-on-1 conversations were also very informative, but the public Q&A is vital for the community process of discussion to understand, and to know what questions to ask from other members of the community. This is also important to the CEQA mandated process of public information sharing, because the burden of time needed to read about the CEQA process and Draft EIR is considerable, and therefore inaccessible to most of the public.

- How many hours does it take to read the complete draft EIR?
- Please include an FAQ section that answers most common questions from the public.

FEA-1

My comments are informed by my reading of the climate research literature, as well as educational materials related to energy and water security. I do not conduct research on desalination or any aspect of water supply and do not have any financial conflicts of interest.

I recommend the Pacific Institute report that describes the key issues and concludes that desalination proposals are premature in California. http://pacinst.org/publication/desalination-with-a-grain-of-salt-a-california-perspective-2/

As stated in the Draft EIR documentation "The purpose of the draft EIR, is to **seek public comment to inform and refine the proposed project**. Following the close of the public review and comment period, West Basin will respond to all comments submitted **in regards to the adequacy of the draft EIR**." My comments are on the adequacy of the draft EIR, by section, and I seek response.

FEA-2

Draft EIR Section 2. Introduction and Background

> Desalination of seawater is one of the most expensive and energy-intensive ways of delivering water. This is relevant to the adequacy of the EIR, because costs spent on mitigation of EIs are part in the costs of construction and costs of production. Costs certainly are relevant to discussion of water security in background information section of the Draft EIR and foremost concerns to most at the town hall meeting, although those public participants were only from the informed pool of local neighbors and not representative of the West Basin customer base (not directly notified), that includes larger volume water users in places, and low-income communities in others, I urge price and socioeconomic impacts to be clearly reported.

FEA-3

a. What is the cost of construction of the plant, and what is the estimated total cost per average water rate payer over the mortgage period of 25yrs to pay back the cost of construction?
b. What is the cost of water/HCF (HCF=100 cubic feet) from this plant to homeowners at the current cost of energy, and projected 10 years ahead? Please detail this for the average water rate user in a variety of types of housing: the average customer in different cities served, in the large garden properties, and where water price is bundled into rents, what are the impacts.
c. Please provide a clear report e.g. graphic that shows the cost of the various types of water in West Basin's proposed water portfolio at today's costs vs desalination.

FEA-4

d. Project proponents should estimate and publicly disclose the full energy requirements of each proposed project and provide details of energy contracts. (Pacific Institute recommendation). Please provide a clear report e.g. graphic that shows the cost of the various types of water in West Basin's proposed water portfolio at today's costs.
e. Project proponents should explicitly evaluate energy price risk, including year-to-year variation and trends over time. (Pacific Institute recommendation) i.e. please show projected costs and uncertainty in projected cost comparisons.

FEA-5

f. To what extent has West Basin attempted to reduce water use by large volume residential users? (alternative to expanding water supply)

FEA-6

g. In low-income communities will the rise in water rates have health consequences?

FEA-7

h. Is it correct that cost is the main concern of the average attendee of the West Basin town hall meeting? If so has expected price per resident been adequately communicated to all residents?

FEA-8

Draft EIR 5.15 Transportation and Traffic.

The El Segundo locations are on an artery that has no close parallel roads because of multiple large industry properties, this road is a major conduit between the "South Bay" and "Silicon Beach". Traffic congestion on this artery road further N, recently was the place of a reversal of a road diet/parking change that reversed under public pressure.

FEA-9

a. Is it correct that this is a prevalent concern among local residents based on the responses at the town hall meeting?

FEA-10

b. Please include reports on the road condition and road resurfacing after the truck traffic needed for construction, although the report considers traffic delays for truck traffic (3 car equivalent length) it does not factor road damage from weight of loaded trucks. See for example http://www.governing.com/topics/transportation-infrastructure/Too-Big-The-Road.html

FEA-11

c. Does the traffic delay report account for trucks making left turns out of the property across a dangerous stretch of road with several high speed collisions in the last year. Equating traffic burden to 3 car equivalent addition to traffic, appears insufficient given that the traffic flows N-S 2 lanes each way, travelling past the proposed Vista del Mar sites, with the N-bound accelerating downhill from 30 to 45 miles per hour (or faster). The proposed site would introduce need for cross lanes, truck pull out, given the turning radius, time needed, can that pull out occur safely without traffic lights and what would traffic lights add to the traffic delay?

FEA-12

d. Please factor the timeline for road resurfacing into traffic delays associated with restrictions along the artery road Vista del Mar. Include estimates of the time increase for alternate routes if detours are needed via Rosecrans and Sepulveda and Aviation. FEA-13

e. Given the unique artery road in El Segundo, the community impacted will include the larger South Bay commuters linking to businesses in the Silicon Beach and West Side regions, an adequate CEQA public comment would take into consideration public information and comment on EIR from that community, e.g. note reversal of lane and parking changes on the Vista del Mar. https://www.dailybreeze.com/2017/08/10/second-lawsuit-filed-over-vista-del-mar-road-diet/ FEA-14

f. Please document how communities and business that will also be impacted by travel delays have been (in)sufficiently notified of the draft EIR. FEA-14

Draft EIR 5.11 Marine Biological Resources

a. Please confirm whether this report was consulted and what aspects of the recommendations were adopted/not: http://pacinst.org/publication/desal-marine-impacts/ FEA-15

b. The draft EIR report details the cetacean species that are common in the vicinity. I confirm frequent (daily) casual sightings of pods of 6-12 dolphins are readily spotted nearshore in the El Segundo location, a whale has also been spotted in this location, based on casual observation. The report mentions the mammals are protected, but does not detail all the risks, in addition to brines and intake/outflow engineering that are covered. I find that acoustic risks to species using echolocation in the vicinity are missing, for information: http://www.environment.gov.au/marine/marine-species/cetaceans/whale-dolphins-sound. Please detail the direct risks of sound and brines to the pod of dolphins that are offshore on a daily basis, just beyond the surfers, as well as the indirect, local impacts on their food chain. For example of sub-marine acoustic EIR see this from Aquasure in Australia: https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=12&ved=0ahUKEwjP7-ziterbAhVK-lQKHYzaCb0QFghsMAs&url=https%3A%2F%2Fwww.aquasure.com.au%2Fuploads%2Ffiles%2FD%26C%2520Marine%2520EMP%2520Att%2520I7%2520-%2520Underwater%2520Noise.pdf&usg=AOvVaw1VNmslxMmaDf1NrksTVO8g FEA-16

Draft EIR 5.5 Energy.

Is there any issue with the water cooling for the power plant and the proposed desalination plant, related to regulations associated with permitting and extension of permit life for power plant coolant? FEA-17

Draft EIR 5.6 Geology, soils, seismicity.

a. I searched the Draft EIR, but I found no mention of sea level rise projections, and property lines and structural integrity of the plant and lines, with respect to a shifting shoreline, and wave erosion. Information about projections and city planning here: https://dornsife.usc.edu/uscseagrant/adaptla-va/ http://smdp.com/rising-sea-levels-santa-monica/155078 FEA-18

https://la.curbed.com/2017/3/28/15089548/southern-california-beaches-erosion-disappear-by-2100 FEA-18

b. The power plant at the El Segundo property has recently installed a seawall presumably for this reason, please provide analysis of this structure's (in)sufficiency, relevant to the proposed construction in the final report. FEA-19

c. To what extent has the EIR followed the Pacific Institute recommendation: "Planners should design and construct all desalination facilities using estimates of future, not present, climate and ocean conditions." FEA-20

Draft EIR 5.7 Greenhouse Gas Emissions.

a. Please see the Pacific Institute report prepared on this topic. http://pacinst.org/publication/energy-and-greenhouse-gas-emissions-of-seawater-desalination-in-california/ FEA-21

b. **Carbon dioxide emissions associated with desalinated seawater production.** If 50% of California's electricity is derived from coal, purchased from out-of-state, this means that 50% of the desalination plant's considerable energy will be coal-fired, with other sources of energy including gas contributing to the carbon dioxide emissions. Please provide a clear graphic that shows the carbon dioxide emissions associated with the various types of water production in water portfolio, and range of carbon dioxide emissions associated with a fluctuating energy mix, this is information needed to make an informed choice with the final EIR as to the carbon dioxide emissions and climate change associated with this proposal. FEA-22

c. **Construction materials – carbon dioxide emissions.** Please include the carbon dioxide emissions associated with the required building materials (concrete etc), not just the carbon dioxide cost of transporting those materials for the plant construction. FEA-23

Draft EIR Section 6. Other CEQA Considerations.

Public information and consultation adequacy. Direct mail notifications only went to residents within North El Porto. This means no direct information has been supplied to the 900,000 residents within the area served by West Basin, this omission would interfere with the public comment requirements of the CEQA process, given the considerable cost that will be on their water bill and that may impact those communities negatively. FEA-24

The town hall meeting venue was full, but also a very small venue. I do not find adequate demonstration of democratic participation in what is a very costly project, estimated >$300m cost of construction, to be spread mortgaged out over 25 years, to the 900,000 residents of West Basin district, or to residents and businesses impacted by the traffic changes, or to the larger communities impacted by the energy-cost of seawater desalination. FEA-25

In the final report please provide the following information about public dissemination of information:

d. How many public attendees were present at meeting 1, meeting 2, and how many in total non-repeat names signed in to the available public information town halls? FEA-26

e. How many public comments were received in total?

f. What % of the West Basin customer base does this participation represent?

g. Please document that the public comment period was extended as requested by 1 participant in the first public comment meeting, after it was deduced that there would

be no West Basin executive board meetings during the remaining public comment period, giving the public no access to the board. Please document how many public attendees were at the board meeting.

h. Transparency. For the 5 voting members of the board, please declare any prior lobbying activities or ties to seawater desalination industries that may constitute conflicts of interest, including financial or personal benefits from the proposed plant construction. These data are key to document to what extent awareness and comments received may **adequately ensure the integrity of the public comment part of the CEQA process**.

FEA-26

Draft EIR Section 7. Alternatives to the Proposed Project.

Insufficient alternates are presented, others including water use reduction and scale-up of wastewater treatment are missing. Options are presented for different site locations or no action. Seawater desalination, is considered a water provision option of last resort, because of the high costs, and high energy demands. It is used in the Middle East where oil is abundant and freshwater scarce, but in California, we have abundant water resources, that we move around the state, and we can instead prioritize: aggressive conservation in agriculture (the major water user in the state, at 80%), urban conservation, wastewater reclamation: treatment, reinjection, and using this banked water for later indirect potable reuse. This proposal puts a trickle of water in our taps at huge dollar and carbon costs.

FEA-27

The Pacific Institute report recommends:

"Water planners, agencies, and managers must comprehensively analyze all options, including conservation and efficiency, and pursue less costly, less environmentally damaging alternatives first.

Desalination facilities should be approved only where water agencies have implemented all cost-effective water conservation and efficiency measures."

FEA-28

I oppose the seawater desalination proposal.

Sincerely,

S. Feakins

Dr. Sarah J. Feakins
Resident: Manhattan Beach
Employment: Associate Professor of Earth Sciences at the University of Southern California.

From: Mike Ferniany
To: West Basin Desal EIR
Subject: Desalination Project
Date: Thursday, March 29, 2018 4:49:36 PM

Environmental Impact:

Putting a plant in El Segundo is a potential environmental disaster. Vista Del Mar is a very crowded major street the entire year, with not only continuous beach traffic but also the primary street for traffic for people going and coming from work for all the beach cities. Additionally, the Chevron facilities are continually constructing which disrupts and delays traffic flow on Vista Del Mar. Additionally, the city is continually doing road repair and/or digging up the street to get to the sewer pipes, etc. It's a continual traffic nightmare for those of us who live in this area. FER-1

Please do not build or put a plant in this already congested area with constant tourist and Los Angeles beach-goer traffic.

Why don't you build this plant at a different location such as San Pedro or Long Beach? That makes more sense than crowding out the already too-crowded. FER-2

Sincerely,
Michael Ferniany

From: West Basin

Sent: Tuesday, April 24, 2018 1:07 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Barbra Fontana

Mailing Address: 534 Rosecrans Avenue
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: Barbrafontana@aol.com

Organization:

Comments:
I am opposed to the desalination plant in North Manhattan Beach/ South El Segundo. Studies show that it is extremely expensive and could affect the ocean life. I think if anything it should be moved further North in El Segundo and line up with the Hyperion Plant that is already affecting Beach, etc.

FON-1

From: West Basin

Sent: Thursday, April 26, 2018 5:49 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Christopher Forrest

Mailing Address: 209 41st Street
City: Manhattan Beach
State: PA
Zip: 90266

Telephone # (daytime): 2679094627

Email Address: cbforrest1@gmail.com

Organization: Home Owner

Comments:
We are fully aware of the need for Southern California to develop new sources of clean water. We are not happy about the environmental impact of the Desal plant should it be located in El Segundo. There is no question that it will have a negative impact on an already fragile ecosystem. It seems to us, though, that the decision to build the plant is foregone. If that is the case, I would like to comment on plant location. If the plant will be located on the power plant site, there is no question that the Northern site would be preferred. Removal of the old smoke stacks is a huge plus for all of us in South Bay, and replacing those with a Desal plant from an aesthics point of view would be a gain. Placing the Desal plant on the South side of the lot would be a huge problem for the northern Manhattan Beach community: the smoke stacks would remain, the location of the plant would be so close to our neighborhood that there may be unintended health effects, and the impact on our well-being would be tremendous. -- Chris Forrest

FOR-1

FOR-2

Comment Letter FRANCOIS

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly): Dean Francois

Mailing Address: By 15th (Street) Hermosa Beach (City) CA (State) 90254 (Zip)

Telephone # (daytime): 310-938-2101

E-mail Address: Savethestrand@yahoo.com

Organization/Affiliation: _____

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

1- Alternatives consider using Hyperion Discharge & change to State Law to allow this, FRAN-1

2- Concerned re: effect on wildlife FRAN-2

3- Throw out alternative for Redondo - that is not as Bad FRAN-3

4- Consider alternative of getting Population to reduce excess waste of current water ie; no still allow washing cars in streets, peoples dredging of swimming pools; street cleaning still not implemented in San Pedro; get car washes to have and use soapless alternatives FRAN-4

To mail: fold, staple or tape together, and include a stamp.

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Dean Francois

Mailing Address Bx 1544 (Street) Hermosa Bch (City) CA (State) 90254 (Zip)

Telephone # (daytime) 310-938-2191

E-mail Address savethestrand@yahoo.com

Organization/Affiliation

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

I South Site Proposal is a violation of CA Coastal Act. as it (1) Blocks public view of the Ocean from the existing street and parking lots.
(2) Downgrades the view of the Beach from the water's edge

FRAN2-1

II Buildings need to be consolidated, more facilities underground, pushed Back away from water

FRAN2-2

To mail: fold, staple or tape together, and include a stamp.

From: West Basin

Sent: Thursday, April 5, 2018 9:12 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Robert Fraser

Mailing Address: 201 43rd St
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 650-468-7012

Email Address: rfraser4@gmail.com

Organization: Homeowner - El Porto

Comments:
If the case for a de-sal plant is compelling (which I am not qualified to speak to), then I would strongly prefer the North vs. the South site. The North site would have much less impact on nearby residents as very few people use the beach in that area, vs. the South site where there are many beach goers and homes right nearby. Thank you, Rob Fraser

FRAS-1

From: ROBERT FREEMAN
To: West Basin Desal EIR
Subject: A Vote for Desalination
Date: Friday, June 22, 2018 2:50:56 PM

May I add my name to the list of people who favor the desalination of water from Santa Monica Bay and also approve of returning the resulting effluent to the bay. I believe the engineering needed to insure that the effluent would not harm the bay is well understood and would be used to insure the bay's safety. No one wants to harm the environment and the people who oppose such a solution seem to me to be following the rhetoric of alarmists who simply do not want to take any steps to solve the water shortage. If they prevail it seems inevitable that Los Angeles would become an undesirable place to live.

FREE-1

Robert A. Freeman
611 Esplanade
Redondo Beach, CA 90277

Sent from my iPhone

Justin Sumi

From: West Basin <comments@westbasindesal.org>
Sent: Monday, June 25, 2018 5:01 PM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Scott Frego

Mailing Address: 318 Gull Street
City: Manhattan Beach
State: CT
Zip: 90266

Telephone # (daytime): 310-545-3597

Email Address: scott@toroaire.com

Organization:

Comments:
To whom it may concern: As a long time Manhattan Beach resident, Iâ€™ve seen a lot of changes to the community. Most have been positive, but this proposed Desalinization Plant would be the worst change that has happened to our community in my time here. Here are my thoughts and comments: - This project is supposed to take 3-1/2 to 4 years to complete. As someone who works in the construction industry, Iâ€™m almost certain that there will be issues that will make that timeline longer (itâ€™s the nature of the beast in long, drawn-out projects). Thatâ€™s 4+ years of dirt, noise, and extra traffic we North Manhattan Beach residents will have to experience. Would anyone on the board making this decision be ok with these issues if it was being done next to their home? - Speaking of dirt, Iâ€™m extremely concerned (a bit frightened to be honest) of the contaminated soil at the site that will need to be removed. The prevailing winds are always coming out of the west/northwest, which means our community will be subject to inhaling whatever toxicities and cancer causing soil you are removing. How do you assure residents that we wonâ€™t be affected by this at all? Will we be told, â€œitâ€™s ok, we will take measures to ensure none of this dirt gets airborne or affects anyone in the areaâ
€ ; only to have a slew of residents developing unexplained cancers 15 years from now? - Noise is going to be a huge issue. Not just during the construction, but after everything is done. Some may say there are industrial building already in the area; however these building will be the closest to our community. And Iâ€™m not talking about whatever noise emits from the plant from the desalinization equipment. These buildings will all need HVAC, which means noise from exhaust fans, supply fans, air handlers, etc.. All of this equipment will be placed outside of these buildings and will emit noise, and you will need dozens of these types of units in order to provide ventilation to these buildings. Has anyone accounted for the noise that this equipment will bring to our neighborhood? - Iâ€™m not sure why the board is so vested in a desalinization plant, when there are other, less expensive methods to help SoCal with obtaining water. Iâ€™m amazed to see the LA River dump billions of gallons of fresh rain water into the Pacific Ocean every time we have a storm. Why isnâ€™t that water captured, filtered, and used? By doing this, you would help solve the water issue and also help prevent the South Bay from getting polluted every time all of this storm drain water dumps into the Ocean. Seawater desalination is the most expensive and intensive energy consuming way of getting useable water, while completely ignoring the other less expensive and less intrusive ways of providing the water needed. - Why isnâ€™t this plant being built at Hyperion, which already has a large facility that could accommodate all of this. I was told during one of the meetings that the reason that this location is being selected is because there already is an existing intake pipe there. Well, why donâ€™t you build the plant at Hyperion and connect to the

FREG-1
FREG-2
FREG-3
FREG-4
FREG-5

intake pipe from there? Sure, it would cost more money, but at least the issues Iâ€™ve outlined above would go away. Perhaps some of the construction costs would be lessened if you could remodel some of the facilities there to accommodate this project rather than creating new buildings. Itâ€™s almost always cheaper to remodel exiting than build new. Also, there is a huge vacant plant down in Redondo Beach that could accommodate this facility â€“ why isnâ€™t that considered? The residents there wouldnâ€™t be affected since the facility already exists. In closing, I hope that the board rejects this plan and looks at other alternatives for solutions to our water reclamation efforts. Thank you, Scott Frego 318 Gull St. Manhattan Beach, CA 90266

FREG-5

FREG-6

From: West Basin

Sent: Thursday, April 12, 2018 10:39 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Robert Gallman

Mailing Address: 201 Moonstone st.
City: Manhattan Beach
State: CO
Zip: 90266

Telephone # (daytime): 310-200-7936

Email Address: deangallman@aol.com

Organization: Local resident

Comments:
West Basin Municipal Water District 17140 South Avalon Blvd. Carson, CA 90746 Attn: Zita Yu, Pd.D., P.E., Project Manager Subject: Proposed Ocean Water Desalination Project (SCH # 2015081087) Dear Doctor Yu, I am a property owner residing in North Manhattan Beach that would like to express my opinion on the two proposed site locations in El Segundo. Please choose the one that's further north of 45st. street. The further away from 45th street the better. The closer to 45th street, the greater the overall loss in property value will be for all the residents of North MB. All residents here oppose having their residence any closer to a large scale industrial zone as possible as you must imagine. When there's a choice please consider this overwhelmingly important point. In your pursuit of materializing either of these site locations for the plant's final location, choose the site furthest North of our residential neighborhood. That's the path to least resistance and would be most appreciated. Sincerely yours, Robert Gallman 201 Moonstone St. Manhattan Beach, CA 90266

GAL-1

From: West Basin

Sent: Tuesday, April 24, 2018 1:35 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Carrie Gilmer

Mailing Address: 2113 N Meadows Ave.
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3103834445

Email Address: ckngilmer@gmail.com

Organization: none

Comments:
Desal is potentially disastrous for our bay/environment and is incredibly expensive. I am concerned that you have not fully explored all other options. I also would HATE to see you locate the plant next to a swimming beach (the southern site option). If you must go through with this, please go with the northern site. Carrie Gilmer

GILM-1

From: West Basin

Sent: Friday, April 6, 2018 6:34 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: STEVE

Mailing Address:
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 8183892681

Email Address: stevegilmour@yahoo.com

Organization:

Comments:
While I am completely opposed to the desalination plant for environmental reasons, it has to happen, the most logical place is the north site. There absolutely is no logical reason to put it on the south site at 45th.

GIL-1

From: West Basin

Sent: Saturday, April 7, 2018 8:13 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Steven

Mailing Address:
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: steven@jdgilmour.com

Organization:

Comments:
Please do not put in the desal plant. There are so many other ways to achieve your goals without the plant. If you absolutely must put it in, the north site near the jetty is a must. It makes zero sense to have it anywhere near the proposed south site. Thank you.

GIL2-1

Margaret D. Grant
341 29th St.
Hermosa Beach, CA 90254

June 18, 2018

Mr. Patrick Sheilds, General Manager
Honorable Members of the Board of Directors of the West Basin Municipal Water District
West Basin Municipal Water District
17140 South Avalon Blvd.
Carson, CA 90746-1296

Dear Mr. Shields and Members of the West Basin Board of Directors,

Re.: Response to Draft EIR

I understand that you are soliciting community responses to the Draft EIR for the proposed desalination plant on the coast in El Segundo. I have concerns about the proposal, specifically the following:

Why does the proposal not address the use of renewable energy? GRA-1
What are the impacts of discharging the resultant brine into the ocean along our coastline? GRA-2
How will the project comply with ocean and coastal impact, and (drinking) water quality, laws and regulations? GRA-3

Thank you for your consideration of my concerns. I look forward to your response.

Sincerely,

Margaret Grant

From: West Basin

Sent: Thursday, April 26, 2018 1:59 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: David Gurewitz

Mailing Address: PO Box 1267
City: Kilauea
State: HI
Zip: 96754

Telephone # (daytime): 808 635-5827

Email Address: dmgbeachlaw@hawaii.rr.com

Organization: El Porto Property Owner

Comments:
Gentlepersons: I own the property at 126 El Porto St. I am against constructing the desalination project adjacent to 45th Street (the "South Site"). The South Site is literally on top of the El Porto residential community, and construction of the project at the South Site will significantly interfere with the health and welfare of the El Porto community residents in, among other things, creating excessive environmental and noise pollution and extraordinary traffic problems. The other location for the project being considered (the North Site) is non-residential. It simply does not make any sense to construct the project next to a residential area when a better, non-residential area is available.

GUR-1

From: West Basin

Sent: Wednesday, June 20, 2018 2:13 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Felipe Gutierrez

Mailing Address: 5302 W 123rd Place
City: Del Aire
State: CA
Zip: 90250

Telephone # (daytime): 3105673725

Email Address: felipe425@gmail.com

Organization: Otis College of Art and Design

Comments:
My family, lives, works, and attends school in the South Bay so we support diversifying our clean water sources in addition to robust conservation. GUT-1

From:	Mary Hardin
To:	West Basin Desal EIR
Subject:	Comments on DeSal plan EIR
Date:	Friday, May 25, 2018 1:55:47 PM

Dear West Basin,

I've reviewed the EIR for the proposed desalination plant and I urge you to rethink this project. Desalination is expensive, it uses too much energy, it hurts marine life and is environmentally destructive to our coast. The process takes too long as well. There are better ways of addressing our water needs like conservation and rainwater capture. Put your focus on fast-tracking the recycling of highly treated wastewater from Hyperion and other plants. HARD-1

I live near this proposed project and it will negatively impact our community. Please find better options. HARD-2

Thank you,

Mary Hardin
Playa del Rey Villas HOA
328 Culver Blvd
Playa del Rey, CA 90293

From: West Basin

Sent: Friday, May 18, 2018 11:39 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Susan Harris

Mailing Address: 121 43rd Street
City: MANHATTAN BEACH
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: slh121@aol.com

Organization:

Comments:
My neighbor articulated my thoughts exactly in an open letter to local paper: The desalination plant is to be sited in the South Bay because the West Basin Municipal Water District's outside consultants think we are the armpit of Los Angeles, so a little more environmental damage won't hurt us. At public meetings they argued that the massive oil refinery, two power plants and a sewage treatment plant make the South Bay the only logical spot to add another industrial plant that will pollute our air and foul our ocean. We might opt to sacrificially eat the increased air, ocean and noise pollution if desal were necessary but it appears to be a $360 to $600 million-dollar boondoggle instead of a sensible solution for West Basin rate payers.$63 million has already been spent just studying the possibility of a plant. This sunken cost must be ignored to fairly decide whether a desal plant is useful or necessary. Los Angeles Waterkeeper says, "Seawater desalination is the most expensive and energy-intensive option for LA's water". It causes the most environmental degradation of all options. It creates more global warming while other much cheaper options reduce it. It may be necessary someday. It is manifestly unnecessary today. We must listen to the scientists at Heal the Bay, L.A. Waterkeeper, Surfrider Foundation, etc. and reject desal in favor of cheaper, more environmentally-friendly alternatives, of which there are plenty. Comments may be filed on the draft Environmental Impact Report at http://westbasindesal.org/draft-eir.html until June 25. Please learn all you can and join the fight to preserve our coast. -Michelle Murphy, Manhattan Beach

HAR-1

HAR-2

Comment Letter HIRSCH

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Emanuel Hirsch

Mailing Address 604 27TH Street (Street) Manhattan Beach (City) CA (State) 90266 (Zip)

Telephone # (daytime) (310) 968-2041

E-mail Address manny.hirsch@voyagercourt.com

Organization/Affiliation Property Owner - North Manhattan Beach

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

See Attached Sheet

To mail: fold, staple or tape together, and include a stamp.

I am a property owner in North Manhattan Beach (El Porto). I would not object to constructing the desalination facility at the proposed North Site. If the plant were to be placed at the South Site I would be opposed for the following reasons:

Construction Noise: The site is across the street from densely populated area and the four years needed to complete the project will cause an unavoidable impact on the residents.

Operating Noise: Again the site is very close to large numbers of people and mitigating noise and pump vibrations is going to be almost impossible.

Construction traffic: During construction Vista Del Mar Ave. will be reduced to one lane each way. If this occurs at the traffic light at 45th Street, only one lane will get through on each 'green' doubling the south bound traffic wait time. Building further north will allow two south bound lanes to cross the intersection.

Air Pollution: Dust and other contaminates generated by construction will impact large numbers of people living in El Porto.

Aesthetics: At the North Site replacing a Steam Generating Plant with a Desalination Facility will have no effect on anyone. At the South Site placing an industrial facility across the street from a residential area is not good land use planning by any criteria.

Thank you for your interest.

HIR-1

Comment Letter HOPWOOD

West Basin Municipal Water District
Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) MARSHA D. HOPWOOD

Mailing Address 1156 9TH ST, MANHATTAN BEACH CA 90266
Street City State Zip

Telephone # (daytime) (310) 374-3255

E-mail Address m_hopwood@msn.com

Organization/Affiliation _____

Please provide comments in the section below and leave in comment box or place in mail by Monday, June 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

I fully support the Ocean Water Desalination Project and the construction and operation of a desalination plant at the northern El Segundo site. While I understand the requirement in an EIR to show alternatives to the water desalination project, I believe that the EIR should go further to emphasize that the desalination project is not being proposed just as an alternative to other options. Most of the public comments I have heard or read seem to say either pick another option or we have an adequate water supply. It is important to emphasize that a desalination project would be in addition to some or all of the other options. Further, it would have the added benefit of being a local source, not subject to competing demands from other regions and states and not reliant on transportation over long distances.

HOP-1

To mail: fold, staple or tape together, and include a stamp.

From: Jasaitis

Sent: Wednesday, March 28, 2018 8:09 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Jasaitis

Mailing Address: 204 43rd St
City: Manhattan Beach
State:
Zip: 90266

Telephone # (daytime): 310-930-7442

Email Address: Jasaitis@lareminc.com

Organization: Resident of El Porto

Comments:
I've been a resident of El Porto for 30 years now. Living on 43rd St, we've been neighbors to the refinery and power plant, putting up with their never-ending demolition and development projects. We already have in our neighborhood sight lines exhaust stacks with annoying red lights that flash on and off into the night, tank farms, invasive power distribution towers, not to mention any latent health hazards associated with having residences so proximate to industrial complexes of this type. To now propose the development of a desalination plant is the last straw. What new unknown risks will this industrial complex bring to our neighborhood? What types of intrusive structures will newly invade our already impacted sight lines? How many years of construction activity will have to be borne by the immediate neighborhood? These projects seem to get approved all the time without taking all these factors into account. Enough is enough! The people of EL Porto vote a resounding "NO" to your proposed project. There are likely many better locations to propose for this development that wouldn't impact residential communities as much. But I'm sure these locations are likely less economically attractive to the developers, so we're stuck with fighting this in our back yard. Who will be our leaders in opposition to this invasive development? Will it be our Mayor? Our Council Members? I guess we'll see. Jay Jasaitis jjasaitis@lareminc.com

JASJ-1

From:	Jay Jasaitis
To:	West Basin Desal EIR
Cc:	Dalia Jasaitis; Jay Jasaitis
Subject:	Desalination Plant Proposed Development
Date:	Saturday, June 23, 2018 9:02:54 PM

Ladies & Gentlemen,

As a long time resident of El Porto (30+ years on 43rdSt), I have no objection to the desal proposed development as long as it does not adversely affect the ecosystems of our beautiful bay. And that's for the real environmental experts to address. JASJ2-1

However, I am very much against locating this plant across the street from our residential neighborhood at 45th Street. This is very ill-advised, to say the least. Residential and industrial uses are not compatible and don't co-exist very well. That site, which is now a parking lot, in its former life was a tank farm. When the tank farm was abandoned years ago, residents of El Porto, especially on 45th Street, cheered this development for obvious reasons. Creating a buffer between heavy industrial and residential is always welcome, for obvious reasons. To now contemplate redeveloping this site with an industrial plant is clearly a step backwards, and totally unnecessary in light of the alternative locations available.

Why would you subject our neighborhood to 2+ years of construction activity and inevitable upgrades downstream when we already endure what sometimes seems like an endless parade of construction related to the existing industrial complexes in the neighborhood. Recently we've dealt with the gas line installation in Highland/Rosecrans and upgrade of the power line towers along the same route. With this proposed plant development, we'll have to deal with more of the same. Could you finally give us just a little peace here??? JASJ2-2

In summary, if this project is merited, there are far less intrusive locations for the development than across the street from our residential neighborhood on 45th Steet. I hope your decision-making group and our elected El Segundo and Manhattan Beach officials understand our concerns and make sure that the plant, if developed, is located at another site less intrusive to our residential neighborhood.

Sincerely,

Jay Jasaitis
PRINCIPAL

LAREM Industrial Real Estate Specialists, Inc.
165 Savarona Way, Carson, California 90746
DIRECT 310.436.6487 CELL 310.930.7442
jjasaitis@laremInc.com
CalBRE LIC. #00865169
laremInc.com

From: Maria Dalia Sofija Jasaitis
To: West Basin Desal EIR
Subject: Proposed site for desal plant.
Date: Wednesday, June 20, 2018 1:24:11 PM

I have attended all the applicable proposed desal plant meetings. I have been a resident of the El Porto neigborhood of Manhattan Beach for thirteen (13) years. I am opposed to building a desal plant at the 45th Street site. It is too close to the residential area. The tank farm was eliminated after many years. I believe that the industrial use would be incompatible next to the residential use. It would impact our neigborhood.....air quality, noise, view, home values, beach use, etc.

There is another location further down on Vista del Mar amidst existing industrial uses. I propose that if the desal plant is to be built, that it be built at that location. That location will not impact our neighborhood.

JASM-1

Thank you for your consideration.

Sincerely,

M. Dalia Jasaitis
205 Sea View Street
Manhattan Beach, California 90266

Cell: (310) 387-0605

Sent from my iPhone

Date	Name / Email	Address	City	State	Zip Code	Comment
4/7/2018	Dave Johnson	402 20th St.	Manhattan Beach	CA	90266	Please put the plant the most north of 45th in Manhattan Beach, where the smoke stacks already are. Replacing a plant with another plant has the least amount of impact on the area.

JOH-1

From: West Basin

Sent: Sunday, April 29, 2018 3:45 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Karen

Mailing Address: 1140 Keats St.
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 310-251-0238

Email Address: Marnina1@earthlink.net

Organization:

Comments:
I believe the south site is an inferior choice. It affects lots of people who live near the proposed desalination plant in El Porto and Manhattan Beach. The north site has no homes or people near it. The impact is far greater for the south site than the north site. The report also mentions that the north site would be best in the long run. Please locate the desalination plant on the north side away from people!!

KAR-1

From: West Basin

Sent: Tuesday, April 10, 2018 3:00 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Harry E. Keller

Mailing Address: 2809 PALM AVE
City: MANHATTAN BEACH
State: CA
Zip: 90266

Telephone # (daytime): 3108021600

Email Address: harry@smartscience.net

Organization: Smart Science Education Inc.

Comments:
We must begin projects such as this one to secure our future. My only concern is for the power sources. Ideally, such projects will use renewable power. KEL-1

From: West Basin <comments@westbasindesal.org>
Sent: Sunday, June 24, 2018 7:28 AM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Rebecca Kendall

Mailing Address: 2311 Manhattan Ave
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3105450459

Email Address: rkendall6@gmail.com

Organization:

Comments:
I oppose building a desalination plant in the heavily populated area of the South Bay. KEN-1

From: West Basin

Sent: Friday, May 4, 2018 4:14 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Lindsey Kernan

Mailing Address: 131 Kelp St.
City: Manhattan beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: Lindsey.kernan@hklaw.com

Organization:

Comments:
My family strongly opposes the project at both proposed sites and vehemently oppose the south site location. The proximity of the south site location to our residential neighborhood is very troubling due to noise and pollution concerns both during and after the 6 year construction period. Also troubling about either location are the known environmental impacts to the ocean and marine life. The increased saline in the south location is particularly troubling given that the public beach access - bringing thousands of surfers and other beach goers daily - is directly next to the south site. Any negative impact on the water quality is very concerning for all of those beach goers including my family.

KER-1

KER-2

From: West Basin

Sent: Thursday, April 12, 2018 2:25 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Aaron Klafter

Mailing Address: 228 Seaview Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3102832360

Email Address: aaronklafter@gmail.com

Organization:

Comments:
It is preposterous to even consider building/maintaining a project of this size and scope near a residential community when another site is available. To even consider the southern site verse the northern-most site is completely irresponsible, especially when that proposed site is behind decommissioned smoke stacks verse an entire community of families

KLA-1

From: West Basin

Sent: Tuesday, May 29, 2018 7:24 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Karen Klink

Mailing Address: 501 Herondo St. #36
City: Hermosa Beach
State: CA
Zip: 90254

Telephone # (daytime): 3103399761

Email Address: klinky2@yahoo.com

Organization: ms

Comments:
I am against the DeSal Plant. It is not appropriate, it uses a lot of energy, costs a lot of money and can destroy sea life. Also the by product is too much salt and chemicals. Thank you!

KLI-1

Comment Letter KREGER

Date Submitted	Name	Address	City	State	Zip Code	Comments
3/28/2018	Michael Kreger	229 Rosecrans Place	Manhattan Beach	CA	90266	As a resident and homeowner in El Porto, I once again find myself being treated as a second class citizen of Manhattan Beach. Whether it's a proposed skate park, the lack of progress on utility undergrounding, or now a large scale Desal plant, I find my comfort, property value and right to live peacefully being threatened. The proposed location is unacceptable to those in the El Porto community as it negatively impacts our beaches, adds yet another industrial project to the area and ultimately destroys the property value and lifestyle of those closest to the facility. In addition, these projects rarely if ever make economic sense when taking into account the future rising costs of the water - residents end up experiencing rising prices to subsidize the excess capital cost of the project. I implore the decision makers to make the appropriate decision and protect the rights of those most negatively impacted by the project. I am hopeful that progress can be made toward an inclusive Manhattan Beach that values all of its residents equally.

KRE-1

From: West Basin

Sent: Friday, April 6, 2018 8:37 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Andrew Lelchuk

Mailing Address:
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 8189547124

Email Address: andrew.lelchuk@warnerbros.com

Organization:

Comments:
The north location is the preferable location - if we are not able to deter or eliminate the need to put a plant anywhere near north Manhattan Beach

LEL-1

From: West Basin

Sent: Wednesday, June 20, 2018 11:30 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Thomas Libbey

Mailing Address: PMB 1027 1122 E Pike St
City: Seattle
State: WA
Zip: 98122

Telephone # (daytime): 5555555555

Email Address: thoma_libbey@hotmail.com

Organization: Mr

Comments:
I oppose the proposed plant, joining Redondo Beach, Manhattan Beach, Hermosa Beach and Culver City. LIB-1

From: West Basin

Sent: Wednesday, June 20, 2018 4:27 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: David Lombard

Mailing Address: 116 S Guadalupe Ave Apt A
City: Redondo Beach
State: CA
Zip: 90277

Telephone # (daytime): 3106914954

Email Address: dl90277@gmail.com

Organization:

Comments:
I am opposed to the project. Looking long term we should instead focus on conservation through education, subsidies for low water appliances and landscaping and rates that encourage conservation. Additionally, there is still available much treated wastewater discharged from Hyperion into the ocean that can be converted to domestic use.

LOM-1

From: Janet London

Sent: Wednesday, March 28, 2018 7:43 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Janet London

Mailing Address: 129 42nd Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 9099382450

Email Address: janetrlondon@earthlink.net

Organization: Resident home owner

Comments:
I would like to strongly suggest that if the plant for desalination is to be built that the site furthest from 45th st be used. My husband and I are still reviewing the overall impact of the plant for the area. We do however feel strongly that the plant will impact our property values negatively as well as more importantly our enjoyment of our home now in our retirement. We worked very hard to have this home and wish to now enjoy it.

LON-1

From:	LaTonya Dean
To:	Amy Rocha; West Basin Desal EIR
Subject:	FW: Desal EIR
Date:	Monday, April 30, 2018 5:50:39 PM

Re-sending to the correct Desal EIR address.
Thanks,
LaTonya

From: LaTonya Dean
Sent: Monday, April 30, 2018 3:29 PM
To: Amy Rocha; 'desaleir@westbain.org'
Subject: FW: Desal EIR

From: Scott Houston [mailto:shouston45@hotmail.com]
Sent: Monday, April 30, 2018 3:25 PM
To: Patrick Sheilds
Cc: Steve O'Neill; LaTonya Dean; Julie Frazier-Mathews
Subject: Fw: Desal EIR

Hi Patrick,

The e-mail below was sent to me from a member of the El Segundo Environmental Committee with some questions about the EIR if you could please coordinate answers to him. And I'm also sending this as it needs to go in the record as comments received.

Thanks,

Scott

-------- Original Message --------
Subject: Desal EIR
From: kevin maggay <kmaggay@gmail.com>
Date: Mon, April 30, 2018 2:54 pm
To: info@scotthouston.org

Hey Scott-
it was good running into you at the ES Environmental Committee booth at the farmers market. i mentioned that i had a couple of concerns about the EIR. my main concerns center around the EIR deferring analysis and determining mitigation, particularly for GHG emissions and Marine biology. These are the two controversial topics for desal plants, so quite frankly i was surprised they were treated this way. MAGG-1

For GHG emissions, the document says that they will calculate the emissions and then mitigate emissions through offsets and things like that to get to carbon neutral. West Bason should be able to forecast emissions rather easily with MAGG-2

existing information. The PM stated that we wont know the carbon intensity of the grid in the future, but you can use AB/SB 32 requirements to forecast. This will give the public (and West Basin) an idea of what scale mitigation would be needed. What stood out more so was that the EIR states, "West Basin shall implement items a. and b. and progress through the remainder (items c. through e.) on the basis of the options' physical and economic feasibility, as reasonably determined by West Basin, with low-cost options preferred over high-cost options" To me this gives West Basin an out of mitigation is deemed (by West Basin) to be too expensive. It doesn't seem like a very strong commitment to me.

MAGG-2

Also for marine biology, there is no study done to determine the scale of mitigation needed. These should be many studies that have calculated the marine life/habitat lost from out/intake operations.

MAGG-3

Typical EIRs forecast worst case scenarios, which i dont necessarily agree with because you run the danger of over mitigating, but there is a lot of precedent for it.

MAGG-4

Are there any plans to do these studies prior to the adoption of the EIR?

Comment Letter MAGIAWALA

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) DR. KIRAN R. MAGIAWALA

Mailing Address 4015 W 137TH ST APT 107 HAWTHORNE CA 90250
Street City State Zip

Telephone # (daytime) 310 978 1434

E-mail Address kiran_magiawala@yahoo.com

Organization/Affiliation PRIVATE CITIZEN

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

SUGGESTION FOR EVALUATING COMPLEMENTARY OPTION FOR REDUCING GHG EMISSIONS

WORKING WITH CALFIRE, USFS AND NATURE CONSERVANCY (TNC), CDWR TO EVALUATE POTENTIAL FOR GHG EMISSION MITIGATION BY PLANTING TREES IN OUR STATE FORESTS THAT HAVE APPROXIMATELY 130 MILLION DEAD TREES AT PRESENT MAGI-1

THANK YOU!

04/25/2018

To mail: fold, staple or tape together, and include a stamp.

From:	Peggy Malpee
To:	West Basin Desal EIR
Cc:	Peggy Malpee
Subject:	Proposed Water Desalination Plant
Date:	Wednesday, April 11, 2018 10:10:13 AM

To Whom It May Concern,

I am terribly concerned with your plans for the two proposed locations of this desalination plant. Neither location will suit the needs of fresh water and preserve the integrity of heavily populated beach residences and beloved beaches.

The location at 45th Street is totally unacceptable for all North End residents. It is too close to homes and apartments, and will adversely affect our lives and our property values. We are still unclear as to the noise this plant will create as well as the affect to the integrity of our beaches and salt water.

In addition, the location at the jetty below the NRG is equally bad. It is still too close to a heavily populated beach, El Porto, and to the bike path.

MAL-1

My proposal is this: select a place along the sparsely populated stretch of Dockweiler Beach. There are no residences there and the beach is huge. Although it is somewhat popular during the summer, there is plenty of space for both the desalination plant and beach goers. There are also various parking lots where the construction crews, materials, and machines can be housed without causing traffic jams on Vista del Mar.

PLEASE PLEASE PLEASE - - - reconsider your current plans. There is a way to have both the plant and NOT affect our densely populated community and beach.

MAL-2

Sincerely,
Peggy Malpee
Resident of El Porto for 67 years
Owner of three properties
My great grandmother built a residence on Moonstone Street in 1934; my parents built their home on 41st Street in 1954; and my home on 41st Street was built in 1946.

From: West Basin

Sent: Friday, April 6, 2018 5:32 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Andrea Marron

Mailing Address: 200 38th St.
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 5852698592

Email Address: andreamarron@gmail.com

Organization: Ragtrades

Comments:
I object to the south site. I'm a home owner in El Porto and this will clearly affect us in term of visual and audible at the least. MARA-1

From: West Basin

Sent: Wednesday, April 25, 2018 7:56 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Andrea Marron

Mailing Address: 200 38th st.
City: Manhattan beach
State: CA
Zip: 90266

Telephone # (daytime): 5852698592

Email Address: andreamarron@gmail.com

Organization: Self

Comments:
We are opposed to the desalination project and do not want it to be located in or near El Porto Manhattan Beach. We strongly object to the South Site. MARA2-1

From: West Basin

Sent: Thursday, June 21, 2018 6:30 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Joseph Marron

Mailing Address: 2311 Manhattan Ave.
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: Marron.joseph@gmail.com

Organization: Self

Comments:
I am opposed to this project because of its proximity to highly populated area. It would result in increased truck traffic and occupy land that is of high value to residents. Thank You

MARJ-1

From: LaTonya Dean
To: West Basin Desal EIR
Cc: Amy Rocha
Subject: FW: Desal
Date: Monday, April 30, 2018 5:49:25 PM

Hi Amy,
Resending to the correct Desal EIR address.
Thanks,
LaTonya

From: LaTonya Dean
Sent: Monday, April 30, 2018 5:35 PM
To: Amy Rocha; 'desaleir@westbain.org'
Subject: FW: Desal

Hi Amy,
Fyi…I will forward a response from Dir. Kwan's e-mail address.
Thanks,
LaTonya

From: Allan Mason [mailto:silvermason@verizon.net]
Sent: Tuesday, April 24, 2018 12:37 PM
To: LaTonya Dean
Subject: Desal

Dear Carol. I've been following this proposal since it was first made, and have seen nothing to suggest this is more than a huge waste of money. It is the least cost-effective solution I've heard for making more clean water available. Please do not do this! MAS-1

Allan Mason
Hermosa Beach

From: West Basin

Sent: Tuesday, April 24, 2018 9:18 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: shawn matlosz

Mailing Address: 527 w franklin ave
City: el segundo
State:
Zip: 90245

Telephone # (daytime): 3103226781

Email Address: smatlosz@live.com

Organization: concerned neighbor

Comments:
too many negative environmental issue. please concider heal the bay's viable options before impacting our persious beach

MATL-1

Date Submitted	Name	Address	City	State	Zip Code	Comments	
3/30/2018	Ella Matthes	4022 Ocean Drive	Manhattan Beach	CA	90266	This Desalination Project will destroy good sea life to provide water. Is it because the water company will be making money on this project? OMG. The Water Company Managers need to come up with a better plan and placement to keep from destroying our area. An area that would be much better would be on Palos Verdes Drive South area where there is already some water and gas projects going on. I myself really appreciate all that you are doing, lets make the future even better for everyone. Thank You, Ella Matthes	MATT-1

Comment Letter MCMANIS

Date Submitted	Name	Address	City	State	Zip Code	Comments
3/28/2018	Craig McManis	222 Sea View Street	Manhattan Beach	CA	90266	Please do not utilize the south site. Putting this facility on top of our homes on the south site. We already have to deal with the refinery, the parking lot, the busy highland, parking restrictions, the last thing we need is added noise, smell, etc.etc.

MCM-1

From: West Basin

Sent: Wednesday, June 20, 2018 9:47 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Craig McManis

Mailing Address: 222 Seaview street
City: Manhattan beach
State: CA
Zip: 90250

Telephone # (daytime):

Email Address: Cmcmanis1000@gmail.com

Organization:

Comments:
As a non "expert" in any of the effects of this intrusion I would like to add these comments. El Porto residents already have to contend with the largest west coast refinery, one of top 3 largest airports in the us, Edison's massive power lines, el Porto parking lot, NRGs facility. How can the average resident know the impact of one more disruptive utility. Even at your "open house" event you had 15 scientists and "experts" in multiple disciplines with the unintended bias of being paid by the west basin to tell us this will have no effect. I hope they are right. This long construction period is going to materially impact our lives for up to five years. Noise traffic congrstion vibration of large trucks. Effectively 5 years could represent 25% of my remaining life. As long time property owner in MB I have the following suggestions. - build it in the north location and do not use the south location for staging. - "Compensate" for the five year loss of tranquility. A) pay for the utility undergrounding in el Porto. B) beautify highland in El Porto with the addition of trees (Palms are nice) C) plant copious lush Vegetation throughout the south site to obscure the construction site and beautify the area. D) no water bills for el Porto residents for the duration of construction.

MCM2-1

Justin Sumi

From: West Basin <comments@westbasindesal.org>
Sent: Monday, June 25, 2018 5:31 PM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Rachel McPherson

Mailing Address: 1421 E. Sycamore Ave.
City: El Segundo
State: CA
Zip: 9024

Telephone # (daytime): 310-890-8638

Email Address: seascuba@sbcglobal.net

Organization: NONE

Comments:
Ocean water belongs to the public. As such, I have a fundamental issue with a private company removing a public resource and selling it back to the public at the expense of that resource. I believe the right thing to do it petition the State Water Resources Control Board for a permit to allow Indirect Potable Reuse (IPR) and push the timeline for Direct Potable Reuse (DPR). I am against this proposal. I think it will raise rates on end users while not reducing demand for a resource that should be conserved. Which leads me to believe this is completely a for profit enterprise which will come at the expense of resource control, the consumer, and the environment. The water intake design will kill 100% of the zooplankton and phytoplankton that is sucked into the pipes. While it may be sufficient to reduce fish impingement, it is not adequate for the issue of entrainment. I think cleaning of the screens will lead to increased bacteria around the intake system, or periodic bypass of the screens. As a result the reduced velocity and screen systems will fail. Additionally, entrainment impacts have not been adequately studied in this area, and the assertions made in the EIR are not adequate for the minimal Mitigation Measures. Subsurface intake should be assessed. I do not think the EIR adequately describes the impacts of the discharge. SCCWRP studies have shown that negatively buoyant discharges are not diluted by ocean currents in a flat seabed and dilution requirements may not be met. I think detailed plume models should be run with Before-After Control-Impact monitoring with reference locations. I do not think the EIR adequately compares alternatives, because of the fundamental issue that the State of CA does not allow DPR or IPR. While I understand the dilemma, this does not meet a minimum bar of "alternatives"; it is simply an assessment of doing desalination or staying with the status quo of reliance on imported water. Increasing CO2 and energy needs is not a viable solution to our water crisis at this time. Until simple reduction strategies are met-getting rid of water thirsty lawns, allowing or mandating rain barrels, allowing/mandating (for retrofit and new build) in-home gray water re-use, using recycled water for irrigation, doing O&M on the old and failing pipeline infrastructure which regularly wastes water with massive leaks, using capture and re-use devices, implementing green streets, ocean friendly medians, parks and home landscaping-Desalination should remain at the bottom of the totem pole.

MCP-1
MCP-2
MCP-3
MCP-4

From: West Basin

Sent: Wednesday, May 2, 2018 6:29 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Arthur Merkin

Mailing Address:
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: artmerkin@gmail.com

Organization:

Comments:
I am against the project. I would prefer the water district pursue water recycling efforts over a desalination facility near a residential neighborhood. VERY concerned about noise and traffic. Concerned about noise, pollution from the machinery, so close to our homes! Please do not build so close to residential area, surfers, swimmers, and public beach!

MER-1

From:	Suzanne Michel
To:	West Basin Desal EIR
Subject:	West Basin El Segundo Desalination Plant
Date:	Saturday, May 26, 2018 1:03:31 PM

Unnecessary Desalination Plant

The Manhattan Beach, Hermosa Beach and Redondo Beach City Councils are opposed to the proposed $600 million West Basin El Segundo desalination plant. Every reputable environmental organization is also opposed. This is due to the adverse impacts from ocean dumping of concentrated toxic brine, air pollution, energy inefficiency, required chemical sanitizing of desalinated water, excessive escalating cost, and disregard of more viable alternatives that will provide a safe and reliable water supply. West Basin is the only local water district currently proposing desalination, while others have rejected desalination. It's time to stop wasting taxpayer and ratepayer money on this unnecessary, ill-conceived project! MIC-1

Suzanne Michel

Manhattan Beach

Justin Sumi

From: West Basin <comments@westbasindesal.org>
Sent: Monday, June 25, 2018 1:47 PM
To: Noemi Luna
Subject: West Basin Desal Site Comments
Attachments: DesalComments_TMZ_06252018.pdf

Comments - Form from West Basin Desal Site

Name: Tracey Miller-Zarneke

Mailing Address: 501 Oregon Street
City: El Segundo
State: CA
Zip: 90245

Telephone # (daytime): 310-529-0542

Email Address: traceymz@socal.rr.com

Organization: Resident of El Segundo

Comments:
File attached with the same comments in case I have exceeded this space: While I respect West Basin's desire to diversify its portfolio of water sourcing, I have a few concerns with the proposed desalination project as a resident of El Segundo. I believe this project will greatly affect customers of West Basin (myself included) on an economic level due to its construction and operational expenses being passed along, and its construction and operation will also greatly affect residents of El Segundo from an environmental perspective. Having attended several meetings and discussions on this project in the last three years, I believe I have a well-developed understanding and basic facts straight in my head in order to form these thoughts, but I apologize in advance if I have misunderstood any of the materials presented. 1) I am concerned that there is only a "high concept plan" shared on what building pipes from the plant to customers receiving the DPR water would entail, which means there is no sense of impact or expense presented at this point. This opens up the project to a whole other level of City complications, disturbance and expenses. 2) I am wondering why West Basin does not focus its effort on more storm-water capture and increased recycling from Hyperion at this time, which would seem to provide much greater amounts of clean water at a much lower use of energy and lesser expense. I believe the Edward C. Little plant has the capacity to reach 100mgd and is only currently planning to increase to 70mgd (per the newest deal with Hyperion) from its standard 40mgd at this point in time; thinking about the energy used in 1500kph for recycling vs 4000kph for desalination is an astronomical difference. 3) There are numerous construction and operational impacts that are deemed "less than significant with mitigation," but there is also mention that if mitigation is decided to be not feasible or affordable, then it may not be undertaken. Thus, such unmitigated impact could no longer be considered "less than significant," which therefore allows significant impact upon the environment from a number of construction and operation factors. Furthermore, I am unclear how the option for "indirect habitat restoration" (such as supporting the Ballona Wetland Restoration Project) mitigates damage done directly within the bay. 4) I would like to understand at what threshold of expense or construction complication would the "less-disturbing-to-sea life" subsurface intake not be utilized. This approach to above clay, below sludge intake seems much less risky for the smallest organisms in the ocean environment, and this seems like an important area of mitigation to not "cheap out" on. I do appreciate the thoughtful efforts to discharge the brine in a less concentrated and shear stressful way, but have concerns that this will still negatively impact organisms. I will continue to hope that

MILZ-1
MILZ-2
MILZ-3
MILZ-4
MILZ-5

within a bay that is already hampered by impact from Hyperion output, storm water drainage and numerous other business effects. I hope that processes that are less expensive and less impactful on environmental, economic and feasibility levels will be advanced to better serve the constituents of West Basin with more locally treated water than imported water. I applaud West Basin for trying to educate the public on this important topic and I thank the board for taking into account these public comments as they move forward in consideration of this project. Thank you for your time in receiving and reading my input. Sincerely, Tracey Miller-Zarneke El Segundo Resident traceymz@socal.rr.com 310.529.0542

MILZ-5

MILZ-6

From: West Basin

Sent: Saturday, April 7, 2018 10:13 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Emmett Miller

Mailing Address: 208 38th Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 310-951-2741

Email Address: milleremmett@hotmail.com

Organization:

Comments:
To whom it may concern, please be aware that the "south site" option for the plant would be a disaster for our North Manhattan Beach neighborhood. The south site would put the plant literally next door to scores of houses, creating an enormous, noisy eyesore. It would suddenly and irrevocably destroying the peaceful surroundings and atmosphere. Homeowners here have done so much in recent years to beautify and renovate the neighborhood, including a pending plan to bury the power lines. I humbly ask that you recognize the extraordinary disruption that would be caused by putting a desalinization plant right next to this residential zone, and choose instead the "north site". Thank you for your time.

MILE-1

From: West Basin

Sent: Friday, May 25, 2018 1:26 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Manuela Millington

Mailing Address: 315 Gull Street
City: Manhattan Beaxh
State: CA
Zip: 90266

Telephone # (daytime): 31096276303

Email Address: m.millington4@gmail.com

Organization:

Comments:
Hello, I have multiple concerns about the proposed desalination plant. First there are other ways to conserve and capture water. It has been proven that the plants that have been built in the past have not been fully used or have a major cost to build and to the end use consumer. The amount of electricity it takes to generate the facility will create additional toxins and EMFs into the environment. In either locations that are being proposed the impact to traffic to the residents of Manhattan Beach and El Segundo will be unbearable. Being a home owner of two locations one in El Segundo and another in North Manhattan Beach, makes both locations undesireable. That said the most northern location seems a better option based on proximity to swimming beaches and residential impact of noise from the actual plant. The 45th street location would be an absolute travesty. I am opposed to the plant being built altogether. As stated, there are other options for us to attain water without the impact to the environment, neighborhoods and ocean life that this plant will clearly negatively impact. Thank you for your consideration. Manuela Millington

MILM-1
MILM-2
MILM-3
MILM-4

Comment Letter MITCHELL

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) JANE MITCHELL

Mailing Address 1908 HARKNESS ST (Street) M.B. (City) CA (State) 90266 (Zip)

Telephone # (daytime) 310-376-1973

E-mail Address MANBCHDOLPHIN@MSN.COM

Organization/Affiliation

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

I AM IN FAVOR OF DESALINATION MIT-1

To mail: fold, staple or tape together, and include a stamp.

Comment Letter MOE

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

5.b

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Annelisa Moe

Mailing Address 1444 9th St (Street) Santa Monica (City) CA (State) 90401 (Zip)

Telephone # (daytime) (310) 451-1500 x139

E-mail Address amoe@healthebay.org

Organization/Affiliation Heal the Bay

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

Will provide oral comments for item 5.B. MOE-1

To mail: fold, staple or tape together, and include a stamp.

May 3, 2018 Special Board Meeting Clip Transcription
Donald Dear (West Basin Board of Director) , Gloria Grey (West Basin Board of Director), Carol Kwan (West Basin Board of Director), Scott Houston (West Basin Board of Director), Patrick Shields (West Basin General Manager), Steve O'neil (West Basin Legal Counsel), Zita Yu (West Basin Staff), Julie Frazier-Matthews (West Basin Staff), Connor Everts (Desal Response Group) , Annelisa Moe (Heal the Bay), Amanda Sackett (Surfrider Foundation),

Donald: So, I'll call the meeting to order, the special board meeting of West Basin, and, uh, we – now a quorum of four. And, uh, under public content – comment, we have three requests to speak under agenda item 5B. Is anyone else with the public, wants to comment? Okay, we'll go on to presentations, there are none. Item 5A, I think 5B first, so we can move things along, if that's okay with you, and, uh, it was Connor Everts, I believe, is the first speaker.

Connor: Thank you very much. Connor Everts with the Desal Response Group. Um, I just wanted to refer to our, um, letter from our coalition asking for an extension of 30 days until June 25th. Um, for the comments, um, you all have, I know, worked very long and hard on putting together a draft EIR. Uh, we were having some problems. Um, one, downloading some of it, and then having access, the items, the **[inaudible] [00:01:04]**, so we're asking for more time on that.

I also wanted to commend your staff. I realized that you weren't here, but for the first public meeting in El Segundo, we had a very large turnout. People wanted to speak and, uh, staff let them do it, and I thought that was a good interchange we had, a little contentious at times, but, uh, we appreciate that. And I also wanted to, um, commend you on your continuing, um, water barrels, uh, rain water workshops, and even the water bottle filling stations, and, uh, I think that helps, uh, us and you to interact with the public. Thank you very much.

Donald: Thank you. Who's next? Do we have who's next?

Julie: Thank you, Director Dear. The next speaker is Annelisa Moe.

Annelisa: Good morning, madam chair and members of the board. Um, I've met a few of you at this point, but I just wanted to introduce myself. My name's Annelisa Moe, uh, and I work with **[inaudible]** as a water quality scientist. Um, and on behalf of **[inaudible]** I just wanna reiterate some of, um, Mr. Everts comments that we would like to, um, be able to extend the comment period for the draft EIR, um, and also, commend you guys for the work that you have done. Um, I am new to a lot of this. I got hired about two months ago, but seeing some of the presentations this morning, um, it was, uh, great to see some of the projects that you guys are putting forward, so thank you very much. MOE-2

Comment Letter MOIR

Comment Card

West Basin Municipal Water District
Ocean Water Desalination Project

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) ELIZABETH MOIR

Mailing Address 3000 HIGHLAND AVE. MANHATTAN BEACH CA 90266
Street *City* *State* *Zip*

Telephone # (daytime) (310) 545-6121

E-mail Address BMOIR13@GMAIL.COM

Organization/Affiliation

Please provide comments in the section below and leave in comment box or place in mail by Monday, June 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

(1) I think there are many ways to conserve water before embarking on such an expensive project MOI-1

(2) Since evidently you don't want to consider these, the North site would be my preference instead of the South MOI-2

(3) Are the grants to pay for this guaranteed & How much? MOI-3

(4) Very detrimental to property values in EL PORTO MOI-4

(5) Length of project too long, too disruptive & too expensive not to mention too noisy & dirty MOI-5

(6) I am totally against this project!

To mail: fold, staple or tape together, and include a stamp.

Lynne R. Moore
333 Continental Boulevard
El Segundo, CA 90245
June 12, 2018

Mr. Patrick Shields, General Manager
Honorable Members of the Board of Directors
West Basin Municipal Water District
17140 South Avalon Blvd.
Carson, CA 90746-1296

Dear Mr. Shields and Directors of the West Basin Board,

Re.: Response to Draft EIR

Like many in the community, I believe that the desalination plant is not needed due to the success of conservation. The six hundred million dollar cost is exorbitant. Less money could be spent to expand the recycled water plant to maximum capacity of one hundred million gallons of water per day—which would help our community and improve our environment, and thus our health and that of our children and grandchildren. MOO-1

Appallingly, the desalinization plant would distribute thick, murky brine into the Santa Monica Bay, which would settle on the ocean floor. That would have a seriously detrimental, if not lethal effect on marine life. Apparently, large solids would also have to be removed from the plant on a daily or more frequent basis. That would have a detrimental effect on already congested area traffic and—worse yet—require large trucks that would pollute the air and add to the carbon footprint of the desalinization plant. I've already been diagnosed with mild asthma and many other people, especially children, have even worse diagnoses due to air and water pollution. MOO-2

Were the negative effects on local residents' health considered by the West Basin Board? What specifically was considered and what decisions were made as a result? What is the basis for West Basin Board decisions? What actions were taken or planned to protect the health of residents, those working in the area, wildlife, and marine life? MOO-3

I have reviewed the Draft EIR for the proposed desalination plant on the El Segundo coast. I found the DEIR remarkably uninformative as the applicable laws, regulations, and requirements are presented without specific explanations of how West Basin will address and comply with them. MOO-4

The DEIR raises many concerns about the proposal. Below are some of my questions and concerns about the Process, Finances, and Environmental Analysis: MOO-5

Process and Financial Considerations

1) Who gets to vote and decide whether to construct this desalination plant?
2) If only the West Basin Board gets to vote, why not submit this to a vote of all residents in the West Basin service area? Otherwise, isn't it taxation without representation?
3) Where were the WB Board members during the last public meeting in April?
4) Exactly how much will the 20 MGD plant cost to build and how long will it take?
5) Exactly how much will the 60 MGD plant cost to build and how long will it take?
6) How much money has West Basin spent to plan this project?
7) How much money has West Basin set aside to build this project?
8) Will West Basin be proposing a bond to be paid from our property taxes to fund all or part of this proposed project?
9) In addition, especially given our already high rates, will West Basin and our local water districts be raising water rates for individuals and businesses?

MOO-6

From Section 5. Environmental Analysis:

5.1. Aesthetics

How can a 4-story plant with multiple buildings qualify for scenic coastal highways and meet the expectations of El Segundo and Manhattan Beach?

MOO-7

5.2. Air Quality

With the expectation of over 100 trucks per day along with crew vehicles, does the proposal include the requirement for no emission trucks and vehicles?

MOO-8

5.3. Biological Resources – Terrestrial

Why does the DEIR describe environmental laws and regulations without a serious explanation indicating how West Basin will comply?

MOO-9

5.4. Cultural Resources

What evidence can you provide that the project was developed in consultation with the State Historic Preservation Officer, Native American tribes, local governments, and other interested parties? Can you provide a list of dates of meetings, including with El Segundo and Manhattan Beach, along with a list of the attendees?

MOO-10

5.5. Energy

Regarding energy used for the construction and by the proposed plan, why doesn't the DEIR address the use of solar, wind, and wave energy generation?

MOO-11

5.6. Geology

a. Considering the proposed location, which is adjacent to the Inglewood-Newport Earthquake Fault and would thereby be impacted by a tsunami resulting from a serious

MOO-12

earthquake around the Pacific, what strategies will be implemented and established to prevent the hazardous chemicals from leaking into Santa Monica Bay?
b. What will be done to mitigate the ground pollution caused by the Chevron oil tanks? MOO-12

5.7. Green House Gas

How has the goal of increasing renewable energy use been addressed? MOO-13

5.9. Hydrology and Water Quality

How can you prove that the proposed desalinization plant in El Segundo will meet the requirements of the California Ocean Plan? The DEIR describes the requirements of the California Ocean Plan—but not how West Basin will meet those requirements. MOO-14

5.10 Land Use

Why would West Basin propose this location along the coastline next to a residential area an in a congested traffic area? MOO-15

5.11. Marine Biological Resources

Why does your list of "Sources Cited" not include the scientific studies on the negative impact of desalination on the Bay of Oman? MOO-16

5.12. Noise

While the DEIR addresses the City of El Segundo, the proposed plant is immediately adjacent to North Manhattan Beach. The DEIR does not describe any attempt to respond to the requirements of the City of Manhattan Beach. Why? MOO-17

5.14. Recreation

How can this proposed commercial development along the coast meet the objective of the Coastal Commission to "protect coastal access?" MOO-18

5.16. Utilities

The DEIR indicates that there are unenforceable standards for drinking water. Drinking water may contain contaminants that cause skin or tooth discoloration or impact taste, odor, or color. The DEIR does not indicate whether the desalinization plant will include contaminants that will impact people in such ways. MOO-19

Thank you for your consideration of my concerns. Many of us in the community are watching and we look forward to your response to all of our questions in a public format, such as in the Los Angeles Times, a community-wide mailing, or public meeting. MOO-20

Sincerely,

Lynne R. Moore

Comment Letter MURILLOE

Date Submitted	Name	Address	City	State	Zip Code	Comments	
3/28/2018	Esteban Murillo	205 Gull Street	Manhattan Beach	CA	90266	I am dead set against the desal plant going up at the bottom of 45th Street. The economic impact of putting the plant there will amount to literally millions of dollars in lost value of homes in that area.	MURE-1

Comment Letter MURILLO

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Steve Murillo

Mailing Address 205 Gull St, Manhattan Beach, CA 90266
(Street, City, State, Zip)

Telephone # (daytime) (310) 266-4154

E-mail Address Steve90266@gmail.com

Organization/Affiliation Property Owner

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

Before a desal plant is considered as a solution, a cost trade analysis should be performed, looking at increasing recycling imported water at the Hyperion Treatment Plant. Presently, Hyperion is at approx 20% capacity. Increasing recycling capacity to only 40% would satisfy projected needs and will be FAR LESS EXPENSIVE

MURS-1

To mail: fold, staple or tape together, and include a stamp.

Comment Letter MURILLO2

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Steve Murillo

Mailing Address 205 Gull St. (Street) Manhattan Beach (City) CA (State) 90266 (Zip)

Telephone # (daytime) (310) 266-4154

E-mail Address Steve90266@gmail.com

Organization/Affiliation Property Owner

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

Placing the proposed desal plant at the bottom of 45th St., MB (South Site) will SIGNIFICANTLY impact the quality of life for people who live in North Manhattan Beach! I am STRONGLY OPPOSED TO THE SOUTH SITE! If the desal plant is placed here, WBMD should be prepared for a multi-million dollar legal battle for the millions in lost property values!

MURS2-1

To mail: fold, staple or tape together, and include a stamp.

Comment Letter MURILLO3

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Steve Murillo

Mailing Address 205 Gull St, Manhattan Beach, CA 90266
(Street, City, State, Zip)

Telephone # (daytime) (310) 266-4154

E-mail Address Steve90266@gmail.com

Organization/Affiliation Property Owner

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

How is it possible for Carol Kwan, our Board representative, to render an unbiased vote on the proposed Desal plant when she sits on another Board PROMOTING Desal?! CAL DESAL PROMOTION BOARD CONFLICT OF INTEREST!

MURS3-1

To mail: fold, staple or tape together, and include a stamp.

From: West Basin <comments@westbasindesal.org>
Sent: Sunday, June 24, 2018 6:26 PM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Michelle Murphy and Bob Perkins

Mailing Address: 4420 The Strand
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3105456751

Email Address: murphyperkins@gmail.com

Organization:

Comments:
We preface our comments on the Draft Environmental Impact Report ("Draft EIR") by saying we oppose the proposed desalination project. Nearly 20 years ago during meetings and hearings about building new generators at the El Segundo Power Plant, West Basin officials approached us and other home owners near the site and told us they wanted to build a desal plant either here or in Redondo. There was no drought at the time and the officials didn't claim the new plant would solve any existing water issues. They described it as being a small almost demonstration sized plant that was needed so we could learn more about desal. We believe that is still the case. This plant isn't needed and is wanted by those in the industry (so much wanted that they have spent more than $60 million pushing for it with nothing to show for it as yet) because it is a profitable huge corporate solution to a problem that doesn't exist. We already are learning what we need to know about desal from plants being built where they are needed in desert areas like Saudi Arabia and Israel. When and if we do need to implement desal we can do it at that time with state of the art technology that has been tried and tested in places where it was necessary instead of in the South Bay where we will pay with degraded air and water and also wasted rate payer money. There is room to debate amounts, but everyone including the authors of the Draft EIR agrees the proposed plant will damage marine life, pollute the local air, cause carbon emissions which will contribute to global warming, and add to the visual and noise pollution of one of California's premier beaches. We encourage our Water District to take the environmentally sound course. As the Draft EIR says (Section 7.4 Environmentally Superior Alternative): The No Project Alternative is environmentally superior to the proposed Project. West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site, among Project site alternatives evaluated throughout this section.
(emphasis added). There is only one environmentally sound and moral choice for West Basin: no project. And if for whatever reason you choose to build it anyway, use the North Site, not the South. That said, we turn to the Draft EIR. It is deficient in several regards. NOISE: The Draft EIR does not properly address the damage which will be done by noise from construction and operation of the proposed plant, particularly damage to residents, including us, whose 45th Street homes directly face the facility. Section 5.12 does acknowledge that [t]he effects of noise on humans can range from permanent hearing loss to speech interference and sleep deprivation. Prolonged stress, regardless

MUP-1
MUP-2
MUP-3
MUP-4

of the cause, is known to contribute to a variety of health disorders. It also acknowledges that Manhattan Beach's noise ordinances apply, and that measurements apparently taken by the preparers show existing noise along 45th Street (59.3 db Leq) already exceed the legal limit (50 db at night, 55 db in the daytime), meaning no increase in noise should be allowed. However, the referenced Draft EIR measurements are minimal, misleading, and underestimate the potential problem. They were taken at the corner of 45th Street and the Strand, at street level, not from any of the impacted residences, all of which are above the Strand and therefore, in varying degrees, above the berm which shields the Strand itself from noise the power plant and proposed desalination plant make. A proper EIR would include longer measurements, over a representative sample of times, taken from the upstairs of houses along 45th Street and including the middle of the night, when the ordinances are more restrictive and, because ambient noise is less, the impact of the plant on residents will be greater. Regulators required the existing power plant to take such measurements; some of them were taken from our house, which we will make available for your instruments, too. Second, the proposed mitigation during construction is inadequate; as the Draft EIR itself admits, given the duration of construction and proximity to noise-sensitive receptors and given the City of El Segundo's and City of Manhattan Beach's noise standards for residential uses would be exceeded for an extended duration. The Draft EIR correctly concludes that despite proposed "mitigation" the damage is considered significant and unavoidable. (emphasis added). The EIR should propose mitigation e.g. furnishing sound insulation for affected residences--new windows and whatever other technology exists to mitigate obnoxious noises--and/or abandoning the proposed southern site, which is much closer to residences) which avoids significant damage. We remember our irritation during the building of the new power plant generators caused by construction vehicles back up warning signals which are designed to be noisy, disruptive and fingernails-on blackboard painful. Operational noise, which will continue for the life of the project, is worse, and the Draft EIR is, to state it kindly, less than forthcoming about the operational noise effects. It starts by admitting that the Southern site's Operational noise (assuming 100 dBA at the noise source) would be approximately 62dB which could (sic) exceed Manhattan Beach's operational noise standards for residential uses. Could exceed? Does vastly exceed the maximum noise level at those units is, during sleep times, 50 db from all sources, not 62 db from the desal plant. And that is where the Draft EIR is less than candid. It proposes "mitigation" which would, it is asserted, achieve 40 dBA attenuation, presumably at the noise source. But it does not say what the predicted noise level at the residences would be. Noises are additive, though not linearly, and because 45th Street noise is already at the limit, the question which must be asked, the question which this Draft EIR dodges, is whether operation of the plant will increase ambient noise at any residence in Manhattan Beach. If it will, it is against the law to operate the plant. And the Draft EIR is deficient in not saying that. There may be two reasons the Draft EIR doesn't address that either the drafters are deliberately avoiding the question, or (more likely) they don't have the data to address it, because they don't even know what the current noise level is at the residences (as opposed to at the Strand). Either way, they should be forced to take those measurements, make those calculations, and then, if the project is approved and constructed, take as-built measurements proving there is no increase in ambient noise at 45thStreet residences. It's neither unfair nor too difficult in fact, that is exactly what the operators of the El Segundo power plant had to do to obtain their permit. Until the before measurements are taken and the calculations made, this EIR is defective. VISUAL The proposed desal plant will severely impact some of California's most glorious public and private views of beach, surf and ocean. The Draft EIR acknowledges that, as stated in Coastal Act Section 30251, a primary objective of the CCC is to protect the scenic and visual character of the California coast, and accepts that existing public scenic views and vistas of the Pacific Ocean are present in the Project area. However, it encourages the Water District to deface the beauty your constituents currently enjoy on the pretext that Vista Del Mar and 45th Streets (which bound the property where the desal plant is to be built) are not designated California Scenic Highways, That's not the issue. Designated or not, these roads both have gorgeous ocean views, as do

MUP-4

MUP-5

MUP-6

MUP-7

MUP-8

MUP-9

Manhattan Beach State Park, the bike path, the Strand walkway, and homes along 45th Street and farther south. All will be impacted. Concerning the private properties whose views would see sand, see and sky replaced by a huge building, the Water District should defer to its member city Manhattan Beach, whose General Plan has Goal LU-5: Protect residential neighborhoods from the intrusion of inappropriate and incompatible uses. During construction, the Draft EIR says, The existing 45th Street berm would be retained and re-landscaped to minimize exposure to local land uses and public views. It's not clear what the authors intend, but that berm cannot be changed without shutting down the existing power plant, because its current shape is a condition of the permit for that power plant. After construction and for the many decades of planned operation, the desal plant and associated structures would be a blight on the ocean views from Vista Del Mar, 45thStreet, the parking lot below 45th Street, the beach, the bike path and the Strand. As the Draft EIR says,

MUP-9

Once constructed, the facility would be visible from the neighboring areas including from the beach areas and from the Marvin Braude Coastal Bike Trail, and from motorists and pedestrians on 45th Street, although 45th Street is not equipped with sidewalks. The plant would not just be visible, it and its associated structures would tower over existing structures and partially block views of the ocean. The Draft EIR says the proposed facility will have roof elevations 85 feet above msl. They'll block or blight public and private ocean views (which, after all, are the visual glory of this area not the ability to see the parking lot) for 45th Street, the south end of Vista Del Mar, and The Strand (a public pedestrian walkway which, it should be noted, is not addressed in the Draft EIR). The bike path and the beach to the west of it will see this huge structure looming over them. The Draft EIR makes the specious point that, though the proposed construction will be 85 feet above sea level, that won't matter because there's an existing tank on the property that's 100 feet above sea level. Such gall! That tank is on the eastern, landward part of the tract, more or less tucked into the sand dune. Yes, that tank is an existing imperfection in the beautiful view from Vista Del Mar, but it blocks little of the ocean and beach. The proposed new facility, is to be on the western, ocean side. It -- especially if placed on the southwestern corner of the tract (the "Southern Site") as proposed -- will block and blight far more views, far more severely. The Draft EIR proposes with roof elevations of 85 feet above msl, and will resemble a typical warehouse or light industrial structure. Further visual blight in the form of "Ancillary facilities and large-diameter pipelines connecting on-site buildings would be visible from off-site. In addition, electrical power lines and a substation, not to mention perimeter walls, are planned. Yet the Draft EIR asserts that the impact on the visual character of the area is less than significant with the proposed and wholly inadequate mitigation. Reasonable mitigation is available. If the facility is built at the North Site, though it would remain an ugly scar on views from Vista Del Mar, the bike path and the (lesser used) beach due west of it, it would move it nearly half a mile from other impacted views. That would greatly reduce the impact on Manhattan Beach State Park, the Strand, the parking lot between them, and the public and private views from 45th Street. The Water District should, as a first step in mitigating any proposed desal plant on the El Segundo tract, commit to NOT placing it in the lap of Manhattan Beach beachgoers, tourists and residents, but building it, if at all, on the North Site. Others are better able to talk in detail about the environmental harms that the proposed plant will bring. We only remind you that it will use an outdated technology for water intake that can no longer be used for power plants. That old and damaging technology will kill life at the bottom of the food chain in the ocean. No fish or dolphins will die directly but some of the source of the food that the fish and the dolphins eat to survive will be destroyed. We live on the corner of Manhattan Beach, the Pacific Ocean and El Segundo. Our arguments against the project could be dismissed as NIMBY, but everyone in Los Angeles if not the entire earth ought to consider the Pacific to be the backyard of us all. The only way this project can be approved is if the ocean's health is considered to be inconsequential as compared to the need for this particular plant to desalinate water. Please weight these two priorities carefully.

MUP-10

MUP-11

MUP-12

MUP-13

From: West Basin

Sent: Thursday, June 21, 2018 6:08 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Frank Myers

Mailing Address: 617 35TH ST
City: MANHATTAN BEACH
State: CA
Zip: 90266-3427

Telephone # (daytime): 8478499138

Email Address: mfrankmyers@gmail.com

Organization:

Comments:
I would like to vote my opposition to the project in general and in particular the proposed location at 45th street. This location is too close to the el porto residential community, and one of the few beach parking lots in our city. This location will decrease the beauty and enjoyment residents and visitors derive from the beach.

MYE-1

From:	West Basin
To:	Noemi Luna
Subject:	West Basin Desal Site Comments
Date:	Monday, June 25, 2018 5:00:52 PM
Attachments:	Comment Letter.docx

Comments - Form from West Basin Desal Site

Name: Jan Neal

Mailing Address:
City: El Segundo
State: CA
Zip: 90245

Telephone # (daytime):

Email Address: jnbmom43@aol.com

Organization:

Comments:
Attached.

Comment Letter

1. The program will be financed through the State Revolving Fund. Does that mean we can expect prices for water to remain relatively stable? My concern is with the possibility of bumping customer prices to help finance this project. I'm also concerned with availability for funding using anything the USEPA grants due to federal "issues" with environmental and scientific matters. NEA-1
2. While I appreciate the idea behind using existing pipelines to keep costs down, I am concerned with the long-term viability of the pipes. I don't want them to corrode or rupture 5 years down the line and spent lots to fix them rather than have them done correctly/properly in the first place. NEA-2
3. In the Aesthetics section, it seems much of the solutions stem from screening the equipment, so people don't see it. I personally would rather see equipment with the beach in the background rather than have the whole view blocked completely. NEA-3
4. I do not believe the current plan does enough to alleviate traffic along Vista del Mar. It is a busy street, and having large construction trucks/equipment will make commutes through that area (there really aren't alternative streets near there… people will just be stuck for quite a ways) *substantially* longer. NEA-4
5. I want to verify that there will be no impacts to air quality from the operational standpoint of the plant. The EIR only lists impacts for construction, not operation. Being so close to the airport, there is already a high amount of air pollution. NEA-5
6. Similarly, what about effects on wildlife after construction? It seems the focus is on the building period, and once it's there, there aren't any more adverse effects investigated. No mitigation required after construction seems highly suspicious for anyone who is concerned with nesting animals, marine animals, and all other wildlife in the area. NEA-6
7. Desal is *highly* energy intensive, but no effects to any conservation plans were stated. In addition, the increased usage of energy during the construction phase was also ignored. NEA-7
8. In the geology and soils section, I find it highly unlikely that there are no significant impacts. No grading of topsoil to build the facility? No adverse impacts to fault lines due to the potential deep drilling of pile-ons into the ocean floor? This is very doubtful, especially when you read several pages down in the Hazards section where it specifies there are procedures for excavating soil. NEA-8
9. In the GHG section, it says how committed West Basin is to constructing and operating a project that reduces energy demand and uses renewable energy but only a. and b. are mandated, and it is not specified how this will reduce energy. I think it falls short of any real, actionable energy reductions. And I would like to see some kind of a preliminary GHG report *before* proceeding with the project at all. NEA-9
10. In the hydrology section, I want clarification as to why the brine permeate discharge is disregarded. I think there would be substantial effects with that much brine in one place. NEA-10
11. In Marine bio, it mentions a study on entrainment on the intake and discharge. Again, I am uncomfortable proceeding with a project before we have all this information. NEA-11

12. In the traffic section, it says there will be a Control Plan that addresses the numerous issues, but it doesn't specify if there will be public involvement in this or not. I'm sure nearby residents would like to be included. Additionally, it reports there are no increases to safety hazards. I strongly object to this. With all the construction going on in such a busy area, with high speeds, I find it difficult to believe that there will be no safety impacts. Where there is more traffic, there are more accidents. NEA-12
13. Although there are no pathways to DPR *yet*, I suspect there will be within the next 5 or so years, so asserting this in the EIR is a little misleading because this project would likely not be operational for a long period as well. NEA-13
14. The incorporation by reference section lists desal as a key component of water reliability in the UWMP, but because it was also written for West Basin I think it's inappropriate to list it as a source for why desal is necessary. NEA-14
15. Figure 2-1 is difficult to read due to monochromatic color choices. NEA-15
16. On page 2-29 about halfway down the page, it seems to imply that desal is a step towards direct potable reuse. I don't think this is factually accurate, and I think the phrasing is misleading (it makes it sound as though West Basin is doing this to push direct potable forward and plans to implement that as soon as feasible). NEA-16
17. I'm concerned with the pilot project and demo facility. I'd like to see some results/operational notes from both of those. The EIR just lists them as proof with some without stating how well they worked, what issues arose, technology failures, etc. This information should be put forward to the public if you expect people to accept both cases as proof of workability. NEA-17
18. The same comment applies to the Algal Bloom/Marine Biotoxin study. The report was "successful" but it doesn't specify how or give any supporting data. It also was from 2009, and I suspect some water quality information has changed since then. NEA-18
19. For the intake biofouling/corrosion study, I find the fact that 2 of the 5 samples were lost indicative of a lack of conclusions. It seems to state with certainty what is best, but using 3 of 5 hardly seems conclusive. NEA-19
20. It seems that the primary reason for using screen intakes is financial, and I want to be very clear on that. Environmentally, sub surface is better. NEA-20

Much of this EIR seems to have a To Be Determined aspect, and I just want to object to any decision that precludes having all the relevant information. The impact assessments should be pinned down at this point, and the EIR should relate that information to the public. NEA-21

While I appreciate the desire to diversify the water portfolio, I do not think it's prudent to spend large amounts of money to build a plant that will use large amounts of energy for water production. I think the effort could be better spent modernizing the existing water recycling facilities and maximizing the capacity for them.

From: Sean Neel

Sent: Wednesday, March 28, 2018 6:45 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Sean Neel

Mailing Address: 226 Shell St.
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 410-646-0130

Email Address: Shellstloc@mac.com

Organization: None

Comments:
I strongly oppose this plant, especially the South Plant. I live and enjoy the beach which is right next to the planned site for the South Plant. Please consider the impact that this will have on our quiet neighborhood. Thank you.

NEE-1

From: West Basin

Sent: Tuesday, May 8, 2018 12:50 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Ten Nelson

Mailing Address:
City: REDONDO BEACH
State: CA
Zip: 90277

Telephone # (daytime):

Email Address: tennyson.nelson@gmail.com

Organization:

Comments:
The increase in electricity use is large and significant and must be mitigated. With specific regard to the electricity consumption, the DEIR misrepresents the significance of the increase in electricity use. The appropriate state planning metric is the state approved mid-demand (BASE) SCE sales forecast from the 2017 CEC IEPR, contained in Row 44 of https://efiling.energy.ca.gov/GetDocument.aspx?tn=222471. It is NOT the high-demand case as used, since the high-demand case is not the base planning case of the CEC, the utilities or the CAISO. As a result, West Basin misstates SCE's sales as 124,287 GWh in 2027, when they are in fact 96,409 GWH. West Basin errs by selecting the high-demand to mask West Basin's high energy use for desalination. Furthermore, when using the appropriate data as cited above, SCE's electricity sales DECLINE over the period from 2018 to 2027, from 98,304 GWH to 96,409 GWH, or approximately a 2% decline in electricity use. It is clear that the INCREASE in electricity use proposed by West Basin is SIGNIFICANT, as overall electricity use and GHG are declining. In order for this project to be less than significant, West Basin will need to increase its self generation with renewable power, or reduce its overall electricity use with energy efficiency to make this a ZERO NET ENERGY project. Any other action is SIGNIFICANT and must be fully mitigated.

NEL-1

From: West Basin

Sent: Saturday, April 7, 2018 8:16 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Phoebe

Mailing Address:
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: phoebe.nolan@me.com

Organization:

Comments:
No desal! No desal please. If it has to go in, it needs to be on the north site, not the south site. No reason to have it on the south site near 45 st. NOL-1

From: West Basin

Sent: Wednesday, April 25, 2018 1:06 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: William Robert Norrie

Mailing Address: P.O. Box 220
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: norriegroup@hotmail.com

Organization: Citizen of Manhattan Beach

Comments:
I am strongly opposed to the proposed south site for the desalination project on grounds of both cost and environmental impact. There are clearly other measures such as rain water capture which should be tried first. NOR-1

From: Kelly Oram
To: West Basin Desal EIR
Subject: Re: Ocean Water Desalination Public Meeting #1 This Week
Date: Tuesday, April 24, 2018 1:25:17 PM

This is unbelievable!!! Please move this huge facility to an area not populated!!

ORA-1

Sent from my iPhone

Sent from my iPhone
On Apr 23, 2018, at 12:45 PM, West Basin Municipal Water District <desaleir@westbasin.org> wrote:

From: Evan Ortega
To: West Basin Desal EIR
Subject: move forward with desalinization
Date: Wednesday, April 25, 2018 10:06:56 PM

Please move forward with desalinization plant. We need more water! ORT-1
Evan Ortega
Manhattan Beach, CA

From: Jerry Pancake
To: West Basin Desal EIR; Jerry Pancake
Subject: Desalination
Date: Friday, April 06, 2018 9:24:18 PM

To: West Basin Municipal Water District
Re: Proposed Desalination Plant

Desalination is not the right direction for West Basin at this time.

Desalination is a very expensive proposition that should be reserved for very special needs and West Basin in nowhere near that territory. The price per acre-foot of desalination water far exceeds the cost of other alternatives by an order of magnitude or more and that is before evaluating the environmental costs. PAN-1

To help secure our water future we should be prioritizing conservation, recycling, and storm water recapture and others such programs. These alternatives are far more effective, affordable, sustainable, and have much better historic track records for efficacy. PAN-2

Building a desalination plant is a boondoggle that would be a misuse of public funds and an abuse public trust. Please prioritize the alternatives. PAN-3

Respectfully,
Jerry Pancake
Manhattan Beach

jerry.pancake@yahoo.com

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From: West Basin

Sent: Wednesday, April 25, 2018 9:14 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Jerry Pancake

Mailing Address: 1136 8th St
City: MANHATTAN BEACH
State: CA
Zip: 90266

Telephone # (daytime): 3103768243

Email Address: jerry.pancake@yahoo.com

Organization: MB Residents Assoc, Surfrider Foundation, Sierra Club, Citizens United

Comments:
To: West Basin Municipal Water District Re: Proposed Desalination Plant Desalination is not the right direction for West Basin at this time. Possibly in the future, but not now. Desalination is a very expensive proposition that should be reserved for very special needs and West Basin in nowhere near that territory. The price per acre-foot of desalination water far exceeds the cost of other alternatives by an order of magnitude or more and that is before evaluating the environmental costs. PAN2-1

To help secure our water future we should be prioritizing conservation, recycling, and storm water recapture and others such programs. These alternatives are far more effective, affordable, sustainable, and have much better historic track records for efficacy. Building a desalination plant is a boondoggle that would be a misuse of public funds and an abuse public trust. Please prioritize the alternatives. PAN2-2

Respectfully, Jerry Pancake Manhattan Beach jerry.pancake@yahoo.com > <((((Âº>`â€¢. .â€¢ `â€¢... ><((((Âº> `â€¢. .â€¢ `â€¢. ><((((Âº> `â€¢..

From: Noemi Luna

Sent: Wednesday, May 16, 2018 7:06 AM

To: Justin Sumi

Subject: Fwd: West Basin Desal Site Comments

Follow Up Flag: Follow up

Flag Status: Flagged

Noemi Luna

Project Manager

MBI / 626-967-1510

Get Outlook for iOS

From: West Basin <comments@westbasindesal.org>
Sent: Tuesday, May 15, 2018 3:43:35 PM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Kathleen Parker

Mailing Address: 316 45th Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 310-535-9000

Email Address: kparker@nimancpa.com

Organization: None

Comments:
I am opposed to a desal plant because of their questionable benefits, but if it must be built, please choose the further north location where there are already existing smokestacks/industrial area. Thank you for your consideration.

PAR-1

From:	West Basin
To:	Noemi Luna
Subject:	West Basin Desal Site Comments
Date:	Thursday, April 26, 2018 3:15:40 PM

Comments - Form from West Basin Desal Site

Name: Cindy Perelson

Mailing Address: 629 31st Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: cindyperelson@gmail.com

Organization:

Comments:
I am strongly opposed to this being built on the south site. PER-1

From: Andrew Phelps

Sent: Tuesday, March 27, 2018 10:03 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Andrew Phelps

Mailing Address: 317 Gull St
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3104252079

Email Address: acp1@me.com

Organization:

Comments:
We will not accept the South Site proposal for the desalination plant. Not exactly happy about the Northern site either to be honest. PHE-1

From:	Andrew Phelps
To:	West Basin Desal EIR
Subject:	Ocean Water Desalination - El Segundo
Date:	Monday, June 25, 2018 4:37:22 PM

To whom it may concern,

I have already made some comments stating my disapproval to this project, due to the environmental and community impact this will have on El Segundo, Manhattan Beach, and the surrounding communities.

However, one of our community neighbors - Colleen Young has put forward a far more eloquent argument against this than I can.

Hence I would like to copy Colleen's comments below and agree with them 100%.

As a community we will be mobilized to ensure we maintain the unique environment that surrounds us. We wish to continue to live in tandem with that environment, and not to destroy it.

Please consider our voices seriously.

Andrew and Elena Phelps
317 Gull St
Manhattan Beach
CA 90266
310-425-2079
Acp1@me.com

PHE2-1

Email - Colleen Young - 6.25.2018

Please take the time to read and consider all of my input and all of the comments you have received, as you are making a decision that greatly affects a lot of residents and communities in this projects path.

The draft environmental impact report that has been produced is pretty clear, so here is a reminder if you need it at all. Your own report says the following:

Anticipate significant environmental effects, direct, indirect, and cumulative environmental impacts of this project will occur in the following environmental areas: air quality, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, transportation and traffic, noise, aesthetics, light and glare, terrestrial biological resources, marine biological resources, public services, utilities and service systems, recreation, land use and planning, cultural resources. Mitigation measures are necessary to minimize significant impact to hopefully lesser significant levels (where feasible (?), and who knows what where feasible is supposed to mean, possibly when cost effective?). The EIR concludes that there will be significant and unavoidable impacts related to air emissions during construction and increased noise during pile driving associated with the construction.

Also, CEQA requires this NOA to specify if the project site contains any listed toxic

sites. The project site is identified on the "Cortese List" as having potential for soil and groundwater contamination at the site from past uses on site and neighboring sites (well, there is ground contamination at both these sites, this is already known).

Do we really need to say more than this to oppose such a project with so little accomplishment to the initial water problem? Yes? Well okay then, here it is:

This desalination project does not meet your own laid out objectives to warrant this cost, destruction and harm to the area, communities, and the environment.

Significant Community Impact

Making a decision to place another environmentally damaging facility in a location just because there are numerous industrial type plants already existing and neighboring nearby in that area is nothing but ignorant to the communities who live and work here, if not an idiotic way as a means of making a decision.

The 2 sites being looked at in this area are not 2 sites, but rather the same site (possibly 1500-2000 feet apart), with all of the same concerns and problems. There is no difference between one location and the other to our communities, and it should not be looked at in any other way.

The disruption to our existing Manhattan Beach, El Segundo, and multiple other surrounding communities during and forever after with regard to our quality of life, noise, air, and ocean pollution is unforgiveable to place an unnecessary and overly expensive way of providing water to west basin ratepayers. PHE2-1

There will be significant impact to our communities during construction onshore and offshore.

Per your consultants there will be at peak construction time 100-110 trucks per day going in and out moving soil and using the roads and affecting traffic, noise, and air quality. Construction will probably take a minimum of 5 plus years to complete, and then the facility may possibly be expanded in the future, which would mean additional construction and ongoing disruption to the communities.

Our communities will be exposed to the contaminated soil being moved by the wind, and by traveling through the neighborhoods. There is no way to mitigate this dust or exposing soil contamination with prevailing winds off of the ocean on a regular and daily basis. Virtually impossible to mitigate this soil contamination from becoming airborne and affecting the residents in surrounding and many other communities that it will travel through.

This construction will also impose an economic impact on our community as people choose to relocate due to traffic disruption, and decide not travel to the cities to avoid the complications of traffic, noise, and the aesthetically displeasing construction.

The ongoing facility usage will have a negative impact on close by communities with regard to ambient noise levels, light and glare, and the aesthetics and views to our surrounding areas.

For some of us here, the increasing creeping and imposing industrial facilities surrounding us that are ever coming closer and narrowing our buffer zone, will definitely affect our property values and most of all our quality of life in our communities.

Energy Inefficiency

Seawater desalination is the most expensive and intensive energy consuming way of getting useable water, while completely ignoring the other less expensive and less intrusive ways of providing the water needed. This would be counter-productive to Californians way of life to save energy and preserve our natural environments and ocean. This energy intensive facility will also create additional global warming concerns for the area. You must practice what you preach, not only when it suits your needs and finances.

Currently natural water runs by the billions of gallons out and into the ocean every time we get the rain in the winter months and is ignored, instead of looking at capturing the natural rain water provided to us, you want to build a facility that will take ocean water and make potable water instead of utilizing the existing water options available. Ignoring the other multitude of less expensive and more environmentally friendly and energy efficient options to solve the water problem is incomprehensible.

Significant Environmental Impact

The willingness to ignore the contaminated hazards in both of these locations at this site is unforgivable.

Both sites in this location are contaminated from previous environmental facility blunders, and now you want to disturb the ground contamination to cause it to go airborne again to impact the residents of the close by and including farther communities. Digging the current soil hazards up and causing them to go airborne and then driving the contaminated soil debris through the cities to cause harm to millions of residents in the south bay area is unforgiving. There is no way to mitigate this hazard or harm with the blowing winds off of the ocean.

PHE2-1

Disturbing known contaminated soil areas to provide a facility that does not meet the objective or needs of the many is not a smart decision.

We also truly do not know the effects any of the chemicals used in the desalination plant or the brine that is returned to our ocean water will have on our beaches, or the ocean water and marine life as we know it.

Significant Financial Impact

The cost of construction to provide this desalination plant is over the top to say the least. You have an already existing Hyperion facility which can also produce potable drinking water and is currently not doing so. How it can be justified to spend this kind of money on a desalination facility when there are already existing facilities not working to solve the water issues currently, however those plants have the capability of doing this, and ability to upgrade already existing infrastructure to accomplish this without the enormous cost of a new desalination plant along with the disastrous side effects to our communities and our environment.

There is also an enormous negative impact financially to our communities as previously

noted. This facility is costly in more than just financial ways.

There are a multitude of other alternatives to provide water at this time without spending over a half a billion dollars on one facility to provide for so few in the west basin area.

You must work together to combine resources and provide water with the entire state funding in mind; not divide projects without consent and understanding of other available options. The state is currently moving forward with plans of its own to build tunnels to transport water from other areas.

In Summary

You cannot in good faith vote for or look at the proposed enormously expensive, and not very efficient facility as a means to provide water to the west basin ratepayers. How do you plan to vote on this project without being able to answer the simple question of how much it will cost the ratepayers in the end, or the cost of the overall project and how it will be paid for if completed? This is not a testing ground for desalination proponents to move forward with their narrow vision and plan to make a profit off of ratepayers and residents. There are plenty of current desalination plants sitting idle that have not been capable of producing at a reasonable cost to provide water as promised. Look at the existing plants and you will in fact realize that desalination plants are not the answer to our water problems. PHE2-1

I cannot come up with any good reasons for continuing on such a detrimental path to move forward with this desalination plant. Yes, you can ultimately get water, but there are so many other far better and more conscientious ways to accomplish that. If this project moves forward all of us can only assume it is about the fact that someone will get paid and profit from the construction of this facility.

Thank you,
Colleen Young,
Manhattan Beach resident

Sent from my iPhone

Wendy Phillips
Manhattan Beach, CA 90266
whyndy@icloud.com

June 25, 2018

Dr. Zita Yu, Ph.D., P.E.
Project Manager
West Basin Municipal Water District
17140 South Avalon Blvd, Ste. 210
Carson, CA 90746-1296

via web submittal
http://www.westbasindesal.org/comments.html

Dear Dr. Yu:

Re: Proposed Ocean Water Desalination Project (El Segundo): Draft Environmental Impact Report, released March 2018.

I am a resident of Manhattan Beach. I am opposed to the proposed Ocean Water Desalination Project. My opposition is based on visual blight and adverse environmental impacts – in particular, to marine life and marine beneficial uses that would result from entrapment and entrainment as large quantities of raw sea water are drawn into the proposed desalination facilities, and from the creation of a zone of extreme toxicity off the coast of El Segundo from the discharge of large quantities of brine and backwash water. PHI-1

Also, I am concerned that the project proponent, West Basin Municipal Water District, would be making a large investment in infrastructure with high fixed costs and high energy and maintenance costs. I believe that more aggressive conservation and demand-side management are more cost-effective options to better align water consumption in the region with sustainable water supplies. PHI-2

By way of background, West Basin Municipal Water District (West Basin) has prepared a draft Environmental Impact Report (EIR) for an Ocean Water Desalination Project (desal project). The desal project would be constructed along the coast of El Segundo at the existing 33-acre El Segundo Power Plant. After construction, West Basin would draw raw sea water at a flow rate of 45 million gallons per day (mgd) into facilities that would produce desalinated water for potable uses. This desalinated water would be distributed to water retailers in West Basin's district for potable uses. Initially, the desal project would produce of 20 mgd, before expansion to 60 mgd. As noted above, to produce 20 mgd of desalinated ocean water, the desal project would need to draw about 45 mgd of raw ocean water (before expansion). This process would generate a waste stream of 25.4 mgd (before expansion) of brine and backwash water treated with ferric chloride. This waste stream would be discharged back into the ocean, offshore of El Segundo. PHI-3

I understand that the cost of constructing the desal project is estimated at $380 million and that West Basin proposes to fund construction of this plant using loans from the State of California's State Revolving Fund. I assume that West Basin's rate payers are expected to service this loan as well as fund on-going costs for operation, repair and replacement of equipment. The cost per acre-foot of constructing PHI-4

and operating this new source of water – and the impact to rate payers and tax payers – is not clear in the draft EIR. PHI-4

Among my concerns are adverse environmental impacts from West Basin's proposed desal project, risks of operation, visual blight, and meaningful consideration of opportunities for a more cost-effective alternative. PHI-5

1. **<u>Environmental degradation – Water Quality</u>:** Intake of large flows of raw ocean water, together with discharge of concentrated wastes through brine diffusers, would kill significant levels of marine life and create zones of toxicity on the ocean floor. This could affect a significant link in the ecology of the Santa Monica Bay, especially given existing brine discharges offshore of the Hyperion Wastewater Treatment Plant. More specifically: PHI-6

   Zone of toxicity off-shore of El Segundo through disposal of brine and other wastes: Although desalination would not result in adverse thermal effects of once-through cooling water from the power plant that, in the past, discharged heated water along the coast, West Basin's desal project would create a zone of toxicity as a stream of brine and backwash water (treated with ferric chloride) would be generated from the salts and particulate matter separated from the desalted water. This stream of brine, filtrate and backwash, with a flow of up to 25.6 mgd (before expansion), would be much saltier and denser than the receiving water on the ocean floor, and would be toxic to marine life. Not only would there be a zone of extreme toxicity, but such waste products risk the accumulation of toxic chemicals on the ocean floor over time, impairing benthic communities of fish, plants, and algae and the ecological balance of Santa Monica Bay. PHI-7

   Intake of large flows of raw seawater: Many coastal power plants have shut down or been extensively upgraded in recent years. While I recognize that a significant factor driving this trend is elimination of heated water discharged from once-through cooling towers, another significant factor is impingement and entrainment of marine life in coastal intakes.

   The proposed design for West Basin's desal project would draw in large quantities – up to 45 mgd before expansion – of raw seawater through screened intakes. Adverse impacts to marine life during the operation include:

   - Impingement as marine life is trapped on intake screens.
   - Entrainment into the desal project's treatment train as small forms of marine life (e.g. plankton, fish eggs, larvae) are sucked in through intake screens.

   West Basin does not propose to significantly reduce this adverse effect of impingement and entrainment by using well-developed technology such as a subsurface seawater intake – for example, intake through infiltration galleries or seabed filtration systems that could draw water through pipes that could be installed beneath the sea floor. Instead, West Basin plans to use intakes operated by the former power plant, with finer screens, and concludes that impacts from intake pumping for desalination would be less than impacts caused by the former power plant operator using once-through cooling towers. This does not seem to be consistent with California's *Ocean Plan*,[1] which sets forth criteria for siting and design using technology that will minimize PHI-8

[1] State of California, State Water Resources Control Board, "Water Quality Control Plan for the Ocean Waters of California *(Ocean Plan*) to address effects associated with the construction and operation of seawater desalination facilities" (Desalination Amendment), May 6, 2015.

mortality to all forms of marine life. West Basin presented much information on cost savings that it could realize by using the existing power plant intakes (with finer screens), but a clear comparison of marine mortality and habitat degradation during both construction and operational phases is missing. For example: PHI-8

- It would have been helpful to have included a table that lays out various intake alternatives and quantifies adverse impacts to marine life during both construction and operational phases. I was unable to make such a comparison of various intake impacts – except for the cost comparison. PHI-9

- I was unable to find an analysis of the trade-off between a lower intake rate (and associated decrease in mortality from impingement and entrainment) versus generation of a more concentrated brine and mitigation measures for the concentrated brine. I am concerned that West Basin not sacrifice a reduction in long-term adverse impacts during operation in order to realize short-term gains to marine mortality during construction. I assume it is more important to reduce long-term impacts of marine mortality during the life of the desal project and better preserve the link in the food chain of the Santa Monica Bay ecosystem as well as support of our beneficial uses of marine life. PHI-10

Although West Basin may have plans to make environmental offset payments to a state mitigation fund, a better alternative would be to lower marine mortality through use of improved technologies such as subsurface seawater intakes. This would also result in more of a cost burden to rate payers. PHI-11

2. **Environmental degradation – Visual:** West Basin fails to accurately disclose the visual blight that would result from homes and from important public vistas along The Strand, the bike path, the beach, and off-shore in north Manhattan Beach. Residents in this neighborhood and nearby areas as well as many visitors enjoy this area for a variety of activities – among which include recreation and spiritual enrichment. The proposed structures, with roof elevations at 85 feet above sea level, would degrade these activities, and I feel that the draft EIR is disingenuous in the way it compares the proposed roof elevations to another section of the site where a tank structure is not as visible to the public (and which, by the way, I don't believe that the public opportunity to comment upon as construction pre-dated requirements for disclosing environmental impacts per CEQA). PHI-12

3. **Environmental degradation – Energy and air emissions:** Reverse osmosis is well known as an extremely energy-intensive technology, with concomitant emissions of greenhouse gases and other air pollutants. I do not believe that the addition of desalination capacity to our water supply merits this added adverse impact to the environment, especially when the more cost-effective alternative of aggressive water conservation measures (see #4 below) is available to stabilize demand and supply. PHI-13

4. **Alternatives – More cost-effective ways to meet water demand:** Researchers have documented that desalination of ocean water is among the most expensive options, with a median cost of $2,100 per acre-foot for large projects and $2,800 per acre-foot for smaller projects; conservation, on the PHI-14

other hand, is one of the most cost-effective ways to meet demand.[2] The draft EIR does not fully consider an alternative for a robust program to better control demand for water and the potential for more water efficiencies through conservation. For example: PHI-14

- **Economic incentives for conserving water**: Although West Basin's water retailers typically have tiered pricing for residential customers, the tiers do not appear to be set aggressively and many customers fail to respond to pricing signals that should kick in as their consumption increases above norms. PHI-15

- **Economic incentives for more water efficient fixtures and appliances:** Many customers in my community do not seem to be aware of, or fail to respond to, rebates available to purchase more efficient fixtures and appliances. Either these rebate opportunities haven't been adequately communicated and/or residents need more education on the importance of water efficient appliances and plumbing fixtures. PHI-16

- **Billing practices:** Many customers in my community are unaware of how much water they typically use. West Basin and its water retailers need to come up with better billing formats, billing frequencies, and/or ways of communicating water consumption. PHI-17

- **Landscape conversion:** Although many within West Basin's district have converted their turf to a more sustainable landscape designs, there remains a significant amount of residential turf that uses large amounts of potable water for irrigation, especially in more affluent areas of the district. PHI-18

These are just a few examples of areas where West Basin is well-positioned to be more of a leader in the areas of water conservation, efficiency, and demand-side management. West Basin could set up more rigorous programs to investigate and repair leaks from its distribution systems, and also provide support to water retailers for setting set up or upgrading leak detection programs. West Basin could start a water audit program to help residential customers understand norms vis a vis their water demand trends and efficiencies. West Basin could provide more guidance to its water retailers to better price and set rates for the water it they serve, and also send consumption signals to consumers. West Basin could easily help its water retailers improve their billing formats and procedures to better communicate water consumption trends and problems. West Basin could work more closely with manufacturers and sellers to market and promote more efficient appliances and fixtures. West Basin could advocate for better water consumption information in multi-family dwellings, including installation of sub-meters. PHI-19

The draft EIR fails to adequately present this conservation alternative and the potential that a greater conservation push could have to help stabilize demand and bring it more in line with sustainable supplies of water.

5. **<u>Poor operational history of desalination facilities in the region</u>:** Desalination facilities in the region have problematic operating histories. For example: PHI-20

[2] Cooley, Heather, and Rapichan Phurisamban, "The Cost of Alternative Water Supplies and Efficiency Options in California," Pacific Institute, October 2016 http://pacinst.org/wp-content/uploads/2016/10/PI_TheCostofAlternativeWaterSupplyEfficiencyOptionsinCA.pdf.

- **Claude "Bud" Lewis Carlsbad Desalination Plant:** Over the past couple of years, this desalination facility, also located at a coastal power plant, has had numerous permit violations[3] and has yet to bring toxicity at its coastal discharge point under control and within compliance of regulatory limits set forth in a RWQCB[4] permit for the facility's discharge to the Pacific Ocean via the Encina Power Station Discharge Channel. PHI-20

- **Redondo Beach Desalination Demonstration Project:** In February 2012, West Basin's desalination demonstration project at Harbor Drive in Redondo Beach had a fish kill in the aquarium as the result of a chlorine leak. Thousands of fish were killed. It's not clear if the chlorine leak was within the facility's equipment or at the intake point. This incident and such operational risks are not disclosed and evaluated in the draft EIR. PHI-21

West Basin's analysis of risks and impacts in the draft EIR does not address, or does not adequately address, this concern about the ability of desalination projects in the region to meet stringent regulatory limits set to protect marine life and beneficial uses of the Santa Monica Bay. PHI-22

Thank you for the opportunity to review the draft EIR and provide these comments. Please do not hesitate to contact me at (213) 576-6618 or my e-mail address (above) should you have questions. PHI-23

Sincerely,

Wendy Phillips
Certified Hydrogeologist, #388
Certified Engineering Geologist, #1928

cc: Deborah J. Smith, Executive Officer
CA Regional Water Quality Control Board, LA Region

State Clearinghouse

Council Members, City of Manhattan Beach

Conner Everts, DesalResponseGroup.org

[3] California Integrated Water Quality System (CIWQS), a database maintained by the State of California, State Water Resource Control Board at https://www.waterboards.ca.gov/ciwqs/publicreports.shtml, which includes compliance history and violations for Carlsbad Desalination Project, Order No. R9-2006-0065, NPDES No. CA0109223).

[4] State of California, Regional Water Quality Control Board for the San Diego Region (Region 9).

From: West Basin

Sent: Wednesday, June 20, 2018 3:41 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Linda Pollard

Mailing Address: Yeaton507@gmail.com
City: El Segundo
State: CA
Zip: 90245

Telephone # (daytime): 310-322-4764

Email Address: Yeaton507@gmail.com

Organization: None

Comments:
The potential environmental impact as well as the overall cost and duration of the project do not support desalinization over more conservative and less expensive methods of water conservation and reclamation. I do not support the desalinization project. POL-1

From: West Basin

Sent: Thursday, April 26, 2018 5:46 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Joie Pompilio

Mailing Address: 416 35th St
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 6198848731

Email Address: Joiepompilio@yahoo.com

Organization:

Comments:
Strongly oppose the entire project coming to the South Bay! If we are "stuck" with no vote to oppose the entire project then I would prefer the location NOT be the South site. POM-1

Mary Pope
20622 Annrita Avenue
Torrance, CA 90503

June 9, 2018

Mr. Patrick Shields, General Manager
Honorable Members of the Board of Directors, West Basin Municipal Water District
West Basin Municipal Water District
17140 South Avalon Blvd.
Carson, CA 90746-1296

RE: Response to Draft EIR

Dear Mr. Shields and Members of the West Basin Board of Directors:

I belong to a South Bay Environmental group that studies issues of importance to our communities. I have concerns about the proposed desalination plant on the coast in El Segundo.
It appears that the DEIR refers to El Segundo on the issue of noise pollution. This proposed area is right on the border of Manhattan Beach and could affect that city just as much, if not more, than El Segundo. The points of concern include noise, traffic, coastal access, and chemical spills. POP-1

Are you including Manhattan Beach equally with El Segundo when you study the impact on the surrounding population, ocean and land?

Thank you for your consideration of the above matter. Your response is appreciated.

Sincerely,

Mary Pope

From: West Basin

Sent: Thursday, April 26, 2018 5:06 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: John Ramirez

Mailing Address: 224 38th Street
City: manhattan beach
State: CA
Zip: 90266

Telephone # (daytime): 3109945452

Email Address: ramirezjohnf@hotmail.com

Organization: concerned neighbor

Comments:
No, No No- this is a disaster waiting to happen! We do not want the water pollution, trucks, smog or noise from either sight! The proposed south site is a NON-starter. It will be awful! Do not do this project so close to our home and near where my children play. We are organizing the neighbors for a law suit! Thank you for your consideration, John Ramirez -224 38th Street Manhattan Beach 310.994.5452

RAM-1

From: West Basin

Sent: Wednesday, May 9, 2018 6:06 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Michele Reniche

Mailing Address: 1557 19th Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3105457582

Email Address: mreniche@yahoo.com

Organization: 1957

Comments:
I am opposed to the proposed Ocean Water Desalination Project. It is neither cost-effective nor environmentally friendly. REN-1

Date Submitted	Name	Address	City	State	Zip Code	Comments
3/30/2018	Joseph Rizzi	430 Heather Ct	Benicia	CA	94510	Traditional Desalination has many draw backs in that it uses lots of expensive energy to force water through Reverse Osmosis (RO) tubes, the coastal land for desalination and power plants is costly and obtrusive in many ways, and the brine concentrate upsets the coastal waters balance. Natural Desalination eliminates all these problems and more. Looking at $200 an acre foot and ability to extract trillions of gallons per year. Natural Desalination uses ZERO man made energy to desalinate new RIVERS of water with little to no environmental issues. - Ocean water needs 800 psi to desalinate using Reverse Osmosis (RO). - Off shore at 1,800 feet under the water you get 814 psi for the outside of a RO nano-tubes. - A small flexible pipe from the surface down to the RO system would bring 0 psi pressure down to the inner part of RO tubes and help water flow down hill. - The difference between the RO outside pressure and inside pressure gives a constant 814 psi, naturally at near ZERO cost. - Constant free trickle of salt FREE water into the inner part of the RO tubes. - Check valves would be strategically places to automatically close the flow of water if there was a break in the system. - Water from the RO nano-tubes would flow down hill to a collection chamber using gravity conveyance. - Gravity would continue to carry the water down hill to the pipe or tunnel and back to the shore. - Once at shore the water would be lifted for use or put in aqueduct or other transportation systems. CETO wave power can be used to lift the water near shore at no cost after installation. (See CarnegieWave on the internet). Natural Desalination advantages are: - Supply all of California with drought resistant water supply for crops and people. As much water as needed or desired. - No brine because only water is taken from the ocean, located far off shore an near the ocean floor helps too. - Extended life of RO tubes, which would be cleaned by the ocean currents, not need pre filters or chemicals. - RO trains (Collection of Tubes) would cost a fraction because only the tubes are needed not the containers that the tubes go into. - Located off shore offers large areas (miles) for RO system for expansion with no impact to coastal residents. - Positive impact to ocean, plants or sea creatures; and no shipping hazard, due to location and design. - Side benefit of increased water would be more farming, increased economic, more oxygen, cleaner air, etc.. - No Droughts, Healthy Delta, great water quality, reduce sea level rising and many other water problems can be decreased or eliminated. All proven concepts but getting a pilot program will be difficult due to the upfront costs.

RIZ-1

From: West Basin

Sent: Monday, April 23, 2018 3:07 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Attachments: EconoPure - EP-DEMWAX-II-White-Paper.pdf

Comments - Form from West Basin Desal Site

Name: Joseph A Rizzi

Mailing Address: 430 Heather Ct
City: Benicia
State: CA
Zip: 94510

Telephone # (daytime): 7072084508

Email Address: Joseph_Rizzi@sbcglobal.net

Organization: Natural Desalination

Comments:
Natural Desalination or Demwax uses only nature to desal water with no harm to environment. All you supply is power to pump up the fresh water. Please contact me for a full presentation. You can have 100% of your water from the ocean and reduce your cost for water as well as never have to worry about drought again.

RIZ2-1

An EconoPure™ White Paper

EconoPure™ Water Systems

www.EconoPure.com

DEMWAX II

(Patent Pending)

Second Generation Depth Exposed Membrane for Water Extraction (DEMWAX™) for seawater and brackish water desalination

By: Curt Roth

Vice President, Engineering
EconoPure™ Water Systems, LLC.
curt@econopure.com

and

Diem Vuong

Chief Technology Officer
EconoPure Water Systems, LLC
diem@econopure.com

September 2015 v2

Introduction

The Depth Exposed Membrane for Water Extraction (DEMWAX™) is a novel approach to both fresh surface water treatment and seawater desalination that deploys a system directly within the source water body, utilizing the natural pressure that exists at depth. DEMWAX II, a second generation of the original system, brings this natural pressure based system onshore, providing the similar type of energy savings without the disadvantages of offshore operation. Unlike the original DEMWAX it is not dependent on ocean depth in its immediate vicinity and so has worldwide ocean-side applicability. This configuration has many advantages over the incumbent technologies. The base technology is patented and other associated patents are pending. This paper provides detail on the DEMWAX II system and its comparative advantages.

Basic Theory

The idea behind the DEMWAX II™ system is harnessing natural water pressure (hydrostatic pressure from water depth) to drive a reverse osmosis process in lieu of artificially created pressure. The system employs membranes where natural pressure can be created in deep well bores. Water movement is created by bringing in feed water through an upper ocean pipe and out through a lower ocean pipe, passing through membranes at the bottom of an internal open tube in the well bore. The DEMWAX II system has many applications (see discussion below) but the two primary applications are the desalination of seawater and the treatment of brackish or fresh water inland.

For both primary applications, there are four basic premises or design traits behind the technology.

1. Natural water pressure variable in amount: Well bores of increasing depths provide increasing pressure accommodating characteristics of both existing source water and required product water specifications.
2. Atmospheric pressure communication: Communication of atmospheric pressure to the membrane permeate collection tube allows the natural creation of the pressure differential needed for the process. This differential is maintained by pumping the permeate water to the surface.
3. Water movement: All membrane processes require the movement of feed water to the membrane surface and removal of the concentrate or brine. Membrane in the DEMWAX II system are designed so that gravity and small pump lifts remove any concentrate and brings more water to the surface of the membranes. The spacers between the membranes are at least 3 times those used in traditional SWRO configurations allowing for an uninterrupted flow of water between them.

4. Low flux: Membrane flux (produced water per unit of membrane area) is often associated with system efficiency in traditional systems. That is, higher flux means less pre-treatment costs, less membrane, fewer pressure vessels, etc. However, higher flux also means higher transmembrane pressure and higher velocities into the membrane face. Low flux, on the other hand, reduces the driving pressure requirement. Low flux also reduces stress and fouling on membranes increasing the effective life and reduces particulate fouling.

New Paradigm

Most research in seawater desalination has focused on reducing the energy requirements, as that remains the largest cost component of desalination plants today. There are physical limits in energy required for separating dissolved ions from water and these limits bound the efficiency gains that are available. For any membrane desalination process the recovery rate (ratio of permeate to feedwater volumes) dictates the energy requirement as it defines the concentration of the water fed into the system and the required separation energy is proportional to concentration of a solution, in this case salt and water.

In the past, systems have found optimal operating points that balance the pressure and the volume of the feedwater. That is, low recovery means low salt concentration in the feed water and therefore low pressure because osmotic pressure is proportional to concentration. However, low recovery also means processing higher volumes of feedwater (albeit at a lower pressure). This limitation is represented by parabolic cost curves when plotting energy requirements against the rate of recovery. Optimum operating points often reflect the recovery rates at the minimums of these cost curves.

The figure below shows a series of such cost curves. The uppermost cost curve shows the case for simple reverse osmosis (RO). In this case one can see that raising or lowering the recovery rate increases the energy cost of the process from the minimum at about 60% recovery. A process that can lower the recovery and therefore the pressure required, must, by definition, pump more volume at the lower pressure. Conversely, a process designed with higher recovery can pump less volume, but must pump that volume at higher pressure given the increase in concentration. The minimum energy for such simple RO processes tends to the 50 to 65% range.

With the advent of efficient energy recovery devices, the optimal operating point started shifting to lower recoveries as can be seen on the second, lower cost curve in the figure. As energy recovery devices allowed beneficial use of the residual brine pressure, there is less waste associated with the pressurized water not converted to potable. Thus, optimal recovery rates tended lower, 30 to 40%.

Still lower energy consumption is possible by using the natural hydrostatic pressure. Researchers have successfully attempted this by submerging a spiral wound membrane system to depth in the sea. The natural pressure did the work of the pump on a traditional shore based system. However, the produced water pumped to shore had to overcome the same head of pressure used in the treatment process, seemingly eliminating the benefit. However, only the produced water must be pumped rather than the far more voluminous feed water, thus generating savings.

Past natural pressure systems were designed with membrane configurations specifically designed for traditional shore based systems. These membrane elements required water be pushed through them since they were designed for systems where water is moved with pumps. In these cases the optimal recovery rate (and energy requirement) was lower than the shore based system but were limited on the low end by the fact that these systems still required pumping the flow of the feedwater. The pumping was not for static pressure, as that existed infinitely in the sea. Rather, it was only for the movement of the feed in the volumes associated with the recovery. This limitation can be seen on the third cost curve by the steeply increasing curve at very low recovery rates.

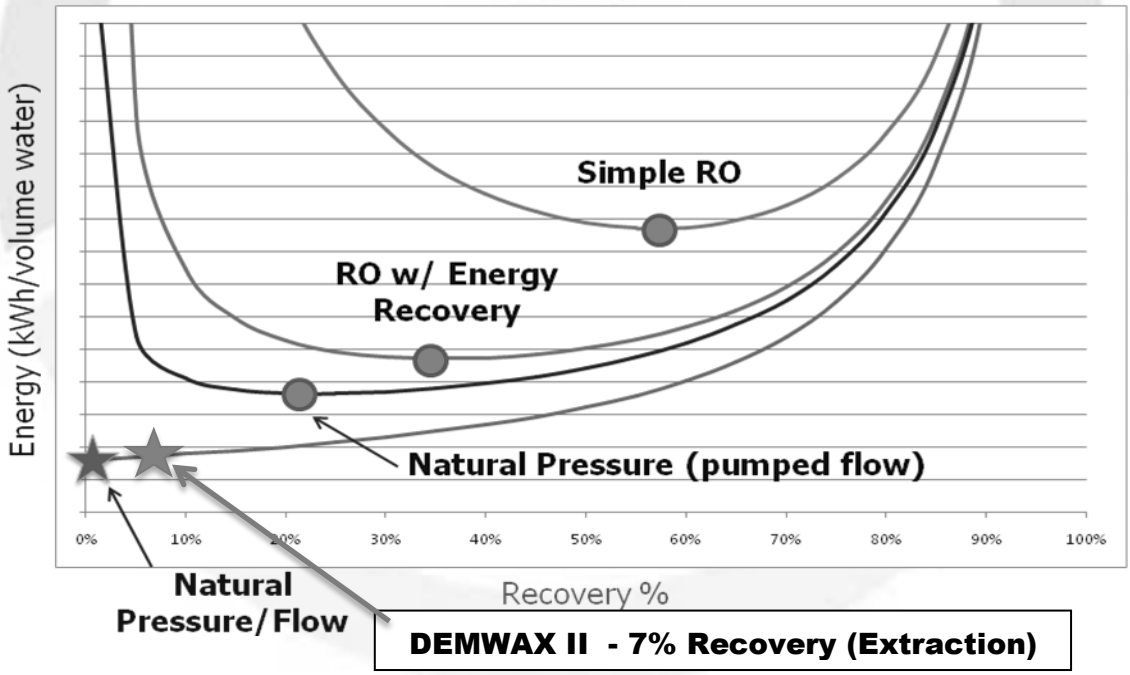


Figure 1 - Energy vs. Recovery

The final cost curve represents the case of the original DEMWAX™ system, using natural static pressure in the sea, but also designed to capture natural movements of the feedwater. That system used the natural forces of gravity and currents in the ocean to naturally move the feedwater. In this case, the energy requirement tends toward the physical limit at a zero recovery.

With DEMWAX II, nearly the same energy cost savings are produced onshore with a column of water inside a well bore. To do this, the inflow to the open tube containing that water column is configured several feet above the outflow from the well bore to allow gravity to move the concentrate down through the system and into the ocean. The only added energy as compared to DEMWAX then is what is required to lift the feed water the few feet to drive the movement of the feed water.

The membrane cartridge is comprised of multiple cylindrically wound reverse osmosis membranes spaced with specially designed spacers to minimize head loss. The membranes are directly exposed to the seawater in the water column. The voids between these membranes are open on the top and bottom to allow water to naturally pass through. The lower recovery rate, and thus lower pressure requirement, results in significantly reduced capital, operating and environmental costs typically associated with traditional SWRO systems. The depth needed for the DEMWAX II system in the ocean is approximately 300 meters[1].

Energy Efficiency

The result of the DEMWAX II design is a low energy process that harnesses natural forces efficiently. For DEMWAX II the power reduction is approximately 65% versus current state-of-the-art traditional SWRO systems. In general terms, this reduction can be summarized as half the flow at half the pressure. A typical large scale SWRO plant with energy recovery uses approximately 16 kilowatt-hours per thousand gallons of product water (or about 4.2 kWh/m^3). A SWRO plant that operates at 50% recovery must pre-treat and pressurize 2 gallons of feed water to yield 1 gallon of product water. At a target of about 7 percent recovery, the DEMWAX II system only needs to pump the 1 gallon of product water (besides the 16 gallons of very low-pressure inflow) or about half the flow as compared to a traditional SWRO plant.

To achieve the 50% recovery, a traditional SWRO system must reach a pressure of nearly 800 to 1,000 psi (55 to 69 bar). As osmotic pressure for typical Pacific Ocean seawater is approximately 320 to 350 psi (22 to 24 bar), the required pressure is more than twice osmotic. Since the DEMWAX II is designed to operate at extremely low recovery; the

[1] Past natural pressure systems required much greater depth in order to achieve the osmotic pressure of the more concentrated feedwater due to the higher recovery rate. See, for example: Paolo Pacetti, et al, "Submarine seawater reverse osmosis desalination system," Desalination 126 (1999) 213 – 218.

required pressure is only slightly higher than osmotic at about 350 to 400 psi (24 to 28 bar) or about half the pressure of a traditional onshore SWRO plant. This required pressure is supplied by the differential between the water column in the well bore of source water and that in the permeate collection tube.

Water Flow and Membrane Spacing

For all membrane processes, effective transfer of source water to the membrane surface, and the removal of concentrate from the membrane surface are critical. In the spiral wound configuration, a raw water spacer is used to create a channel between the membranes to convey the source water and brine. Normally, this space is very small, on the order of 0.03 inches (0.76 mm). In a static seawater environment, even at high pressure, the feedwater and brine would not flow efficiently to match the flux and avoid excessive concentration at the membrane surface without mechanical means to remove the brine. The close spacing of the traditional spiral wound membrane would inhibit flow if no mechanical means were used.

The DEMWAX II system solves this problem. Instead of trying to force the water through a small channel, the membranes in the DEMWAX II system, by virtue of the wide specially designed spacers, have a much larger channel (increased spacing between membranes) reducing the associated friction loss. In addition, the membranes are oriented vertically to allow gravity to assist this flow. As the concentration of the seawater on the high-pressure side of the membrane increases, so does its density due to incremental increase in salinity as fresh water is extracted. Since the more dense water is slightly heavier, gravity (g) will induce a flow of the dense water from top to bottom.

Figure 2 compares traditional SWRO tight wound membranes to the DEMWAX II open channel technology permitting less energy, less fouling and less maintenance.

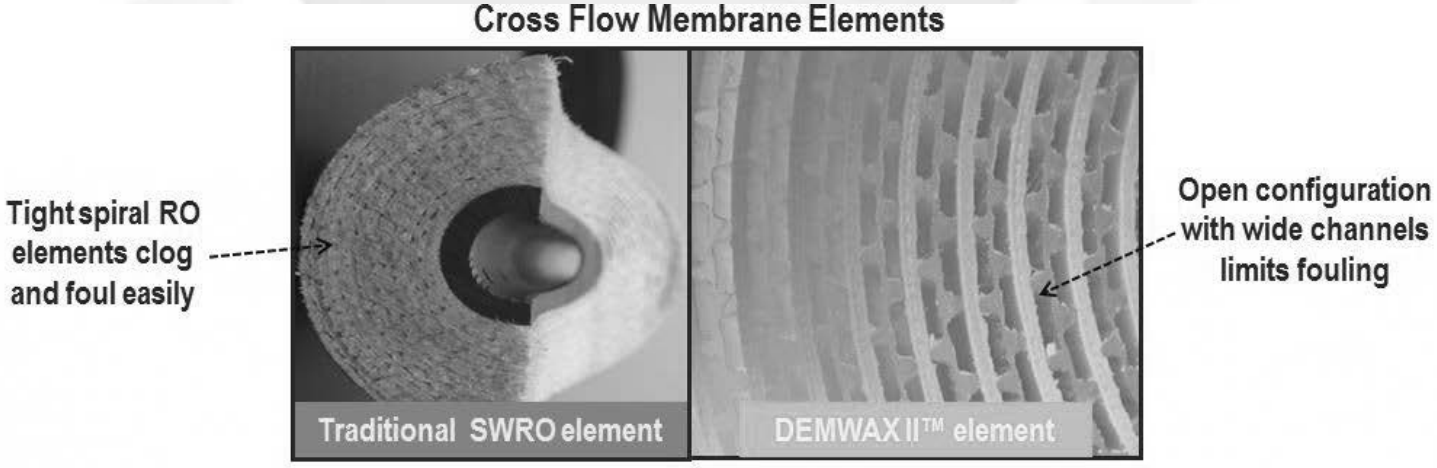


Figure 2 - Membrane Elements

The natural mixing effect (*m*) will pull the extra concentration of dissolved solids away from the face as is shown in *figure 3*. When some product water penetrates the membrane, the feed water right on the face of the membrane (*p*) is temporarily concentrated. As all solutions in nature seek equilibrium with regard to concentration (like a gas filling its container), the concentrated water right at the point of production (*p*) will 'jump' away from the membrane to mix (*m*) with the lower concentration water in the middle of the channel between the membranes.

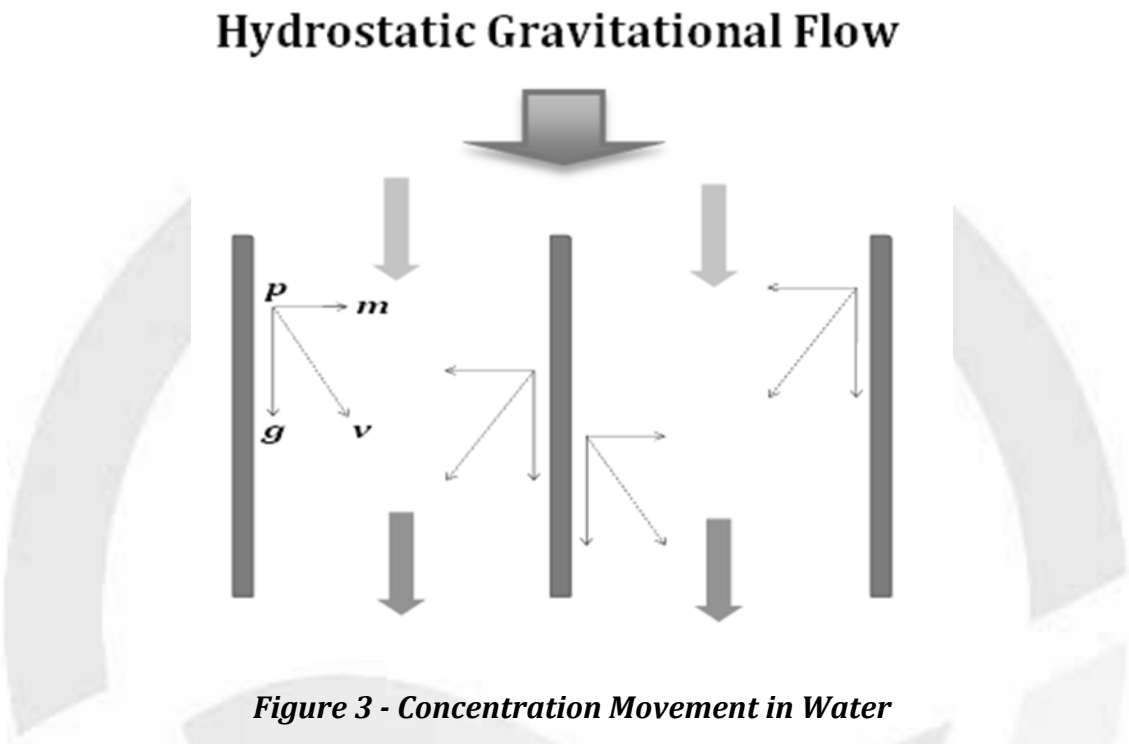


Figure 3 - Concentration Movement in Water

Figure 3 shows an exaggerated cross-section of three membrane elements and the two channels they create. The DEMWAX II Membrane Cartridges are designed for this flow to occur naturally in perfectly still water, though that is never the case as inflows and outflows and gravity (*g)* generate the mixing (*m*) replenishing new feedwater when concentration briefly occurs.

This concentration movement is not as pronounced for fresh water applications. However, the concentration buildup is not as large, nor is the osmotic pressure nearly as significant.

The combination of these three effects, downward water flow, the gravity pulling down the higher density water and the mixing effect pulling toward the middle of the channel, will pull the flow in a vector (*v*) away from the membrane and down toward the floor of the well bore then back up through the outlet. As the water moves down and out of this space, more feed water will enter from the top in a constant circulation.

In conjunction with the smaller flux (30-50% of typical SWRO), the draw of water molecules out of the source water is also small in relation to the available volume between the two sheets, so the brine water is only slightly concentrated (5 to 7%) toward the bottom of the channel between the membranes.

Pressure and Flux

As mentioned previously, the main parameter in determining the required pressure (depth) for the DEMWAX II is the osmotic pressure of the source water. Osmosis is defined as the net movement of a solvent molecule (e.g. water) through a semi-permeable membrane from the side of lower concentration to the side of higher concentration to balance the concentrations. The osmotic pressure is the amount of pressure applied to the high concentration side of the semi-permeable membrane to prevent osmosis from occurring. In other words, the osmotic pressure creates a steady-state for two solutions where no movement occurs across the membrane. If the applied pressure is less than the osmotic pressure, natural osmosis occurs. If the applied pressure is greater than the osmotic pressure, then the flow of the solution from the high concentration to the low concentration occurs. This is reverse osmosis.

The theoretical calculation for the osmotic pressure of a solution is based on the summation of the molarity of the different molecules and the temperature of the solution. The molarity is defined as the number of molecules in the solution divided by the volume of the solution. In general, the osmotic pressure can be approximated by dividing the Total Dissolved Solids (TDS) in mg/l by 100 (e.g. 35,000 mg/l TDS = 350 psi (24 bar)).

The actual required osmotic pressure is the differential between osmotic pressure of the brine and the osmotic pressure of the permeate water.

The other pressure component that determines the required depth in addition to the osmotic pressure is the transmembrane pressure (TMP). The TMP can be thought of as the 'friction loss' across the membrane added to the driving pressure needed to produce the required flow. Just like any 'conduit,' there is a certain amount of energy required to move the water through the membrane at a certain flow rate. In order to get a particular flow through the membrane, the pressure must be greater than the combination of the osmotic pressure and the TMP at that flow. For SWRO membranes the TMP can be as high as 120 to 150 psi (8.3 to 10.3 bar) for the normal high flux operations. However, in the low flux DEMWAX II applications, it is approximately 20 to 40 psi (1.4 to 2.8 bar). For NF membranes it is even lower at approximately 10 to 20 psi (0.7 to 1.4 bar).

As the osmotic pressure is a fixed constant of the source water, technological advances in membrane construction can only improve (lower) the transmembrane pressure requirement. Since the DEMWAX II system can accommodate any membrane, such

advances can be easily incorporated if warranted. However, the transmembrane pressure for seawater applications is a small fraction of the total pressure required, so the system is near the theoretical minimum energy.

The resulting total driving pressure for seawater desalination applications of the DEMWAX II system is approximately 370 to 400 psi (850 to 950 feet of depth or 255 to 285 m) based on a typical Pacific Ocean salinity. This will put the membrane cartridges at a comparable depth in the well bore.

Fresh surface water is generally low in dissolved solids (usually less than 1,000 mg/l), thus does not require significant osmotic pressure (about 10 psi). Using a mid-range (50% removal) NF membrane, the required driving pressure is on the order of 25 psi (55 feet or 16.8 m) for a medium range flux. However, well bore depths required for the myriad of different applications can span a broad range depending on source water constituents, desired treatment and flux requirements.

Many fresh water bodies, especially in mountain regions, are exceptionally clean and require filtering out larger biological contaminants only. In this case, a 'loose' nanofiltration DEMWAX II can be submerged into approximately 20 to 30 feet (9.1 m) of water in the well bore. If a water source is high in calcium carbonate, such as the lower Colorado River in the United States, a well bore depth in a reservoir of approximately 75 to 100 feet (22.9 to 30.5 m) can remove most of the calcium. However, as calcium carbonate is relatively harmless (though not to fixtures or water heaters) the DEMWAX II can merely treat the water for larger molecular contaminants at a far lesser well bore depth.

General System Description

The basic components are the same for either of the primary applications and include the following:

- DEMWAX II Cartridge Module – Composed of membrane cartridges, permeate tube interface, and submersible permeate pump.

- Well Bore – cased to variable depths and diameters, source water and product water dependant. It is the basic structure and connects to the outflow pipe, which is lower in elevation than the inner tube inflow pipe.

- Inner Tube – Open tube top and bottom feeding source water through inflow pipe higher in elevation than well bore outflow pipe. This provides the moving water column generating the necessary pressure differential to drive the reverse osmotic action.

- Permeate Tube – Small diameter tube inside the inner tube to transport permeate to ground level storage tank/municipal water utility.
- Electrical and control umbilical – Power for the pump and instrumentation cable to provide control of the pump and system monitoring are required.
- Ancillary systems – These systems include the power source, monitoring instruments, cleaning/fouling prevention systems, etc.

Figure 4 - General DEMWAX II Plant Layout Comparison

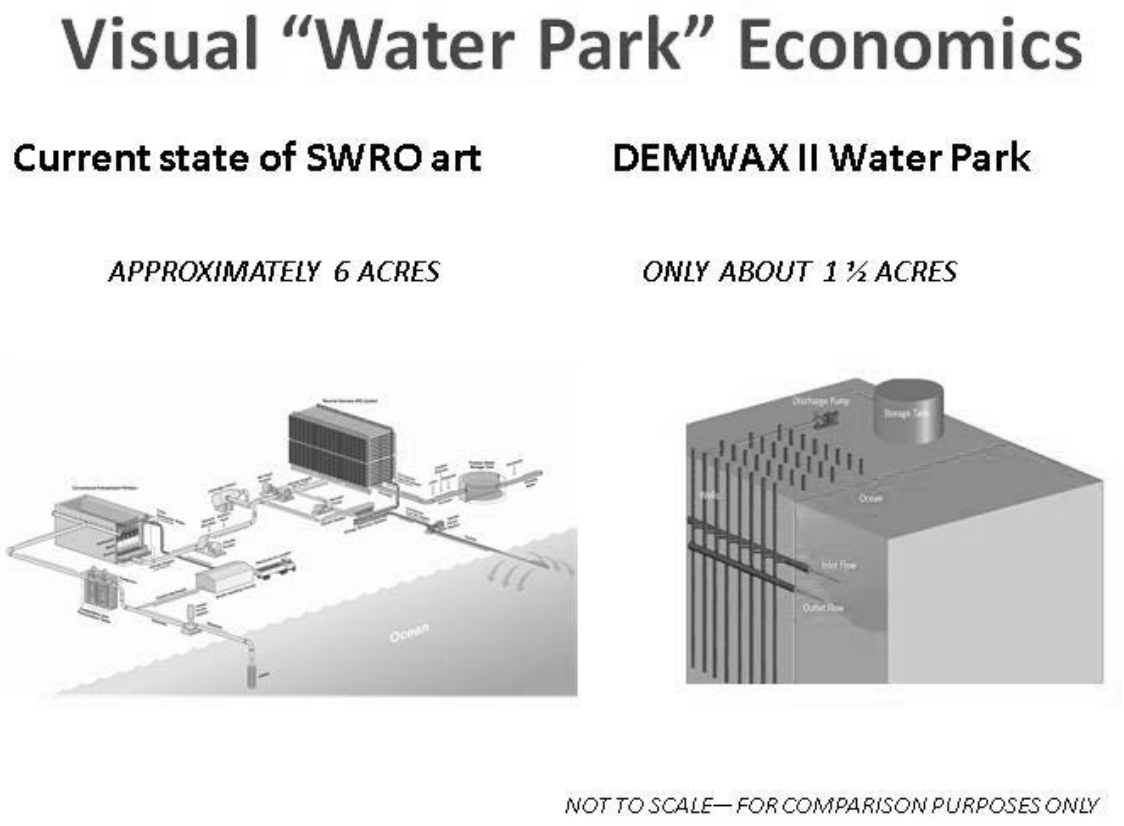


Figure 4 provides a schematic of the general DEMWAX II plant configuration in comparison to a traditional SWRO plant graphic.

Figure 5 shows a not-to-scale concept rendering of a DEMWAX II system. In this image, the membrane cartridge and permeate tube is the blue system inside the inner tube. The water flow in and out is illustrated in red. And the inflow/outflow differential both in elevation and direction is shown in the solid works center figure. Note that the inner tube is open at the bottom (for removal of brine) and at the top to atmospheric pressure creating the necessary pressure differential to effect the reverse osmotic process.

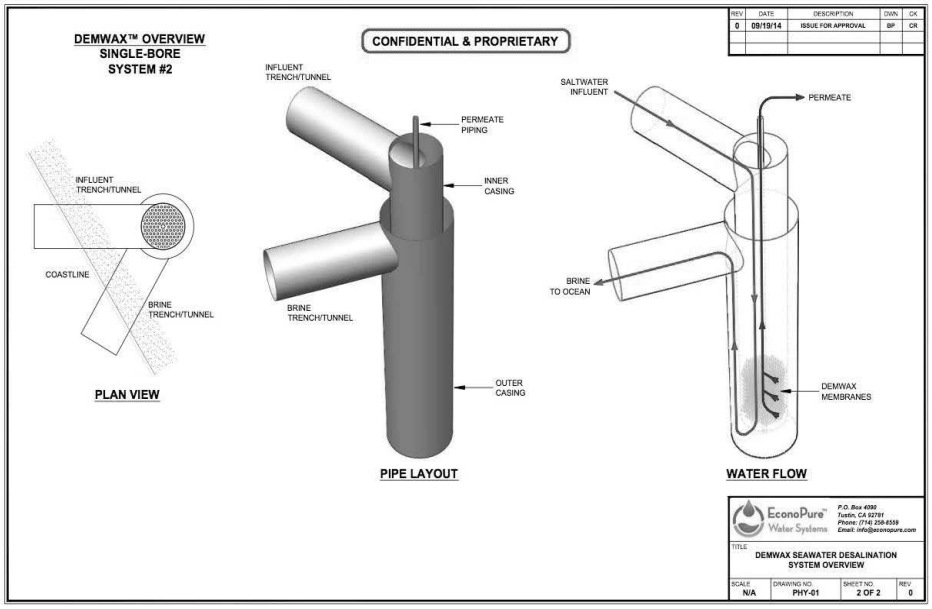


Figure 5 – DEMWAX II System

Figure 6 provides some concept detail for the system; both the fresh water version and the seawater version would be the same with the exception of the depth and the distance from shore.

DEMWAX'II'Concept'Detail'

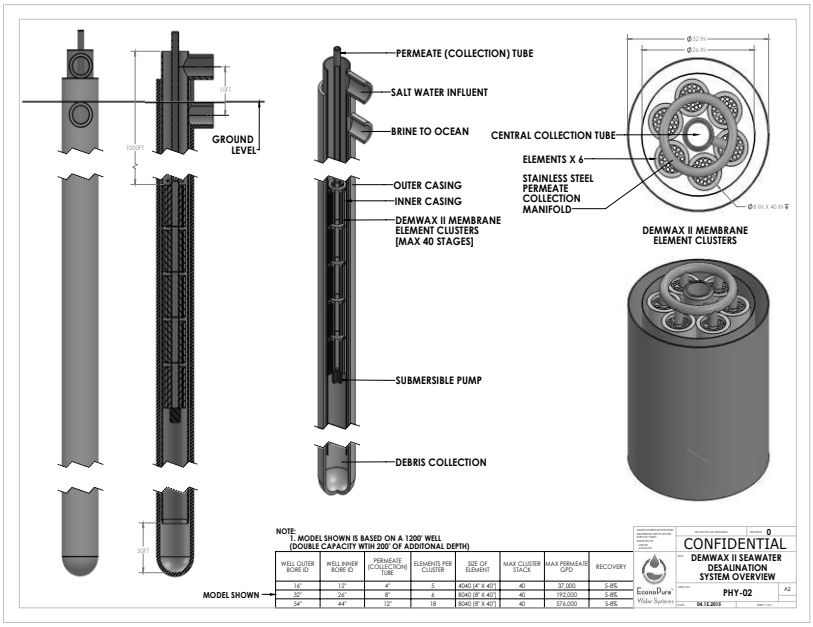


Figure 6 – DEMWAX II System Detail

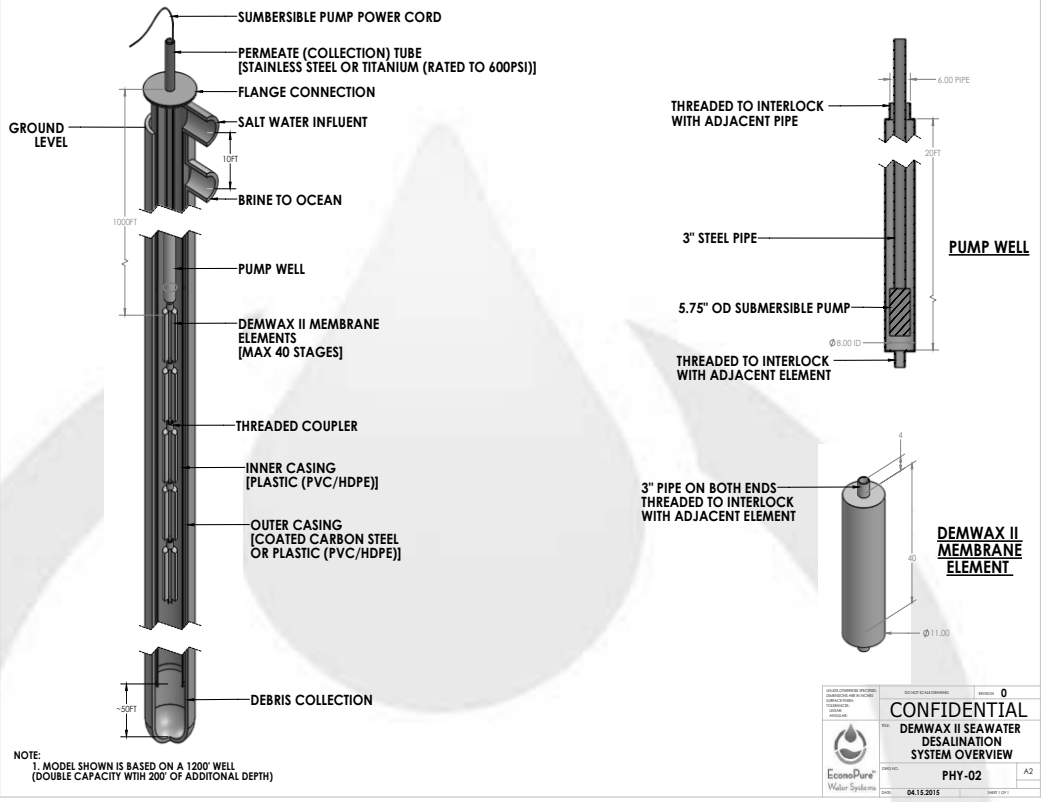
Membrane Cartridge Cluster

The basic component to the system is the membrane cartridge cluster. A typical cluster will contain a number of spiral wound membrane cartridges (vertically arrayed) connected to the permeate collection manifold which in turn is connected to the permeate collection tube. Multiple clusters can then be stacked in quantity necessary to produce the design capacity of the system. For example, illustrated in Figure 6 there are six cartridges per cluster with a maximum stacking of 40 clusters in the 1200' deep 32" diameter well bore which will produce 192,000 gallons of permeate per day. Each cylindrical cartridge is 8" in diameter and 40" long.

Advanced Development

With initial acceptance of the DEMWAX II technology we anticipate further technological development for major, high volume applications. One such advance will be the direct interface between the membranes and the permeate collection tube. *Figure 7* illustrates such advance.

Value Engineering Advance



There should be several advantages to this development, the most important of which is the increase in square foot of membrane per available inner tube volume. It will directly increase output and efficiency.

Ancillary Developments

As with other advances in technology we anticipate cost savings with learning curve progress and volume manufacturing of pumps, spacers, cartridges, manifolds, connections and instrumentation.

Competitive Advantages

DEMWAX II offers many competitive advantages as compared to traditional seawater desalination and fresh surface water treatment systems. The value of the technology is derived from these competitive advantages. Many of these advantages have already been described in detail. The purpose of this section is to provide a concise summary of the concepts. The advantages are listed with a discussion of the primary applications, seawater and surface water, where warranted.

The primary competitive advantage is that DEMWAX II is dramatically less expensive than existing methods of desalinating and processing water.

Energy Efficiency

Seawater or brackish water – "Half the pressure, half the cost" is a general way to describe the DEMWAX II efficiency. In reality DEMWAX II will save more than half of the energy associated with traditional SWRO. The only generated power necessary in the inflow pump, a low-head-high-efficiency pump and the small permeate pump in the inflow tube. The main power sources are hydrostatic pressure and gravity.

No Pre-treatment Required

Seawater – Onshore plants force feedwater through extremely closely spaced membranes at high pressure and velocity. Suspended solids in the source water become abrasive projectiles that damage the membranes. Thus, traditional SWRO plants employ a costly pre-treatment process applied to all the feedwater (about twice the product water) which removes these organics and sediments. Suspended matter in the source water just flows harmlessly through the DEMWAX II membranes, making any pre-treatment unnecessary.

Higher Quality Product Water

Surface water – The nanofiltration membrane used by DEMWAX II to treat surface water removes far more contaminants than ultrafiltration or microfiltration membranes which are becoming common today. The increasing level of man-made contaminants, such as dissolved pharmaceuticals, in water sources requires that a more robust treatment process be implemented and regulations are increasingly stipulating higher water quality.

Mitigation of 'Brine' Disposal

Seawater – Brine disposal is an issue that must be addressed in traditional reverse osmosis plants. Because of the low-recovery process, DEMWAX II will only create 'brine' that is approximately 7% more concentrated than the surrounding ocean. Such low levels of concentration will mix back to ambient within a few feet of exiting the outflow channel.

Virtual Elimination of Sea Life Impingement and Entrainment

Seawater – The impingement and entrainment of sea life is another environmental hazard that haunts many power and desalination plant entitlement efforts. The velocity through the "intake" of DEMWAX II is an order of magnitude less than that in typical desalination plant intakes.

Less Land; Economies of Factory Assembly

Aside from the well bores, channels and attendant piping, there is little site construction necessary in a DEMWAX II water park. The element manifold and assembly can be constructed offsite and delivered turnkey. This eliminates the need for additional expensive coastal land for onsite assembly. Additionally there less expensive ocean side land used in that water park, typically 75% less than land used by a modern SWRO plant.

No Moving Parts Subject to the Corrosive Feedwater

Traditional desalination plants incur significant capital and maintenance costs due to the handling of highly corrosive salt water and doubly concentrated brine. DEMWAX II only exposes the outside of the polyamide (plastic) membranes to the feedwater, thus eliminating the corrosion potential on the pumps. Similarly, all surfaces exposed to the salt water will either be composed of non-corrosive materials or coated with such materials.

Economic Restoration of Natural Surface Waters with DEMWAX II "Distributed Desalination"

The DEMWAX II system is highly scalable allowing for smaller more efficient costal water parks closer to population centers. Contrast that with the fact that there are surface water conveyance systems in the world that require far more power than the DEMWAX™ requires to produce water from the sea. As an example, the California State Water Project conveys *untreated* water from the Sacramento River Delta to Southern California at an energy cost of approximately 2.5 kilowatt hours per cubic meter. Similarly, the Colorado River Aqueduct requires approximately 1.6 kilowatt hours per cubic meter to convey *untreated* water to the coastal populations of Southern California. DEMWAX II will require about 1.4 kilowatt hours per cubic meter to produce *potable water* on shore which will not require further treatment as these other sources will (extra energy and chemicals). In addition to the energy efficiency proposition, there is an environmental value to restoring native waterways or utilizing those waters for inland purposes.

Significantly reduced carbon footprint

With a dramatically reduced generated power requirement comes a corresponding reduction in CO_2 emissions, making DEMWAX II truly a 'green' technology.

Conclusion

The quest for energy efficient and environmentally benign methods of extracting potable water from seawater has witnessed a series of incremental advances over the past two decades. Many experts in the field believe we are at the end of the road for improving the efficiency of seawater desalination. However, the new paradigm represented by DEMWAX II will dramatically improve efficiency while testing the physical limits of efficiency. It will do this while also improving the environmental profile by mitigating brine disposal and sea life impingement/entrainment issues.

Contact:
Daniel Bertram
Chief Executive Officer
EconoPure™ Water Systems
+ 1 (619) 987-1818
daniel@econopure.com

Alternate Contact:
Tom Motherway
Corporate Secretary
EconoPure™ Water Systems
+1 (775) 287-1807
tom@econopure.com

From: Justin Sumi
Sent: Wednesday, March 28, 2018 4:33 PM
To: Noemi Luna
Subject: RE: West Basin Desal Site Comments

Terri Sabosky has been added to the smartsheet

From: Noemi Luna
Sent: Tuesday, March 27, 2018 3:37 PM
To: Justin Sumi <jsumi@mbimedia.com>
Cc: Jennifer Lao <jlao@mbimedia.com>
Subject: FW: West Basin Desal Site Comments

Justin,
Below is a COMMENT to be saved in the West Basin Public Comments in Smartsheet. Save the details and the email as an attachment.

Notify Jenn and I once this has been completed.

--
Noemi Luna
Project Manager

(626) 967-1510 | (800) 700-1999 | www.mbimedia.com | WBE/SBE/DBE Certified

From: Terri Sabosky [mailto:tsabosky@lawa.org]
Sent: Tuesday, March 27, 2018 3:15 PM
To: Noemi Luna <nluna@mbimedia.com>
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Terri Sabosky

Mailing Address: 2209 Harkness St
City: Manhattan Beach
State: CA
Zip: 92066

Telephone # (daytime): 310 630 7163

Email Address: tsabosky@lawa.org

Organization:

Comments:

I think building a desalinization plant is fantastic and I am thrilled you are moving forward with this project. Those who are opposed are simply foolish and not looking out for all who live in the area. When the drought hits hard again, this plant will be blessing. Thank you for all your hard work.

SAB-1

Comment Letter SACKETT

West Basin Municipal Water District
Ocean Water Desalination Project

Comment Card

5b

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Amanda Sackett

Mailing Address 1064 calle del cerro (Street) San Clemente (City) CA (State) 92672 (Zip)

Telephone # (daytime) 440.749.6845

E-mail Address msackett@surfrider.org

Organization/Affiliation Surfrider

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

Will provide oral comments

To mail: fold, staple or tape together, and include a stamp.

Donald: Thank you. And now?

Julie: And the last speaker is Amanda Sackett.

Amanda: Hi, Mandy Sackett, Surfrider Foundation California policy coordinator, um, with our global headquarters. I'm here on behalf on behalf of our South Bay Chapter, Craig Cadwallader. Um, as some of you know, we've talked about this morning, Craig, um, Craig's been really active on the West Basin Desal Project and has attended nearly every board meeting and, um, committee meeting for quite some time, and unfortunately, he's been hospitalized for about 15 days now, and had to go in emergency surgery. He really wanted to be here today, so I'm here on his behalf, um, and I wanted to support the request for a permit extension. SAC-1

Um, we – and I also wanted to mention that we believe the absence of any board members at the April 25th workshop was, um, unacceptable. We, we do believe that elected official representatives' main priority should be to consider feedback from their constituents, and the workshop was a primary and really important way to do that.

Um, so, in leu of that absence, we think more time would give us more thorough feedback to board members, and then, also, this, the draft EIR incorporates some new elements that we need time to consider, including the 60 MGD project and a new project location, and the delivery system, um, then what was presented in previous meetings. And then, finally, um, as we mentioned in our joint letter, um, we do want some more time to review some of the extensive and lengthy documents. SAC-2

Um, and so, I'll just keep it short and, um, also just add that, you know, Craig is an avid activist and community leader on this issue, would really appreciate a little more time, as well, in light of his, um, emergency health setback. So, thank you very much for your time this morning.

Donald: Thank you. Is there anyone else? Yes, uh, Director Gray?

Gloria: Would you please send Craig my best regards for a speedy recovery?

Amanda: Yes.

From: West Basin

Sent: Monday, June 18, 2018 7:28 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Steve Salas

Mailing Address: 1202 E Mauritania st
City: Wilmington
State: CA
Zip: 90744

Telephone # (daytime): 310 9715765

Email Address: Letsgetrich1@yahoo.com

Organization: City Of LA employee/ Home owner

Comments:
I am against this project. We the people should desalinate our ocean as a last resource. I recommend West Basin board and other agencies should work together to buy back Refinary water rites and Refineries reuse reclaimed water (purple pipes) as an offset with no cost to the Refineries. LA County has over 5 Refineries in our region. Tesoro EIR project claimed that Tesoro uses over 13.5 Million gpd of fresh water a day and 4.5 Million gpd of reclaimed water alone. We still have other Refineries to consider reclaimed water use and fresh water use.

SALA-1

From: West Basin

Sent: Saturday, April 7, 2018 3:55 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Laura Salonen

Mailing Address: 1140 Highland Avenue #154
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: laurakaksi@yahoo.com

Organization:

Comments:
The proposed locations for the desalination facility are too close to a residential area - the El Porto section in north Manhattan Beach. The expected impact on residents, such as noise and air pollution is of great concern. Construction of a project of this size would create a major traffic problem affecting one of the major north-south gateways into and out of Manhattan Beach - Vista del Mar/Highland Ave. If the project has to be located at a beach site, why not place it to the north across from the Hyperion Facility or the Scattergood generating station where there are no residences.

SALO-1

From: West Basin

Sent: Monday, May 14, 2018 8:32 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Angelina Sberna

Mailing Address: 836 Manhattan Avenue
City: Hermosa Beach
State: CA
Zip: 90254

Telephone # (daytime):

Email Address: angatbeach@hotmail.com

Organization:

Comments:
If this desalination plant goes forward it will RUIN life as we know and love it in El Porto! As someone who grew up in Porto this is absolutely infuriating. That surf spot, Beach & our community deserves to be protected from this catastrophe. I can only hope this insane idea gets squashed!

SBE-1

From: West Basin

Sent: Wednesday, April 11, 2018 5:01 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Matthew Schroeder

Mailing Address: 117 12th St.
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: matt.schroeder@unrulygroup.com

Organization:

Comments:
The proposed locations for the desalination facility are too close to a residential area - the El Porto section in north Manhattan Beach. The expected impact on residents, such as noise and air pollution is of great concern. Construction of a project of this size would create a major traffic problem affecting one of the major north-south gateways into and out of Manhattan Beach.

SCHR-1

Comment Letter SCHULTZ

Date Submitted	Name	Address	City	State	Zip Code	Comments
3/28/2018	Janice Schultz	3814 Ocean Dr	Manhattan Beach	CA	90266	I don't support desalination as an economical or environmentally viable means of producing fresh water . However if this goes forward, then at least place it near the jetty . There are no homes nearby that would be bothered by the attendant noise and visual blight.

SCHU-1

From: West Basin

Sent: Wednesday, June 20, 2018 2:48 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Juli Schulz

Mailing Address: 2408 Ocean Ave
City: Venice
State: CA
Zip: 90291

Telephone # (daytime): 310-351-1627

Email Address: julischulz@me.com

Organization:

Comments:
This is not a good plan, it will have long-lasting negative effects on our coastline and marine environment. West Basin should be spending time on how do we treat our wastewater, instead of using a method that is energy and water intensive and will wreak havoc on our local oceans and beaches.

SCHUJ-1

From: vic

Sent: Wednesday, March 28, 2018 9:25 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: vic

Mailing Address: 3814 ocean dr
City: MB
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: vicschultz@otmail.com

Organization:

Comments:
DON"T DO IT!!

SCHUV-1

From: West Basin

Sent: Wednesday, April 11, 2018 7:28 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Gary Senser

Mailing Address: 317 30th Place
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 310.383.2779

Email Address: senser@gmail.com

Organization:

Comments:
The south location will adversely affect Manhattan Beach, visually and audibly. I would vote for the northern-most location. SEN-1

From: West Basin

Sent: Friday, April 6, 2018 5:28 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Elias Shamos

Mailing Address: 307 El Porto street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: Elias.shamos@gmail.com

Organization: Resident

Comments:
IF We ha e to have this, Please place on "North Site".....loud operation sounds and visual esthetic of our neighborhood still matter to us.

SHA-1

Justin Sumi

From: Noemi Luna
Sent: Wednesday, March 28, 2018 8:45 AM
To: Justin Sumi
Cc: Jennifer Lao
Subject: FW: West Basin Desal Site Comments

Justin,
Below is a comment to add to the WB OWD Comment 'Smartsheet'.

--

Noemi Luna
Project Manager

MBI

(626) 967-1510 | (800) 700-1999 | www.mbimedia.com | WBE/SBE/DBE Certified
Please consider the environment before printing this email.

From: Bob Sievers [mailto:tradesurf@mac.com]
Sent: Tuesday, March 27, 2018 6:41 PM
To: Noemi Luna <nluna@mbimedia.com>
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Bob Sievers

Mailing Address: 121 Moonstone Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3109777929

Email Address: tradesurf@mac.com

Organization: none

Comments:
You are proposing to put a costly, environmentally unfriendly plant right on top of my neighborhood. We know the huge contacts are what is driving this thing. The fact that the south site is even being considered is shocking to all of us in El Porto. While the project leaves a serious environmental footprint, if are going to tolerate anything at all, it will be at the North site and will utilize the 5 mile pipe. We surf at this beach and do not want brine and algae in the ocean you should

SIE-1

be concerned with protecting. We will speak and speak loudly. Of course you want your shiny new offices here by the beach rather than their present location. We are on to you and will all stand together to stop this at all costs. NOT HERE

SIE-1

From: Bob Sievers

Sent: Wednesday, March 28, 2018 4:05 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Bob Sievers

Mailing Address: 121
City: MAnhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3109777929

Email Address: TRADESURF@MAC.COM

Organization:

Comments:
OUR ENTIRE COMMUNITY OF EL PORTO WILL NOT STAND FOR A PLANT AT THE SOUTH SITE SIE2-1

Comment Letter SIEVERSN

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Nate Sievers

Mailing Address 121 Monstone St. (Street) Manhattan Beach (City) CA (State) 90266 (Zip)

Telephone # (daytime) 310-977-7929

E-mail Address tradesurf@aol.com

Organization/Affiliation El Porto homeowner

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

Q: Does West Basin plan to compensate the property owners for the potential 50-100mm Property losses imposed upon them by the proposed south site.

Is there a reserve set aside for legal expenses when the hundred of lawsuits begin flooding in?

SIEN-1

To mail: fold, staple or tape together, and include a stamp.

17-181

Comment Letter SLOMINSKI

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Marilyn Slominski 90266

Mailing Address 121 38th Place Manhattan Beach CA
Street City State Zip

Telephone # (daytime) 310 877-4792

E-mail Address marilynslominski@ymail.com

Organization/Affiliation resident + landlord

Please provide comments in the section below and leave in comment box or place in mail by Monday, June 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

I am very concerned about the noise and air quality issue that will effect the El Porto area SLO-1

- I am also concerned about the impact on my rental property in terms of income I depend upon for my retirement and now this will lessen the desirability of the property SLO-2

- I am very concerned that this process will take @ 5 years and now this will impact noise, air quality, traffic congestion and quality of life. SLO-3

To mail: fold, staple or tape together, and include a stamp.

From: West Basin

Sent: Tuesday, April 10, 2018 3:51 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Smithk601

Mailing Address: USA
City: Oakland
State: WY
Zip: 22042

Telephone # (daytime):

Email Address: smithk331@gmail.com

Organization:

Comments:
Great website! I am loving it!! Will be back later to read some more. I am taking your feeds also eefadgbdeebedgbg

SMI-1

Justin Sumi

From: West Basin <comments@westbasindesal.org>
Sent: Thursday, April 26, 2018 1:20 PM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Jane Soderberg

Mailing Address: 2508 Alma Ave
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: jfsoderberg@comcast.net

Organization: Homeowner in North Manhattan Beach/Sand Section

Comments:
I am opposed to the construction of a desalination plant on the border of North Manhattan Beach (your proposed SOUTH location) at approximately 45th Street. This location is TOO CLOSE to the residents of Manhattan Beach, I REPEAT THIS SITE IS TOO CLOSE to Manhattan Beach, a vibrant, affluent, lovely seaside community. Currently it is bad enough that Chevron is in our backyard although shielded from our view, any and all "situations" there are easily smelled, seen and effect the citizens of Manhattan Beach, whether planned or unplanned emergencies like explosions, fires, etc. Chevron removed two large above ground fuel tanks at this location in 2013 and I do not want this eyesore replaced with another, nor want the installation of another type of "utility" whose existence, day to day running and emergency "situations" will very much effect the residents of Manhattan Beach. I have read about de-salination plants in other locations and how they are not effective/ used. It would be an expensive experiment that would make LA
city/county officeholders feel good and give a boost to their resume without resulting in a true solution to our water problems.

SOD-1

From: West Basin

Sent: Tuesday, April 10, 2018 6:28 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Aaron spiewak

Mailing Address: 3528 Maple Ave
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: aaspiewak@yahoo.com

Organization:

Comments:
The desalination plant will be a blight, no matter its location. Furthermore, it is not necessary. Did you know that the Hyperion Treatment plant has the ability to recycle water? It is only operating at approximately 20% capacity. It could increase operational capacity and solve the alleged water shortage problem. USING A SYSTEM THAT IS ALREADY IN PLACE. SPI-1

Comment Letter STANICH

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Christy Stanich

Mailing Address 123 El Porto (Street) MB (City) CA (State) 90264 (Zip)

Telephone # (daytime) 805-241-5161

E-mail Address Lokoda1@verizon.net

Organization/Affiliation Resident

Please provide comments in the section below and leave in comment box or place in mail by Monday, June 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

The environmental component of this project is not only incomplete but an insult to residents, ocean recreation users and sealife. The numbers being recited are incorrect regarding brine plums and resolve of the concentrated salt content discharged into the ocean. Guessing and using old and unequal studies should not be allowed.

Lobbying for water policies that allow blended water to be used for city consumption is a more sensative environmental and economical approach. STAC-1

To mail: fold, staple or tape together, and include a stamp.

17-186

Comment Letter STANISH

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Jim Stanich

Mailing Address 2855 Allyson Ct. Thousand Oaks CA 91362
Street City State Zip

Telephone # (daytime) 310-365-3636

E-mail Address JStanich25@gmail.com

Organization/Affiliation El Porto homeowner

Please provide comments in the section below and leave in comment box or place in mail by Monday, June 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project 5/14/18
(please print and use additional sheets if necessary):

(1) As an El Porto homeowner, the aesthetics and attributes of the E565 North Side are most pristine. At the North Site, the Desalination Facility would replace existing infrastructure and would be less visible and intrusive to El Porto residents. STAJ-1

2.) As a condition to developing the North Site with the Desalination Facility, it is recommended that landscaped public open space be located on the E565 South Site. This will enhance and beautify the area, providing a benefit to the El Porto residents and perhaps providing some offset to the noise, traffic, & disruption generated particularly during the construction phase. STAJ-2

To mail: fold, staple or tape together, and include a stamp.

Comment Card Jim Stanich 5/17/18

(3) At the public meeting, West Basin stated that the Desalination Facility will provide water for 60,000 households. This supply quantity does not appear to warrant the cost to develop the Facility and the potential negative impacts to the surrounding ecosystems. Greater gains in water availability can be made through more aggressive water conservation efforts in particular with landscape illigation. Perhaps if a significant portion of the Project costs were designated for landscaping changes and conservation efforts (including financial incentives to the water users), the decline in water usage would exceed the additional supply created by the Project. It does not appear that the EIR ~~fully~~ evaluates enhanced conservation alternatives (4)

STAJ-3

Building and operating a Desalination facility ~~does~~ is not a core business competency of West Basin The magnitude of this Project may be beyond its charter

STAJ-4

Jim Stich
5/14/18
123 El Porto St
Manhattan Beach, CA

From: West Basin

Sent: Thursday, April 12, 2018 4:40 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Travis Stansbury

Mailing Address: 2912 Pacific Ave
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: travis@es94.com

Organization:

Comments:
We do not need this in Santa Monica Bay, at all. Simply use the money on existing facilities to increase reclamation, promote conservation, and if necessary increase prices to further reduce consumption. More local traffic and noise are not needed. STAN-1

From: West Basin

Sent: Thursday, April 12, 2018 3:07 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Nic

Mailing Address: 113 28th Pl
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime):

Email Address: nicstauber@gmail.com

Organization:

Comments:
I am firmly AGAINST the south site and the desalination plant in the South Bay area. STAU-1

Comment Letter STAVROPOLOUS

Date Submitted	Name	Address	City	State	Zip Code	Comments	
3/28/2018	William Stavropoulos	680 18th Street	Manhattan Beach	CA	90266	MY FAMILY (AND JUST ABOUT EVERYONE I KNOW IN LA) IS VERY STRONGLY OPPOSED TO THE PLANT, ESPECIALLY THE SOUTH SITE.	STAV-1

From: Noemi Luna
Sent: Monday, May 7, 2018 2:39 PM
To: Justin Sumi
Subject: Fw: West Basin Desal Site Comments - Ed Tellis

Follow Up Flag: Follow up
Flag Status: Completed

WB Comment to log.

--
Noemi Luna
Project Manager


Covina . Los Angeles . Orange County . San Jose California | (800) 700-1999 www.mbimedia.com
Corporate Headquarters Phone: (626) 967-1510 Fax: (626) 967-1718

From: West Basin <comments@westbasindesal.org>
Sent: Monday, May 7, 2018 2:36 PM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Ed Tellis

Mailing Address: 5636 Heatherdale Dr
City: Los Angeles
State: CA
Zip: 90043

Telephone # (daytime): 310-200-7185

Email Address: tellislv@yahoo.com

Organization:

Comments:

We should be doing more to capture storm runoff water, create spaces so more rain water enters the water table, and use more rain water which all at the same time benefits the environment. Lets do better with the water we have before creating an expensive desalinization project that will add to existing environmental issues related to not being good stewards of the water we have now.

TEL-1

From: Ralph C. Tisdale

Sent: Wednesday, March 28, 2018 10:10 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Ralph C. Tisdale

Mailing Address: 2633 Via Rivera
City: Palos Verdes Estates
State: CA
Zip: 90274

Telephone # (daytime): (310) 214 - 8601

Email Address: Ralph.tisdale@voyagercourt.com

Organization: Self

Comments:
I own property on 45th St and Gull St and am totally opposed to the desal plant being built on the south side as it would lower my property values and rental rates. I see no reason to build the plant next to a residential area when it could be placed in a more fitting industrial area. If it is built on the south side I would expect financial compensation. TIS-1

Comment Letter TISDALE2

West Basin Municipal Water District
Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) RALPH TISDALE

Mailing Address P.O. BOX 246 MANHATTAN BEACH, CA 90266
Street *City* *State* *Zip*

Telephone # (daytime) (310) 214-8601

E-mail Address RALPH.TISDALE@VERIZON.COM

Organization/Affiliation PROPERTY OWNER - MANHATTAN BEACH

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

See ATTACHED Sheet

To mail: fold, staple or tape together, and include a stamp.

I am a property owner in North Manhattan Beach (El Porto). I would not object to constructing the desalination facility at the proposed North Site. If the plant were to be placed at the South Site I would be opposed for the following reasons: TIS2-1

Construction Noise: The site is across the street from densely populated area and the four years needed to complete the project will cause an unavoidable impact on the residents.

Operating Noise: Again the site is very close to large numbers of people and mitigating noise and pump vibrations is going to be almost impossible. TIS2-2

Construction traffic: During construction Vista Del Mar Ave. will be reduced to one lane each way. If this occurs at the traffic light at 45th Street, only one lane will get through on each 'green' doubling the south bound traffic wait time. Building further north will allow two south bound lanes to cross the intersection. TIS2-3

Air Pollution: Dust and other contaminates generated by construction will impact large numbers of people living in El Porto. TIS2-4

Aesthetics: At the North Site replacing a Steam Generating Plant with a Desalination Facility will have no effect on anyone. At the South Site placing an industrial facility across the street from a residential area is not good land use planning by any criteria. TIS2-5

Thank you for your interest.

From: West Basin

Sent: Friday, May 25, 2018 2:18 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Gregory Ugarte

Mailing Address: 315 Gull Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 8053313509

Email Address: gregugarte@gmail.com

Organization:

Comments:
I am opposed to the project for several reasons. - cost of gallon of water compared to imported or storm recovered. - living in the El Porto neighborhood, I know that the proposed 3 years of construction will create a situation of unbearable traffic next to the site. -the energy consumption for the reverse osmosis process is enormous - normal life for the people in the area as far as the relationship with the beach and ocean will be altered. - property values in the immediate area will be negatively affected. I oppose the project in either location and that instead the funds be utilized to further fund other storm water recovery programs. Nonetheless I appreciate this EIR study in its depth and objective scope. Gregory Ugarte

UGA-1

Date Submitted	Name	Address	City	State	Zip Code	Comments
4/2/2018	Joseph Ungoco	201 Kelp Street	Manhattan Beach	CA	90266	As a former public relations professional in New York, I have from the beginning been concerned with the methodology employed in noticing the public for community input on this proposed project. I believe the sampling model is seriously flawed. I live only 4 blocks from the proposed southern site and was not invited to the community meeting meant to address the concerns of neighbors and interested parties. I attended as a stand in for a friend and neighbor who lives on 45th st. I was the only person in attendance at the meeting and was given the full dog and pony. The format of the meeting was not structured to solicit my input but rather to 'educate me' regarding decisions that were presented as already having been made. If West Basin - and its Directors - are truly committed to soliciting public input, they should be more transparent and make more of an effort to reach out to those likely to be affected by their decisions. I am strongly opposed to the proposed southern site and I feel that many of my immediate neighbors would also be - had they been properly notified about this. Our neighborhood already is under siege from our neighbor to the north. Right as we in MB are discussing the relative merits of undergrounding our power lines, we have been treated to new high tension lines within 'swinging distance' of our homes. This proposed location for the desalinization plant seems like just the latest in a never-ending series of assaults on our neighborhood with little concern for those of us who live there.

UNG-1

From: West Basin

Sent: Tuesday, April 24, 2018 10:01 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Debra Van Neas

Mailing Address: 432 34th Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 310-545-7242

Email Address: debbievanness@yahoo.com

Organization:

Comments:
I am writing to state my unequivocal opposition to the proposed desalination plant in El Porto. I don't believe this is the best solution for our water problem. The amount of energy it will take along with the negative environmental impact is too great a cost without trying other solutions first. Heal the Bay has proposed many of those solutions. Plus this part of the beach is already filled with power plants, water treatment, oil tanks. It must stop! We live here! This is not the place for it even if I believed in the plant as a solution.... which I do not. I am in strong opposition to this plant here in the South Bay. VAN-1

From: Norman Vickers
To: West Basin Desal EIR
Subject: Ocean Water Desalination project Public input
Date: Thursday, April 12, 2018 12:43:40 PM

Hi All,

Just a second for my 2 cents… I am quite concerned that the quality of the water will be degraded with the introduction of Ocean Water Desalination. I have always been under the impression that Reverse Osmosis water is not as healthy, Please send a response. VIC-1

Norman Vickers
National Technical Services
Personal, Professional Computer and Network Services
Phone: 310 679-4832
Fax: 310 263-0667
Email: norman@NTSTOO.com

From: West Basin

Sent: Tuesday, April 24, 2018 12:16 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Mark Wald

Mailing Address: 3515 Vista Dr
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3106256262

Email Address: mbwald@gmail.com

Organization:

Comments:
I am opposed to the construction of desalinization plants in or near Manhattan Beach, CA, especially the proposed lotion near 45th street. Aside from the noise that would negatively impact the adjoining residential neighborhood, the negative environmental impact to the coastal ecosystem there is intolerable. There must be thousands of better suited sites along the southern CA coastline for this type of project and operation. Besides, desalinization is very expensive and should ONLY be considered after all other viable options for sourcing potable water have been exhausted. CA has 1/2 dozen other viable options to try first that cost considerable less, such as capturing rain water or removing the concrete from the LA River Basin so that the water can be absorbed by the earth opposed to evaporating into the air. Please don't let corporate interests and egos influence the decision to build a desalinization plant in our otherwise beautiful beach community.

WAL-1

From: Noemi Luna

Sent: Monday, May 7, 2018 10:04 AM

To: Justin Sumi

Subject: Fwd: West Basin Desal Site Comments - Kyle Weinsheim

---

WB Comment.

Noemi Luna

Project Manager

MBI / 626-967-1510

Get Outlook for iOS

From: West Basin <comments@westbasindesal.org>
Sent: Saturday, May 5, 2018 11:49:28 AM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Kyle Weinsheim

Mailing Address: 124 Gull St.
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 310-546-5224

Email Address: KyleWeinsheim@Yahoo.com

Organization:

Comments:
I am opposed to the water desal facility being constructed on the Southerly end of the El Segundo parcel bordering 45th St. in Manhattan Beach. As a long-time El Porto homeowner and a decades long taxpayer, I know for certain that property values will drop if the desal plant is built on the Southerly border. As a result, property tax

WEI-1

assessments will drop as a result. That means less income for the City of Manhattan Beach. In addition, it is highly likely quality of living in El Porto will be negatively impacted by increased noise and pungent saline odor levels. It appears that the Northerly proposed site has sufficient room to accommodate the proposed desal plant without as much impact to local residents as placing it at the Southerly site. While I am not in favor of either site without further environmental impact research being conducted and shared with the public, I am willing to review further details with an open mind regarding the Northerly proposed site.

WEI-1

WEI-2

From: West Basin

Sent: Wednesday, April 25, 2018 9:17 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Laura Wenglikowski

Mailing Address: 213 Seaview St.
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3102928066

Email Address: lauraweng@verizon.net

Organization: Concerned resident

Comments:
Do NOT go through with this!! How can, in our supposedly "environmentally aware" of California, can this idea of a desalination plant even be considered?!? Such a huge impact to our ocean, wildlife, residents...this MUST NOT go forward!!! WEN-1

From: West Basin

Sent: Monday, April 9, 2018 10:45 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Kelly Wickemeyer

Mailing Address: 117 42nd Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 310490-2666

Email Address: kelly@object8.com

Organization:

Comments:
We are strongly opposed to a desalination plant so close to our homes. We ask that you reconsider the location to a less populated area either north of El Segundo, or another location in a more remote area that will not affect property values, ocean wellness and overall visual impairment of a beautiful community. Thank you.

WIC-1

From: West Basin <comments@westbasindesal.org>
Sent: Sunday, June 24, 2018 2:48 PM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: John Wilcox

Mailing Address: 462 Rosecrans Ave
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3103865646

Email Address: johnwilcoxrealty@gmail.com

Organization: The Wilcox Family

Comments:
My family (myself, my wife, and 2 daughters) are adamantly opposed to the proposed Desal project for the following reasons: Desalination is the most energy-intensive and expensive water supply option in California Table 5.2-9 NOX 5X SCAQMD Threshold in 2022 - 519lbs vs 100lbs a day Table 5.7-4 Close to a doubling of GHG compared to current imported water emissions Table 5.12.6 - Noise - (construction related) Even after proposed mitigation measures, project construction would result in significant unavoidable noise impacts. WILC-1

(Operational Impacts) - Operation of the facility would generate noise from treatment equipment as well as increased human activity on the property involved with the operating and maintaining of the facility. Table 7-2 the data is flawed and vague - Increased conservation, storm water capture, and recycling were all rejected from further analysis but would eliminate the need for the costly desal plant/water during times of drought. Cape Town has a 13 gal per person limit per day. Avg. LA usage per person is 60 gal per day. We live in a desert climate and need to get rid of the lawns the use approximately 40% of residential water. The L.A. County Department of Public Works estimates that from Jan. 18-31 2017 alone, roughly 25 billion gallons of stormwater "or about 77,000 acre-feet" drained into the ocean from the Los Angeles River watershed. WILC-2

(The entire city of L.A. uses about 550,000 acre-feet of water a year). West Basin, you already recycle water and can increase capacity. Lastly, I am opposed for all of the reasons cited in this article:
https://www.smarterwaterla.org/prolific-costs-of-poposed-south-bay-ocean-desalination-plant-exposed/ and this article: https://www.surfrider.org/coastal-blog/entry/water-conservation-a-better-choice-than-desalination Thank you for not building the desal plant and not jeopardizing the health our community and my 2 young daughters with unhealthful noise, GHG and NOX emissions. Thank you for not building the desal plant thereby avoiding the significant and unnecessary impacts to marine life and water quality. Look no further than Santa Barbara to see why this would be not only a bad ethical decision, but a bad financial decision for WBMWD as well! Kind regards, John Wilcox WILC-3 WILC-4

Comment Letter WILLIAMS

Date Submitted	Name	Address	City	State	Zip Code	Comments
3/30/2018	TOM WILLIAMS	4117 BARRET ROAD	LosAngeles	CA	90032-1712	The EIR states that economics, finance, price, costs are part of the Project objectives but without any such info. Please provide immediately a thorough Economic assessment as the Project Objectives and various points in the text and appendices. Please include pricing and profitability for rate payers and ROI for each major service area (>10) and regional units.. 1-2/2 1.2 Project Objectives West Basin - goal is to guarantee future water supply reliability for service area customers by adding.... The Project objectives of West Basin - proposed Ocean Water Desalination Project are to: - Diversify West Basin - water source portfolio to increase reliability...while reducing reliance on imported water.... - Improve West Basin - local control of future water COSTS and long-term PRICE stability. - Develop a potable water supply that is ECONOMICaLLY viable...

WIL-1

From: Tom Williams <ctwilliams2012@yahoo.com>
Sent: Saturday, March 31, 2018 5:49 PM
To: West Basin Desal EIR
Subject: DeSal+Conveyance DEIR

Thanks for the FedEx...NOA for 2015081087
Will be ending more comments
Many comments regarding EJ...for "conveyance system" in Local and Regional contexts.
OBTW
Coming to evening meeting
Did my first EIR in 1972-73...done >400 EIRs/EISs/EAs for URS + Parsons Corp and then lots of related stuff for Dubai World...one project was oil spill cleanup for Chevron in Sta Monica
Bay, another for Port LA-Midland Oil Pipeline
Retired 2012...but still working
So many issues for both offshore facilities and the conveyance system...delivery pressure and sourcing/quality.

WIL2-1

All references in text and appendices must be available to the public...they ain't.
"Withdraw- Revise-Recirculate"

WIL2-2

Life member of Sierra Club and Audubon

Dr. Tom Williams
323-528-9682

Comment Letter WILLIAMS3

Date Submitted	Name	Address	City	State	Zip Code	Comments	
4/1/2018	TOM WILLIAMS	4117 BARRET ROAD	LosAngeles	CA	90032-1712	Cmts: Reports cited, and many others, are not available to the public in appendices or online. Please provide a consistent and solitary form of referencing and review all references and provide.all for public review through online web page or appendices. Example: 5.4-52/2 - 55 5.4.7 Sources Cited BCR Consulting, LLC, 2016. Cultural Resources Assessment: West Basin Ocean Water Desalination Project, March 18, 2016. Bean, Lowell John, and Charles R. Smith. Gabrielino, 1978. In California, edited by Robert F. Heizer, pp. 538-549. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C., 1978. Bickel, Polly Mcw, 1978. Sea Levels Along the California Coast: Anthropological Implications. In The Journal of California Anthropology, 5(1):6-20, 1978.	WIL3-1

Comment Letter WILLIAMS4

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Dr Tom Williams

Mailing Address 4117 Borrett Rd (Street) LA (City) CA (State) 90032-1712 (Zip)

Telephone # (daytime) 323-528-9652

E-mail Address ctwilliams2012@yahoo.com

Organization/Affiliation CCSC

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

The DEIR is incomplete and inadequate due to the absence of setting and assessment for the service areas during normal and abnormal conditions which relate to sources, quality, pressures and flows. These deficiencies are further heightened by their EJ implication for service near the desal plant vs that in central & eastern portions of WB service areas. WIL4-1

To mail: fold, staple or tape together, and include a stamp.

DATE: June 25, 2018

TO: West Basin Municipal Water District 17140 So. Avalon Blvd., Carson, CA 90746

Attn: Zita Yu, Ph.D., P.E., Project Manager
desalEIR@westbasin.org

cc: Ca Amer Wtr.Co. Ca Wtr Service Golden State Wtr. Co.
Smarter Water L.A., L.A. Waterkeeper, Heal the Bay,
Surfrider Foundation, Environmental Water Caucus
El Segundo Inglewood Lomita Manhattan Beach
County Water Works. Distr. 29
Water Replenishment Distr.

FROM: Dr. Tom Williams, Snr. Techn. addivser,
Citizens Coalition for A Safe Community, ctwilliams2012@yahoo.com 323-528-9682
` 4117 Barrett Rd., Los Angeles, Ca 90032-1712

SUBJECT: WBMWD Ocean Water Desalination Project
Draft Environmental Impact Report (DEIR; SCH # 2015081087)
RE: Comments on and Requests for DEIR

Thanks you for the opportunities for commenting on the DEIR, attending the two public meetings, and other aspects of the CEQA process.

Overall Comments/Requests can be summarized as follows:
- Current DEIR is incomplete and inadequate;
- Withdraw the entire document;
- Make massive revisions, quantifications, and upgradings-
  - Provide publicly accessible references;
  - Provide referencing/citations singularly and consistently formatted with direct access to cited webpage;
  - Provide obscure references as appendices or on a WB web-page;
  - Provide consistent units of measures;
  - Provide a draft Mitigation/Monitoring/Reporting Program.
- Revise for a Programmatic EIR rather than a specific Project EIR with two separate projects.
- Once REVISED, recirculate for public/agency comments.

WIL5-1

General Sector Comments:

Alternatives do not include increased IPR 2018-2023 with Upgrading to state regulated DPR with groundwater storage and sea water barrier:
- Alternative - DPR/Hyprn. Terminal Isld.
  - 2018-2023 Water Factory 2023 IPR > GW barriers + storage…GW wells for pressure augmentation
  - 2023-2043+ Water Factory 2043 DPR + GW barriers + storages + flow/pressure/quality
- Hyperion > 20-60MGD > WB Trmt Fac. > Discharge reject flow thru Outfall > Trtd Water >

WIL5-2

Local and Regional Project elements are not well associated and effects not distinguished or integrated. WIL5-3

Piped Water Quality - current and inland sources vs desal are poorly described and not quantified:
- No Qual. - Pressure - Flows
- Who gets the better / lesser quality water Now Later
- Service areas with changes of sources - Env.Justice for service areas

WIL5-4

CPUC/Federal - Env.Justice is not well described nor quantified for service area deliveries and has total disregard for rentters, owners, and owner-occupants. WIL5-5

References/Citations Not publicly Accessible/Available 5 days is not publicly accessible. WIL5-6

Available aerial photos were not used for historic resources and potential haz.matls.
Offshore archeology is totally overlooked without thought for 12,000 years ago. WIL5-7

Mitigation - Conservation were nott integrated
LID – Structure rain barrels, GW recharge, irrigation and LID 10bbl = 400+gal/1000sf roof
Dwelling Greywater
Dwelling Water Efficiencies — WIL5-8

Project Description - has very inadequate and incomplete descriptions, e.g., process flow diagram for night/daytime operations and nothing about nighttime excess production storage;
Service Areas – Pumping, conveyance/transmission, and distribution/delivery system model for flow/pressure quality;
Operations – 24/7 Production what to do with nighttime flows, or reduced production – costs/maintenance Who pays/Who benefits; — WIL5-9

Environmental Justice – Service Areas Who Pays / Who Benefits Renters / Owners
Federal Jurisdiction - NEPA
Local and regional Service Area Owner/Occupied vs Renters — WIL5-10

Growth Inducement - More/Better Water - more reliable/lower costs for whom. — WIL5-11

Economics – No economic model although economics, prices, and costs used in the Project Objectives — WIL5-12

Biology - Marine Life – Focused entirely on >3mm not total biota and food chains
No survey/literature review for micro-biota – bio/phyto/zoo plankton/nekton/benthon
Increased mega-biota feeding at Discharge…soup/consumme — WIL5-13

Cultural Resources
Historic Resources – Site and Pipelines – Foundations, Privies, Dumps/Pits
Historic Aerial Photos for Hazardous Uses and Cultural/Historic Uses & Resources
Archeological Resources
High potential for remains/villages from >-100ft depth to shore line and east — WIL5-14

Hazards
Historic Aerial Photos for Hazardous Uses and Cultural/Historic Uses & Resources
Chevron Marine Oil Spills and Offshore Oil Seeps
Natural offshore oil seeps = Brea = faults to surface — WIL5-15

Soils & Geology – Infiltration Groundwater adjudicated basin — WIL5-16

Water Quality - Chevron Oil Spill — WIL5-17

Seismicity – offshore oil seeps = Brea = faults to surface
No use of SCEqCntr data base — WIL5-18

Seismicity-Seiche/Tsunami

Qualifications of Dr. Tom Williams, retired
PhD geol./zool.
Professioal URS Parsons Pasadena Dubai World - 12 yr
Water Experience
Monterey Bay Reclamation/Water & Water Factory 21
Oahu Power Plant intake/discharge
StaMonica Bay/El Segundo/Chevron Oil Spill
Latakkia Syria Songkhla Thailand ocean discharges
HongKong Black Point Intake/Outfall
Cairo City water supply
Soquel Creek water supply
Upper Owens Valley groundwater resources and supply
Black Butte Reservoir and downstream uses.
Morro Bay - Oil spill containment and remediation
Mare Island - Dredged Disposal and Reclamation
Various Landfills
Water Fix Tunnels and Seismic Hazards — WIL5-19

Specific Comments
TBR = To Be Revised/Updated by 06/30/18
1-1/2 = Section-Page/Paragraph, **underlined** copy from teext for highlighting for comments. ***Commens***

NOA Project Description: West Basin **is investigating** **the feasibility**...desalination facility at two **potential sites** within the existing El Segundo Generating Station....produce **20 million gallons**...water **(Local Project)...**future expansion...up to **60 MGD** of drinking water **(Regional Project)**. The Local Project would provide a reliable, local water supply to meet drinking water demands, while increasing drought resiliency and reducing dependency on imported water supplies. ...Basin's **only water supplies are imported water** .... For the **Regional Project, *WB* would look** to **involve partners** to expand the Local Project to produce an additional 40 MGD of drinking water to help **meet water demands at a regional scale**....would further **reduce dependence** on imported water within...**service area** and improve overall **regional supply reliability.**

Present tense for "is investigating", "the feasibility", and "two potential sites" would suggest a dependency and conditionality (conceptual plan) not suitable for an EIR (preliminary design). Remove conditionality and dependency and present as an established preliminary design and funding for both projects. WIL5-20

Separation of Local and Regional Projects suggest that they are independent while the EIR is for both projects. Revise the current DEIR to be a programmatic EIR with two or more components to be construction over the next 12 years. WIL5-21

Use of MGD and later AF/Y is confusing too general public. Convert all uses of quantitative units to MGD and avoid any alternative units. WIL5-22

The Basin's supply must include local agencies' groundwater supplies plus treated effluent (from various sources). Revise. WIL5-23

"Local Partners" and "would look" are so generalized as to be meaningless and thereby renders the "Regional Project" to be imaginary and not suitable for consideration or assessments.
Define/quantify regional scale water demands at Local and Regional levels/areas. their dependence, and reliability at WB-buyers, "partner", Local, and "regional" service areas. WIL5-24

The Project **would include**...of ocean water intake and concentrate (brine) discharge infrastructure, an onshore desalinated water treatment facility, and a **product water conveyance system**....treatment process would include pre-treatment filtration, reverse osmosis membranes, and post treatment conditioning....discharge system...**blend** of **concentrated** ocean water...to the ocean through a diffuser system for dispersion.....**water conveyance system** would deliver **drinking water** to the local drinking water **distribution system**. Appurtenant facilities,...as part of the Project.

No separation of facilities for local and regional systems; provide separated and common facility WIL5-25

Provide quantified "Blend" of process/natural waters WIL5-26

Provide "conveyance system" map with current and future demands and any deficiencies without the Local and Regional Projects' "product waters". WIL5-27

Differentiate between "conveyance" and "distribution" systems. WIL5-28

Product water includes more than "drinking water"; provide clarified/consistent usages.
Define "appurtenant facilities". WIL5-29

The entire Marine Biology is misleadding and incomplete/inadequate which focuses predominately on macro-biota (>1mm diameter) and disregards most if not all of the micro-biota, <1mm. Such have been discussed/studied by others:
Micro-/Nanno-Biota, <1mm.: plank-, nek-, benthons; diatoms, foraminifera, ostracods, etc.

Reiter, Martin. 1959. Seasonal variations in intertidal foraminifera of Santa Monica Bay, California. Journal of Paleontology 33: 606-630.

Foraminiferal Ecology of Santa Monica Bay, California Emil R. Zalesny *Micropaleontology* Vol. 5, No. 1 (Jan., 1959), p: 101-126 The Micropaleontology Project., Inc. DOI: 10.2307/1484158.
URL: http://www.jstor.org/stable/1484158
file:///C:/Users/tmyl/Downloads/Hunger_Arthur_A_1966.pdf . WIL5-30

Environmental Justice
DEIR does not include any discussions pertaining to Environmental Justice within the Conveyance/Distribution/Service areas. WIL5-31

1-1/2 The Local Project would provide approximately 11 percent of West Basin's water demand, relieving pressure on the heavily constrained supply of imported water available to West Basin. The new water source would increase the overall water supply reliability, drought resiliency, local control, and water security in the region. **The Local Project would be used to serve communities within West Basin's service area.** The **Regional Project**...in partnership with other **local and regional partners**, such as Metropolitan Water District of Southern California (MWD), to **meet the demands and increase water supply reliability for a larger portion of the Southern California community**. This Project Description describes the Local Project...much of the Regional Project components are analyzed at **a project-level**, **some of the Regional Project's details concerning design and operational characteristics have not been determined**,...**cannot be analyzed at the level of detail required for project-level analysis**....are analyzed at a ***"programmatic level,"*** pursuant to CEQA Guidelines Section 15168.

Define/list/quantify "some...details", "communities", "service areas", "local and regional partners", "***larger portion of....community***", ***reliability, "some...details...cannot analyzed".*** WIL5-32

Provide comparison of programmatic vs project level analyses required for this "project" marine-sourcing, treatment, and distribution elements. WIL5-33

As a Project DEIR details must be described an assessed subject to later changes and supplemental CEQA compliance(s). Revise Project EIR to a Programmatic EIR. WIL5-34

1-2/5 The ESGS property is located in the **South Bay region of Los Angeles County** within West Basin's service area, **just** south of Los Angeles International Airport (LAX).

Define/quantify "just", e.g., 1, 2, or 5 miles south. WIL5-35

1-2/2 **1.2 Project Objectives**

West Basin's goal is to **guarantee** future water supply reliability for **service area customers** by adding....

Define and quantify "guarantee" and service areas, and customers. WIL5-36

The Project objectives of...Project are to:

• Diversify...water source portfolio to **increase reliability**...near ***[0-5]*** and intermediate term (5–15 years) and the long term (15–30 years) while **reducing reliance** on imported water....

....

• Improve...**local control** of future **water COSTS** and **long-term PRICE stability**.

....

• Develop a **potable** water supply that is **ECONOMICALLY viable**...

7-3/2 **7.1.2 Project Objectives** ***Same as 1.2***

The Project objectives of West Basin's proposed Ocean Water Desalination Project...Section 3 ***[1.2 & 3.3]*** are to:

 Diversify...Basin's water **source portfolio** to increase reliability...while reducing reliance on imported water.
 Improve water security through West Basin's increased local control of water supplies and infrastructure.
 Improve West Basin's local control of future **water costs** and long-term **price stability**.
 Improve **climate resiliency** by developing a **water source** that is **less susceptible to hydrologic variability**.
 Develop a **potable water supply** that is **economically viable** and environmentally responsible.

3-3/2 The Project objectives of West Basin's proposed Ocean Water Desalination Project are to:

Define and quantify: future, long-term, costs, price, economically, local control, stability, viable, potable.
Define and quantify temporal periods (near, short, and long terms) related Local and Regional Projects.
Define and quantify "increase, reliability, reliance, stability, reducing, local, control, future and long-term, costs, and price. WIL5-37

Lack of Consideration/objectives for offshore facilities and conveyance system; provide objectives specific to marine and service area conditions and parameters. WIL5-38

The EIR states that economics, finance, price, costs are part of the Project objectives but without any such info. Provide a thorough quantified Economic assessment as the Project Objectives and various points in the text and appendices. WIL5-39

Please include pricing and profitability for rate payers and ROI for each major service area (>10) and regional units. WIL5-40

1-2/4 **1.3 Project Components**

The key Project components include...a desalinated water conveyance system:

 A new **ocean water desalination facility**...would produce 20 MGD (expandable to 60 MGD)...
....
 A **desalinated water conveyance system** to be constructed inland of the ESGS to deliver potable water produced at the new desalination facility to the **local and regional water supply systems.**
Provide all sourcing components, intakes, outlets, and pipeworks/pumps. WIL5-41

1-3/3 Product water conveyance lines would extend easterly within roadway right-of-ways located within various cities (i.e., El Segundo; Los Angeles; Gardena; Hawthorne; Lawndale; and Redondo Beach), and unincorporated Los Angeles County, connecting the new water source with MWD's existing potable water distribution system.
Provide quantitative distribution system model for current, 2025, and 2040 periods with source, flows, pressures, and any other operating parameters for the local, regional, and alternative "projects". WIL5-42

1-16 **- Exec.Summ.1** West Basin shall implement items a. and b. and progress through the remainder (items c. through e.) on the basis of the options' physical and **economic feasibility**, as reasonably determined by West Basin, with **low cost options preferred over high-cost options**. In the event that options have equivalent costs, options enumerated higher in the above list shall be selected by West Basin over options enumerated later in the above list.
1-16/Table West Basin shall implement items a. and b. and progress through the remainder...on the basis of the options' physical and **economic feasibility**, as **reasonably determined by West Basin**, with low **cost options** preferred over **high-cost options**....options have **equivalent costs**, options...shall be selected by West Basin over options enumerated later in the above list.
Define "reasonable" and "determined" and provide procedures/processes and analyses by WB for costs, benefits, and sources/recipients.
Provide numerical/quantitative economic feasibility analyses for project, options, and alternatives.
Provide quantitative definitions for high-, moderate-, and low-costs, and their options and for equivalent costs. WIL5-43
The EIR states that economics, finance, price, costs are part of the Project objectives but without any such info. Please provide a thorough Economic assessment as the Project Objectives and various points in the text and appendices, including capital+O&M costs vs Returns-on-Investments. WIL5-44
Provide pricing and profitability for rate payers and ROI for each major service area (>10) and regional units. WIL5-45

45\1-23/Tbl. **Operation BIO-M2:** Entrainment Mitigation: ***Impacts*** **Entrainment** of fish and invertebrate **larvae**, either directly through the West Basin screened ocean intake or through outfall discharge turbulence, regardless of magnitude, will **result in some loss** of marine **ecosystem** productivity, species diversity, and trophic level energy transfer. Implement Mitigation Measure BIO-M2.
45\1-23/ develop and conduct an assessment of **larval entrainment** of **both its ocean water intake and its... outfall**, such that the magnitude of the Project's effect on the marine **ecosystem** can be **more accurately** determined and mitigated.
Outfalls seldom have entrainment other than associated with turbulence, but can have a rich entrained nutrient loads produced by the processing destruction of a vast (more than larvae) ecosystem element of all micro-organisms, larvae + phyto- + zoo-bios.
Mention is made of larvae but the entire "Biotic"/Ecosystem discussion has avoided direct discussion of the other "micro"(<1mm dia) ecosystem elements, algae, diatoms, foraminifer, ostracodes, and others as benthons, nektons, and planktons, both infauna and out-fauna.
Provide quantitative definitions for "some loss" and for some gains within all elements of the Bay ecosystem, especially for those less than 1.0mm diameters. WIL5-46

2-2/3 Section 6, Other CEQA Considerations, discusses the long-term **implications** ***[or impacts]***....Irreversible environmental **changes**..., are considered. The Project's **impacts** respective to **environmental justice**, are evaluated (see Section 2.9 below). The Project's growth-inducing impacts, including the potential for population growth impacts, are also discussed.
2-23/2 2.9 CEQA-Plus This EIR is **intended to satisfy** the "CEQA-Plus" requirements...partially funded by...(USEPA)...Project applicant **must demonstrate** compliance with several federal regulations,...In addition, the Environmental Justice analysis complies with CEQA-Plus requirements; refer to **Section 6.3, Environmental Justice.**
Define and quantify "implications" vs impacts vs changes, intended, satisfy, demonstrate
Provide quantified definition of ethnic, income, ownerships, and household for all census tracts within the Local and Regional Project service areas. WIL5-47

2-4/4 In assessing **local supply availability**, the **reliability** of local groundwater is impacted by legal, water quality, and climate factors. The **recent droughts** have **lowered groundwater tables** and reduced the availability of **sources of local and imported recharge** in West Basin's service area. **Certain beneficial uses** of recycled water in West Basin's service area are **constrained** by **current source water quality issues**.
Define and quantify availability, reliability, recent vs current, drought, certain, beneficial, constrained, water quality issues, WIL5-48
Groundwater conditions are totally inadequately presented. Provide maps and quantified tables for total groundwater (down to -250ft) holding capacity, historic/adjudicated, maximum recharge and production and storage, WIL5-49
For proposed Local and Regional Project, distribution area uses each day are not constant throughout the day, and night, and water treatment is best operated at constant flow (e.g., 20-24MGD at 0.83-1.0MG/hr every hour). If night time (10pm-6am flows) diminish to 1/3 the daytime volumes, 0.27-0.33, either production must be reduced or the excess production must be stored, usually in tanks throughout the service area. Such storage has not been described or modeled in the DEIR. The Project does not discuss potential for diurnal production cutbacks, above ground tank storage, or groundwater injection/infiltration as daily storage and recovery for next day's delivery. WIL5-50
Current Indirect potable reuse (IPR) uses groundwater resources as a mid-long term storage for days, weeks, and months or more. Similarly direct potable reuse (DPR) and desalination (DSL) can make use of seasonal and daily/diurnal storage beneath the service area with improved efficiencies for production but added operations and facilities for recharge/production. WIL5-51
The DEIR does not address the groundwater (or any other means) storage and production within the service areas' resources during diurnal, weekly, seasonal, or other cycles of IPR/DPR/DSL demands vs production. WIL5-52

2-7/2 MWD's IRP assumes that even under implementation of WaterFix, MWD's service area must develop an **additional 230,000 AFY** of new water supply within the planning period (MWD 2016).
Provide MGDs & MWD-WtrFx service area for public understanding of significance - 230000afy = 630 afd = 205 MGD??? for every where south of the ForeBay, including SJValley and south of Orange County???.
Unclear as to whether Project's 20 or 40 or 60 MGD is included for 10-30% of total. WIL5-53

2-8/3 ...**11 cities and unincorporated areas**...hold the **groundwater rights to WCGB**. The average **production**...between 2005 and 2015 was approximately 42,000 AFY,...17 percent of total water demands...(WRD 2017). The groundwater **extraction** in the WCGB has been in decline since 2011, with the extracted volume recorded in Fiscal Year 2015-16 of approximately 31,600 AFY (WRD 2017).
The DEIR must provide service area boundaries and all adjudicated groundwater basins along witttth recharge basins and wells. WIL5-54

W***ater***R***eclamation***D***istrict***, 2017. Water Master Service in the West Coast Basin – Los Angeles County. Online: http://www.wrd.org/sites/pr/files/west%20coast%20basin%20watermaster%20report%202016.pdf.
Follow spell-out format of other acronyms in references. WIL5-55

2-8/3 Historical contamination...made finding **groundwater of high quality within the WCGB** challenging. ...made acquiring suitable sites that...**produce high quality of groundwater with minimum treatment costly**....**high land costs** compounded with **high treatment costs**...discourage retailers and **other groundwater right holders** to use such a resource when **more economical imported water** is **readily available**.

Provide GW rights holders map and listing, and GW volumes-yields/quality (hi-mod.-low) maps for all WB accessible GW resources. WIL5-56

Provide costs comparisons for sources, lands, and treatment, including all existing, locally potential, and future local and regional and state sources. WIL5-57

Define and provide "more economical", moderately-economic, and less-economic imported water.
Define and provide "minimum", "high", "discourage", "other", and "readily available". WIL5-58

2-8/4 Although West Basin does not supply groundwater to retail agencies,...supply a portion of the supply used for groundwater **replenishment**....customer agencies operating within West Basin's service area **extracted** 31,288 **AF** of groundwater...; however, WRD **replenished** 18,198 **AF** and 3,460 **AF** into the West Coast Barrier and Dominguez Gap Barrier...(West Basin 2016). Although pumping rights are established, the **reliability** of groundwater is limited by the adjudication.

Unclear as to af/day, month, or year, use consistent units afy or af/y.
Define and differentiate "recharge" vs "replenishment", same for "extract" vs "produce", smelting extracts, oil wells produce. WIL5-59

2-11/3 Further, the Project would provide the **only hydrologically independent**, locally controlled water supply source for the West Basin service area.

As indicated above a portion of groundwater recharge is provided by WB from "other sources" which are independent of "hydrological" sources, kind of.

2-12/1 ...expansion of recycled water production and use under the City of Los Angeles's OneWater Program is **expected to limit** West Basin's recycled water program's ability to access no more than **70 MGD** of effluent...contractual obligations to **non-West Basin service area customers**, LADWP, and the City of Torrance, ...**treatment losses** ***[46% loss]***, **there will only be approximately 38 MGD of non-potable and potable reuse water remaining for West Basin's service area.**

Define/quantify "expected to limit".
Describe/quantify effluent "losses".
Provide name and locations and conveyance connections for "non-WB service area customers".
Provide locations/service areas for "potable reuse" and "for". WIL5-60

65\ 2-13 Statewide Actions identified....**Protect and restore important ecosystems**.

Proposed project(s: local and regional) significantly and adversely impacts and degrades the entire micro-biotic components of the southern Santa Monica Bay "ecosystem". Provide quantified and modeled justification for compliance with "*Protect and restore important ecosystems", *with regard to all elements of the ecosystem and specifically for nutrient flows through the micro-biotic elements. WIL5-61

2-8/3 Additionally, **surging real estate prices and competition for land** have made acquiring suitable sites that can produce high quality of groundwater with minimum treatment **costly**. If treatment is needed, high land costs compounded with high treatment costs **further discourage retailers and other groundwater right holders** to use such a resource when **more economical imported water is readily available**.

Define/quantify minimal or high treatment and lands and their costs, "discourage", and "imported" from where (including proposed WB Regional Project).
Provide quantified/modeled economic, pricing, and competitive analyses and assessments for real estate, treatment, and water rights (e.g., subsurface property prices/values).
Provide all survey information regarding good/moderate/poor groundwater qualities within WB service areas WIL5-62

2-10/4 Any further investigations...require subsequent interagency agreements between LASAN, LADWP and West Basin for...planning and design, construction and operation of facilities...assignment of **cost responsibilities** for **financing** and operating the project.

Provide drafts for administrative, costs, and financing arrangements, costs, and financing. WIL5-63

2-13/2 The update identifies local water sources as an integral part in achieving sustainability. According to the draft California Water Plan Update, "Recycled water and desalination, which were once cost prohibitive, are now becoming more viable sources." The update states that local projects, such as desalination, have helped "increase regional self-reliance and resiliency" (DWR 2018).
TBR WIL5-64

2-15/2 The 2015 UWMP details how West Basin manages its water supplies and demands under **all hydrology conditions**....demonstrates how West Basin proposes to meet its service area's **retail** demands over the next 25 years and provide long-term water reliability....includes the most recent projections of future water demands for its service area through 2040....concludes that West Basin's projected water demand of approximately **200,000 AFY would be maintained from 2020 through 2040**.
Define/quantify "all" hydrological conditions [including <5in rain/year and higher (10ft)/warmer (+5oF) Bay water levels] and "retail demands".
Provide simple/singular/consistent terminology of MGD or equivalent 548 af/d = 179MGD for public understanding. WIL5-65

2-15/3 **Table 2-1** outlines West Basin's service area projected water supply, according to supply source, from 2020 through 2040. As shown, including conservation, West Basin's water supply would range between 198,000 and 206,000 AFY from 2020 through 2040. As also shown, West Basin is projecting to significantly increase current recycled water supplies as well as invest in over 21,500 AFY of ocean water desalination supply. Combined with an additional increase of conserved supply through water use efficiency programs, imported water use by 2040 is expected to be reduced by 15 percent from 2020 levels.
TABLE 2-1 EXISTING AND PROJECTED WATER AVAILABILITY (AFY)
TBR WIL5-66

2-20/3 **Section 6**, *Other CEQA Considerations*, discusses the **long-term** implications of the proposed Project. Irreversible environmental changes that would be involved in the proposed action, should it be implemented, are considered. The Project's impacts respective to **environmental justice** are evaluated (see Section 2.9 below).
Environmental justice must include clear definition and quantification of customer services receiving identical quality/pressures/flows while paying the same rates/surcharges throughout the WB service area. Provide a specific distribution model for production and customer delivery. WIL5-67

2-29/3 2.10.1 West Basin Pilot Project
....By definition, a pilot-scale facility is an early step in the evaluation process that uses small-scale equipment to test for basic water quality and operating parameters as **cost-efficiently as possible**.
Define/quantify "cost effectively" and "as possible" [doubtful achievement]. WIL5-68

84\2-32/2 Characterizing **phytoplankton** taxonomy at the El Segundo ocean intake
Phyto- is a very limited portion of the ecosystem at only the intake; provide survey/monitoring data for all micro-plankton, nekton, and benthon elements.
Define/quantify "characterizing...taxonomy" vs ecology, biology, biomass, etc.; revise all references o anything related to ecosystems and their biology.
Provide similar information regarding the "outfall", past and proposed. WIL5-69

2-33/3 Technical memoranda included: .... □ TM 7 – **Project Costs and Funding Plan**
Provide complete financial, economic, and costs/pricing/ROI analyses for Project(s) and service areas.. WIL5-70

2-37/1 2.10.10 Subsurface Intake Evaluations\7 ...West Basin has **extensively evaluated** the technical, **economic**, social and environmental feasibility of incorporating subsurface seawater intake (SSI) systems into project design.
Deffine/quantify "extensive evaluations", especially for economic and social aspects related to Environmental Justice in the service areas. WIL5-71

2-39/4 The feasibility of SSI technologies depends on a variety of site-specific conditions and criteria, including hydrogeologic, oceanographic, geochemical and water quality constraints, land use and sensitive habitat, maintenance requirements, and other technical and **economic risk factors and uncertainties**, such as complexity of...**economic viability**.

Provide complete financial, economic, risks & their management, and costs/pricing/ROI analyses for Project(s) and service areas. Define/quantify viability for operational, administration, technical, and fiscal/financial aspects of Projec(s, Local and Rregional). WIL5-72

2-41/5 The **life cycle costs** were also **estimated** for hybrid 40 MGD intake systems consisting of both an open ocean intake... ***and screened*** capacities.... Lowering...rates **could decrease the overall intake costs but it would diminish the economies of scale**....would range between $53 million and $113 million, or $21.2 million and $45.2 million per MGD of capacity....translates to approximately four times of the estimated total costs of the wedgewire screen only option or, on a cost-per-unit-volume-water intake basis, more than 70 times more expensive than the wedgewire screen only option. (**Appendix 2B, Seabed Infiltration Gallery Construction and** Life-Cycle Costs).
Define/quantify *and demonstrate basis for capital, operating, and LC costs comparisons and various incremental flows and screen sizes.* WIL5-73

2-43 Geosyntec **Consultants**, **2016.** Feasibility Assessment of Subsurface Seawater Intakes Proposed Desalination Facility El Segundo, California, **March 2016**.
Geosyntec, ***xxx*** 2017a. Subsurface Seabed Well Construction Costs, Proposed Desalination Facility..., prepared for West Basin Municipal Water District. ***xxx***
Geosyntec ***xxx***, 2017b. Seabed Infiltration Gallery Construction and Life-Cycle Costs, Proposed Desalination Facility..., prepared for West Basin Municipal Water District. **December 2017**.
Provide singular consistent format for all references and citations WIL5-74

2-44/ State...(SWRCB), 2004. **Division of Financial Assistance**, Environmental Review Process Guidelines for ...Loan Applicants, September 2004 at http://www.swrcb.ca.gov/water_issues/programs/grants_loans/srf/docs/appendix_e.pdf **(accessed February 21, 2017)**.
Reference/Source Cited is accessible online, confirm all referenced-cited documents in the DEIR are accessible online or in appendices; provide those that are not. WIL5-75

3-2/6 Potable water produced at the facility would be conveyed to the **existing** local water distribution system through a new conveyance system. The **new conveyance system** would connect to the local distribution system serving the cities of El Segundo, Redondo Beach, Lawndale, Gardena, and Hawthorne and portions of unincorporated Los Angeles County. Proposed distribution pipelines alignments and pump station locations are shown in **Figure 3-5**.
Provide model of entire existing distribution system and their peak/normal/low flow and pressure and the flow charge rates for all service connections, the same for the Project-Local and for the Project Regional. Provide current and local and regional delivered water costs, WIL5-76

3-14/2 **Desalinated Water Conveyance**
New conveyance infrastructure would convey product water from the desalination facility to the existing **distribution system** that delivers potable water to local area and **regional supply feeders owned by MWD**. The closest regional potable water feeder system is MWD's West Basin Feeder located within Manhattan Beach Boulevard and the West Coast Feeder located within El Segundo Boulevard. Both of these regional feeders are fed by the MWD Sepulveda Feeder, which is located within the north-south Van Ness Avenue.
Provide model of entire existing distribution system and their peak/normal/low flow and pressure and the flow charge rates for all feeder connections, the same for the Project-Local and for the Project Regional. WIL5-77

3-14/3 Several conveyance alignment alternatives...as shown in Figure 3-5. From the desalination facility, the new pipeline route would head north on Vista del Mar Boulevard, then slightly east on Grand Avenue, and continue east along El Segundo Boulevard to the intersection with Aviation Boulevard.
Conveyance option alternative alignments could potentially include parallel alignments continuing along Grand Avenue, along Franklin Avenue, or through Chevron's property (see Figure 3-5).
From the intersection of Grand Avenue and Aviation Boulevard, the proposed conveyance pipeline alignment would travel north on Aviation Boulevard to West 120th Street, where it would turn east and **connect to the MWD Feeder at Van Ness Avenue**.
To connect the desalinated water conveyance pipeline to the west end of the existing West Basin Feeder, a pipeline would travel south on Inglewood Avenue from West 120th Street to Manhattan Beach Boulevard.

...pipeline alternative alignments would be routed through various alternative routes to connections along the existing West Basin and West Coast Feeders. The **various pipeline conveyance and alternative conveyance routes** are shown in Figure 3-5.

TBR

WIL5-78

3-18/2 **Desalinated Water Conveyance Facilities**

For the Regional Project, a 48-inch- or 54-inch-diameter Regional Pipeline would be extended from the 54-inch Local Project Pipeline within El Segundo Boulevard to a connection on MWD's existing Sepulveda Feeder on Van Ness Boulevard. The alignment for the Regional Pipeline would be one of the variant alignments shown in Figure 3-5. A regional pump station would also be required somewhere along the Regional Pipeline alignment in order to provide the additional pressure needed to connect to the Sepulveda Feeder. This regional pump station could be sized for up to 67.5 MGD to allow for all flow from the desalination facility to be pumped to the Sepulveda Feeder. The alternative pipeline corridors for the Regional Pipeline and five potential sites for the regional pump station are shown in Figure 3-5.

TBR

WIL5-79

3-33/2 3.6 Regional Project Construction Construction and commissioning of the 60 MGD Regional Project would require approximately 36 months...Commencement of Regional Project construction and precise phasing is unknown and...**determined based upon funding sources, financial partners**, and **specific end users** of the additional water supply beyond 20 MGD. For purposes of the environmental analysis, Regional Project construction is assumed to commence in 2026 and last 36 months.

Provide comparative and quantitative listing of all funding sources, financial partners, and end-users for both the local and regional DeSal elements.

WIL5-80

4.

5.2-22/2 5.2.4 Impacts and Mitigation Measures

Plan Consistency Impact AQ 5.2-1: Would the Project conflict with or obstruct implementation of the applicable air quality plan?

According to the SCAQMD's CEQA Air Quality Handbook, the purpose of the consistency finding is to determine if a project is inconsistent with the assumptions and **objectives** of the regional air quality plans, and thus if it would interfere with the region's ability to comply with federal and state AAQS. Growth assumptions within the AQMP are based on growth assumptions and land use designations included within local general plans.

TBR

WIL5-81

5.3-2/4 ***Clean Water Act Section 401*** Applicants for a federal license or permit for activities that may discharge to waters of the United States must seek Water Quality Certification from the state or Native American tribe with jurisdiction.\2 Such certification is based on a finding that the discharge would meet water quality standards and other applicable requirements. In California, Regional Water Quality Control Boards (RWQCBs) issue or deny Certification for discharges within their geographical jurisdiction. Water Quality Certification must be based on a finding that the proposed discharge would comply with water quality standards, which are defined as **numeric and narrative objectives** in each RWQCBs Basin Plan. Where applicable, the State Water Resources Control Board (SWRCB) has this responsibility for projects affecting waters within the jurisdiction of multiple RWQCBs. The RWQCB jurisdiction extends to all waters of the state and all waters of the United States, including wetlands.

TBR

WIL5-82

5.3-1\FN1 \1...West Basin intends to apply to the State Revolving Fund (SRF) Program, environmental review of the project must comply with **CEQA-Plus requirements**....must comply with the **federal ESA**,....

Provide references for CEQA-Plus and differences between standard and "-PLUS".

WIL5-83

5.3-9/2 ***Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties***

The Los Angeles Region Basin Plan (Basin Plan) was adopted by the Los Angeles RWQCB in 1994. The Basin Plan's purpose is to preserve and enhance water quality and also protect the beneficial uses of all regional waters. As such, it designates the beneficial uses for surface and ground waters, sets objectives to protect those uses, and describes implementation procedures to protect all waters within the Los Angeles region. The Thermal Plan and Ocean Plan are incorporated into the Basin Plan by reference.

TBR

WIL5-84

5.4-1/1 **5.4 Cultural Resources**
This section describes the applicable laws and policies relating to cultural resources, discusses environmental settings of cultural resources in the Project area, and evaluates potential environmental impacts associated with implementation of the proposed Project. This section also includes a discussion of tribal cultural resources to fulfill California Environmental Quality Act (CEQA) requirements.

Incomplete and inadequate section; entire sector setting, assessment and mitigation disregards offshore archeological potential and any review of available borings
Sector setting and supporting appendices do not mention available historic - 1923-1943 aerial photos (EDR) which are commonly reviewed for historic structures, land uses, and potential sources of hazardous land uses and contaminations.
No discussion of cultural resources below sea level related to past or project borings.
Revise entire Section, witthdraw/revise/recirculate entire DEIR. WIL5-85

5.4-16/2 During the 1920s,...decided a publically owned **electrical system** made economic sense and began purchasing...of...**Edison's distribution network**. By 1939, "the City...reached an agreement,...all Edison **generating and delivery facilities** within...city limits...."
5.4-16/3 During the 1920s, most of the power...generated by hydroelectric plants.... **City's**...knew additional power plants...needed....Bureau began...construction of a steam plant in Wilmington...(Prosser 2017).
5.4-16/4 Construction began on the Harbor Plant in 1941–42,....Unit Number One came on line in 1943....Unit Number Two was not completed until 1947. Three more units...by 1950. With its boilers designed to burn either natural gas or fuel oil, the Harbor Plant was a preview of the direction...in the postwar years (Prosser 2017).

Provide relevance of Wilmington discussion to the Project. Provide historic aerial/satellite photos/image (e.g., EDR photos) for the Project site from 1923-2015 and physical changes of the site. WIL5-86

5.4-24/5 Geoarchaeological Conclusions Based on this geoarchaeological review,...the **offshore screened intake facility** are underlain by sediments deposited during the **Late Pleistocene/Early Holocene**, which encompasses the prehistoric use of the region, and thus harbor the **potential to encounter buried archaeological deposits**. The **western** portion of the proposed conveyance pipeline and alternative pipeline alignments are **underlain by sediments that were deposited and stabilized during the Pleistocene**, ~~**PRIOR TO THE PEOPLING OF NORTH AMERICA**~~, and have **lower potential for the presence of buried archaeological deposits**.

Prehistoric archeological sites/resources (several sites in Wyoming, New Mexico, East Coast, etc.) have been dated before 12,000 yr BP and well into the Pleistocene. "Prior..."statement is not based on facts presented and appears to conflict/contradict statements in appendices (e.g., "have the potential to contain cultural remains***").***
As no numerical age dating or interpretations have been provided, this statement is either erroneous or prejudiced, not based on facts provided.
Withdraw entire section, revise all material, and recirculate as supplemental/subsequent DEIR. WIL5-87

7B-1/3 During the last Ice Age...sea level was **substantially lower** than current conditions (approximately -120 m...[) and the **coastal plain in the vicinity of the project site extended several miles offshore** of its current location. ....project site was well inland at the Late Pleistocene/Early Holocene transition....an outfall that will extend 1,000 feet...will be sited on part of the continental shelf that was inundated **since the end of the last Ice Age.**
7B-2/3 The eastern portions of the proposed conveyance pipeline and alternative alignments are underlain by Young Alluvium (Qae) deposits that include floodplain deposits originating from Dominguez Creek as well as alluvial fan deposits. Dominquez Creek may have been a locus of human activity throughout prehistory due to the **periodic fresh water** and plant and animal resources it may have provided. Accumulation of deposits through alluvial processes **have** the potential to have buried archaeological remains, suggesting that these landforms have a higher sensitivity to contain buried, intact archaeological sites.
7B-2/5 The offshore portion of the ocean water intake system which includes the construction of a screened intake facility located 2,500 feet west of the proposed desalination facility is underlain by Pleistocene sedimentary deposits (Qps). Marine borings **near the coastal margin near the ESGS Facility** have been interpreted as "Recent and Upper Pleistocene" (Holocene and Late Pleistocene) dune sands (California State Lands Commission, 2016). Since current sea level was established approximately 4,000 years ago, the offshore portion appears to have the **potential to contain cultural remains** dating between approximately 12,000 and 4,000 years ago.

Mitigation must include:
Borings/analyses and remote-submersible/diver surveys for boring locations and excavations;
Additional borings / geophysical profiling of 10ft of bottom sediments, -100 - -200ft depths/elevations;
Radiocarbon dating of Holocene/Post-Pleistocene or years 12K-4K. WIL5-88

5.4-52/2-55 **5.4.7 Sources Cited**
5.4-52/2 - 55 5.4.7 Sources Cited
BCR Consulting, LLC, **2016**. Cultural Resources Assessment: West Basin Ocean Water Desalination Project, **March 18, 2016**.
Bean, Lowell John, and Charles R. Smith. Gabrielino, **1978**. **In** *California*, edited by Robert F. Heizer, pp. 538-549. Handbook of North American Indians, **Vol. 8**, William C. Sturtevant, general editor, Smithsonian Institution, Washington, D.C., **1978**.
Bickel, Polly Mcw, **1978**. Sea Levels Along the California Coast: Anthropological Implications. **In** *The Journal of California Anthropology*, 5(1):6-20, **1978**.
Reports cited are not available to the public in appendices or online; provide for direct public access not as part of a Public Records Act request.
Provide single format and consistent terms for references and citations throughout the DEIR. WIL5-89

5.5-3/2 The Clean Energy and Pollution Reduction Act of 2015,...approved by Governor...does the following:
(1) increases the standards...by requiring that the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources be **increased to 50 percent**...;
(2) requires...to establish annual targets for statewide energy efficiency savings and demand reduction...achieve a cumulative **doubling of statewide energy efficiency savings in electricity**...final end uses of retail customers...;
(3) provides for the evolution of the Independent System Operator into a regional organization; and
(4) requires the state to reimburse local agencies and school districts for certain costs mandated....
Among other objectives, the legislature **intends to double the energy efficiency savings** ...end uses of retail customers through energy efficiency and conservation (SB-350 Clean Energy and Pollution Reduction Act 2015).
TBR WIL5-90
5.5-10/6 Because of increasing transportation costs and fuel prices, contractors and owners have a **strong financial incentive** to avoid wasteful, inefficient, and unnecessary consumption of energy....growing recognition...that sustainable...11/1...construction is not prohibitively expensive, and...significant cost-savings potential in green building practices and materials.
Define/quantify analyses for Strong, Financial, Incentive, Prohibitively, & Expensive. WIL5-91

5.5-14/3 **Local and Regional Projects Construction-Related and Operational Impacts**
All Project Components While there are **no local or regional energy conservation plans** that are directly applicable to the Project, the 2017 Scoping Plan Update does include **high-level objectives and goals intended to reduce energy demand**...in the context of developing "more reliable water supplies...provided by a **more resilient, diversified, sustainably managed water resources system.**"...how the state is currently implementing several targeted agricultural, urban, and industrial-based water conservation, recycling, and water use efficiency programs as part of an **integrated water management effort** that will **help achieve** GHG reductions through reduced energy demand within the water sector.
Too "high level", rendering the discussion totally inadequate, if no incomplete and unqua. WIL5-92
Define/quantify "help achieve"
Define/quantify "more resilient, diversified, sustainably managed", WIL5-93
Sub-Sector is inadequately presented and requires withdrawal/revision/recirculation. WIL5-94

5.6-11/1 **Strong Seismic Ground Shaking**
The nearest active **fault** to the proposed ocean water desalination facility, screened ocean intake, and concentrate discharge sites **are** ...
Newport-Inglewood Fault Zone,...6 miles to the east of the proposed desalination facility and about 2,000 feet northeast of the northeastern end of the proposed new conveyance pipeline alignment...
Palos Verdes Fault Zone...1.8 miles west of the western end of the intake and discharge pipes....
Newport-Inglewood Fault Zone ...generating earthquakes **in excess of** 6.9 **Mw**,...Palos Verdes Fault Zone...**between 6.0 and 7.0 Mw or greater** (**SCEDC 2016**).

5.6-27 Southern California Earthquake Data Center (SCEDC), 2016. *Significant Earthquakes and Faults, Palos Verde Fault Zone*, http://scedc.caltech.edu/significant/palosverdes.html, October 26.

Setting must relate service areas and distribution networks to be supplied by Local and Regional Project elements and expected seismic forces for design and operations following a seism., a map would be nice. WIL5-95

Inadequate reference to SCEDC requires greater specificity and indicates the preparers are aware of the source but failed to make use of such for locating recorded earthquakes: on- and offshore and around and beneath the Project or Program (see tables) related to the named and unnamed faults. WIL5-96

Sub-Sector is inadequately presented and requires withdrawal/revision/recirculation. WIL5-97

5.6-11/2 **Peak Ground Acceleration and Seismic Soil Class**

The 2016 California Building Code...recommends that the design of structures be based on the risk-targeted maximum considered earthquake (MCER) and design response spectrum.... equal to two-thirds of the MCER spectrum...not include near-source factors that may be applicable to the design of structures on-site.

No recommended design MCER/DRS

No mention of SCEDC on-line catalogues. No assessment of reported seisms to known or unknown fault planes beneath the Project/Program, e.g., 1940/11/01 07:25 4.18RM 33.84283 -118.46467 6.0km depth 22,000ft offshore of RdB and 1988/09/12 13:24 4.04RM 33.86700 -118.45700 3.1km depth 8000ft offshore.

Sub-Sector is inadequately presented and requires withdrawal/revision/recirculation.

Provide basis and distinctions for use of "in excess of" or "or greater".

Provide existing 1932-Date seismic records and their most likely fault planes from SCEDC.

Sub-Sector is inadequately presented and requires withdrawal/revision/recirculation. WIL5-98

5.9-39/3 Additionally, Santa Monica Bay is susceptible to the effects of near-field (near-vicinity) tsunamis...and/or a large earthquake on any of the nearby faults....Palos Verdes fault zone,...northwest off the Long Beach...coast, the San Pedro Basin fault zone, and Santa Cruz-Santa Catalina Ridge fault zones (see Section 5.6, *Geology, Soils, and Seismicity*, for additional details)....The ESGS site is immediately adjacent to, but is located outside of, the tsunami inundation hazard zone,...(**Figure 5.9-3**).

Does not include offshore facilities, and zone was established based on historic sea levels without adjustments for current sea level rises. WIL5-99

Provide revised, quantified, illustrated inundation for 2040 and with major epicenter at <10,000ft below surface. WIL5-100

5.9-4/1-2-3 Army Corps of Engineers (USACE) is the permitting agency for ocean disposal of dredged material. The transportation of dredged material for disposal into ocean waters is permitted by USACE only after environmental criteria established by USEPA are applied....USEPA manages three ocean disposal sites off Southern California that qualify under this criterion: LA-2 off the ports of Los Angeles and Long Beach, LA-3 off Newport Beach, and LA-5 off San Diego Bay....restricted to the disposal of suitable (clean) dredged material only. Dredge disposal for the Project has the potential to occur only at LA-2.

TBR WIL5-101

5.9-4/2 ...requirements of the Site Management and Monitoring Plan, required for all ocean dredged material disposal sites, as well as the compliance and enforcement provisions of the MPRSA regulations themselves, apply to all projects using LA-2, including projects which have received an “ocean dumping permit” issued by USACE under Section 103 of the MPRSA,as well as federal projects conducted by or for USACE. The LA-2 disposal site is located on the outer continental shelf margin, at the upper southern wall of San Pedro Sea Valley, at depths from 380 to 1,060 feet (110 to 320 meters), about 6.8 miles (11 kilometers [km]) south-southwest of the Queens Gate entrance to the Los Angeles/Long Beach Harbor. A comprehensive description of physical, chemical, and biological characteristics of the sediments and water column...FEIS (USEPA 2005).The objectives for management of all the southern California ocean disposal sites include:

- Protection of the marine environment
- Beneficial use of dredged material whenever practical
- Documentation of disposal activities...achieve these objectives by jointly administering the following activities:

regulation and administration of ocean disposal permits;
ensuring suitability of dredged material for ocean discharge; pre-dredge sediment evaluations;
project-specific compliance tracking of disposal operations; evaluation of permit compliance and monitoring results;
implementation of a site monitoring program, and periodic review of the Site Management and Monitoring Plan.

Management decisions about the suitability of dredged material for ocean disposal are guided by criteria in the MPRSA and USEPA's Ocean Dumping Regulations; guidance on specific aspects of these regulations is provided in Ecological Evaluation of Proposed Discharge of Dredged Material into Ocean Waters (the "Ocean Testing Manual"; USEPA/USACE 1991), or subsequent national updates.
TBR

WIL5-102

5.9-47/3 Prior to constructing the **connections between existing and new pipelines**,
TBR

WIL5-103

5.9-47/4 5 Mitigation Measures: Implement Mitigation Measure HAZ-5 for impacts to the screened ocean intake and concentrate discharge facilities. **No mitigation measures are required for other facilities**.
Local Project Significance Determination: Less than Significant with Mitigation Incorporated.
TBR

WIL5-104

5.9-56/1 Given that the proposed **operational discharge** would not increase the total load of constituents in Santa Monica Bay receiving waters as compared to ambient conditions, nor violate NPDES effluent limits, the water quality impact associated with the **discharge of brine** would be less than significant. \21
\21 Given that the proposed operational discharge would **not increase the total load** of constituents in Santa Monica Bay receiving waters as compared to ambient conditions,
nor violate NPDES effluent limits, the water quality impact associated with the discharge of brine would be less than significant.
TBR

WIL5-105

5.9-80 5.9.7 Sources Cited

AMS, 2018. Dissolution Estimate of Copper: Nickel Corrosion from Wedgewire Screens ***xxxx***.
Arcadis, 2013. Ocean Water Desalination Program Master Plan (PMP), **January 2013**.
California Climate Action Team, 2010. Sea-Level Rise Task Force of the Coastal and Ocean Working Group, State of California Sea-Level Rise Interim Guidance Document, **October**.
California Coastal Commission **(CCC)**, 2015. Sea-Level Rise Policy Guidance.....
California Coastal Commission ***xxx***...,2017.California's Critical Coastal Areas. Managing impacts of polluted runoff in key watersheds to protect and restore coastal waters ***xxx***.
California Coastal Commission **(CCC)**, 2017. California's Critical Coastal Areas. Managing impacts of polluted runoff in key watersheds to protect and restore coastal waters.
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City of El Segundo, *City of El Segundo General Plan* **(1992, updated 2009)**. Land Use Element. Accessed September 11, **2015.**
City of El Segundo, 2015. Emergency Management Division, *City of El Segundo Hazard Mitigation Plan*, January 2015. **City of Los Angeles, 2017. City of Los Angeles Stormwater**
Provide singular consistent format with direct public access, same as above.

WIL5-106

...p.5.9-81 Program: Santa Monica Bay Watershed. Accessed online November 10, 2017 at: http://www.lastormwater.org/about-us/about-watersheds/santa-monica-bay/
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California **State Lands Commission** (SLC), 2010. Final Draft Environmental Impact Report for the Chevron El Segundo Mahrine Terminal Lease Renewal Project. State Clearinghouse No. 2006031, CSLC EIR No. 735.
Dawoud, Mohamed A. and Mohamed Al Mulla, 2012. *Environmental Impacts of Seawater Desalination: Arabian Gulf Case Study*, International Journal of Environment and Sustainability, Vol. 1 No. 3, pp. 22 - 37. 2012.
California **Dept**. of Water Resources (DWR), 2004. Coastal Plain of Los Angeles County Groundwater Basin, West Coast Subbasin. South Coast Hydrologic Region, Coastal Plain of Los Angeles Groundwater Basin. California's Groundwater Bulletin 118
California Dept. of Water Resources (DWR), 2013. Alluvial Groundwater Basins and Subbasins within the South Coast Hydrologic Region. Department of Water Resources, CWP 2013.
California Dept. of Water Resources (DWR), 2009. California Water Plan Update 2009.
South Coast, Integrated Water Management. Bulletin 160-09. Regional Reports, Vol. 3. **DWR,** 2004. South Coast Hydrologic Region Coastal Plain of Los Angeles Groundwater Basin.

Coastal Plain of Los Angeles County Groundwater Basin, West Coast Subbasin. California's Groundwater Bulletin 118.
Provide singular consistent format with direct public access, same as above. WIL5-107

5.9-82
LARWQCB, 1994. *Water Quality Control Plan: Los Angeles Region*. Basin Plan for the Coastal Watersheds of Los Angeles and Ventura County.
Matthew Heberger, Heather Cooley, Pablo Herrera, Peter H. Gleick, and Eli Moore, 2009. The Impacts of Sea-Level Rise on the California Coast. Pacific Institute, May 2009.
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Rogowski, P.A., et al. An assessment of the transport of southern California stormwater ocean discharges. Mar.Pollut.Bull.**(2014)**, http://dx.doi.org/10.1016/j.marpolbul.2014.11.004.
Provide singular consistent format with direct public access, same as above. WIL5-108

708\5.11-6/2 **Marine Life Protection Act...**was adopted in 1999 to protect **ecosystem structure and function**.
708\5.11-6/4 **...**works in concert with the MLPA by advancing fishery management as an important element of **ecosystem integrity and sustainability**. Under the ***MLPA...***, implementation of the **California Nearshore Fisheries Management Plan** and the **California Market Squid Fisheries Management Plan** affect fish species found in Santa Monica Bay.
Define/provide quantified ecosystem model to relate affected trophic/nutrient levels with the support of fisheries and squid populations. WIL5-109

709\5.11-7/2 Under the California Coastal Act, "environmentally sensitive area means any area in which **plant or animal life or their habitats** are either rare or especially valuable because of their **special nature or role in an ecosystem** and which could be **easily disturbed or degraded by human activities and developments**" (PRC Section 30107.5).
Define/provide quantified ecosystem model to relate affected plant/animal/biotic/nutrient levels with the support of fisheries and squid populations. WIL5-110

710\5.11-8/2 The basis for water quality objectives...protection of beneficial uses designated for each section of coastline by RWQCBs. The designated beneficial uses relevant to marine resources...are as follows:
 Marine Habitat – Uses of water that support **marine ecosystems**...marine habitats, **vegetation**..., fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).
 Shellfish Harvesting – ...support habitats suitable for the collection of **filter-feeding shellfish** (e.g., clams, oysters, and mussels)...includes waters that have in the past, or may in the future, contain significant shell fisheries.
Define/provide quantified ecosystem model to relate affected trophic groups - plant/animal/biotic/nutrient levels with the support of fisheries and squid populations and higher predator/trophic levels. WIL5-111

717\5.11-15/2 **Subtidal Benthic Habitats** Two subtidal (submerged) types of **benthic habitats** occur in the marine study area: soft substrate (sandy) and hard substrate (rocky).
717\5.11-15/3 **Sandy Subtidal** The **benthic invertebrate infauna**...marine ecosystem. The organisms...food source for fish and other larger invertebrates,...contribute to nutrient recycling and detoxification of pollutants (MBC 2017). Some species are highly sensitive to effects of human activities,... community abundance and

composition because it determines sediment disturbance (through wave energy and burrowing by organisms), oxygen content, and food availability. In turn, the **organisms** affect the environment through...**predation**.
Define/differentiate benthic and infauna invertebrates
Not all organisms "predate"...plants, bacteria, worms, etc.

WIL5-112

717\5.11-15/4 The **benthic infaunal communities**...assessed continuously as part of the NPDES discharge permit monitoring for the ESGS. The most recent assessment in 2015 reported...**benthic infaunal community** consists **primarily** of mollusks (clams and snails), small annelid worms, arthropods (primarily amphipods and other small crustaceans), nemerteans, and nematode worms (Table 5.11-1)....listing of the 30 **most abundant infaunal taxa** observed...in 2015 (MBC 2017). The infaunal community inhabiting the **deeper** stations (B5-B8)...were reported to be **more diverse** and have **higher individual species abundances** than...at the sampling locations located **closer** inshore (B1-B4).
717\5.11-15/4 At the **deeper** stations the **most abundant organisms** were the clam..., nematode worms, the nemertean worm..., and the annelid.... **shallower** stations **the most abundant organism** was the annelid....
717\5.11-15/5 These **taxa** were **consistent** with those that have been encountered in the marine study area since **1990 (MBC 2017)**.
717\5.11-15/6 Benthic **macrofauna**...invertebrate species that live on the bottom sediments or are demersal organisms...immediately above the seafloor....**tend to be mobile** scavengers and predators, ...distributions **can be** patchy and **highly variable between locations and seasons**. Trawl sampling conducted offshore of the ESGS between 1978 and 2013 have documented...a number of different **macroinvertebrate** species **(MBC 2017)**.
723\5.11-21/3 Northern anchovy...important component of...**ecosystem**. Anchovy eggs and larvae are prey for vertebrate and invertebrate planktivores. Juveniles in nearshore areas support a variety of predators, including birds and other fishes.
753\5.11-51/2 Based on results compiled from **field sampling by Tenera and MBC (2008)** in the **vicinity of the ESGS**, larvae from 12 different species/groups of fish **were used to scale the ESGS ETM results to estimate proportional mortalities (Table 5.11-8) to the proposed Local and Regional Project intake volumes (HDR 2018; Appendix 4D)**. These mortalities were then used to calculate the potential impact that **entrainment of larval fish and invertebrate taxa** could have on the **marine ecosystem** in terms of **loss of energy transfer from one trophic level to another**, and **overall loss of productivity of the Project**.... **This loss** is referred to as the **area of production foregone (APF)** and this **projected loss** must be compensated for through a fee or habitat restoration, in accordance with the OPA.
Define/differentiate benthic and infauna invertebrates
Define/quantify "continuously", primarily, most abundant, taxa vs animals, more diverse, deep, higher... abundance, deeper, closer, "a number", taxa-macrofauna-organisms, sampling-trawls, mobile, patchy, highly, mega-meso-micro-nanno-"macroinvertebrate"
Withdraw-revise-recirculate entire biotic and ecosystem discussions.

WIL5-113

2-23/2 In addition, the **Environmental Justice** analysis complies with CEQA-Plus requirements; refer to Section 6.3, *Environmental Justice*.
6-9/3 6.3 **Environmental Justice** ...section discusses the environmental justice issues pertaining to the Project and evaluates the **potential for** the Project to **disproportionately affect** minority and low-income populations.
6-9/3 6.3 Environmental Justice The following section discusses the environmental justice issues pertaining to the Project and evaluates the potential for the Project to disproportionately affect minority and low-income populations. Data presented in this section was obtained from two data sets from the U.S. Census Bureau 2011–2015 American Community Survey (ACS) 5-year estimates.
6-10/2 As a result, the **city of El Segundo (desalination facility) and the city of Hawthorne** (pump station) are the only cities where aboveground infrastructure would be implemented. The aboveground facilities include the ocean desalination facility and the proposed regional pump station....total population of individuals within these census tracts is 15,796. **Table 6-2** lists all of the census tracts affected by the Local Project and Regional Project facilities and the **City of Manhattan Beach** tract....
Clearly define all census tracts and their service areas and their related EJ characteristics and provide models changes of pressure, flow, quality, and rates for local and regional Project elements.

WIL5-114

6-12/4 6.3.3 Significance Thresholds and Criteria
For the purposes of this EIR and consistency with NEPA or CEQA-Plus Guidelines, applicable local plans, and agency and professional standards, the Proposed Project would be considered to have a significant effect on environmental justice if it would:
 Affect...health or environment of minority or low-income populations disproportionately. ***?????? No. 2 ????***
Clearly define all census tracts and their service areas and their related EJ characteristics and provide models changes of pressure, flow, quality, and rates for local and regional Project elements. WIL5-115

6-13/1 Impacts and Mitigation Measures **Generally speaking**, **operation** of proposed facilities including desalination facilities and the pump station, would not create **localized impacts that could negatively** affect the surrounding environment or community public health **(as evidenced in the analyses provided in other sections of this EIR)**.
Define/quantify "Generally speaking", evidenced, localized, negatively vs adversely. WIL5-116
Provide evidence and references to specific page/paragraphs.
Provide service operation effects analyses and assessments for supply quality, pressures, and flows by neighborhood and census tract. WIL5-117
Clearly define all census tracts and their service areas and their related EJ characteristics and provide models changes of pressure, flow, quality, and rates for local and regional Project elements. WIL5-118

6-13/2 Based...**Local Project and Regional Project components** in the cities of El Segundo and Hawthorne would not be **located** in areas with significantly larger minority and/or low-income populations on average, relative to the overall characteristics of their respective cities....During **operation** of the Local and Regional Projects, residential areas would not be significantly impacted because the **location of the ocean water desalination facility would be within an existing power generating facility site**.
No service area impacts are assessed for effects, detriments, benefits, and equitable distribution of supply quality, pressures, and flows by neighborhood and census tract.
Provide service area changes for supply reliably, quality, pressures, and flows by neighborhood and census tract. WIL5-119

6-13/3 **Operation** of the proposed pump station ***could*** occur...on vacant and/or disturbed land. **Even though**...could be located within an area of the **city of** Hawthorne...area is not considered to have a significantly high minority population...within 10 percent of the overall **city's** minority population percentage....Local and Regional Project would not be within areas significantly characterized by low income or minority populations. **Nonetheless, the location of such facilities in areas characterized by minority or low income populations would not adversely affect the environment or public health of such communities.** Impacts are considered less than significant.
Pumps cr*eate pressure and increase flows. Provide distribution model for current, local, and regional project elements showing distribution flows, pressures, and qualities and especially for periods of 7am-10pm and 11pm-6am.* WIL5-120

7-1/2 Section 7.2, *Initial Screening of Alternatives*: This section incorporates a brief discussion of eight alternatives which were determined to fail to meet the objectives of the Project and/or are clearly infeasible. Thus, they were rejected from further evaluation.
 Section 7.3, *CEQA Alternatives*: This section addresses the No Project Alternative and three alternatives which have been determined to meet the basic Project objectives and/or avoid or substantially reduce the Project's significant and unavoidable impacts;
these may be considered by the West Basin Board of Directors during Project deliberations.
These alternatives' impacts are analyzed for each environmental issue area, as examined in Sections 5.1 through 5.15 of this Environmental Impact Report (EIR). In this manner, each alternative is compared to the proposed Project on an issue-by-issue basis.
TBR
7-3/2 **7.1.2 Project Objectives** The Project objectives...as introduced in Section 3 are to:
1. Diversify West Basin's water source portfolio to increase **reliability** in the near and intermediate term...and the long term...while reducing **reliance** on imported water.
2. Improve water **security** through West Basin's increased local control of water supplies and infrastructure.
3. Improve West Basin's local control of **future water costs and long-term price stability**.

4. Improve **climate resiliency** by developing a water source that is **less susceptible** to **hydrologic variability**.
5. Develop a potable water supply that is **economically viable and environmentally responsible**.
Define and provide quantitative analyses for
Reliability, Reliance, Security, Stability, Resiliency, Susceptible, Variability , Viable, Economically, Responsible... WIL5-121

7-6/1 1. Potential to achieve at least **21,500 acre-feet per year (AFY)**...additional potable water supply
2.***=O1+2.*** Potential to contribute to **enhanced reliability** in the near, intermediate and long terms
4. Legal and institutional **feasibility** (...allowable in California and **institutional obstacles can be overcome**)
5. Physical siting requirements (site is of an appropriate size)
8. Site availability
6. **Proven technology**
7. *=O3+5* Economic feasibility (i.e., that costs are clearly anticipated to not be exorbitant)
3.***=O1-5*** Potential to meet the **majority of Project objectives**
9. Potential to reduce impacts compared to the proposed Project
Provide throughout the DEIR consistent and publicly accessible flow units, MGD, with standard conversion from #1 MGD vs AFY 43560cf x 7.28 x 21500 / 365 58.904 19 MGD
Provide listing of legal and institutional issues/obstacles, their feasibility, and allowable, e.g., #4-DPR. WIL5-122

7-7/2 Since 1992,...implemented successful water conservation programs to reduce water demand within its **service area**.\6 ...Basin's eight retail agencies maintain and/or promote conservation programs which reduce water waste and manage demand, including passive conservation modifications to existing city ordinances pertaining to water use (West Basin 2016)....**Table 7-3** provides a listing of the programs West Basin administers and the level of participation of its retail customer agencies.
TBR WIL5-123

7-9/1 When comparing average water use by West Basin **retail agencies** during the period of 2006 through 2010, there was a 16 percent reduction in actual 2015 water use. When comparing 2015 actual water use with SBX7-7 GPCD targets, water use was below both the 2015 interim and 2020 GPCD targets for both the **West Basin Regional Alliance and other retail water agencies** in West Basin's service area.7 As shown in **Figure 7-1**, its **service area**'s historical water use, including Commercial, Industrial, and Institutional (CII) water use in GPCD has followed a downward trend despite an increasing population since 1990. The decline is a result of the long term conservation effort as well as the recycled water programs implemented by West Basin. Furthermore, the residential GPCD (R-GPCD) data (available since 2014) show that the current residential water use is very low for 2014, 2015, and 2016 at 97, 83, and 79 GPCD, respectively. These averages were lower than the average R-GPCD for South Coast by 24 percent, 10 percent,and 18 percent for the same years (SWRCB 2017).
TBR WIL5-124

7-13/2 Another factor....is the demographic and **economic makeup of West Basin's service area**. Several of West Basin **retail customer agencies have significant numbers of low income residents**. According to 2010 Census data,...residents living in the cities of Lomita and Inglewood are **below the federal poverty line**. Both cities have water use around or below 100 GPCD in 2015 and according to their individual 2015 UWMPs, both are projected to remain around the current number or lower in the future. The city of Hawthorne, another West Basin retail customer agency, has a total population of approximately 88,000 with 19 percent of its residents **below the federal poverty line** (2010 US Census). Low-income residential areas typically have very limited landscape and limited opportunities to save water without reducing to very low levels of indoor use. **Recent studies have found that the primary driver of water use in Los Angeles County is household income and there are clear differences in water use between more affluent areas and economically poorer areas (Mini 2013)**. This is evidenced by the **very low GPCD rates for all the cities** noted above. Specifically, during the recent drought, the City of Hawthorne reported to the SWRCB in June 2016 a residential GPCD of 62 (SWRCB 2016). This is just 12 GPCD above the minimum assumed health and safety level for indoor use (SWRCB 2016).
TBR
Include comparisons for Renters vs Owners. WIL5-125

7-13/3 The **reliance** on obtaining more water savings from **these low-income communities** that are already at **very low GPCD levels** may raise concerns over Environmental Justice issues....that "[w]hile this provision does not include the words 'environmental justice,' in certain circumstances, it can require local agencies to undertake the same consideration of **fairness in the distribution of environmental benefits and burdens**." Under the Increased Conservation Alternative **obtaining significantly more water conservation** from these **economically**

disadvantaged communities would impose an additional burden and would raise issues of fairness in water use requirements.
Include comparisons for Owners vs Renters and Unit metering. WIL5-126

7-14/2 Screening Criteria Achieving additional conservation over the current 2015 UWMP projection in the amount contemplated under this alternative (21,500 AFY) would increase the risk of shortages since this alternative would require West Basin to depend on the actions of its retail water agency customers who in turn are relying on West Basin to maintain water supply reliability. As implementation of this alternative would largely fall upon West Basin's retail agencies, the reliability of this alternative would be largely outside of West Basin's control. According to the 2015 UWMP, the active and passive conservation programs currently in place are already anticipated to yield a conservation savings of approximately 42,773 AFY annually by the year 2040 (SWRCB 2016). There has been a significant level of demand hardening in West Basin's service area due to the industrial uses of recycled water, currently low consumption levels in lower income areas, and other factors.
TBR WIL5-127

7-16/3 ...City of Los Angeles published...(Stormwater Plan) to analyze the **cost-effectiveness** of stormwater capture (Geosyntech Consultants 2015)....estimates that the potential offset of imported water in the **city** of Los Angeles through stormwater capture is **1,000 AFY** by 2020 and **7,000 AFY** by 2035 based on the **city**'s area of 503 square miles. Given that West Basin's service area is approximately 185 square miles, 63 percent smaller than the **city**, the stormwater capture potential is expected to be significantly lower than what the **City** has envisioned as accomplishable which would amount to a **fraction** of the 21,500 AFY amount necessary for an alternative to the Project.
City/city refers to Los Angeles City use: City; use rainfall rather acres, AFY, Sq Mi, percentage; one foot of rain/yr x 1000sqf roof/house = x 44 houses = one acre-foot = 0.326 MGY...0.009MGD,
Convert AFY to MGD WIL5-128

7-19/1 **AWT** for groundwater injection: 13,014 **AFY** (11.6 **MGD**)
Convert AFY to MGD. WIL5-129

7-20/1 UWMP **anticipates** that future recycled water supplies and demand will increase as a result of planned system expansions, new applications, increasing public acceptance, and **financial incentives**.
No references, no definition of "anticipates".
No definition of financial incentives and no analyses of financial analyses for the entire EIR. WIL5-130

7-40/2 Develop a potable water supply that is **economically viable** and environmentally **responsible**: The No Project Alternative is inherently much more uncertain than the Proposed Project in its ability to develop a potable water supply that is **economically viable** and environmentally responsible....number of agencies that will participate **financially** in WaterFix and the **cost to member agencies of MWD** is **uncertain** at this time. Although WaterFix is intended to be environmentally **responsible**, current conflicts between SWP water operations and listed and threatened species continue to exist. Therefore, **continued dependence** on imported water supply would not **satisfy** this Project objective....
Financial/economic/costs assessments and quantifications are totally incomplete, inadequate, and erroneous. Provide such for both Local and Regional Project elements.
No definition/quantification of viable, responsible, uncertain, dependence, and satisfy; provide such for both Local and Regional Projects and for comparisons of alternatives.
The EIR states that economics, finance, price, costs are part of the Project objectives but without any such info. Please provide a thorough Economic assessment as the Project Objectives and various points in the text and appendices.
Please include pricing and profitability for rate payers and ROI for each major service area (>10) and regional units. WIL5-131

2016 BCR Consulting 19-190098 pd-p.23 *B12. References: McAlester and McAlester, A Guide to American Houses, 1991; City...Building Permits; County...Los Angeles Assessor's Office records; Historicaerials.com; El Segundo Power Generating Station website; NRG Energy Inc. website, **oral interview Eddie Daniel, employee.**
http://westbasindesal.org/assets/Documents%20and%20Files/Project%20Materials/draft-eir/appendices/Appendix_7A-Cultural_Resources_Assessment.pdf
Provide PC transcript or remove WIL5-132

Apdx.7B-2 References

Bickel, Polly McW., 1978, Sea Levels Along the California Coast: Anthropological Implications. The Journal of California Anthropology 5(1):6-20.

California State Lands Commission, California Shipwreck and Historic Maritime Resources Program, http://www.slc.ca.gov/Info/Shipwrecks.html, Accessed April 15, 2016.

Reference provides only general accessibility without any relevant information. WIL5-133

Dibblee, T.W., and J.A. Minch, 2007, **Geologic map of the Venice and Inglewood quadrangles**, Los Angeles County, California. Dibblee Foundation Map DF-322, scale 1:24,000. Dibblee Geological Foundation.

Reference provides geologic map without locating the project, not publicly accessible. WIL5-134

Erlandson, John M., 1985, Early Holocene Settlement and Subsistence in Relation to Coastal Paleogeography: Evidence from CA-SBA-1807. Journal of California and Great Basin Archaeology 7(1):103-109.

Reference provides geologic map without locating the project, not publicly accessible. WIL5-135

7B/3

Jones, Terry, 1991, Marine-Resource Value and the Priority of Coastal Settlement: A California Perspective. American Antiquity 56(3):419-443.

Saucedo, George J., H. Gary Greene, Michael P. Kennedy, and Stephen P. Bezore, 2016, Geologic Map of the Long Beach 30' x 60' Quadrangle, California. California Department of Conservation.

Yerkes, R.F., T.H. McCulloh, J.E. Schoellhammer, and J.G. Vedder, 1965, Geology of the Los Angeles Basin – An Introduction. Geological Survey Professional Paper 420-A. US Geological Survey

Reference provides geologic map without locating the project, not publicly accessible. WIL5-136

9-1 **SECTION 9** List of Preparers

9.1 Project Sponsor/Lead Agency

West Basin Municipal Water District 17140 So.Avalon Blvd., Suite 210 Carson, CA 90745

9.2 Authors and Consultants

Environmental Science Associates (EIR Preparation)

Recommend: acquire more competent staff for biology, groundwater, water ditrributtion, and environmental justice WIL5-137

5.6-11/1 **Strong Seismic Ground Shaking**

Ex**ample Tables - SCEDC source.**

Lat. 33.79917 Southerly 33.85611 Northerly x Lon. -118.42944 W -118.32472 E

#YYY/MM/DD HH:mm	MAG	LAT	LON	DEPTH km	
1933/03/13 04:39	**3.37**	**33.85300**	**-118.35900**	**6.0**	
1933/09/03 00:36	1.76	33.82900	-118.33200	6.0	
1933/10/02 10:37	2.24	33.83583	-118.36933	6.0	
1933/10/02 21:55:	**3.05**	**33.83900**	**-118.33017**	**6.0**	
1933/10/03 23:42	2.47	33.83550	-118.39100	6.0	
1933/10/04 10:24	**3.21**	**33.80200**	**-118.39100**	**6.0**	
1933/10/19 01:53:	2.68 l	33.80667	-118.32500	6.0	
1933/12/14 12:32:	2.09l	33.79983	-118.35850	6.0	
1935/01/22 09:28	**3.27 l**	**33.82033**	**-118.39533**	**6.0**	
1935/04/18 22:13	2.22 l	33.84867	-118.40767	6.0	
1935/04/27 13:28	1.38	33.82600	-118.42500	6.0	
1936/11/30 01:33	1.93	33.80633	-118.33500	6.0	
1938/04/02 07:55	2.32 l	33.82033	-118.39400	6.0	
1938/04/20 01:58	2.75 l	33.83517	-118.39017	6.0	
1938/04/20 03:59	2.08 l	33.80200	-118.34417	6.0	
1941/10/22 10:32	**3.64 l**	**33.81950**	**-118.36433**	**0.0**	**Seaside 1.5mi east of shoreline**
1941/11/14 12:02	2.28 l	33.83217	-118.39367	6.0	
1944/06/19 07:28	2.96 l	33.85067	-118.36150	6.0	
1948/12/31 12:36	1.94 l	33.84700	-118.42100	6.4	
1955/02/23 14:28	2.38 l	33.82683	-118.33733	6.0	

WIL5-138

1960----------				
1976/04/13 13:33	2.18 h	33.82000	-118.39400	8.3
1977/10/07 21:39	2.10 h	33.81000	-118.33717	10.0
1977/10/13 00:00	1.99 h	33.83900	-118.40000	10.0
1978/04/30 21:50	1.80 h	33.81050	-118.40167	6.0
1983/01/05 11:48	1.24 h	33.83150	-118.34150	5.5
1984/04/14 13:12	1.60 n	33.84300	-118.35400	5.1
1985/11/18 22:14	1.95 c	33.84700	-118.34400	9.3
1986/01/18 11:27	**1.40 n**	**33.82300**	**-118.42900**	**1.2**
1986/11/20 11:20	1.72 c	33.83700	-118.33100	5.7
1987/05/01 07:31	**2.10 c**	**33.82400**	**-118.40000**	**2.0**
1988/02/23 05:37	1.95 c	33.82600	-118.39600	5.7
1988/03/03 07:59	1.91 c	33.80100	-118.34200	8.4
1988/04/06 22:44	2.09 c	33.81800	-118.34500	6.2
1988/09/04 23:16	1.70 h	33.84200	-118.36700	7.2
1990/02/17 04:05	**2.09 c**	**33.81000**	**-118.40400**	**2.8**
1990/07/04 02:08	2.02 c	33.80700	-118.36200	7.4
1990/11/25 11:24	2.49 c	33.85200	-118.36900	6.8
1991/04/20 00:58	0.40 h	33.84800	-118.41700	9.1
1991/04/20 01:07	2.65 l	33.84500	-118.42600	9.0
1991/05/16 16:00	1.93 c	33.81000	-118.37500	7.5
1991/12/02 05:09	2.50 c	33.83100	-118.41100	5.8
1992/08/11 12:58	1.83 c	33.80400	-118.32500	7.1
1992/08/12 22:30	1.94 c	33.85300	-118.42600	5.8
1993/03/17 03:32	**1.76 c**	**33.82600**	**-118.34300**	**-0.5**
1993/10/16 07:15	1.44 c	33.80700	-118.34300	7.5
1993/12/07 04:03	2.09 c	33.80200	-118.32500	6.1
1994/02/01 02:14	1.60 c	33.85400	-118.42400	11.1
1994/04/12 11:24	1.41 c	33.80400	-118.34400	8.3
1995/01/24 11:42	1.78 c	33.84100	-118.37800	12.6
1995/02/01 00:09	2.26 c	33.82800	-118.37200	8.7
1995/08/30 07:08	1.42 c	33.82200	-118.33800	9.8
1995/10/21 22:17	1.63 c	33.84900	-118.42000	5.3
1995/11/11 23:55	1.67 c	33.83700	-118.37000	13.3
1995/11/12 00:35	1.58 c	33.83200	-118.39600	13.8
1996/02/20 13:45	1.47 c	33.84400	-118.41900	11.0
1996/04/03 05:26	1.47 c	33.82800	-118.42200	6.1
1996/04/29 23:46	1.62 c	33.81800	-118.36800	8.6
1998/08/24 09:38	1.68 c	33.82300	-118.35100	5.7
1998/11/09 03:13	1.60 c	33.82500	-118.36000	5.2
1999/06/10 02:13	2.40 l	33.84700	-118.42000	14.1
1999/06/10 21:16	2.08 c	33.83800	-118.42300	4.8
2005/09/27 23:18	1.99 l	33.80017	-118.41250	14.7
2005/09/28 20:06	1.97 l	33.81050	-118.41000	14.7
2005/10/13 15:25	2.29 l	33.84133	-118.42867	11.7
2006/04/04 01:15	2.19 l	33.81017	-118.35883	15.3
2008/04/07 21:20	1.61 l	33.85250	-118.34083	5.9
2008/11/24 08:24	1.65 l	33.82700	-118.41367	13.6
2010/11/26 03:36	2.33 l	33.80983	-118.39033	10.2
2011/03/05 15:27	1.63 l	33.83750	-118.42433	17.3
2011/12/10 22:06	1.42 l	33.85550	-118.38867	15.4
2012/07/01 11:24	2.01 l	33.80083	-118.34667	9.6
2012/07/12 18:45	1.73 l	33.80183	-118.32633	7.6

WIL5-138

2014/04/05 09:22 1.47 l 33.84500 -118.36567 8.7

Number of events: 73

OFFSHORE

#YYY/MM/DD HH:mm MAG LAT LON DEPTH
1932/10/21 15:26:04.48 eq l 2.91 l 33.82583 -118.44333 6.0
1933/10/03 23:42:05.37 eq l 2.47 l 33.83550 -118.39100 6.0
1933/10/04 10:24:09.82 eq l 3.21 l 33.80200 -118.39100 6.0
1934/12/08 18:28:38.58 eq l 2.32 l 33.85733 -118.46083 6.0
1935/01/22 09:28:47.50 eq l 3.27 l 33.82033 -118.39533 6.0
1935/04/18 22:13:33.43 eq l 2.22 l 33.84867 -118.40767 6.0
1935/04/27 13:28:08.54 eq l 1.38 h 33.82600 -118.42500 6.0
1938/04/02 07:55:04.06 eq l 2.32 l 33.82033 -118.39400 6.0
1938/04/20 01:58:19.72 eq l 2.75 l 33.83517 -118.39017 6.0
1940/09/18 04:23:25.07 eq l 2.54 l 33.84167 -118.45333 6.0
1940/11/01 07:25:04.41 eq l 4.18 l 33.84283 -118.46467 6.0 **********4 mi offshore of RdB
1940/11/01 13:20:26.75 eq l 2.62 l 33.85400 -118.45250 6.0

1941/06/11 13:26:56.40 eq l 2.36 l 33.86150 -118.48383 6.0
1941/11/14 12:02:38.84 eq l 2.28 l 33.83217 -118.39367 6.0
1948/03/23 01:25:52.16 eq l 2.32 l 33.85217 -118.43950 6.0
1948/12/31 12:36:50.75 eq l 1.94 l 33.84700 -118.42100 6.4
1949/07/10 04:26:02.16 eq l 2.94 l 33.86550 -118.45017 6.0

WIL5-138

1953/12/25 23:43:38.65 eq l 2.94 l 33.86733 -118.41550 6.0
1956/09/20 20:15:14.53 eq l 2.80 l 33.81833 -118.44067 6.0

1967/12/24 05:12:12.81 eq l 2.51 l 33.85633 -118.49683 1.3

1972/11/24 07:13:40.79 eq l 1.70 h 33.85083 -118.47900 10.5
1973/02/17 16:12:57.27 eq l 1.70 h 33.81683 -118.45433 6.0
1974/10/30 02:24:38.21 eq l 2.40 h 33.81583 -118.47083 5.0
1976/04/13 13:33:06.05 eq l 2.18 h 33.82000 -118.39400 8.3
1977/03/13 20:53:29.47 eq l 1.50 h 33.83833 -118.46350 0.3
1977/10/13 00:00:27.87 eq l 1.99 h 33.83900 -118.40000 10.0
1978/01/17 21:22:57.73 eq l 2.49 c 33.81950 -118.47500 0.0
1978/04/30 21:50:44.02 eq l 1.80 h 33.81050 -118.40167 6.0
1980/04/14 11:53:06.73 eq l 2.14 h 33.83667 -118.44217 6.0
1980/09/22 04:37:25.57 eq l 2.85 l 33.83733 -118.44067 8.9
1980/09/22 04:41:10.12 eq l 2.02 l 33.84250 -118.46533 6.0

1981/11/10 05:08:29.80 eq l 1.98 c 33.85233 -118.44450 9.9
1981/12/30 09:43:59.47 eq l 2.56 l 33.82550 -118.47783 4.4
1983/05/03 10:21:19.05 eq l 1.80 h 33.84100 -118.48567 5.7
1983/06/05 07:47:18.24 eq l 1.10 h 33.85883 -118.48900 3.4
1985/03/09 07:09:27.26 eq l 1.93 c 33.82900 -118.49600 4.7
1985/03/11 16:21:49.45 eq l 2.02 c 33.82000 -118.47400 5.3
1985/04/17 05:34:17.04 eq l 2.24 c 33.86300 -118.49800 1.2
1985/08/16 12:09:25.23 eq l 1.94 c 33.81900 -118.43800 3.8
1986/01/18 11:27:03.59 eq l 1.40 n 33.82300 -118.42900 1.2
1986/04/24 11:04 1.50 n 33.84500 -118.48500 23.4
1986/06/26 05:39 3.21 l 33.86900 -118.45100 6.9
1986/06/26 20:35 2.08 c 33.85800 -118.44800 12.1
1986/10/11 19:17 2.26 c 33.86700 -118.46900 2.1
1987/05/01 07:31:16.38 eq l 2.10 c 33.82400 -118.40000 2.0

1987/08/28 23:26:07.50 eq l 1.82 c 33.81500 -118.48400 11.1
1988/02/23 05:37:08.59 eq l 1.95 c 33.82600 -118.39600 5.7
1988/04/22 07:50:11.72 eq l 2.37 c 33.85700 -118.39300 3.8

1988/09/12 13:24:34.20 eq l 4.04 l 33.86700 -118.45700 3.1*******1.5mile offhore***
1988/09/12 13:26:22.74 eq l 2.50 c 33.85100 -118.46200 5.8
1988/09/12 14:35:44.36 eq l 1.80 h 33.84667 -118.45050 14.1
1988/09/12 14:54:36.47 eq l 2.70 c 33.86100 -118.45900 3.1
1988/09/12 15:31:02.49 eq l 2.70 c 33.85800 -118.44700 4.8
1988/09/12 17:14:34.30 eq l 2.68 l 33.85200 -118.46900 5.7
1988/09/12 18:34:06.56 eq l 1.80 h 33.85200 -118.44100 9.7
1988/09/12 19:25:59.53 eq l 1.87 c 33.86100 -118.44600 6.8
1988/09/12 21:34:22.62 eq l 2.16 c 33.85800 -118.44200 7.9

1988/09/13 13:56:15.89 eq l 1.60 h 33.86000 -118.43900 5.8
1988/09/13 22:05:00.95 eq l 2.49 l 33.86500 -118.46200 3.0
118.441-469 33.867 - 847
844-848 417-445

1988/10/07 01:27:56.54 eq l 2.13 c 33.86200 -118.44900 5.6
1988/10/07 23:43:59.17 eq l 2.07 c 33.85800 -118.42800 9.9
1988/10/08 17:15:45.45 eq l 2.81 l 33.86300 -118.44500 5.6

1989/03/30 18:46:29.87 eq l 2.52 c 33.82900 -118.46300 5.9
1989/08/23 21:54:14.89 eq l 2.74 l 33.86700 -118.45100 7.7
1989/11/10 04:18:35.59 eq l 2.20 c 33.86200 -118.46600 8.4
1989/11/17 03:51:02.12 eq l 1.80 n 33.86200 -118.43700 5.0
1990/01/05 05:11:59.72 eq l 1.70 n 33.85700 -118.40000 5.1
1990/02/17 04:05:37.23 eq l 2.09 c 33.81000 -118.40400 2.8
1990/02/20 02:01:09.51 eq l 2.06 c 33.83800 -118.43500 0.6

1991/04/20 00:58:11.67 eq l 0.40 h 33.84800 -118.41700 9.1
1991/04/20 00:58:13.51 eq l 3.20 l 33.84500 -118.44500 6.0
1991/04/20 01:07:09.55 eq l 2.65 l 33.84500 -118.42600 9.0
1991/04/20 01:30:35.15 eq l 2.22 c 33.84400 -118.43100 8.6
1991/12/02 05:09:59.02 eq l 2.50 c 33.83100 -118.41100 5.8
1991/12/15 13:53:52.40 eq l 2.08 c 33.85900 -118.43900 8.6
1992/01/18 03:35:11.81 eq l 1.97 c 33.85700 -118.48500 9.2
1992/02/23 19:26:42.08 eq l 2.23 c 33.84900 -118.49900 7.8
1992/06/27 18:30:44.67 eq l 2.24 c 33.84900 -118.43300 1.2 2 Miles offshore RB BrkWtr
1992/08/12 22:30:20.78 eq l 1.94 c 33.85300 -118.42600 5.8
1993/05/22 22:28:14.95 eq l 2.43 c 33.85600 -118.44600 9.0
1993/06/12 18:06:56.42 eq l 2.63 l 33.85200 -118.45200 8.3
1993/09/25 12:28:55.73 eq l 2.22 c 33.86200 -118.42400 9.5
1993/10/28 06:52:27.38 eq l 2.05 c 33.86300 -118.44900 6.5
1994/02/01 02:14:42.60 eq l 1.60 c 33.85400 -118.42400 11.1
1995/10/21 22:17:10.23 eq l 1.63 c 33.84900 -118.42000 5.3
1995/11/12 00:35:00.57 eq l 1.58 c 33.83200 -118.39600 13.8
1995/11/15 00:09:17.24 eq l 2.05 c 33.85800 -118.42200 5.9
1996/02/20 13:45:41.92 eq l 1.47 c 33.84400 -118.41900 11.0
1996/04/03 05:26:32.90 eq l 1.47 c 33.82800 -118.42200 6.1
1996/09/09 15:26:13.61 eq l 1.86 c 33.81900 -118.46400 4.3
1997/05/19 20:31:54.52 eq l 1.58 c 33.86200 -118.39100 9.6
1997/11/13 14:46:04.47 eq l 1.99 c 33.81500 -118.45700 5.7
1999/03/09 00:05:07.41 eq l 2.15 c 33.83000 -118.43900 5.3
1999/06/10 02:13:19.09 eq l 2.40 l 33.84700 -118.42000 14.1
1999/06/10 21:16:46.37 eq l 2.08 c 33.83800 -118.42300 4.8

WIL5-138

1999/06/17 03:09:08.72 eq l 2.35 l 33.82300 -118.47600 8.8
1999/07/03 23:51:50.43 eq l 2.02 c 33.80200 -118.45200 5.4
1999/08/28 13:30:33.75 eq l 2.35 l 33.84300 -118.48000 8.5
1999/09/08 08:19:16.95 eq l 2.31 l 33.83700 -118.45600 12.8
1999/09/17 16:33:41.24 eq l 2.26 l 33.82600 -118.45200 11.8
1999/10/13 21:52:15.07 eq l 1.80 c 33.85500 -118.47300 5.3
2000/08/07 22:40:10.92 eq l 1.50 h 33.85400 -118.45367 5.4

2002/05/23 07:46:47.07 eq l 2.47 l 33.82883 -118.49200 14.8
2002/06/08 18:46:48.18 eq l 1.96 l 33.86450 -118.45917 14.7
2002/07/24 14:29:40.25 eq l 2.11 l 33.81700 -118.45450 14.8
2003/04/21 08:15:58.85 eq l 1.82 l 33.82150 -118.47233 5.9
2005/02/14 14:29:56.07 eq l 2.23 l 33.85550 -118.47567 16.4
2005/02/19 04:28:52.46 eq l 2.10 l 33.83700 -118.49917 19.2
2005/09/27 23:18:56.94 eq l 1.99 l 33.80017 -118.41250 14.7
2005/09/28 20:06:40.08 eq l 1.97 l 33.81050 -118.41000 14.7
2005/10/13 15:25:17.48 eq l 2.29 l 33.84133 -118.42867 11.7
2005/11/22 21:53:49.00 eq l 1.83 l 33.83200 -118.44833 15.0
2006/12/04 14:19:33.27 eq l 2.76 l 33.81783 -118.43583 15.5
2008/05/14 10:35:10.60 eq l 2.60 l 33.84300 -118.46650 12.6
2008/05/14 10:38:36.29 eq l 1.67 l 33.83433 -118.44050 12.3
2008/11/24 08:24:16.95 eq l 1.65 l 33.82700 -118.41367 13.6
2009/06/02 12:17:32.95 eq l 1.64 l 33.81467 -118.45000 11.6
2010/03/29 18:20:47.90 eq l 2.35 l 33.86383 -118.49317 14.3

2010/06/07 09:17 3.53 33.85917 -118.44367 14.0
2010/06/07 11:11:29.78 eq l 1.50 l 33.85400 -118.43933 14.1
2010/06/07 11:51:39.54 eq l 2.10 l 33.84867 -118.46383 14.0
2010/06/07 12:16:29.52 eq l 1.73 l 33.83517 -118.47033 19.0
2010/06/07 18:17:48.01 eq l 2.25 l 33.86000 -118.44633 12.2
2010/06/07 22:53:57.97 eq l 1.80 l 33.85650 -118.46000 13.4
2010/06/07 23:59:19.72 eq l 2.32 l 33.83067 -118.46767 18.3
2010/06/07 23:59 3.69 33.85717 -118.45783 11.2
2010/06/08 00:13:30.58 eq l 1.76 l 33.85350 -118.43850 12.6
2010/06/08 00:17:05.27 eq l 2.68 l 33.85417 -118.46317 12.1
2010/06/08 00:43:50.02 eq l 1.64 l 33.84583 -118.44433 16.7
2010/06/08 00:53:07.16 eq l 1.84 l 33.84850 -118.45617 13.5
2010/06/10 00:50:42.50 eq l 1.60 l 33.84783 -118.44367 15.6
2010/06/10 00:50:55.54 eq l 1.69 l 33.83450 -118.45517 19.8
2010/06/11 12:03:40.20 eq l 2.11 l 33.85033 -118.45317 13.6

2010/07/07 19:11:34.65 eq l 1.98 l 33.84950 -118.43983 15.1
2010/07/11 08:58:38.50 eq l 2.20 l 33.85167 -118.44617 11.3
2010/07/11 17:55:06.25 eq l 1.68 l 33.85150 -118.45483 13.4
2010/09/02 20:32:04.61 eq l 2.45 l 33.85733 -118.45150 13.3
2010/11/11 11:27:44.77 eq l 1.97 l 33.83967 -118.44350 16.7
2010/11/26 03:36:58.94 eq l 2.33 l 33.80983 -118.39033 10.2

2011/01/11 16:52 3.03 l 33.85917 -118.45767 14.1
2011/01/27 09:32:10.23 eq l 1.87 l 33.82017 -118.45367 9.2
2011/02/03 05:39:32.09 eq l 2.17 l 33.81250 -118.45333 13.0
2011/03/05 15:27:08.00 eq l 1.63 l 33.83750 -118.42433 17.3
2011/04/03 17:57:47.75 eq l 1.71 l 33.85200 -118.44417 11.3
2011/12/10 22:06:28.49 eq l 1.42 l 33.85550 -118.38867 15.4
2012/05/05 09:22:00.07 eq l 1.56 l 33.86917 -118.43883 12.7
2013/04/06 21:29:53.30 eq l 1.86 l 33.83717 -118.43050 9.7
2013/04/19 04:53:32.67 eq l 1.61 l 33.85017 -118.47583 12.9

WIL5-138

2013/12/22 10:55:48.78 eq l 2.47 l 33.85267 -118.46350 12.1
2014/07/22 22:59:14.13 eq l 1.75 l 33.85067 -118.46100 15.4

2015/07/21 01:52:29.97 eq l 2.82 l 33.81883 -118.47200 10.1
2015/07/21 02:01:48.11 eq l 2.12 l 33.81817 -118.46783 9.0

2017/09/21 01:06:25.55 eq l 1.40 l 33.86867 -118.41600 14.7
2018/02/09 02:58:52.81 eq l 2.14 l 33.85617 -118.41667 13.5
2018/03/18 14:00:31.45 eq l 1.45 l 33.85017 -118.46083 13.2

WIL5-138

Comment Letter WINGATE

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Carol Wingate

Mailing Address 539 Richmond St, El Segundo 90245
Street City State Zip

Telephone # (daytime) _____

E-mail Address Cwingate322@yahoo.com

Organization/Affiliation _____

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

(1) The existing NRG plant provides tax income to the City of El Segundo. If that is decreased will the desalinization plant provide income to the city? WIN-1

(2) What consideration has been given to the ugly further industrialization of El Segundo's coastline. WIN-2

(3) Where will the plant get its energy? Who will profit from placing this plant here? WIN-3

(4) How much CO_2 and other pollutants will be released by this plant? WIN-4

(5) How will the additional salinity effect the plants and animals in the ocean? WIN-5

(6) Can the City of El Segundo rezone the property allowing a hotel - that would produce income for the city? WIN-6

OVER

To mail: fold, staple or tape together, and include a stamp.

17-237

(6) How will the construction be funded? Where will the multi million dollar construction come from? WIN-7

(7) Why was this site chosen for this plant? Why not Palos Verdes or Redondo Beach? WIN-8

(8) Can the comment period be extended by another 30 days? WIN-9

West Basin Municipal Water District
Attn: Zita Yu, Ph.D., P.E., Project Manager
17140 S. Avalon Blvd, Suite 210
Carson, CA 90746

From: West Basin

Sent: Tuesday, May 29, 2018 10:16 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: darryl woodcock

Mailing Address: 119 kelp street
City: manhattan beach
State:
Zip: 90266

Telephone # (daytime): 4247810385

Email Address: kavaguy@gmail.com

Organization: individual member of the public

Comments:
any new plant should be placed as far away from residential areas as possible. the more northerly location is better if the plant is to be built at all failing that location then the redondo beach location should be used failure to properly monitor environmental quality over the past should be addressed and allowance made for trusted 3rd party monitoring..includes air, drinking water, ocean water, noise, any structures should be below surface and not visible seems like a waste of money in the intermediate term when better alternatives exist in the short term such as improved preservation, capture, efficient use/transportation of our water sources and transport mechanisms

WOO-1

Comment Letter YOUNGC

Justin Sumi

From: West Basin <comments@westbasindesal.org>
Sent: Monday, June 25, 2018 4:22 PM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Colleen Young

Mailing Address: 318 Gull Street
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 310-545-3597

Email Address: colleenyoung1@aol.com

Organization: Resident of Manhattan Beach

Comments:
Please take the time to read and consider all of my input and all of the comments you have received, as you are making a decision that greatly affects a lot of residents and communities in this projects path. The draft environmental impact report that has been produced is pretty clear, so here is a reminder if you need it at all. Your own report says the following: Anticipate significant environmental effects, direct, indirect, and cumulative environmental impacts of this project will occur in the following environmental areas: air quality, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, transportation and traffic, noise, aesthetics, light and glare, terrestrial biological resources, marine biological resources, public services, utilities and service systems, recreation, land use and planning, cultural resources. Mitigation measures are necessary to minimize significant impact to hopefully lesser significant levels (where feasible (?), and who knows what where feasible is supposed to mean, possibly when cost effective?). The EIR concludes that there will be significant and unavoidable impacts related to air emissions during construction and increased noise during pile driving associated with the construction. Also, CEQA requires this NOA to specify if the project site contains any listed toxic sites. The project site is identified on the
"Cortese List"
as having potential for soil and groundwater contamination at the site from past uses on site and neighboring sites (well, there is ground contamination at both these sites, this is already known). Do we really need to say more than this to oppose such a project with so little accomplishment to the initial water problem? Yes? Well okay then, here it is: This desalination project does not meet your own laid out objectives to warrant this cost, destruction and harm to the area, communities, and the environment. Significant Community Impact Making a decision to place another environmentally damaging facility in a location just because there are numerous industrial type plants already existing and neighboring nearby in that area is nothing but ignorant to the communities who live and work here, if not an idiotic way as a means of making a decision. The 2 sites being looked at in this area are not 2 sites, but rather the same site (possibly 1500-2000 feet apart), with all of the same concerns and problems. There is no difference between one location and the other to our communities, and it should not be looked at in any other way. The disruption to our existing Manhattan Beach, El Segundo, and multiple other surrounding communities during and forever after with regard to our quality of life, noise, air, and ocean pollution is unforgiveable to place an unnecessary and overly expensive way of providing water to west basin ratepayers. There will be significant impact to our communities during construction onshore and offshore. Per your consultants there will be at peak construction time 100-110 trucks per day going in and out moving soil and using the roads and

YOCO-1
YOCO-2
YOCO-3
YOCO-4
YOCO-5
YOCO-6

affecting traffic, noise, and air quality. Construction will probably take a minimum of 5 plus years to complete, and then the facility may possibly be expanded in the future, which would mean additional construction and ongoing disruption to the communities. Our communities will be exposed to the contaminated soil being moved by the wind, and by traveling through the neighborhoods. There is no way to mitigate this dust or exposing soil contamination with prevailing winds off of the ocean on a regular and daily basis. Virtually impossible to mitigate this soil contamination from becoming airborne and affecting the residents in surrounding and many other communities that it will travel through. This construction will also impose an economic impact on our community as people choose to relocate due to traffic disruption, and decide not travel to the cities to avoid the complications of traffic, noise, and the aesthetically displeasing construction. The ongoing facility usage will have a negative impact on close by communities with regard to ambient noise levels, light and glare, and the aesthetics and views to our surrounding areas. For some of us here, the increasing creeping and imposing industrial facilities surrounding us that are ever coming closer and narrowing our buffer zone, will definitely affect our property values and most of all our quality of life in our communities. Energy Inefficiency Seawater desalination is the most expensive and intensive energy consuming way of getting useable water, while completely ignoring the other less expensive and less intrusive ways of providing the water needed. This would be counter-productive to Californians way of life to save energy and preserve our natural environments and ocean. This energy intensive facility will also create additional global warming concerns for the area. You must practice what you preach, not only when it suits your needs and finances. Currently natural water runs by the billions of gallons out and into the ocean every time we get the rain in the winter months and is ignored, instead of looking at capturing the natural rain water provided to us, you want to build a facility that will take ocean water and make potable water instead of utilizing the existing water options available. Ignoring the other multitude of less expensive and more environmentally friendly and energy efficient options to solve the water problem is incomprehensible. Significant Environmental Impact The willingness to ignore the contaminated hazards in both of these locations at this site is unforgivable. Both sites in this location are contaminated from previous environmental facility blunders, and now you want to disturb the ground contamination to cause it to go airborne again to impact the residents of the close by and including farther communities. Digging the current soil hazards up and causing them to go airborne and then driving the contaminated soil debris through the cities to cause harm to millions of residents in the south bay area is unforgiving. There is no way to mitigate this hazard or harm with the blowing winds off of the ocean. Disturbing known contaminated soil areas to provide a facility that does not meet the objective or needs of the many is not a smart decision. We also truly do not know the effects any of the chemicals used in the desalination plant or the brine that is returned to our ocean water will have on our beaches, or the ocean water and marine life as we know it. Significant Financial Impact The cost of construction to provide this desalination plant is over the top to say the least. You have an already existing Hyperion facility which can also produce potable drinking water and is currently not doing so. How it can be justified to spend this kind of money on a desalination facility when there are already existing facilities not working to solve the water issues currently, however those plants have the capability of doing this, and ability to upgrade already existing infrastructure to accomplish this without the enormous cost of a new desalination plant along with the disastrous side effects to our communities and our environment. There is also an enormous negative impact financially to our communities as previously noted. This facility is costly in more than just financial ways. There are a multitude of other alternatives to provide water at this time without spending over a half a billion dollars on one facility to provide for so few in the west basin area. You must work together to combine resources and provide water with the entire state funding in mind; not divide projects without consent and understanding of other available options. The state is currently moving forward with plans of its own to build tunnels to transport water from other areas. In Summary You cannot in good faith vote for or look at the proposed enormously expensive, and not very efficient facility as a means to provide water to the west basin ratepayers. How do you plan to vote on this project without being able to answer the simple question of how much it will cost the ratepayers in the end, or the cost of the overall project and how it will be paid for if completed? This is not a testing ground for desalination proponents to move forward with their narrow vision and plan to make a profit off of ratepayers and residents. There are plenty of current desalination plants sitting idle that have not been capable of producing at a reasonable cost to provide water as promised. Look at the existing plants and you will in fact realize that desalination plants are not the answer to our water problems. I cannot come up with any good reasons for continuing on such a detrimental path to move forward with this desalination plant. Yes, you can ultimately get water, but there are so many other far better and more conscientious ways to accomplish that. If this project moves forward all of us can only assume it is about the fact that someone will get paid and profit from the construction of this facility. Thank you, Colleen Young, Manhattan Beach resident 318 Gull Street Manhattan Beach, CA 90266 310-545-3597 colleenyoung1@aol.com

YOCO-6

YOCO-7

YOCO-8

YOCO-9

YOCO-10

YOCO-11

YOCO-12

YOCO-13

YOCO-14

YOCO-15

YOCO-16

17-241

Comment Letter YOUNGJE

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Jefferson Young

Mailing Address 4418 Ocean Dr MB (Street, City) CA (State) 90266 (Zip)

Telephone # (daytime) 323 422 6650

E-mail Address jeffersonjohn316@gmail.com

Organization/Affiliation El porto neighbors & friends

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

We, in El Porto, oppose any such project. YOJE-1

To mail: fold, staple or tape together, and include a stamp.

17-242

Comment Letter YOUNGJU

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Julie Young (formerly Manasfi), Esq.

Mailing Address 4418 Ocean Dr MB (Street) (City) CA (State) 90266 (Zip)

Telephone # (daytime) 424-212-0651

E-mail Address jmanasfi@gmail.com

Organization/Affiliation

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

My family + I and I own the following properties in Ep Porto: 4418 Ocean Dr, 4416 Ocean Dr, 208 42nd St 210 42nd St, 4212 The Strand, 4214 The Strand and 4213 Ocean Dr. My family lives in 4418 Ocean (at the corner of 45th Street + Ocean Dr) Our community is very concerned about the proximity of the proposed/sited. The South site would literally be feet from us. The North site is preferable, although we would prefer it not to happen at all. My family and I surf daily and are also very concerned about the effects on our Ocean. Please describe the air quality and noise considerations during construction ("significant and unavoidable") and the length of time of construction. Please describe the effects on the Ocean. Please describe how North or South site will be determined.

YOJU-1

YOJU-2

YOJU-3

To mail: fold, staple or tape together, and include a stamp.

17-243

From: Noemi Luna

Sent: Wednesday, May 16, 2018 12:08 PM

To: Justin Sumi

Cc: Jennifer Lao

Subject: Fwd: West Basin Desal Site Comments

Follow Up Flag: Follow up

Flag Status: Flagged

WB comment.

Noemi Luna

Project Manager

MBI / 626-967-1510

Get Outlook for iOS

From: West Basin <comments@westbasindesal.org>
Sent: Wednesday, May 16, 2018 11:06:24 AM
To: Noemi Luna
Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: CHAD ZANI

Mailing Address: 836 MANHATTAN AVE
City: HERMOSA BEACH
State: CA
Zip: 90254

Telephone # (daytime): 3102277163

Email Address: chad.zani@gmail.com

Organization: Surfer

Comments:

I grew up in Perth Western Australia - and still cant believe how much water is being wasted in LA and Southbay. In Perth there are no public urinals that flush, or in any bar or restaurant. Billions of gallons could be saved if you introduce this now - and you wont have to build a desal plant that will destroy the bay - just like it destroyed Cockburn Sound in Western Australia. The salty brine that gets dumped sinks to the ocean floor and kills everything!!! Until you stop doing everything you can like wasting water when any man uses a urinal - this is a colossal waste of time money and it will destroy the environment.

ZAN-1

Comment Letter ZAREMSKI

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Dr. Lori ZAREMSKI

Mailing Address 3221 Gibson place (Street) Redondo Beach (City) CA (State) 90278 (Zip)

Telephone # (daytime) 310 408 6908

E-mail Address drloriz@aol.com

Organization/Affiliation Concerned Citizen

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

How does the possible financial gain to individual Water District members affect their vote? Is possible conflict of interest of District board investigated?

ZAR-1

To mail: fold, staple or tape together, and include a stamp.

Comment Letter ZAREMSKI2

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) DR. Loei ZAREMSKI

Mailing Address 3221 Gibson Place, Redondo Beach, CA 90278
Street City State Zip

Telephone # (daytime) 310 408 6908

E-mail Address drloriz@aol.com

Organization/Affiliation Self - Concerned Citizen

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

Creating another environmental man-made diaster to poorly address another man made crisis (drought & insufficient water supply) due to poorly planned development in the California desert is reckless & shortsighted

ZAR2-1

To mail: fold, staple or tape together, and include a stamp.

Comment Letter ZAREMSKI2

West Basin Municipal Water District

Ocean Water Desalination Project

Comment Card

This form may be used to submit comments on the Draft Environmental Impact Report (EIR) for the proposed West Basin Municipal Water District Ocean Water Desalination Project.

Name (print clearly) Dr. Lori ZAREMSKI

Mailing Address 3221 Gibson place Redondo Beach CA 90278
(Street, City, State, Zip)

Telephone # (daytime) 310 408 6908

E-mail Address drloriz@aol.com

Organization/Affiliation Concerned Citizen

Please provide comments in the section below and leave in comment box or place in mail by Friday, May 25, 2018 at 5:00 PM.

I have the following comments on the Draft EIR for the proposed Ocean Water Desalination Project (please print and use additional sheets if necessary):

How does the possible financial gain to individual Water District members affect their vote? Is possible conflict of interest of District board investigated?

ZAR2-2

To mail: fold, staple or tape together, and include a stamp.

17-248

From: West Basin

Sent: Thursday, April 26, 2018 11:50 AM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Jacqueline Zuanich-Ferrell

Mailing Address: 1018 Duncan Avenue
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3107482181

Email Address: jzuanichferrell@yahoo.com

Organization: Resident of Manhattan Beach

Comments:
I am in favor of this project to ensure a steady supply of clean drinking water to our area! ZUA-1

From: West Basin

Sent: Wednesday, June 20, 2018 1:04 PM

To: Noemi Luna

Subject: West Basin Desal Site Comments

Comments - Form from West Basin Desal Site

Name: Jacqueline Zuanich-Ferrell

Mailing Address: 1018 Duncan Ave
City: Manhattan Beach
State: CA
Zip: 90266

Telephone # (daytime): 3107482181

Email Address: Jzuanichferrell@yahoo.com

Organization:

Comments:
I am in favor of a desalination plant to ensure supplies of water in the future. ZUA2-1

Response to Letter ABD: Diego Abdelnur

Response ABD-1

The comment restates conclusions presented in the Draft EIR Section 5.11, *Marine Biological Resources*. This comment does not address any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response ABD-2

An important part of the CEQA process is producing and including a Mitigation Monitoring and Reporting Plan as a condition of Project approval that specifies the mitigation measures that are required to be implemented as part of the proposed Project, which entity will implement them, and which enforcement agency will be responsible for ensuring they are implemented correctly and meet the established performance standards. Marine biological resources mitigation measures, as identified in Section 5.11 on the Draft EIR (Mitigation Measure Bio-2), will be included in the Mitigation Monitoring and Reporting Program (MMRP) if and when the Project is considered for approval. In addition, West Basin will have to apply for, and the Los Angeles Regional Water Quality Control Board (LARWQCB) will need to issue, a National Pollutant Discharge Elimination System (NPDES) permit for the discharge of brine. The NPDES permit will include thresholds, conditions and monitoring requirements. If monitoring demonstrates the Project discharge does not meet the permit thresholds, West Basin will need to remedy the situation, or stop discharging brine.

Response to Letter ADA: Gladi Adams

Response ADA-1

Impacts to marine biological resources are presented in the Draft EIR Section 5.11, *Marine Biological Resources*. West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio. However, the expansion of an existing conservation program does not meet the objective of diversification. The proposed Project is intended to address water supply reliability and a reduced reliance on imported water (Draft EIR page 3-3). This comment does not address any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary. Please see also M*aster Response: Water Supply Alternatives*

Response to Letter AFF: Jane Affonso

Response AFF-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary. The commenter is referred to: *Master Response: Non-CEQA Issues, Master Response: Greenhouse Gas Emissions and Energy, Master Response: Cost and Rates,* and *Master Response: Water Supply Alternatives.*

Response AFF-2

This comment expresses an opinion and does not speak to the adequacy of the Draft EIR; see *Master Response: Non-CEQA Issues*.

Response to Letter AHE: Grant and Lynn Ahearn

Response AHE-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*. The commenter is also referred to *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Non-CEQA Issues.*

Response to Letter ALV: Jose and Liz Alvarez

Response ALV-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*. The commenter is also referred to *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter ANO: Anonymous

Response ANO-1

The commenter is referred to *Master Response: Water Supply Alternatives* and *Master Response: Non-CEQA Issues*.

Response to Letter ARE: Karen Arensdorf

Response ARE-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary see *Master Response: Non-CEQA Issues*.

Response to Letter ASH: Aida Ashouri

Response ASH-1

West Basin initially provided a Draft EIR review and comment period of 60-days, from March 27, 2018, through May 25, 2018. In response to comments requesting an extension, West Basin granted a 31-day extension for review and comment on the Draft EIR. The public review period ended at 5 p.m. on Monday, June 25, 2018, providing a 91-day public review period. The commenter's letter dated June 25, 2018, is included in response to comments ASH-2 through ASH-8.

Response ASH-2

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*. Regarding air quality and greenhouse gas emission impacts, the commenter is referred to the Draft EIR Subsection 5.2.4 and 5.7.4.

Response ASH-3

Refer to *Master Response: Non-CEQA* Issues. While land value and quality of life are beyond the scope of the Draft EIR, it is noted that the existing power generating stations at the ESGS North Site have been decommissioned. And if the proposed Project were to proceed, and the ESGS North site were to be selected, the power generating stations would be demolished and removed. Moreover, the Draft EIR's Section 6.3, *Environmental Justice*, considers the potential for the Project to have a disproportionate adverse effect on minority and low-income populations (pages 6-9 through 6-14). The commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response ASH-4

As explained in the Project objectives of the Draft EIR Sections 1.2, *Executive Summary*, and 3.3, *Project Description*, West Basin's goal is to ensure future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan (UWMP). The need for 21,500 AFY equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in UWMP Table 5-5. This is a clearly stated proposal for water supply diversification. The 20,342 AF multi-dry year event shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3). As noted in Section 4.5 of the 2015 and the 2010 UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015 and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section

9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its water reliability initiative.

Even with the maximum practicable conservation savings, increases in recycled water production, and expansion of groundwater supplies by retail agencies, West Basin's service area could experience a shortage of 20,342 acre-feet by 2020 and 21,500 AF by 2025 and beyond. In other words, the proposed Local Project is sized at 20 MGD (or approximately 21,500 AFY), to directly respond to the multi-dry year event shortfall. Thus, the proposed Project would provide the quantity of water necessary to make up the expected shortfall in imported water supplies for what are expected to be more frequent and severe future droughts. The Draft EIR evaluates alternatives to desalination, as described in EIR Subsection 7.2.1. See also *Master Response: Water Supply Alternatives*.

Response ASH-5

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community* for a discussion traffic, air quality pollution, and aesthetics impacts to neighboring communities. For impacts to property values, see *Master Response: Non-CEQA Issues*.

Response ASH-6

The commenter is referred to Section 5.14, *Recreation*, which concludes that the proposed Project would not deteriorate nearby recreational facilities, either during construction or operation.

The commenter is referred to Section 5.11, *Marine Biological Resources*, which explains that the proposed Project would result in less than significant impacts to marine resources.

The commenter is referred to Section 7, *Alternatives to the Proposed Project*, which includes an evaluation of Project alternatives considered in the Draft EIR.

Response ASH-7

The purpose of the EIR is to analyze how construction and operation of the proposed Project may impact the environment, including air quality. The Draft EIR provides this analysis in Section 5.2, including a discussion on the National Ambient Air Quality Standards. Prevention of Significant Deterioration referenced in the comment is a federal Clean Air Act permit process required for major point sources. The Draft EIR concludes (as summarized in Table 5.2-8) that construction would result in emissions of NOx above South Coast Air Quality Management District (SCAQMD's) published significance thresholds even after all feasible mitigation measures are applied, but that the operation of the proposed Project would conform with the federal Clean Air Act. For all significant impacts, a statement of overriding consideration is required prior to approval of the Project. Prior to operating the new facility, point source air permits may be required to ensure that the emissions conform to local air quality protection plans. The proposed Project would not be considered a Major Stationary Source since most of the emissions would be associated with off-site energy generation. The permitting process for on-site emissions sources such as emergency generators would be conducted with the SCAQMD. The proposed Project

would be subject to all conditions imposed by the SCAQMD to ensure that the on-site point source emissions conforms to air quality regulations and improvement plans.

Response ASH-8

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community, Master Response: Non-CEQA Issues,* and *Master Response: Water Supply Alternatives.* The comment does not identify any specific deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted.

Response to Letter BAC: Laura Bachelder

Response BAC-1

The Draft EIR analysis pertaining to salinity and water quality is found in Section 5.9, *Hydrology and Water Quality*, and the analysis pertaining to marine biological resources is found in Section 5.11, *Marine Biological Resources*. As discussed in detail in Draft EIR Subsection 5.9.4 (page 5.9-54), although the reverse osmosis (RO) treatment process would result in the discharge of increased concentrations of salinity and other constituents associated with Santa Monica Bay source waters within a localized area around the diffuser, the total loading of constituents being discharged into Santa Monica Bay would not be increased above existing conditions. The assessment of impacts on water quality from the discharge of brine, from the proposed Project, incorporates the numeric thresholds defined in the Ocean Plan for determining impacts from operation of the Local and Regional Project. Specifically relating to salinity, as described in detail under Impact 5.9-2 (Draft EIR Subsection 5.9.4), the California Ocean Plan limits the increase of salinity of receiving water from desalination plant discharges to a daily maximum of 2 parts per thousand (ppt) above natural background salinity at the boundary of the Brine Mixing Zone (BMZ), defined as the horizontal distance of 100 meters (328 feet) from the point of discharge. As presented in Table 5.9-6 and 5.9-8 (see response to comment LARWQCB-30 for further discussion relating to supplemental studies and revisions to the Draft EIR), the Local Project would meet the Ocean Plan salinity standard between 45 and 63 feet from the point of discharge, and the Regional Project would meet the Ocean Plan salinity standard between 70 and 98 feet for all scenarios modeled; well within the Ocean Plan limit of 328 feet. And as discussed in Subsection 5.11.4, the proposed Project's impacts from construction or operation activities would be less than significant, or less than significant with mitigation.

The comment about the proposed Project being located "so close to LA depuration [sic] system" is unclear. The proposed facilities analyzed as part of this Project are separate and distinct from other nearby water treatment facilities. This comment does not address any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response to Letter BAR: Bart Barisa

Response BAR-1

The comment's suggestion of building two desalination plans instead of one, to account for catastrophes such as earthquakes and terrorism, is noted by West Basin. The purpose of an environmental impact report and review under the California Environmental Quality Act (CEQA) is to assess the potential impacts of a project on the environment. Impacts of the proposed Project on geologic conditions such as earthquakes are addressed in the Draft EIR in Section 5.6, *Geology, Soils and Seismicity*. Although West Basin appreciates the concerns raised, the comment about terrorism falls outside the purview of CEQA. The commenter is referred to *Master Response: Water Supply Alternatives* and *Master Response: Non-CEQA Issues.*

Response BAR-2

The comment's statement about rain is noted for the record; West Basin is proposing the Project in order to increase water supply reliability to account for drought and other conditions. Please also see *Master Response: Water Supply Alternatives.*

Response to Letter BAUJ: James Baumann

Response BAUJ-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same, Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response to Letter BAUL: Liane Baumann

Response BAUL-1

The proposed Project would construct a light industrial structure on coastal property that has historically been developed with power generating facilities. Replacement of portions of those facilities would soften the views compared to the existing heavy industrial character. The Draft EIR evaluates aesthetic impacts of the proposed Project in Section 5.1, *Aesthetics, Light & Glare*, on pages 5.1-9 through 5.1-29-. Land use impacts are discussed in Section 5.10, *Land Use and Planning*, on pages 5.10-14 through 5.10-37. The need for the Project is discussed in Section 2.3, *Introduction*, on page 2-3. Project Alternatives are discussed in Section 7. The comment to locate the Project on an inaccessible beach elsewhere is speculative and unspecific. No feasible alternative locations are suggested. The Project would be located on industrially zoned land and would be collocated at the NRG gas generating station, which is an existing industrial use. See *Master Response: Environmental Impacts to the El Porto Community*.

Response to Letter BECB: Bill Becker

Response BECB-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Response to Letter BECR: Richard Becker

Response BECR-1

As noted in Draft EIR Section 5.6, *Geology, Soils, and Seismicity*, given the state's susceptibility to seismic events, the California Building Code (CBC) seismic standards are among the strictest in the world and deal with structural design requirements governing seismically resistant construction (Section 1604), including (but not limited to) factors and coefficients used to establish seismic site class and seismic occupancy category for the soil/rock at the building location and the proposed building design. Draft EIR Section 5.9, *Hydrology and Water Quality*, addresses the issues of tsunamis and sea level rise. See also the description of the supplemental Coastal Hazards Analysis in *Master Response: Supplemental Studies.*

Response to Letter BES: Paul Beswick

Response BES-1

This comment expresses an opinion, presents the commenter's qualifications, and does not comment directly on the adequacy on the Draft EIR. See *Master Response: Non-CEQA Issues and Master Response: Water Supply Alternatives.*

Response BES-2

Draft EIR Subsection 7.2.1 considered a range of alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See Draft EIR Table 7-1 and *Master Response: Water Supply Alternatives*.

Response BES-3

The Draft EIR Section 7 describes efforts to generate additional local water supplies including increased recycled water through the Water Replenishment District's Groundwater Reliability Improvement Program (GRIP) and Metropolitan Water District of Southern California's (MWDs) Regional Recycled Water Project. The Draft EIR concludes that ocean water desalination complements other water supply alternatives and supports implementing local water supply development including conservation, recycled water and stormwater capture projects in parallel with ocean desalination.

Response BES-4

Regulations do not currently exist that would allow for Direct Potable Reuse (DPR) within the West Basin service area. However, as currently envisioned, future DPR regulations may specify a blending requirement, where highly treated water would be blended with potable water for treatment prior to distribution. Interestingly, the implementation of the proposed Project may position West Basin to support future DPR through use of the desalinated ocean water as a raw water source for blending when such regulations are in place. West Basin supports development of DPR as a part of a diversified water supply portfolio for the region. Development of the ocean water desalination would strengthen West Basin's ability to implement DPR in the future via raw water augmentation.

Response BES-5

Draft EIR Sections 1.2, *Executive Summary*, and 3.3, *Project Description*, explain that West Basin's goal is to ensure future water supply reliability for service area customers by adding a locally produced, drought- proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan (UWMP). The Draft EIR evaluates a range of alternatives to desalination, as described in EIR Subsection 7.2.1. See also *Master Response: Water Supply Alternatives*. However, as noted throughout the Draft EIR, West Basin continues to develop these other water supply alternatives in addition to ocean water desalination, representing a responsible, diverse, and balanced water supply portfolio.

The Draft EIR evaluates the potential environmental impacts of the proposed Project's construction and operation throughout Section 5. Section 5.1, *Aesthetics*, concludes that the

impact of the proposed Project on scenic views and vistas, and visual character of the Project site and surrounding area would be less than significant with mitigation. There would be no impact on scenic resources. While the Draft EIR notes in Section 3.2 that the proposed Project would replace the ESGS Units 3 and 4, Draft EIR Subsection 2.10.11 notes that Units 5, 6 and 7 will remain on-site. The proposed Project, as a light industrial facility, would be located among the array of existing heavy industrial facilities along this part of the Santa Monica coastline.

Regarding the commenter's position opposing the Project, see *Master Response: Non-CEQA Issues*.

Response to Letter BOO: Peter Boone

Response BOO-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Non-CEQA Issues.*

Response to Letter BOR: Frank Boroch

Response BOR-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter BRAD: Theresa Brady

Response BRAD-1

A discussion of greenhouse gas (GHG) emissions impacts from construction and operation of the proposed Project are discussed in detail in Section 5.7, beginning on page 5.7-19. The Draft EIR discloses the total GHG emissions impact for the proposed Project and includes mitigation measures to ensure that West Basin reduces and/or offsets the Project's emissions to a significance threshold of net carbon neutral. This means that the proposed Project's net increase in GHG emissions over the emissions associated with an equivalent volume of water that would have been supplied by Metropolitan Water District of Southern California (MWD) for the Project would be 100 percent offset through a combination of Project design features and mitigation measures. Therefore, the construction and operation of the proposed Project would not increase the amount of greenhouse gas emissions above current levels and would, therefore, not contribute significantly to climate change. The proposed project's on-site operational emissions would be limited to natural gas emissions at the administration building as noted in Table 5.2-12. See *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response BRAD-2

Draft EIR Subsection 7.2.1 provided an in-depth analysis on West Basin's current planning efforts to increase recycled water. As noted in the analysis, the expansion of West Basin's Recycled Water Program would increase capacity from 40 million gallons per day (MGD; current capacity) to 70 MGD of secondary effluent. The amount of secondary effluent water from Hyperion to be provided to West Basin would be limited to 54 MGD with the remainder (16 MGD) going into the City of Los Angeles' Harbor Area under the current agreement (City of Los Angeles 2018) to upgrade Hyperion (70 MGD in total). With the City of Los Angeles's current partnership with Water Replenishment District to evaluate the potential use the rest of the Hyperion wastewater effluent to produce recycled water for groundwater replenishment purposes, the likelihood for West Basin to receive secondary effluent beyond 54 MGD is unlikely and speculative. West Basin currently recycles approximately 40 MGD of secondary effluent from Hyperion that makes up for the total existing customer demand within West Basin's service area. However, West Basin is committed to expand its effort to improve water quality that would attract more recycled water customers and increase future demand to 54 MGD. West Basin is also committed to work with other regional partners, such as Metropolitan Water District of Southern California (MWD), to develop ways to maximize the utilization of West Basin's recycled water distribution and treatment systems to further increase recycled water use in the region. Even expanding the recycled water production from Hyperion Water Reclamation Plant to its full capacity would not eliminate imported water demands, nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination.

West Basin is also committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio. However, the expansion of an existing conservation program does not meet the objective of water supply diversification, and puts West Basin at greater risk of relying on customer responses to a rationing program during a drought. See *Master Response: Water Supply Alternatives*.

Response BRAD-3

Composting toilets in homes throughout the West Basin service area, from Malibu to Palos Verdes, could indeed save thousands of gallons of water per year. Unfortunately, until the study is completed in or around 2020, the concept would be speculative and not yet ripe for consideration as an alternative to the proposed Project evaluated in this Draft EIR.

Response BRAD-4

How any one retail customer conserves water in the home is an individual choice. Choices may be behavioral (taking shorter showers) or require hardware changes (installing a composting toilet). But the need for 21,500 acre-feet per year (AFY) equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in UWMP Table 5-5. The 20,342 AF multi-dry year event shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2010 and 2015 UWMP Table ES-3). However, the expansion of an existing conservation program does not meet the objective of water supply diversification, and puts West Basin at greater risk of relying on customer responses to a rationing program during a drought.

Response BRAD-5

To maximize the reliability of the San Diego region's water supplies, the San Diego County Water Authority is executing a long-term strategy to diversify its water sources, make major investments in the region's water delivery (including desalination) and storage system, and improve water use efficiency. In a May 2017 poll of its customers, two-thirds (67 percent) of respondents said water is a good or excellent value compared to other utilities. While CEQA does not consider the cost of a project to be an environmental impact, prohibitive costs can be used to determine that a project alternative is infeasible. See also *Master Response: Cost and Rates*.

Response BRAD-6

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary. The commenter is referred to *Master Response: Non-CEQA Issues, Master Response: Greenhouse Gas Emissions and Energy, Master Response: Cost and Rates,* and *Master Response: Water Supply Alternatives.* The commenter is also referred to Section 5.11, *Marine Biological Resources*, for a discussion of environmental impacts related to sea life.

Response BRAD-7

The attachments provided by the commenter are noted for the record.

Response to Letter BRAI: Samuel Braitman

Response BRAI-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter BRAU: Bonnie Braunecker

Response BRAU-1

The commenter is referred to *Master Response: Water Supply Alternatives.* The commenter is also referred to *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter BRAU2: Bonnie Braunecker

Response BRAU2-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*. The commenter is also referred to *Master Response: Cost and Rates.*

Response BRAU2-2

The Draft EIR Subsection 7.2.1 evaluates a range of water supply alternatives, including recycling, and explains that expanding the existing recycled water use in the region will not completely offset the need for imported water. Even expanding the recycled water production at the Hyperion Water Reclamation Plant to its full capacity would not eliminate imported water demands in Southern Los Angeles County. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. The need for 21,500 AFY equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in West Basin's 2015 Urban Water Management Plan (UWMP) Table 5-5 and the shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3). See *Master Response: Water Supply Alternative*.

Response to Letter BRI: Niklas Bringleson

Response BRI-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same, Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

The community of El Porto has been in the shadow of the NRG facility for years. Locating a light industrial facility in the middle of the existing NRG heavy industrial facility complex should not generally affect residential property values in the adjacent communities. See also *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Non-CEQA Issues*.

Response to Letter BUE: Michelle Bueltel

Response BUE-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same, Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response to Letter CHA: Peter Chang

Response CHA-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same, Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Water Supply Alternatives.*

Response to Letter CHR: D. Christopher

Response CHR-1

While large scale air to water generators could produce 1,320 gallons per day (http://www.watergen.com/products/), they are generally designed to meet the needs of villages, factories and off-grid settlements. They would not meet West Basin's goal to ensure future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan (UWMP), and would not be sufficient to offset the need for 20 million gallons per day.

Response to Letter CLA: Ben Clayton

Response CLA-1

West Basin's goal to ensure future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, is consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan (UWMP). The need for 21,500 acre-feet per year (AFY) equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in UWMP Table 5-5 and the shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3).

Response to Letter COC: Brian Cochran

Response COC-1

The West Basin Board of Directors has the authority to certify the Environmental Impact Report (EIR) and to consider approval of the Project. The names and contact information for each board member can be found here: http://www.westbasin.org/board-directors.

Response to Letter COC2: Brian Cochran

Response COC2-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same, Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter COHJ: Julia Cohen

Response COHJ-1

The West Basin Board of Directors has the authority to certify the EIR and to consider approval of the Project. The names and contact information for each board member can be found here: http://www.westbasin.org/board-directors.

No elected officials were present at the Draft EIR public meeting held on April 25, 2018.

Response to Letter COHS: Stephen Cohen

Response COHS-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*. The commenter is also referred to *Master Response: Water Supply Alternatives.*

Response to Letter CON: Terry Constant

Response CON-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved. It should be noted that the North Site is not located near the Hyperion Plant. The commenter is referred to *Master Response: Non-CEQA Issues* and *Master Response: Water Supply Alternatives.*

Response to Letter CROC: Renee Croce

Response CROC-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter CROF: Amy Croft

Response CROF-1

The commenter is referred to Section 7, *Alternatives to the Proposed Project*, *Master Response: Water Supply Alternatives,* and *Master Response: Non-CEQA Issues.*

Response to Letter CUN: Glenn Cunningham

Response CUN-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

See also *Master Response: Environmental Impacts to the El Porto Community.*

Response CUN-2

As noted in footnote 1 in the Draft EIR on page 5.1-1, "the analysis addresses public views and not private views, since obstruction of private views is not generally regarded as a significant environmental impact." The footnote goes on to highlight the courts' position that a CEQA analysis, "must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general." The Draft EIR evaluates impacts of the proposed Project on the environment. Impacts of the proposed Project on the South Site to visual character are evaluated in the Draft EIR on pages 5.1-20 through 5.1-22. Mitigation measures require screening that would reduce impacts by softening the southern border of the site with landscaping and screening mechanical equipment from view.

Lighting impacts are discussed in the Draft EIR on pages 5.1-25 through 5.1-29. Mitigation measures are identified to reduce light and glare impacts including preparation of a Construction Safety Lighting Plan (AES-5) and an Outdoor Lighting Plan (AES-6) to ensure that construction and operational lighting is aimed away from residential areas and light does not spill on to residential use.

As noted in the Draft EIR on page 5.1-26, "[c]onstruction would generally not occur during the nighttime; however, security lighting would be required." Therefore, the analysis of construction lighting impacts is based on the anticipated low-level security lighting. Further, the analysis indicates, "[t]o ensure that light spillover onto adjacent property does not occur, compliance with Mitigation Measure AES-5 requires preparation of a Construction Safety Lighting Plan that demonstrates that all construction-related lighting is located and aimed away from adjacent residential and public beach areas and consists of the minimal wattage necessary to provide safety at the construction site." West Basin is responsible for implementing the mitigation measures identified in the EIR and would determine the appropriate implementation actions to meet the identified performance standards based on professional judgement. *See Master Response: Environmental Impacts to the El Porto Community.*

Response CUN-3

The purpose of the EIR is to document West Basin's evaluation of the potential environmental impacts of the proposed Project on the environment, and to inform its Board of Directors' consideration of whether or not to approve the Project and direct staff to pursue permitting for it. As a CEQA lead agency, West Basin has the authority to certify that the evidence is sufficient to determine the environmental impacts of the proposed Project. The Coastal Commission is responsible for determining compliance of the Project with the Coastal Act and will do so during its review of West Basin's application for a Coastal Development Permit.

Response CUN-4

As discussed on page 5.12-25, the closest residential uses are located approximately 130 feet south of the construction area on the ESGS site. At this distance, vibration levels from pile driving would range between 0.014 and 0.128 in/sec peak particle velocity (Table 5.12-13). This is below the levels that could result in architectural damage to nearby residential structures or result in annoyance. Table 5.12-7 identifies that construction vibration damage can occur to buildings extremely susceptible to vibration at 0.12 in/sec. In California where construction is subject to seismic forces, this type of construction is not allowed for habitable structures. Table 5.12-7 notes that engineered structures would be susceptible to damage at levels exceeding 0.3 in/sec. which is well above the maximum range identified in Table 5.12-13. Local residences within 130 feet of the South Site Alternative construction area may experience slight vibration, but would not result in a substantial annoyance or structural damage. Furthermore, construction activities would only occur during the day time when residential receptors would be less sensitive to the effect. Impacts from vibration on local residences would be less than significant.

Response to Letter DAV: Thomas Davidov

Response DAV-1

As explained in the Project objectives of the Draft EIR Sections 1.2, *Executive Summary*, and 3.3, *Project Description*, West Basin's goal is to ensure future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan (UWMP). The Draft EIR Subsection 2.3.2 on page 2-14 discusses the 2015 UWMP and details how West Basin proposes to manage its water supplies and demands under all hydrology conditions, and demonstrates how West Basin proposes to meet its service area's wholesale demands and provide long-term water reliability over the next 25 years. The need for 21,500 AFY equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in UWMP Table 5-5 and the shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3).

The Draft EIR Subsection 7.2.1 considered 11 alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse (see Draft EIR Table 7-1). See also *Master Response: Water Supply Alternative*

Response to Letter DEF: Victoria Lynn DeFrank

Response DEF-1

All environmental impacts, including those to the local community and region, are identified throughout the Draft EIR Section 5.1 through 5.16.

Response DEF-2

As part of the Project planning efforts, West Basin prepared preliminary cost estimates for the proposed Project that are included in the Ocean Water Desalination Program Master Plan prepared in 2013. This cost estimate is available on the District's website:

> http://westbasindesal.com/assets/Documents%20and%20Files/Research%20Documents/Ocean%20Water%20Desalination%20Program%20Master%20Plan_PMP%20Vol%20I%20(2013).pdf

These preliminary cost estimates provide a planning-level range of total Project costs that include costs for constructing the treatment facility (including the offshore intake and discharge modifications) and the product water distribution system as well as annual operations and maintenance costs. These preliminary estimates provide a sense for the ultimate scale of the costs, but present a wide range to account for uncertainty. As the Project design is refined, including permitting and mitigation commitments, actual Project costs will also become more refined. West Basin has initiated a more refined cost estimate and rate study for the proposed Project that is expected to be completed in 2020. See also *Master Response: Cost and Rates*. West Basin proposes to build and operate the facility, and the cost of operations would be recovered through rates. Draft EIR Section 5.1, *Aesthetics*, addresses the potential for the Project to result in impacts on the existing visual environment (less than significant with mitigation). Section 5.14, *Recreation*, addresses potential impacts on recreation resources: The Project would not result in loss of beach access.

Response DEF-3

Responses to all comments received on the Draft EIR are included herein. See also *Master Response: Cost and Rates.*

Response to Letter DEL: Patricia Delk

Response DEL-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same, Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response to Letter DOD: Clinton Dodd

Response DOD-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Response to Letter DOL: Dina Doll

Response DOL-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same, Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter DUN: Lesley Dunlap

Response DUN-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same, Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Water Supply Alternatives.*

Response to Letter DUN2: Lesley Dunlap

Response DUN2-1

While West Basin appreciates the comment, it expresses an opinion and does not speak to the adequacy of the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary. See response to comment DUN-1, and *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter EVE: Conner Everts

Response EVE-1

West Basin initially provided a Draft EIR review and comment period of 60 days, from March 27, 2018, through May 25, 2018. In response to comments requesting an extension, West Basin granted a 31-day extension for review and comment on the Draft EIR. The public review period ended at 5 p.m. on Monday, June 25, 2018, providing a 91-day public review period.

Response EVE-2

In response to this and other comments requesting an extension, West Basin granted a 31-day extension for review and comment on the Draft EIR, providing a 91-day public review period.

Response EVE-3

West Basin thanks the commenter for their reflection on the staff engagement at the Draft EIR public meeting.

Response EVE-4

While West Basin collected comment cards at the Draft EIR public meetings, the meetings were not recorded. All comments offered at the public meeting were responded to at the public meeting by the West Basin and consultant staff. West Basin staff urged commenters to submit written comments on the Draft EIR so that the Board of Directors has a clear record upon which to make a decision on whether or not to approve the Project. This Final EIR contains all written comments received, and responses to those comments.

Response to Letter FEA: Sarah Feakins

Response FEA-1

West Basin thanks the commenter for acknowledging West Basin's efforts during the Draft EIR public meeting.

CEQA Guidelines Section 15105 provides that the public review period for a draft EIR shall not be less than 30 days nor should it be longer than 60 days except under unusual circumstances. West Basin not only met, but also exceeded the recommended review period by extending the initial 60-day review period to 91-days, in response to public requests to do so. It is not possible to gauge the time it takes to read a complete Draft EIR, because different people have different levels of comprehension and reading speeds. West Basin acknowledges the level of commitment involved in public participation and engagement in the CEQA process.

Regarding frequently asked questions, West Basin prepared a *Citizen's Guide: A Handbook to the Draft Environmental Impact Report and Review Process* (available at: http://westbasindesal.com/assets/Documents%20and%20Files/Project%20Materials/Citizens-Guide.pdf) to answer a variety of questions posed by members of the public. The Citizen's Guide has been available on the West Basin website since March 2018. In addition, this Final EIR includes a series of Master Responses that capture many of the concerns frequently expressed by commenters on the Draft EIR.

Response FEA-2

The commenter's experience and suggested reading of the June 2006 Pacific Institute materials are noted for the record. Responses to comments FEA-3 through FEA-28 are included in the Final EIR, per CEQA Guidelines.

Response FEA-3

The cost of a project is not considered an environmental impact under CEQA unless it results in physical changes to the environment. Since the cost of the proposed Project will not in itself result in physical changes, the proposed Project's effect on customer rates is not required to be considered in the Draft EIR. However, West Basin recognizes the importance of having a thorough understanding of the costs and benefits of Project implementation. As part of the Project planning efforts, West Basin prepared preliminary cost estimates for the proposed Project that are included in the Ocean Water Desalination Program Master Plan prepared in 2013. This cost estimate is available on the District's website:

> http://westbasindesal.com/assets/Documents%20and%20Files/Research%20Documents/Ocean%20Water%20Desalination%20Program%20Master%20Plan_PMP%20Vol%20I%20(2013).pdf

These preliminary cost estimates provide a planning-level range of total Project costs that include costs for constructing the treatment facility (including the offshore intake and discharge modifications) and the product water distribution system as well as annual operations and

maintenance costs. These preliminary estimates provide a sense for the ultimate scale of the costs, but present a wide range to account for uncertainty. As the Project design is refined, including permitting and mitigation commitments, actual Project costs will also become more refined. West Basin has initiated a more refined cost estimate and rate study for the proposed Project that is expected to be completed in 2020. See *Master Response: Cost and Rates*.

Response FEA-4

See response to comment FEA-3 and *Master Response: Cost and Rates*.

Response FEA-5

The Draft EIR Section 5.5.4 presents the proposed Project's energy requirements for construction and operation, summarized in Table 5.5-4. Details regarding operational energy are provided in Tables 5.5-5 and 5.5-6. Regarding cost, please see *Master Response: Non-CEQA Issues* and *Master Response: Cost and Rates.*

Response FEA-6

Draft EIR Subsection 7.2.1 explains that West Basin's retail water agencies are required to comply with SB X7-7 (Water Conservation Act of 2009) water use reductions targets, while West Basin is not. However, West Basin uses its 2015 Urban Water Management Plan (UWMP) as a "Regional Alliance" UWMP to establish regional demand reduction targets for five of its eight retail agencies[1]. West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio.

Response FEA-7

Regarding the commenter's concern about water rates' potential health impacts to low-income communities, please see *Master Response: Environmental Justice* (see also Final EIR Section 18) as well as *Master Response: Cost and Rates*.

Response FEA-8

West Basin held two public meetings, on April 25, 2018, and May 12, 2018, to provide Project information and receive public comments on the Draft EIR. A cumulative total of 151 attendees signed in to the public meetings. A cumulative total of 18 public comments forms, 81 question cards (the questions on the cards were responded to at the meetings) and 8 speaker cards were submitted. The comments were diverse, and covered a range of topics, including cost, and environmental impacts, particularly on the El Porto community. See also response to comment FEA-3 and *Master Response: Cost and Rates*.

Response FEA-9

The comment's statement that roadways within the proposed Project vicinity are a "major conduit" between "South Bay" and "Silicon Beach" is noted for the record. No further response is

[1] West Basin's Regional Alliance partners include the California Water Service (Hawthorne Region), City of El Segundo, City of Lomita, City of Manhattan Beach, and the Los Angeles County Waterworks District #29.

warranted. Temporary construction impacts to traffic flow would be managed through the implementation of a Traffic Control Plan that will ensure delays in traffic are minimized.

Response FEA-10

Many different comments were made at the Draft EIR public meetings that pertain to environmental impacts analyzed in the Draft EIR. A majority of comments were raised about impacts to local communities related to traffic and noise.

Response FEA-11

As stated in the Draft EIR on page 5.15-20, Project-related truck trips would use adopted truck routes, including those identified in the El Segundo General Plan Circulation Element Exhibit C-12. Truck routes have been established by local jurisdictions to limit road damage to specific identified routes. Truck haul routes for the proposed Project would be located along Vista Del Mar Boulevard, Imperial Highway, and the I-105. It should be noted that haul routes are subject to change based on final design and engineering requirements.

Response FEA-12

The Traffic Control Plan required to be implemented under Mitigation Measure TRA-1 will account for all routes required for truck trips and road closures associated with the proposed Project, including left turns out of the proposed Project site. Specifically, Mitigation Measure TRA-1 will "identify safety procedures for exiting and entering the site access gate."

Response FEA-13

The Traffic Control Plan included as Mitigation Measure TRA-1 will minimize delays associated with lane closures that result from proposed Project implementation. As noted on page 5.15-21, although unlikely, temporary full road closures may be necessary for short periods.

Response FEA-14

The traffic impacts resulting from the proposed Project would only occur during construction, and are therefore considered temporary. Lane closures would only occur within segments of roadways within which pipelines are installed. As soon as the pipeline is installed, the segment of the roadway will be opened. This means that while temporary, road closures would not occur along the entire segment of Vista Del Mar. All detours will also be temporary and will be clearly marked. As part of the construction process, West Basin or its construction contractor will hire a public outreach consultant to notify adjacent communities to the planned construction activities within roadways.

See also *Master Response: Environmental Impacts to the El Porto Community.*

Response FEA-15

The 2013 Pacific Institute report cited by the commenter was not consulted in preparation of the Draft EIR because there are more relevant, contemporary and site-specific studies; see EIR Subsection 5.9.7 for a list of sources cited in the Draft EIR. But many of the concepts in the

Pacific Institute report were considered in the preparation of the Draft EIR. For example, page 14 in the Pacific Institute report explains that the addition of diffusers can promote mixing and improve dilution of the brine and notes there is general consensus among modeling studies that optimal mixing is achieved by discharging the brine in sub-tidal, off-shore environments with persistent turbulent flow, and cites Roberts et al. 2010. Dr. Roberts prepared the Draft EIR Appendix 4C (Modeling Brine Disposal from the West Basin Ocean Water Desalination Project, 2018) and Final EIR Appendix 14 (Modeling Linear Diffusers for Brine Disposal from the West Basin Ocean Water Desalination Plant, 2019). Final EIR Section 11, *Refinements to the Project Description,* presents a description of the linear brine diffuser system.

Response FEA-16

The Draft EIR in its discussion of underwater noise from pile-driving activities establishes that underwater noise at high decibel levels causes harm to fish and marine mammals (Draft EIR pages 5.11-44 to 5.11-50). This harm can range from acute effects including death and indirect effects resulting in altered behavior. The National Oceanic and Atmospheric Administration (NOAA), as the Federally mandated agency responsible for enforcement of the Marine Mammal Protection Act (MMPA) and the Federal Endangered Species Act (FESA) for marine species, has established underwater noise threshold levels for both fish and marine mammals below which no harm is expected. Including a lengthy discussion in the Draft EIR of precisely how underwater noise affects different species of marine mammals or fish is not necessary, since the National Marine Fisheries Service (NMFS) has already conducted these studies and established acceptable underwater noise levels at which little to no harm to fish or marine mammals is expected to occur.

Mitigation Measure BIO-M1 (Draft EIR pages 5.11-62 -5.11-63) requires the Project sponsor to prepare a noise reduction plan prior to Project implementation that recalculates all potential underwater noise generated by the final piling design, and it requires the Project sponsor to develop a plan to reduce underwater noise to levels determined by NMFS to not harm fish and marine mammals. This plan should include all feasible Best Management Practices (BMPs) currently known to result in reduced underwater noise generation as well as any new BMPs developed after the preparation of the CEQA analysis and prior to Project implementation. This approach ensures the best technology is employed to reduce the generation and potential effects of underwater noise from a Project that is years, if not decades, from its implementation.

Concerning the effects of increased salinity from discharged brines on marine mammals, including dolphins, these are discussed on Draft EIR page 5.11-56. The brine discharge must be within 2 parts per thousand (ppt) of ambient water concentrations within the Brine Mixing Zone (BMZ) which is the region within 328 feet of the diffuser. The time that any dolphin or whale would be passing through this mixing zone would be measured in seconds and not considered to pose any risk. Most marine mammals, including dolphins, inhabit waters of varying salinities, and because of adaptations in kidney structure are capable of tolerating wide ranges of salinities (Ortiz 2001).

Response FEA-17

As discussed in the Draft EIR Section 3.2, *Project Location,* two of the conventional steam turbine units (Units 3 and 4) on the NRG property were decommissioned in December 2015, but are still existing on-site. The brine discharge from the proposed Project would use a currently unused discharge tunnel and it would not be diluted with El Segundo Power Plant power plant cooling water. Section 5.9, *Hydrology and Water Quality*, explains the proposed Project does not require dilution water in order to meet Ocean Plan thresholds.

Response FEA-18

Flooding and coastal hazards, including sea level rise, are discussed in the Draft EIR, Section 5.9, *Hydrology and Water Quality*, Impact 5.9-6 on pages 5.9-72 through 5.9-78. Since rising sea levels will increase the potential coastal flooding and flood hazards in the future, West Basin conducted a site-specific Coastal Hazards Analysis for the proposed desalination facility at the ESGS North and South Sites, provided as Draft EIR Appendix 5. As part of this Final EIR, West Basin prepared a supplemental Coastal Hazards Analysis, which is included as Final EIR Appendix 15; see *Master Response: Supplemental Studies*.

Response FEA-19

The NRG facility constructed a concrete wall between the Marvin Braude Bike Trail and the NRG property in 2012. However, it is a visual screen and security fence; it is not an engineered flood wall. While the wall is referred to as a "tsunami wall" by NRG staff, there is no indication it is designed to meet specific coastal loading criteria. However, it is possible that it is intended to "breakaway" when impacted by extreme coastal events, such as a tsunami or other wave action. The primary purpose of the wall was to mitigate temporary construction impacts to visual resources by users of the adjacent recreational beach. See Final EIR Appendix 15, Subsection 2.1.2.

Response FEA-20

The Draft EIR used the California Coastal Commission's 2015 Sea-Level Rise Policy Guidance, but the supplemental Coastal Hazards Analysis (see response to comment FEA-18) utilizes the Ocean Protection Council's April 2017 *Rising Seas in California: An Update of Sea-Level Rise Science* (Griggs et al. 2017)[2] and the 2018 *CCC Sea Level Rise Guidance* (CCC 2018), as recommended by the CA Coastal Commission in their comments on the Draft EIR (see response to comment CCC-7).

Response FEA-21

The June 2006 Pacific Institute Study compares energy and GHG emissions of seawater desalination to other water supply options; see *Master Response: Greenhouse Gas Emissions and Energy Use.*

[2] The Ocean Protection Council's April 2017 publication was prepared by its Science Advisory Team Working Group (Gary Griggs et.al.). The April 2017 publication was used to prepare its *State of California Sea-Level Rise Guidance: 2018 Update,* referenced as Ocean Protection Council 2018.

Response FEA-22

The comment makes an erroneous presumption that 50 percent of California's electricity is derived from coal, whereas the actual statewide percentage according to the California Energy Commission was closer to 4 percent in 2017 and is expected to essentially zero by 2026 (CEC 2018). Furthermore, the state's Renewable Portfolio Standard (RPS) requires electricity providers to increase the renewable portion of their total sales to at least 33 percent by 2020, 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030.[3]

As shown in the Draft EIR in Tables 5.7-3 and 5.7-4, the vast majority of emissions associated with the Project are attributable to electricity consumption. The Draft EIR identifies the energy requirements of the proposed Project and evaluates whether the use of energy would be wasteful in Section 5.5. West Basin acknowledges that ocean water desalination is a more energy intensive water supply source than imported water, but increases water supply stability and reliability for the overall regional water supply portfolio. For a discussion of less energy-intensive water supply alternatives, see *Master Response: Greenhouse Gas Emissions and Energy Use.*

Response FEA-23

The indirect emissions associated with the proposed Project's building materials, commonly referred to as life-cycle emissions, are not included in the inventory because these emissions would be accounted for under the California Global Warming Solutions Act of 2006 (AB 32) in other industry sectors. Emissions generated during the manufacture of materials and products involve numerous parties, each of which is responsible for the GHG emissions of their particular activity. Recognizing the uncertainties associated with a life-cycle analysis, the California Air Pollution Control Officers Association (CAPCOA) released a white paper in 2008 that states: "The full life-cycle of GHG emissions from construction activities is not accounted for in the modeling tools available, and the information needed to characterize GHG emissions from manufacture, transport, and end-of-life of construction materials would be speculative at the CEQA analysis level" (CAPCOA 2008). In addition, the California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analyses were not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (California Resources Agency 2009).

Additionally, the Draft EIR Section 6 includes an analysis of use of nonrenewable resources, per CEQA Guidelines Section 15126(c) and 15126.2(c).

[3] Following publication of the Draft EIR, on September 10, 2018, Governor Brown signed SB 100, which increased California's RPS and requires retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. SB 100 also directs CARB to plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

Response FEA-24

The CEQA Guidelines include very specific requirements for notification of public review of a Draft EIR. Section 15087(a) requires one of three notification methods: publication in a newspaper of general circulation; posting of notice on-site where the Project would be implemented; or direct mailing to the owners and occupants of property contiguous to the parcel on which the project would be located. West Basin exceeded the CEQA Guidelines by conducting all three methods of notification. Notification to ratepayers, contrary to the commenter's suggestion, is not required by CEQA. Also refer to *Master Response: Cost and Rates*.

Response FEA-25

West Basin complied with the requirements for Draft EIR public meetings as presented in CEQA Guidelines Section 15087(i). If and when the Project is approved by West Basin's Board of Directors, West Basin will communicate, as appropriate, with ratepayers.

Response FEA-26

A total of 97 attendees signed in for the April 25, 2018 Draft EIR public meeting. A total of 54 attendees signed in for the May 12, 2018 Draft EIR public meeting. Attendees included residents, representatives or staff from elected official offices, federal agencies, and community organizations. West Basin is not required to tally the amount of non-repeat attendees at the meetings.

At the public meeting on April 25, 2018, 17 public comment forms and 40 question cards were submitted. At the May 12, 2018 meeting, 1 public comment form, 41 question cards, and 8 speaker cards were submitted. A total of 213 comment letters were received on the Draft EIR.

See response to comment FEA-1 regarding the extended public review period. The Board member qualifications are posted on the West Basin website: http://www.westbasin.org/board-directors. The Board meets monthly, and the agendas and minutes are available online.

Response FEA-27

The Draft EIR Subsection 7.2.1 considered 11 alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse (see Draft EIR Table 7-1). But the need for 21,500 acre-feet per year (AFY) equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in UWMP Table 5-5 and the shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2010 and 2015 UWMP Table ES-3).

Response FEA-28

The comment quotes text from a Pacific Institute report cited earlier in the letter. The commenter is referred to *Master Response: Water Supply Alternatives* and *Master Response: Cost and Rates.*

Response to Letter FER: Michael Ferniany

Response FER-1

The Draft EIR's traffic and transportation impacts are temporary and would only occur during construction. Once construction is complete along Vista Del Mar, the roadways would be returned to their pre-construction condition. See also *Master Response: Environmental Impacts to the El Porto Community.* The Draft EIR addresses cumulative traffic impacts, including those from nearby industrial development, on pages 5.15-40 to 5.15-41.

Response FER-2

Draft EIR Subsection 7.2.2 evaluates site alternatives. Neither San Pedro nor Long Beach are within the West Basin service area.

Response to Letter FON: Barbra Fontana

Response FON-1

The commenter is referred to *Master Response: Water Supply Alternatives* and *Master Response: Cost and Rates.* The commenter is also referred to Section 5.11, *Marine Biological Resources*, for a discussion of environmental impacts related to marine biological resources, which were found to be less than significant with implementation of mitigation measures.

Response to Letter FOR: Christopher Forrest

Response FOR-1

The commenter is referred to *Master Response: Non-CEQA Issues* and *Master Response: Environmental Impacts to the El Porto Community.* The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response FOR-2

The decision to build the Project has not yet been made; the West Basin Board of Directors will make that decision upon review of the Final EIR.

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same, Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter FRAN: Dean Francois

Response FRAN-1

The Draft EIR Subsection 7.2.1 evaluates a range of water supply alternatives, including recycling, and explains that expanding the existing recycled water use in the region will not completely offset the need for imported water. Even expanding the recycled water production at the Hyperion Water Reclamation Plant to its full capacity would not eliminate imported water demands in Southern Los Angeles County. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination.

Response FRAN-2

The comment expresses concern about wildlife. Although West Basin appreciates the concerns raised, the comment does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response FRAN-3

An alternative at AES Redondo Beach Generating Station was evaluated in Draft EIR Subsection 7.3.2.

Response FRAN-4

Draft EIR Subsection 7.2.1 explains that West Basin's retail water agencies are required to comply with SB X7-7 (Water Conservation Act of 2009) water use reductions targets, while West Basin is not. However, West Basin uses its 2015 Urban Water Management Plan (UWMP) as a "Regional Alliance" UWMP to establish regional demand reduction targets for five of its eight retail agencies[4]. West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio.

[4] West Basin's Regional Alliance partners include the California Water Service (Hawthorne Region), City of El Segundo, City of Lomita, City of Manhattan Beach, and the Los Angeles County Waterworks District #29.

Response to Letter FRAN2: Dean Francois

Response FRAN2-1

The California Coastal Act does not indicate that a project cannot block any views of the coast. The California Coastal Act recognizes that there is a need for some coastal dependent industrial uses and provides policies that allow appropriate evaluation of such projects. As indicated on page 5.1-17, "… the expanded development proposed at the ESGS South Site is considered consistent with the LCP and Coastal Act since it would: (1) not block views of the scenic coastal areas, (2) minimize the alteration of natural land forms, (3) be visually compatible with the character of surrounding areas (north and east), and (4) include landscaping to enhance visual quality in visually degraded areas and to buffer the community to the south." A detailed discussion of Project consistency with the Coastal Act and the El Segundo Local Coastal Plan is provided in table 5.10-3 pages 5.10-17 through 5.10-20.

Numerous visual simulations from the public vantage points along the beach and in northern Manhattan Beach are included in the Draft EIR to disclose visual impacts of the Local Project (see Figures 5.1-6 through 5.1-10, 5.1-16, and 5.1-19 through 5.1-20), and are accompanied by textual descriptions of the proposed changes. Most notable is Figure 5.1-7 and the accompanying text on page 5.1-37, which states that: "The proposed new ocean water desalination facility at the ESGS South Site would not result in any significant view blockage of beach areas or ocean views; refer to Figure 5.1-7. Views to some landscaped slopes would be replaced with Local Project ocean water desalination facility structures. The proposed structures would appear to encroach closer to beach areas when compared to the existing condition." The text explains that while new structures would be visible from the beach, view blockage of the beach or ocean views would not occur as a result of the proposed Project. See *Master Response: Environmental Impacts to the El Porto Community*.

Response FRAN2-2

West Basin has maximized the space available for use at the NRG site in El Segundo. Please see Section 11 of the Final EIR, *Refinements to the Project Description*. See also *Master Response: Supplemental Studies*, specifically the discussion of Coastal Hazards.

Response to Letter FRAS: Robert Fraser

Response FRAS-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same, Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter FREE: Robert Freeman

Response FREE-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Response to Letter FREG: Scott Frego

Response FREG-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community.* While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see also *Master Response: Non-CEQA Issues*.

Response FREG-2

To address encountering contaminated soil, Mitigation Measures HAZ-1 and HAZ-2 require preparation and implementation of procedures and protocols for training demolition and construction workers in recognizing hazardous materials, describing all waste streams, managing excavated soil, and testing of soils to identify the appropriate handling and disposal of soils. In addition, as explained in the Draft EIR Section 5.2, *Air Quality*, in Impact AQ 5.2-1, page 5.2-23, the Project would be required to comply with the South Coast Air Quality Management District's (SCAQMDs) requirements for controlling fugitive dust pursuant to SCAQMD Rule 403. Details of the procedures to comply with Rule 403 are listed in Mitigation Measure AQ-1 on page 5.2-40, and include watering of active work surfaces, covering of stockpiles, work prohibitions if wind speeds exceed 25 miles per hour, and the covering of trucks transporting soil off-site. Compliance with existing regulations and implementation of the mitigation measures would ensure contaminated materials are properly handled and contained to prevent fugitive dust and spillage from trucks transporting contaminated materials. The following change has been made to Mitigation Measure AQ-1 to correct a typographical error.

> **AQ-1:** Prior to construction, West Basin shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, SCAQMD Rule 403~~2~~ requires implementation of the following dust suppression techniques to prevent fugitive dust from creating a nuisance off-site and reduce construction-related fugitive dust impacts on nearby sensitive receptors:…

Response FREG-3

As noted on page 5.1-12, Mitigation Measure AES-2 requires that rooftop equipment be screened from public view. The analysis concludes that the new structures would be visible from surrounding areas, but would not deteriorate the local character or substantially affect views of the ocean. As discussed on page 5.12-19, all stationary mechanical equipment (e.g., pumps, generators, including HVAC) would be housed within enclosed structures; therefore, noise generated by ocean water desalination facility operation would be minimal and would not adversely affect nearby sensitive receptors (i.e., residential uses located approximately 130 feet south of the ESGS South Site facilities), and thus would not generate operational noise levels that would expose persons to or generate noise levels in excess of applicable standards. In addition, Mitigation Measure NOI-4 would require that West Basin enclose all noise-generating machinery to meet nighttime noise standards for residential uses, which would achieve 40 dBA attenuation.

As a result, noise levels at the property line would be reduced to below operational noise standards for residential use.

Response FREG-4

For stormwater capture to be considered as a new local water supply for West Basin Municipal Water District, stormwater runoff would not only have to be captured and stored within the West Coast Groundwater Basin when available, but it would also have to be produced as groundwater by West Basin's customer retail water agencies with groundwater rights. But the need for 21,500 acre-feet per year (AFY) equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in West Basin's 2015 Urban Water management Plan (UWMP) Table 5-5 and the shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3). See Draft EIR Subsection 7.2.1, and *Master Response: Water Supply Alternatives.*

Response FREG-5

Hyperion Water Reclamation Plan is operated by the City of Los Angeles and is its largest wastewater treatment facility. The plant has been improved numerous times over its 100-year history (City of Los Angeles 2019). The location of the proposed Project analyzed in the Draft EIR, as well as the Project site alternatives analyzed in Section 7, is based on proximity to West Basin's customers and water distribution network. Since West Basin does not own the Hyperion facility, it would be infeasible to assume such an extensive wastewater facility could accommodate the proposed Project.

Response FREG-6

An alternative at the AES Redondo Beach Generating Station (RBGS) was evaluated in Draft EIR Subsection 7.3.2. This alternative would satisfy the Project objectives but would generally have greater marine impacts as compared to the ESGS site due to greater larval abundancy and associated increased mitigation requirements. However, impacts would remain less than significant. The AES RBGS site would generally have reduced onshore environmental impacts as compared to the ESGS South Site and similar impacts when compared to the ESGS North Site. As noted by the City of Redondo Beach in comment RBCH-4 on the Draft EIR: "the consideration of an alternative facility at the AES Generating Station in Redondo Beach [would] be contrary to all current efforts underway to de-industrialize the City's Waterfront and develop parkland and other coastal commercial resident and visitor serving uses. The existing facility is currently being offered for sale by AES for nonindustrial development, and the City is working to participate in the sale and development process by offering to purchase some or all of the site. The City has been successful in supporting legislation that would provide funding for parkland development, and has begun the process of forming an Enhanced Infrastructure Finance District (EFID) in cooperation with the County of Los Angeles to provide ongoing funding to improve and transform this blighted industrial facility." If the site were to become available, the 5.9-acre

area of disputed coastal wetlands were to be satisfactorily resolved, and site development were to be supported by the City of Redondo Beach, the AES RBGS site would remain under consideration by West Basin as an alternative to the ESGS South Site.

Response to Letter GAL: Robert Gallman

Response GAL-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

The community of El Porto has been in the shadow of the NRG facility for years. Locating a light industrial facility in the middle of the existing NRG heavy industrial facility complex should not generally affect residential property values in the adjacent communities. See also *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Non-CEQA Issues.*

Response to Letter GILM: Carrie Gilmer

Response GILM-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Water Supply Alternatives.*

Response to Letter GIL: Steve Gilmour

Response GIL-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response to Letter GIL2: Steve Gilmour

Response GIL2-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Water Supply Alternatives*.

Response to Letter GRA: Margaret Grant

Response GRA-1

The use of renewable energy is addressed in several places in the Draft EIR. Section 5.5.4 (page 5.5-17) acknowledges that "(t)he electricity demands of the desalination facility and pump stations would be supplied by SCE, which is subject to the California Renewables Portfolio Standard Program. Over time, the electricity available to the proposed Project will include greater contributions from renewable energy supplies."

Mitigation Measure GHG-1 requires West Basin to minimize the proposed Project's energy demand and implement on-site renewable energy use before progressing through the remainder of the mitigation options identified in subsection 3 of Mitigation Measure GHG-1 (renewable power purchase agreement, renewable energy certificates, and carbon offsets) on the basis of the options' physical and economic feasibility.

Response GRA-2

The potential effects of the brine discharge on marine habitats and marine biota is discussed in detail in the Draft EIR Section 5.11, *Marine Biological Resources*, on pages 5.11-56 through 5.11-58. Potential effects of brine discharge on water quality are discussed in the Draft EIR Section 5.9, *Hydrology and Water Quality*, on pages 5.9-49 through 5.9-61.

Response GRA-3

Regulations relevant to the proposed Project relating to ocean and coastal environments are presented in detail in the Draft EIR Subsections 5.9.1 (Hydrology and Water Quality), 5.11.1 (Marine Biological Resources), 5.16.1 (Utilities and Service Systems, including safe drinking water laws and regulations), and 5.8.1 (Hazards and Hazardous Materials). As discussed in the Draft EIR sections presenting impact analyses relating to these topics (Subsections 5.9.4, 5.11.4, 5.16.4, and 5.8.4 *et seq*.), the assessment of impacts comprehensively applied and considered the applicable regulations discussed in the regulatory setting sections, such as the Water Quality Objectives of the California Ocean Plan, the California Coastal Commission's Sea-Level Rise Policy Guidance, the Coastal Act policies relating to shoreline protection, and the Safe Drinking Water Act.

Response to Letter GUR: David Gurewitz

Response GUR-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community*.

Response to Letter GUT: Felipe Gutierrez

Response GUT-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Response to Letter HARD: Mary Hardin

Response HARD-1

The commenter is referred to: *Master Response: Cost and Rates, Master Response: Greenhouse Gas Emissions and Energy,* and *Master Response: Non-CEQA Issues.* The commenter is also referred to Section 5.11, *Marine Biological Resources*, for a discussion of environmental impacts related to marine biological resources, which were found to be less than significant with implementation of mitigation measures.

The Draft EIR Subsection 7.2.1 considered a range of alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse (see Draft EIR Table 7-1). The section explains that expanding the existing recycled water use in the region will not completely offset the need for imported water. Even expanding the recycled water production at the Hyperion Water Reclamation Plant to its full capacity would not eliminate imported water demands in Southern Los Angeles County. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. See also *Master Response: Water Supply Alternatives.*

Response HARD-2

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter HAR: Susan Harris

Response HAR-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see also *Master Response: Non-CEQA Issues* and *Master Response: Water Supply Alternatives.*

Response HAR-2

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see also *Master Response: Non-CEQA Issues, Master Response: Cost and Rates,* and *Master Response: Water Supply Alternatives*.

Response to Letter HIR: Emanuel Hirsch

Response HIR-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter HOP: Marsha Hopwood

Response HOP-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Response to Letter JASJ: Jay Jasaitis

Response JASJ-1

The ocean water desalination facility is proposed to be located at NRG's facility in El Segundo, which is zoned for Heavy Industrial uses (see the Draft EIR page 5.10-34) and is occupied by a heavy industrial user. As the comment states, this site is an industrial complex. The siting of a light industrial facility (such as a desalination facility) within the industrial complex would be compatible with the surrounding heavy industrial uses. Hazards are discussed in Draft EIR Section 5.8 and Aesthetics are discussed in Section 5.1. Construction of the Local Project is anticipated to occur over approximately 72 months (see Draft EIR Section 3.5) and would last 36 months for the Regional Project (see Draft EIR Section 3.6).

See also *Master Response: Environmental Impacts to the El Porto Community*, *Master Response: Water Supply Alternatives*, and *Master Response: Non-CEQA Issues.*

Response to Letter JASJ2: Jay Jasaitis

Response JASJ2-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*. The environmental impacts of the proposed Project are addressed throughout Section 5, *Environmental Analysis*.

Response JASJ2-2

See response to comment JASJ-1.

Response to Letter JASM: M. Dalia Jasaitis

Response JASM-1

The ocean water desalination facility is proposed to be located at NRG's facility in El Segundo, which is zoned for Heavy Industrial uses (see the Draft EIR page 5.10-34). The location of a desalination plant (a light facility facility) amongst the existing heavy industrial facilities would be compatible with the surrounding uses. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community*, *Master Response: Water Supply Alternatives*, and *Master Response: Non-CEQA Issues.*

Response to Letter JOH: Dave Johnson

Response JOH-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response to Letter KAR: Karen

Response KAR-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, and as noted by the comment, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response to Letter KEL: Harry Keller

Response KEL-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Regarding renewable power for the proposed Project, the Draft EIR states on page 5.5-15 that West Basin has and will continue to participate in energy and water conservation programs and the use of on-site renewables. West Basin is committed to pursuing reasonable energy minimization and efficiency as part of the Project. The Project would incorporate all feasible available energy recovery and conservation technologies as described in Mitigation Measure GHG-1.

Response to Letter KEN: Rebecca Kendall

Response KEN-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*. The commenter is also referred to *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter KER: Lindsey Kernan

Response KER-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved. The commenter is referred to *Master Response: Non-CEQA Issues* and *Master Response: Environmental Impacts to the El Porto Community.*

Response KER-2

The assessment of impacts on water quality from the discharge of brine, from the proposed Project, incorporates the numeric thresholds defined in the Ocean Plan for determining impacts from operation of the Local and Regional Project. Specifically relating to salinity, as described in detail under Impact 5.9-2 (Draft EIR Subsection 5.9.4), the California Ocean Plan limits the increase of salinity of receiving water from desalination plant discharges to a daily maximum of 2 parts per thousand (ppt) above natural background salinity at the boundary of the Brine Mixing Zone (BMZ), defined as the horizontal distance of 100 meters (328 feet) from the point of discharge. As presented in Table 5.9-6 and 5.9-8 (see response to comment LARWQCB-30 for further discussion relating to supplemental studies and revisions to the Draft EIR), the Local and Regional Projects would meet the Ocean Plan salinity standard at a maximum of 63 feet and 98 feet from the point of discharge, respectively, for all scenarios modeled.

Similarly, for other water quality constituents, the analysis of water quality impacts incorporates the numeric water quality objectives defined in the Ocean Plan, as summarized in the Draft EIR Table 5.9-2. As discussed in detail under Impact 5.9-2, brine discharges would not cause or contribute to an exceedance of relevant water quality standards and would not pose any risk to marine habitats and taxa, including special-status fish, marine mammals, and sea turtles (Draft EIR Subsection 5.11.4, page 5.11-56).

Response to Letter KLA: Aaron Klafter

Response KLA-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response to Letter KLI: Karen Klink

Response KLI-1

The commenter is referred to *Master Response: Cost and Rates, Master Response: Greenhouse Gas Emissions and Energy,* and *Master Response: Non-CEQA Issues.* The commenter is also referred to Section 3, *Project Description* of the Draft EIR, for a discussion of chemicals used in and produced by the proposed Project, which are analyzed in Section 5.8, *Hazards and Hazardous Materials*. Section 5.11, *Marine Biological Resources*, for a discussion of environmental impacts related to marine biological resources, which were found to be less than significant with implementation of mitigation measures.

Response to Letter KRE: Michael Kreger

Response KRE-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Cost and Rates.*

Response to Letter LEL: Andrew Lelchuk

Response LEL-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response to Letter LIB: Thomas Libbey

Response LIB-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Response to Letter LOM: David Lombard

Response LOM-1

The commenter is referred to Section 7, *Alternatives to the Proposed Project*, *Master Response: Water Supply Alternatives,* and *Master Response: Non-CEQA Issues.*

Response to Letter LON: Janet London

Response LON-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). Locating a light industrial facility in the middle of the existing NRG heavy industrial facility complex should not generally affect residential property values in the adjacent communities. As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval. See also *Master Response: Non-CEQA Issues.*

Response to Letter MAGG: Kevin Maggay

Response MAGG-1

The Draft EIR includes a robust non-deferral analysis of greenhouse gas emissions and mitigation, in Section 5.7, *Greenhouse Gas Emissions*, and marine biology, in Section 5.11, *Marine Biological Resources*.

Response MAGG-2

The Draft EIR on page 5.7-25 notes that as California's electricity providers increase the percentage of renewable energy in their portfolios, per SB 350 and California's RPS program, GHG emissions associated with Project operations will be reduced. Both the Local Project's total emissions and the emissions associated with imported Metropolitan Water District of Southern California (MWD) water are anticipated to go down over time due to California's Renewable Portfolio Standards (RPS), with the likely result that the proposed Project emissions subject to mitigation would be less than the current estimate of 10,959 metric tons of carbon dioxide equivalent (MTCO2e) presented in the Draft EIR (Table 5.7-3). An example is provided to demonstrate that, assuming the 50 percent renewables standard is met by 2030, as mandated by SB 350,[5] Local Project emissions would be reduced to approximately 17,800 MTCO2e in 2030, while the emissions associated with the same volume of imported water would be reduced to approximately 10,800 MTCO2e, netting a difference of approximately 7,000 MTCO2e above the threshold that would be subject to mitigation by Mitigation Measure GHG-1. For the Local Project plus Regional Project (60 MGD), the net increase in emissions would be approximately 25,000 MT CO2e rather than the 36,765 MTCO2e presented in the Draft EIR (Table 5.7-4).

With regards to the comment's statements about the efficacy of the mitigation measures, see response to MBCH3-58.

Response MAGG-3

As explained in the Draft EIR Section 5.11, *Marine Biological Resources*, on pages 5.11-49 through 5.11-61, there have been decades of studies on entrainment impacts from coastal power plants' once through cooling systems in the Santa Monica Bay (SMB) and throughout the State. The potential ecosystem effects of the entrainment caused by these operations is fairly well understood. However, there have only been a few coastal desalinization plants placed into operations along the California coast, and none of these currently utilize the reduced ocean intake flow rates or a wedgewire screen to reduce potential entrainment that are specified in the Ocean Plan. As indicated in the Draft EIR Section 5.11, West Basin did commission a study of the effectiveness of wedgewire screens and intake flow rates of <0.5 fps on impingement and entrainment (Tenera 2014). Also, as explained in Draft EIR Section 5.11, *Marine Biological Resources*, there is a wide variation in the estimated magnitude of entrainment and therefore ecosystem effect. It is precisely for this reason that Mitigation Measure BIO-M2 commits West

[5] With the passing of SB 100, the RPS standard has increased to 60 percent by 2030. SB 100 also directs CARB to plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

Basin to mitigating potential entrainment impacts of the proposed Project with ecosystem enhancement efforts.

Response MAGG-4

The comment expresses opinion on using worst-case scenarios within an EIR. As evidenced in the opinion rendered on *High Sierra Rural Alliance v County of Plumas* (2018) 29 Cal.App.5th 102, an EIR is not required to speculate on a worst-case scenario. The commenter is referred to *Master Response: Non-CEQA Issues*. See response to comment MAGG-3.

Every topical section in Section 5, *Environmental Analysis*, including 5.7 *Greenhouse Gas Emissions* and 5.11 *Marine Biological Resources*, has been analyzed and supported by substantial research. These studies have been either included as appendices or referenced throughout the Draft EIR. Section 2.10, on page 2-28, illustrates a brief overview of the referenced research milestones West Basin has completed as part of the Project development background. The referenced researched are posted on the West Basin website: http://westbasindesal.com/research-and-planning.html

Response to Letter MAGI: Kiran Magiawala

Response MAGI-1

Verified carbon offsets from an approved registry are included as an implementation option in the Energy Minimization and GHG Reduction Plan described in Mitigation Measure GHG-1. All of the approved registries referenced in the Draft EIR include protocols for developing and verifying carbon offsets from reforestation projects.

Response to Letter MAL: Peggy Malpee

Response MAL-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*.

Response MAL-2

At the proposed ESGS site, the proposed Project, as a light industrial facility, would be located among the array of existing heavy industrial facilities along the Santa Monica coastline. The parking lots along Dockweiler Beach referenced by the comment are not zoned for such industrial use, and would likely be more inconsistent with surrounding land uses, aesthetic conditions, and recreational uses than the proposed Project.

Response to Letter MARA: Andrea Marron

Response MARA-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter MARA2: Andrea Marron

Response MARA2-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

The commenter is also referred to *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter MARJ: Joseph Marron

Response MARJ-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*. The commenter is also referred to *Master Response: Environmental Impacts to the El Porto Community*.

Response to Letter MAS: Allan Mason

Response MAS-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*. The commenter is referred to *Master Response: Cost and Rates.*

Response to Letter MATL: Shawn Matlosz

Response MATL-1

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*. It is unclear which "viable options" are referenced by the comment in relation to Heal the Bay. Regarding alternatives to the proposed Project, the commenter is referred to *Master Response: Water Supply Alternatives.*

Response to Letter MATT: Ella Matthes

Response MATT-1

The commenter is referred to Section 5.11, *Marine Biological Resources*, for a discussion of environmental impacts related to sea life, which were found to be less than significant with implementation of mitigation measures. The commenter is referred to *Master Response: Cost and Rates.*

The Draft EIR evaluates two possible locations for the ocean water desalination facility which are both zoned as Heavy Industrial (see the Draft EIR page 5.10-34). The commenter is also referred to *Master Response: Water Supply Alternatives.*

Response to Letter MCM: Craig McManis

Response MCM-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter MCM2: Craig McManis

Response MCM2-1

See response to comment MCM-1. The comment suggests a variety of ways that West Basin should compensate affected property owners for "loss of tranquility" resulting from proposed Project implementation. West Basin as a lead agency has proposed this Project to increase water supply reliability within its service area. West Basin has discretion to propose, consider and implement projects that are in line with its water supply planning portfolio goals. CEQA Guidelines Section 15126.4 explains that EIR mitigation measures (compensation) must have an essential "nexus," or connection, between the impact and the government interest (*Nollan v. California Coastal Commission*, 483 U.S. 825 (1987))**,** and that the mitigation must be roughly proportional to the impacts of the project (*Dolan v. City of Tigard*, 512 U.S. 374 (1994)). Ultimately, the West Basin Board of Directors will consider all comments made on the Draft EIR when considering whether or not to certify the EIR and approve the Project.

See also *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Non-CEQA Issues.*

Response to Letter MCP: Rachel McPherson

Response MCP-1

West Basin is public water agency, leader in recycled water production, conservation and education programs. The Draft EIR evaluates the potential environmental impact for West Basin's proposed Ocean Water Desalination Project that aims to produce a sustainable, drought-proof, local potable water supply within our service area. While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues* and *Master Response: Water Supply Alternatives.* Regarding Project cost, the commenter is referred to *Master Response: Cost and Rates.*

Response MCP-2

The comment's assertion that 100 percent of the phytoplankton and zooplankton entrained into the ocean water intake will be killed, is correct. That is why the assumption of total loss of any entrained phytoplankton and zooplankton was the key basis on which the potential impact and marine ecosystem effects of the proposed Project were conducted (Draft EIR pages 5.11-49 through 5.11-61). The comment's concern that the periodic cleaning of the wedgewire screens will result in increased bacteria is not supported in any way. Bacteria are present in ocean waters and provide a very valuable function in the ecosystem. Localized currents and wave swell at the location of the ESGS intake ocean terminus can be expected to quickly remove any encrusting materials removed during periodic cleaning of the wedgewire screen, as ocean waves and surge typically do. The comment's suggestion that hypothetical increased bacteria inhabiting the waters immediately around the wedgewire screens will result in reduced intake flows and failure of the screens themselves, is also unsupported by any engineering or ecological data. As presented in the Draft EIR Section 3, *Project Description*, the potential effect of temporary screen fouling on operation of the proposed Project has been considered in the Project design, based on similar applications of wedgewire screens around the world. Finally, the comment's statement that entrainment impacts have not been adequately studied in the area is not true. Entrainment studies of three Once Through Cooling ocean intakes for coastally sited power plants have been conducted since the early 1980's, and those studies were used in assessing the potential impact of the proposed Project's ocean water intake on larval fish and plankton (Draft EIR pages 5.11-49 through 5.11-61).

Response MCP-3

The impacts of brine discharge have been evaluated in the Draft EIR consistent with the 2015 Ocean Plan Amendment, and consistent with Roberts, 2018 (see response to comment LARWQCB-30). As discussed in Subsection 5.9.4 of the Draft EIR, consistent with the requirements of the California Ocean Plan, the Project-specific dilution analyses completed in support of the impact assessment assume zero ocean current velocity, representing the worst-case condition in terms of brine dilution (and potential salinity concentrations) with receiving waters. As described in Subsection 5.9.2 of the Draft EIR, the environmental parameter most relevant for dilution and mixing is the receiving water density structure. Overall, the effect of ocean currents

is to increase dilution compared to the zero current results presented in the Draft EIR. Resulting salinities at the Brine Mixing Zone (BMZ) boundary would be substantially lower than those reported in the Draft EIR since greater dilution would be achieved through additional dynamic mixing from waves or ocean currents. Neglecting the effect of currents (assuming zero current), consistent with the required methodology prescribed in the Ocean Plan for assessing salinity impacts from brine discharges, represents the most conservative (i.e., the "worst-case") scenario, and therefore, the Ocean Plan regulations related to salinity would continue to be met for all anticipated ocean currents occurring in Santa Monica Bay.

Draft EIR Subsection 7.2.1 considered 11 alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse (see Draft EIR Table 7-1). Recycled water is a proven technology that is legally feasible and an important component of West Basin's water supply portfolio. The Indirect Potable Reuse (IPR) Alternative is a long-range goal for West Basin and requires successfully addressing the many complexities and institutional issues of increasing utilization of the Basin, including further expanding non-potable reuse to increase Basin pumping and protect groundwater quality by requesting that current industrial groundwater pumpers switch supply sources at additional expense. Direct introduction of advanced treated recycled water into the treated drinking water distribution system to produce a Direct Potable Reuse (DPR) supply faces the greatest challenges in regulation development, technology development, and public health safeguards. The implementation of the proposed Project would allow West Basin to position itself to consider DPR through raw water augmentation for blending when such regulations are in place. The absence of the proposed Project makes this alternative infeasible and too speculative for obtaining the 21,500 acre-feet per year (AFY) of potable drinking. See *Master Response: Water Supply Alternatives*.

Response MCP-4

The Draft EIR Subsection 7.2.1 considered a range of alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See Draft EIR Tables 7-1 and 7-2, and *Master Response: Water Supply Alternatives*.

Response to Letter MER: Arthur Merkin

Response MER-1

The commenter is referred to *Master Response: Water Supply Alternatives, Master Response: Non-CEQA Issues,* and *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter MIC: Suzanne Michel

Response MIC-1

The commenter is referred to *Master Response: Non-CEQA Issues, Master Response: Water Supply Alternatives, and Master Response: Environmental Impacts to the El Porto Community*. While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted.

Response to Letter MILZ: Tracey Miller-Zarneke

Response MILZ-1

The cost of a project is not considered an environmental impact under CEQA unless it results in physical changes to the environment. Since the cost of the proposed Project will not in itself result in physical changes, the proposed Project's effect on customer rates is not required to be considered in the Draft EIR. However, West Basin recognizes the importance of having a thorough understanding of the costs and benefits of project implementation and initiated a rate impact analysis in 2019. One of the objectives of this study is to evaluate the potential wholesale water rate increases within West Basin's service area resulting from Project implementation, and how affordability may be addressed through the rate making processes for drinking water wholesalers and retailers. The study is expected to be completed in 2020. See *Master Response: Cost and Rates*. Potential impacts on the local communities are discussed throughout the topical sections in Draft EIR Section 5, *Environmental Analysis*.

Response MILZ-2

New conveyance infrastructure would convey the desalinated water from the desalination facility to the existing distribution system that delivers potable water to local area and regional supply feeders owned by Metropolitan Water District of Southern California (MWD), and they are described in Draft EIR Subsection 3.4.1 for the Local Project and in Subsection 3.4.2 for the Regional Project. This treated water would comply with all drinking water standards. If the comment is referring to direct potable reuse (DPR), the proposed Project is not a DPR project. The Local Project conveyance facilities construction activities are described in Draft EIR Subsection 3.5.3 while the Regional Project conveyance facilities construction activities are described in Draft EIR Subsection 3.6.3. The potential impacts on all resources are discussed throughout the topical sections in Draft EIR Section 5 (*Environmental Analysis*).

Response MILZ-3

The Draft EIR Subsection 7.2.1 considered a range of alternatives, including stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse (see Draft EIR Table 7-1). The section explains that expanding the existing recycled water use in the region will not completely offset the need for imported water. Even expanding the recycled water production at the Hyperion Water Reclamation Plant to its full capacity would not eliminate imported water demands in Southern Los Angeles County. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. The 100 million gallons per day (MGD) that the comment referenced was West Basin's vision in 1990. Edward C. Little Water Recycling Facility (ECLWRF) was commissioned in around 1994 and has gone through multiple expansions based on the growth of its customers in the last 25 years. The current treatment capacity at ECLWRF is 40 MGD. See response to comment HTB-37, LAW2-44 and *Master Response: Water Supply Alternatives.*

Response MILZ-4

The mitigation measures prescribed in the Draft EIR have performance standards, or measures, that must be met in order for the impacts to be considered less than significant. The performance

standards can generally be achieved with the implementation of different measures. Some of the measures may be infeasible and therefore not undertaken. But that does not obviate the Project's commitment to meeting the performance standard with measures that are feasible, some of which may not be known at the current phase of the Project.

The use of indirect or off-site habitat restoration is a common and authorized mitigation approach for addressing potential ecosystem-wide impacts from projects, and is prescribed in the 2015 California Ocean Plan Chapter III.M.2.e. It is typically employed when implementing some type of direct mitigation is not feasible or practicable, such as replanting protected species that might be affected by an onshore construction project. Ideally, the off-site habitat restoration will provide some improvement of the species or ecosystem being affected by the project for which the mitigation is required. In the case of mitigating potential Project entrainment impacts, habitat restoration at the Ballona wetlands, other coastal wetlands or habitats within SMB, or enhancement efforts at any of the Marine Protected Areas bordering SMB, would all improve the production, development and recruitment of marine invertebrate and vertebrate taxa into SMB, therein addressing the loss of fish and invertebrate larva, therefore marine ecosystem productivity, caused by entrainment of these organisms.

Response MILZ-5

The threshold for using subsurface intakes is feasibility. As explained and summarized in the Draft EIR Subsection 2.10.10, West Basin since 2007, has extensively evaluated the technical, economic, social and environmental feasibility of incorporating subsurface seawater intake (SSI) systems into Project design. In 2015, West Basin initiated a site-specific study of SSIs to evaluate their feasibility for providing feedwater to the proposed desalination facility at the ESGS facility; see Draft EIR Appendix 2. As explained in the Draft EIR Subsection 7.2.3, the site specific study outlined the local geology and proximity to subsurface ocean water and evaluated numerous technologies that could access subsurface ocean water and concluded that due to the local geology, existing coastal development, subsurface water quality, potential for interference with the operation of the West Coast Seawater Barrier Project, and untested expensive technology, subsurface intakes would be infeasible. In response to this and similar comments on the Draft EIR, West Basin has prepared a supplemental Subsurface Intake Feasibility Study (Final EIR Appendix 13); see *Master Response: Supplemental Studies*.

Response MILZ-6

West Basin is committed to partnering with regional agencies to maximize other local water supplies in addition to ocean water desalination. Ocean water desalination is just one component of a balanced local water supply approach, with the Local Project supplying approximately 10 percent of West Basin's total water demand. This type of water supply diversification balances benefits and risks associated with each supply type. Since ocean water desalination requires greater energy to produce, the portfolio approach provides a portion of water supply that would maximize the benefits of drought-proof reliability. Developing a drought-proof portion of the local water supply substantially increases water supply reliability resulting in fiscally and environmentally responsible water supply planning.

Response to Letter MILE: Emmett Miller

Response MILE-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter MILM: Manuela Millington

Response MILM-1

The Draft EIR Subsection 7.2.1 considered a range of alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See Draft EIR Tables 7-1 and 7-2, and *Master Response: Water Supply Alternatives*.

Response MILM-2

Electricity is required to operate the facility, as discussed in Draft EIR Section 5.5, *Energy*. Air emissions associated with the generation of electricity are the responsibility of the energy producers. The Draft EIR acknowledges that criteria pollutants, toxic air contaminants, and GHG emissions can be associated with the off-site generation of electricity depending on the type of energy generation technology. These indirect emissions would not be experienced in the vicinity of the proposed Project, but would be associated with maintenance of the electric grid. As described on Draft EIR page 5.5-2, California's Renewables Portfolios Standard (RPS) requires that renewable energy sources make up 33 percent of total energy use by 2020. The Clean Energy and Pollution Reduction Act of 2015, SB 350, increases renewable requirements even further. As a result, emissions associated with electricity generation will be reduced incrementally in the future compared to existing conditions for similar amounts of electricity consumption.

Regarding the commenter's concern related to potential impacts of Electric and Magnetic Fields (EMF) associated with the proposed Project, the National Institute of Environmental Health Sciences states that "[a]t a distance of 300 feet and at times of average electricity demand, the magnetic fields from many lines can be similar to typical background levels found in most homes" (NEIHS 2002). While it is reasonably foreseeable that upgrades to SCE's power grid may be needed, which may result in construction of new or use of existing power lines, SCE is unable to confirm what those necessary upgrades would be. As such, predicting and analyzing the impacts of these upgrades, including impacts related to EMF, would be speculative at this time.

Response MILM-3

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). The community of El Porto has been in the shadow of the NRG facility for years. Locating a light industrial facility in the middle of the existing NRG heavy industrial facility complex should not generally affect residential property values in the adjacent communities. As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community*, *Master Response: Non-CEQA Issues* and *Master Response: Water Supply Alternatives*.

Response MILM-4

While West Basin appreciates the comment, it expresses an opinion and does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues* and *Master Response: Water Supply Alternatives*.

Response to Letter MITL: Jane Mitchell

Response MIT-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary. The commenter is referred to *Master Response: Non-CEQA Issues*.

Response to Letter MOE: Annelisa Moe

Response MOE-1

The oral comments referenced by the commenter are responded to in response to comment MOE-2.

Response MOE-2

West Basin initially provided a Draft EIR review and comment period of 60 days, from March 27, 2018, through May 25, 2018. In response to comments requesting an extension, West Basin granted a 31-day extension for review and comment on the Draft EIR. The public review period ended at 5 p.m. on Monday, June 25, 2018, providing a 91-day public review period.

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted.

Response to Letter MOI: Elizabeth Moir

Response MOI-1

West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio. The expansion of an existing conservation program does not meet the objective of water supply diversification, and puts West Basin at greater risk of relying on customer responses to a rationing program during a drought. See EIR Subsection 7.2.1 and *Master Response: Water Supply Alternatives.*

Response MOI-2

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response MOI-3

West Basin has not finalized its funding portfolio for the proposed Project, but financing methods may include any combination of public-private partnerships (P3), low interest loans, grant funding, and traditional financing through bonds or capital loans. See also *Master Response: Cost and Rates*.

Response MOI-4

CEQA requires lead agencies to consider environmental effects associated with project approvals, but does not require any financial impact analysis regarding either the cost of the project itself, or potential impacts to property values for any parcels or communities adjacent to the project site. Nevertheless, the community of El Porto has been in the shadow of the NRG facility for years. Locating a light industrial facility in the middle of the existing NRG heavy industrial facility complex should not generally affect residential property values in the adjacent communities. See *Master Response: Non-CEQA Issues*.

Response MOI-5

The commenter is referred to *Master Response: Non-CEQA Issues* and *Master Response: Cost and Rates.*

Response to Letter MOO: Lynne Moore

Response MOO-1

West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio. The expansion of an existing conservation program does not meet the objective of water supply diversification, and puts West Basin at greater risk of relying on customer responses to a rationing program during a drought. See EIR Subsection 7.2.1 and *Master Response: Water Supply Alternatives.*

The Draft EIR Subsection 7.2.1 evaluates a range of water supply alternatives, including recycling, and explains that expanding the existing recycled water use in the region will not completely offset the need for imported water. Even expanding the recycled water production at the Hyperion Water Reclamation Plant to its full capacity would not eliminate imported water demands in Southern Los Angeles County. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination.

Response MOO-2

The properties of the brine discharge associated with the Local Project and the Regional Project are summarized in the Draft EIR Tables 5.9-5 and 5.9-7, respectively; it will not be a "thick, murky brine." As discussed in the Draft EIR Section 5.9, *Hydrology and Water Quality*, the brine discharge would be slightly more saline than ambient ocean water and will be < 2ppt above ambient conditions between 45 and 63 feet from the discharge for the Local Project and between 70 and 98 feet for the Regional Project (see Final EIR Appendix 14A) for all scenarios modeled. The potential effects on water quality of the brine discharge are discussed in detail in the Draft EIR on pages 5.9-49 through 5.9-61. Potential effects on marine biota are also thoroughly assessed and discussed in the Draft EIR Section 5.11, *Marine Biological Resources*, on pages 5.11-56 through 5.11-58.

The Draft EIR Subsection 3.4.1 discusses the need for the handling and treatment of solids removed from the backwash water: "Generation of centrifuge cake solids would vary according to seasonal ocean water quality variations, but is expected to be in the range of 0.05 to 0.2 cubic yards (CY) per million gallons of desalinated water produced." The air quality and transportation impacts associated with removing 1 to 4 CY/day of centrifuge cake are minimal and have been included in Draft EIR Sections 5.2 and 5.15, respectively.

Response MOO-3

"Health" is a broad term; however, potential health-related effects of the proposed Project are addressed in Draft EIR Section 5.2, *Air Quality*, 5.3, *Biological Resources*, 5.7, *Greenhouse Gas Emissions*, 5.11, *Marine Biological Resources*, and 5.12, *Noise*. A Health Risk Assessment was conducted for the Draft EIR as explained starting on page 5.2-48. With implementation of the identified mitigation measures, health risk related to particulate matter would be reduced to a less than significant level. The Board of Directors will use the conclusions presented in the Draft EIR as it considers whether or not to certify the EIR and/or approve the Project.

Response MOO-4

West Basin will be required to meet all applicable laws, regulations and requirements of the authorities with jurisdiction, during the permitting phase of the Project. See also *Master Response: CEQA and Ocean Plan Compliance.*

Response MOO-5

The comment introduces subsequent comments. Responses to those comments are found in response to comment MOO-6 though MOO-19.

Response MOO-6

West Basin is governed by an elected five-member Board of Directors and each board member represents a designated division of the district. The Board of Directors will decide if it is in the District's best interest to pursue the proposed Project as part of a diversified water supply portfolio. If a board member does not adequately represent the ratepayer, voters can elect a different representative. Board members were not present at the April 2018 Draft EIR Public Meeting although they were briefed at their meeting on May 3, 2018; Board members are available to receive public comment at every scheduled board meeting. Draft EIR Section 3.5 explains construction of the Local Project would take up to 72-months and Section 3.6 explains construction of the Regional Project would require approximately 36 months.

As part of the Project planning efforts, West Basin prepared preliminary cost estimates for the proposed Project that are included in the Ocean Water Desalination Program Master Plan prepared in 2013. This cost estimate is available on the District's website:

> http://westbasindesal.com/assets/Documents%20and%20Files/Research%20Documents/Ocean%20Water%20Desalination%20Program%20Master%20Plan_PMP%20Vol%20I%20(2013).pdf

These preliminary cost estimates provide a planning-level range of total Project costs that include costs for constructing the treatment facility (including the offshore intake and discharge modifications) and the product water distribution system as well as annual operations and maintenance costs. These preliminary estimates provide a sense for the ultimate scale of the costs, but present a wide range to account for uncertainty. As the Project design is refined, including permitting and mitigation commitments, actual Project costs will also become more refined.

West Basin has not finalized its funding portfolio for the Project, but numerous financing methods are available that may include any combination of public-private partnerships (P3), low-interest loans, grant funding, and traditional financing through bonds or capital loans. West Basin anticipates developing the most cost effective approach available. However, the cost of a project is not considered an environmental impact under CEQA unless it results in physical changes to the environment. Because the cost of the Project will not in itself result in physical changes, the Project's effect on customer rates is not considered an environmental impact. But, West Basin recognizes the importance of having a thorough understanding of the costs and benefits of implementing ocean water desalination as a drinking water supply; hence, a study focused on the

costs and benefits of Project implementation was initiated in 2019. One of the objectives of this study is to evaluate the potential wholesale water rate increases within West Basin's service area resulting from Project implementation. The study will analyze how affordability may be addressed through the rate-making processes for drinking water wholesalers and retailers. The study is expected to be completed in 2020. Impacts on rates will depend in part on the financing approach, discussed above.

See also *Master Response: Cost and Rates*.

Response MOO-7

As noted in the Draft EIR on page 5.1-19, the proposed Project is not proposed in the vicinity of a state designated scenic highway. However, any project located along the coast is likely to impact to some extent highly valued views of the Pacific Ocean, which could impact scenic character or quality as described in the CEQA Guidelines Appendix G. Impacts to visual resources are discussed in Section 5.1, *Aesthetics, Light and Glare* (on pages 5.1-9 through 5.1-29). The proposed Project is located on a site that is zoned for industrial use, immediately adjacent to existing industrial uses on two sides. The beach is located on one side and residential uses are located along the southern border of the site. Views of the site are shielded from some directions by existing uses and topography.

Consistency with applicable plans, policies and regulations is discussed in Section 5.10, *Land Use and Planning*. In particular, consistency with El Segundo plans, policies and regulations is discussed on pages 5.10-29 through 5.10-36. The Draft EIR concludes that the ocean water desalination facility would be consistent with the property's intended use and would comply with the El Segundo Municipal Code (ESMC) Section 15-6B-7, *Site Development Standards*, pertaining to lot area, building/structure height, setbacks, lot frontage, building area, walls/fences, landscaping, lighting, and signage. The proposed Project would also be subject to compliance with ESMC Section 15-2-14, *Landscaping*, which would ensure adequate landscape areas and permanent irrigation facilities are provided on-site, and that areas extending between a building(s) and property lines contain both soft (plantings) and hard (rock, brick, concrete) landscape materials. While the proposed Project is not located within the City of Manhattan Beach, West Basin is sensitive to the needs of Manhattan Beach residents and intends to implement all feasible mitigation measures to reduce impacts on its residents.

As noted on page 3-42 in footnote 1, "California Government Code Section 53091(d) states that '[b]uilding ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency.' Furthermore, Section 53091(e) states that '[z]oning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water . . .' However, West Basin intends to make every effort to comply with all applicable building and zoning ordinances stipulated under the City of El Segundo Municipal Code in the construction and operation of the Ocean Water Desalination Project." See *Master Response: Environmental Impacts to the El Porto Community*.

Response MOO-8

The operational activities associated with the proposed Project are discussed in detail in section 5.2 *Air Quality.* As shown in Table 5.2-12, on page 5.2-35, the unmitigated operational activities at the plant are not anticipated to exceed South Coast Air Quality Management District's (SCAQMDs) regulatory thresholds. Unmitigated emissions are based on a composite operational truck fleet and, therefore, does not require no emissions trucks or vehicles. Construction of the ocean water desalination facility would require the use of mobile equipment, including up to 100 trucks per day. The use of zero emissions vehicles is not practicable for construction.

The following change has been made to Table 5.2-12 to correct a mislabeling error.

TABLE 5.2-12
ADMINISTRATION BUILDING NATURAL GAS COMBUSTION, WORKER COMMUTE, AND AREA SOURCE EMISSIONS

Emissions Source	Pollutant (pounds/day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions	17	5	6	<1	1	1
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Is Threshold Exceeded? (Significant Impact?)	***No***	***No***	***No***	***No***	***No***	***No***

SOURCE: Appendix 3, for assumptions used in this analysis.

Response MOO-9

Draft EIR Subsection 5.3.4 discusses the impacts to a variety of sensitive biological resources protected by the environmental laws and regulations described in Subsection 5.3.1. As in all environmental resource topic discussions included in this Draft EIR, the regulatory framework informs the impact discussion. For Section 5.3, each impact statement refers to the "plans, policies, or regulations" or other specific regulations as the basis upon which impacts are analyzed.

Response MOO-10

In addition to the outreach and meetings required of an EIR as outlined in the CEQA Guidelines Section 15082(c), 15083, 15086, and 15087, and summarized in the Draft EIR on pages 2-16 through 2-18, West Basin held additional meetings with local jurisdictions (including the City of El Segundo and Manhattan Beach) and interested parties prior to release of the Draft EIR. These meetings were held to offer interested parties and local governments the opportunity to ask questions about the proposed Project and identify concerns regarding the proposed Project. Proposed Project notification letters were sent inviting Native American groups associated with the Project area and its vicinity to consult on the project pursuant to Assembly Bill 52. The Assembly Bill 52 consultation efforts are summarized in the Draft EIR on page 5.4-20.

Consultation with the State Historic Preservation Office (SHPO) will occur when West Basin seeks funding from the State Revolving Fund which is administered by the State Water Resources

Control Board (SWRCB). The SWRCB will initiate Section 106 of the National Historic Preservation Act, which requires consultation with the SHPO.

Response MOO-11

The use of renewable energy is addressed in several places in the Draft EIR. Section 5.5.4 (page 5.5-17) acknowledges that "(t)he electricity demands of the desalination facility and pump stations would be supplied by SCE, which is subject to the California Renewables Portfolio Standard Program. Over time, the electricity available to the proposed Project will include greater contributions from renewable energy supplies."

Mitigation Measure GHG-1 requires West Basin to minimize the proposed Project's energy demand and implement on-site renewable energy use before progressing through the remainder of the mitigation options identified in subsection 3 of Mitigation Measure GHG-1 (renewable power purchase agreement, renewable energy certificates, and carbon offsets) on the basis of the options' physical and economic feasibility.

Response MOO-12

The effects associated with tsunami impacts, which could be caused by an earthquake originating under the Pacific Ocean, are described in the Draft EIR Section 5.9, *Hydrology and Water Quality*, on page 5.9-37 -38, and analyzed in Impact 5.9-6 on pages 5.9-72 through 5.9-78. Any chemicals used for the proposed Project would be stored in the Chemical/Residuals Handling Building, and as described on page 3-9 of the Draft EIR, all storage and transportation and would comply with state and federal requirements. As described in the Draft EIR on page 5.9-72 through 5.9-78, Mitigation Measure HYDRO-1 would ensure that the proposed Project (and the chemicals stored on-site) would not be subject to structural failure caused by future flooding or flood hazards as a result of wave or tsunami run-up.

The Draft EIR Subsection 5.8.2 explains that the two former aboveground fuel oil storage tanks (ASTs) located on the ESGS South Site were removed in 2011 and 2013, and that the site has been capped. Subsection 5.8.2 also presents the known contamination from the off-site Chevron refinery. While West Basin has no responsibility for mitigating the Chevron oil tanks currently located east of Vista Del Mar and further inland from the ESGS sites, the Draft EIR Subsection 5.8.4 explains that residual contamination may be encountered in the soil. Thus, Mitigation Measures HAZ-1 and HAZ-2 would ensure that impacts associated with handling the contaminated materials would be reduced to a less than significant.

Response MOO-13

While the objectives of the proposed Project do not specifically include increased use of renewable energy, West Basin is committed to reducing the Project's GHG emissions to net carbon neutral. The net carbon neutral approach compares the proposed Project's new emissions with the existing baseline condition, which includes imported water supplied by the Metropolitan Water District of Southern California (MWD). Mitigation Measure GHG-1 measure requires West Basin to minimize the Project's energy demand and implement on-site renewable energy use before progressing through the remainder of the mitigation options identified in subsection 3

of Mitigation Measure GHG-1 (renewable power purchase agreement, renewable energy certificates, and carbon offsets) on the basis of the options' physical and economic feasibility.

Response MOO-14

The conclusions in the Draft EIR are adequately supported by the technical detail provided for the purposes of determining impacts under CEQA, and demonstrate that the proposed brine discharge would be consistent with Ocean Plan requirements; see *Master Response: CEQA and Ocean Plan Compliance*.

Specific to water quality and brine discharges, as described in detail in the Draft EIR Subsections 5.9.1 and 5.9.4, West Basin will prepare and submit information required by the Ocean Plan when submitting the NPDES discharge permit application as well as the requisite request for a CWC 13142.5(b) determination to the Los Angeles Regional Water Quality Control Board (LARWQCB), including a Report of Waste Discharge, which will provide a detailed analysis of compliance with the Ocean Plan water quality standards, and the request for water code determination will require that West Basin prepare and provide the LARWQCB with a Marine Life Mortality Report as described in Ocean Plan chapter III.M.2.e.(1)(a), and a Mitigation Plan. These detailed plans will meet the LARWQCB's requirements. Further assessment potentially required during the permitting process will enhance and refine the existing record. No additional mitigation measures would be needed to ensure impacts are sufficiently minimized or avoided.

Monitoring requirements under the California Ocean Plan (Draft EIR Subsection 5.9.1), which West Basin would be subject to, ensure that monitoring will be conducted for salinity levels, benthic community health, aquatic life toxicity, and hypoxia and that the monitoring program be consistent with the requirements detailed in Appendix III of the Ocean Plan which specifies monitoring plan framework, scope, and methodological design for determining compliance. The performance standard(s) associated with the monitoring requirements of the California Ocean Plan are defined in Chapter III of the Ocean Plan (Part 4 (a)) and in Appendix III (Part 8) with definitions of terms provided in Appendix II.

The ESGS site location was proposed for a number of reasons, including the site's size, topography, and elevation; its prior and existing industrial use; its proximity to the ocean, thereby minimizing source water and brine discharge conveyance infrastructure; access to existing intake and discharge facilities; and proximity to existing product water distribution network, among others. With respect to potential effects on residential areas, please refer to Draft EIR Section 5.1, *Aesthetics* (Impact AES 5.1-1 and Impact AES 5.1-4), Section 5.2*, Air Quality* (Impact AQ 5.2-4, AQ 5.2-5), and Section 5.12, *Noise and Vibration* (Impact NOI 5.12-1). With respect to potential effects related to traffic congestion, please refer to Draft EIR Section 5.15, *Transportation and Traffic* (Impacts TRA 5.15-1 and 5.15-2).

Response MOO-15

The ESGS site was proposed for the Project's location for a number of reasons, including the site's size, topography, and elevation; its prior and existing industrial use; its proximity to the ocean, thereby minimizing source water and brine discharge conveyance infrastructure; access to

existing intake and discharge facilities; and proximity to existing product water distribution network, among others. With respect to potential effects on residential areas, please refer to Draft EIR Section 5.1, *Aesthetics* (Impact AES 5.1-1 and Impact AES 5.1-4), Section 5.2*, Air Quality* (Impact AQ 5.2-4, AQ 5.2-5), and Section 5.12, *Noise and Vibration* (Impact NOI 5.12-1). With respect to potential effects related to traffic congestion, please refer to Draft EIR Section 5.15, *Transportation and Traffic* (Impacts TRA 5.15-1 and 5.15-2).

Response MOO-16

The California State Water Resources Control Board's scientific advisory panel reviewed the studies from the Gulf of Oman and other worldwide locations and used the study results in developing the guidelines and regulatory requirements for coastal desalination plants sited in California that are included in the 2015 Ocean Plan Amendment. However, in evaluating and assessing the potential site-specific effects of desalination projects on the marine environment, it is critical to use pertinent and scientifically applicable studies. Although the scientific work on the impacts of desalination projects in the Gulf of Oman, as well as the larger Persian Gulf, clearly demonstrate potential "worst-case" effects of these types of projects, the design and operation of the desalination plants in the Middle East, as well as the oceanographic and marine ecosystems present in the Gulf of Oman and the Persian Gulf, are significantly different than what the Project proposes or what is permissible in California coastal waters.

Response MOO-17

Subsection 5.12.1 Regulatory Framework, Local, includes the requirements of the City of Manhattan Beach, specifically the Manhattan Beach Municipal Code on page 5.12-6. Project consistency with the noise requirements of the Cities of EL Segundo and Manhattan Beach are both discussed in Impact 5.12-1 on page 5.12-17.

Response MOO-18

The proposed Project is not a commercial project; rather it is an industrial project that will be located within an industrially zoned area along the coast. Implementation of the proposed Project would not, in any way, permanently impede the coastal access, as the proposed desalination facility would be located within the boundary of the existing NRG site. During construction, work immediately adjacent to the Marvin Braude Coastal Bike Trail would occur for a period of several weeks. As currently envisioned, use of the bike trial could be disrupted for a period of several weeks during the 5-year construction period. As explained in Impacts REC 5.14-1 (pages 5.14-7 and 5.14-8) and TRA 5.15-6 (pages 5-15-33 and 34), application of Mitigation Measures REC-1 and TRA-1 would provide for local agency coordination around bicycle path disruptions, and establishment of appropriate detours and associated signage during periods of closure. Thus, with these measures implemented, any closures of the subject trail would be accompanied by instructions regarding safe alternative routes.

Response MOO-19

The comment cites language in Subsection 5.16.1, which describes the regulations and laws applicable to the proposed Project, specifically related to secondary standards for drinking water. The treated water will comply with secondary treatment standards.

Response MOO-20

Responses to all comments received on the Draft EIR are included herein.

Response to Letter MURE: Esteban Murillo

Response MURE-1

The commenter is referred to *Master Response: Cost and Rates* and *Master Response: Non-CEQA Issues*.

Response to Letter MURS: Steve Murillo

Response MURS-1

CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors. However, evidence of economic and social impacts that do not contribute to, or are not caused by, physical changes in the environment, are not required to be addressed in an EIR (CEQA Guidelines Section 15064(f)(6)). See also *Master Response: Non-CEQA Issues.*

Response to Letter MURS2: Steve Murillo

Response MURS2-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

The community of El Porto has been in the shadow of the NRG facility for years. Locating a light industrial facility in the middle of the existing NRG heavy industrial facility complex should not generally affect residential property values in the adjacent communities. See also *Master Response: Non-CEQA Issues*.

Response to Letter MURS3: Steve Murillo

Response MURS3-1

West Basin is governed by an elected five-member Board of Directors and each board member represents a designated division of the district. The Board of Directors will decide if it is in the District's best interest to pursue the proposed Project as part of a diversified water supply portfolio. If a board member does not adequately represent the ratepayer, voters can elect a different representative.

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted.

Response to Letter MUP: Michelle Murphy and Bob Perkins

Response MUP-1

West Basin completed a demonstration facility in 2011 as described in the Draft EIR in Section 2, *Introduction*, on page 2-30, which is a separate project than what is described and analyzed in the Draft EIR. The commenter is referred to *Master Response: Non-CEQA Issues.*

Response MUP-2

While West Basin appreciates the comment, it expresses an opinion and does not speak to the adequacy of the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response MUP-3

The Draft EIR Subsection 7.3.1 evaluates the No Project Alternative and concludes that the No Project Alternative would not provide the benefits of a local water supply to fulfill the long-term needs of the region; it would directly conflict with local and regional water supply planning studies that identify the need for a more balanced water portfolio, including seawater desalination. These studies include adopted plans by West Basin, Metropolitan Water District of Southern California (MWD) and the State of California. In particular, the No Project Alternative directly conflicts with West Basin's *Strategic Business Plan* commitment to innovative planning and investments to provide water reliability and drought protection.

Pursuant to CEQA Guidelines Section 15126.6(e)(2), "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." Based on the alternatives analysis in the EIR Section 7, West Basin has concluded that the ESGS North Site is the environmentally superior alternative.

Response MUP-4

Subsection 5.12.2, *Noise Scales and Definitions,* provides a summary of noise fundamentals including terminology, measurement of noise, human hearing of noise and perception of loudness, frequency of human sensitivity, and human perception and response to noise increase on a logarithmic scale. Table 5.12-2 provides noise levels of common noise sources and the corresponding human response range (i.e., with increasing noise levels the response increases as: audible, quiet, intrusive, annoying, very annoying, hearing damage (steady 8-hour exposure), physical discomfort, pain threshold, harmfully loud). Noise is generated by the operation of heavy-duty trucks, backhoes, pile drivers, and other heavy-duty construction equipment, and operation of noisy stationery equipment. These noise sources can be a nuisance to local residents and businesses, or disturb the land use activities of the sensitive receptors; i.e., residential (sleeping), hospital (convalescence), schools (concentration).

The nearest noise-sensitive receptors (residential uses) are located approximately 130 feet from the South Site. Grading and construction would occur along the existing berm, at the southern edge of the property north of 45th Street. The greatest construction-related noise impacts would typically occur during the initial site preparation/grading/excavation, which can create the highest levels of noise. Generally, site preparation/grading/excavation has the shortest duration of all

construction phases (up to 15 months for the Local Project). Activities that occur during this phase include demolition, excavation, earthmoving, pile driving, and soils compaction. Operating cycles for the types of construction equipment used may involve 1 to 2 minutes of full-power operation followed by 3 to 4 minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

The estimated worst-case potential noise level of the loudest pile driver (impact) rated at 101 dBA at a reference distance of 50 feet (see Draft EIR Table 5.12-10) would attenuate by distance at a rate of 6 dBA per doubling of distance. Thus, at the closest residence (130 feet) the noise level of the loudest pile driver would be 93 dBA, without any mitigation. At greater distance into the residential community, this noise level would be further reduced at the same rate, i.e., 89 dBA at 200 feet, 86 at 400 feet, etc.

Implementation of Mitigation Measures NOI-1 through NOI-3 would lessen construction noise and ensure that impacts at sensitive receptors would be minimized. Mitigation Measure NOI-1 requires that construction equipment be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices. Mitigation Measure NOI-2 requires that West Basin provide a qualified "Noise Disturbance Coordinator" to respond to local complaints, should they arise. Mitigation Measure NOI-3 would require West Basin to investigate pile installation methods other than percussive pile driving and implement the alternative method if feasible.

Although the proposed Project is not in the city of Manhattan Beach, the proposed Project is located immediately adjacent to Manhattan Beach City limits and within 130 feet of residential units across 45th Street from the South Site. Accordingly, potential impacts to these Manhattan Beach residents are evaluated in light of Manhattan Beach's noise standards. The City of Manhattan Beach, MBMC Chapter 5.48 (Noise Regulations), prohibits the creation of noise within the city that causes the noise level when measured at any residential property to exceed the noise standards; however, MBMC Section 5.48.060 restricts construction to 7:30 a.m. and 6:00 p.m., Monday through Friday, and 9:00 a.m. and 6:00 p.m. on Saturdays. MBMC Section 5.48.250 exempts construction activities from the daytime standards. Certain land uses are particularly sensitive to noise where excessive noise would disturb their land use activities, such as sleeping at night (residences), concentration (schools), or convalescing (hospitals, rest homes, long-term medical and mental care facilities). Therefore, typically, municipalities exempt construction noise during the daytime hours (i.e., prohibit construction at night when sleeping typically occurs). Implementation of Mitigation Measures NOI-1 through NOI-3 would lessen construction noise and ensure that impacts at sensitive receptors would be minimized. However, even with implementation of all feasible mitigation, the construction noise impact associated with the Local Project is considered significant and unavoidable.

As identified in Impact 5.12-1 for operational noise, the City of El Segundo establishes residential noise standards of 5 dBA above the existing ambient noise level and allows for increases in the noise standard based on duration of the increase. The City of Manhattan Beach provides specific day and night residential noise standards, however, if the ambient noise level exceeds the City's

noise standards, then the ambient level becomes the exterior noise standard, as shown in Table 5.12-2. As shown in the impact analysis, with mitigation operational noise would not exceed standards, and impacts would be less than significant. See *Master Response: Environmental Impacts to the El Porto Community*.

Response MUP-5

The Draft EIR Section 5.12, *Noise*, analyzes the proposed Project's potential to affect both temporary (Impact NOI 5.12-4, page 5.12-31) and permanent (Impact NOI 5.12-3, page 5.12-28) ambient noise in the area. The Draft EIR identifies the ambient noise measurements (page 5.12-11) that were conducted at locations representative of typical existing noise exposure within and immediately adjacent to the desalination facility site and proposed conveyance system routes. The ambient noise measurement location at the Strand and 45th street was selected to address potential noise impacts to the El Porto community in Manhattan Beach directly to the south of the proposed Project. The Draft EIR provides a detailed assessment of both construction and operational noise, concluding that construction noise could result in a significant and unavoidable impact of the proposed Project. Once constructed, noise impacts would be less than significant with mitigation applied. Operational noise impacts are analyzed on page 5.12-19.

As discussed in Impact NOI 5.12-1, noise from the desalinated water pump station and discharge pump station would be approximately 62 dBA without incorporating noise attenuation from enclosures, intervening structures, or topography, which could exceed Manhattan Beach's operational noise standards for residential uses. Mitigation Measure NOI-4 would require that West Basin incorporate acoustical treatments including enclosures for noise-generating machinery, which would achieve 40 dBA attenuation, to meet the nighttime noise standards for residential uses, which are lower than the daytime standards. Furthermore, as stated in Impact NOI 5.12-3, Mitigation Measure NOI-4 would require that West Basin design the facilities with acoustic treatments sufficient to meet local exterior noise standards. Mitigation Measure NOI-2 would require West Basin to monitor noise levels at the facility to ensure that the proposed Project does not exceed El Segundo's (Table 5.12-1) and Manhattan Beach's (Table 5.12-2) noise standards for residential uses. The Draft EIR notes that the closest residences may be 130 feet south of the enclosed pump station. Compliance with the noise ordinance standards would require that the facility control noise sources to levels below existing ambient levels. As shown in Table 5.12-6, the ambient noise level at the Strand and 45th Street is 59.3 dBA Leq. Therefore, with the incorporation of required mitigation measures, the proposed Project's contribution to the permanent ambient noise would not be perceptible, and impacts would be less than significant with mitigation. The Draft EIR complies with CEQA requirements to identify potential noise impacts associated with construction and operation and to propose mitigation measures that would ensure noise impacts are avoided or minimized through the establishment of measurable performance standards.

As shown in Table 5.12-6, the measured daytime ambient noise level at the Strand and 45th Street was measured at approximately 59.3 dBA Leq. The Draft EIR concludes that temporary noise impacts during construction would be unavoidable, even at this intersection. The residential houses along 45th Street that may have a more direct line of sight to the noise generating activities

would also experience significant noise impacts temporarily for construction of the south site. Sound walls would be constructed to minimize impacts.

Although the proposed Project is not in the city of Manhattan Beach, the ESGS South Site is located immediately adjacent to Manhattan Beach City limits and within 130 feet of residential units across 45th Street from the South Site. Accordingly, potential impacts to these Manhattan Beach residents are evaluated in light of Manhattan Beach's noise standards, including Manhattan Beach's nighttime noise standards. As discussed above, because the ambient noise level exceeds Manhattan Beach's noise standard, this ambient level is the exterior noise standard Mitigation Measure NOI-4 would require that West Basin enclose all noise-generating machinery to meet nighttime noise standards for residential uses, which would achieve 40 dBA attenuation. As a result, noise levels at the property line would be reduced to below operational noise standards for residential use. With mitigation, the proposed Project's contribution to the ambient noise would not be perceptible. Therefore, impacts would be less than significant with mitigation.

Response MUP-6

Implementation of Mitigation Measures NOI-1 through NOI-3 would lessen construction noise and ensure that impacts at sensitive receptors would be minimized. Mitigation Measure NOI-1 requires that construction equipment be equipped with properly operating and maintained mufflers and other state-required noise attenuation devices. Mitigation Measure NOI-2 requires that West Basin provide a qualified "Noise Disturbance Coordinator" to respond to local complaints, should they arise. Mitigation Measure NOI-3 would require West Basin to investigate pile installation methods other than percussive pile driving and implement the alternative method if feasible. However, despite implementation of all feasible mitigation, and despite the fact that construction is exempt from the local noise ordinances, given the duration of construction and proximity to noise-sensitive receptors, and given the City of El Segundo's and City of Manhattan Beach's noise standards for residential uses that would be exceeded for an extended duration, the noise impact during construction of the Local Project is considered significant and unavoidable.

Proposed Project construction is temporary and overall, relatively short-term (72 months) with the highest noise levels of pile driving, if necessary, may occur for approximately 3 months. Construction noise is limited to daytime hours, and exempt from the local noise standards. Mitigation Measures NOI-1 through NOI-3 are feasible mitigation for temporary, short-term construction. Sound insulation for residences is mitigation for permanent long-term operational noise.

Response MUP-7

Compliance with the noise ordinance standards would require that the facility control noise sources to levels below existing ambient levels. Therefore, the proposed Project's contribution to the ambient noise would not be perceptible. Impacts would be less than significant with mitigation. Mitigation Measure NOI-2 would require West Basin to document and attempt to resolve all operational noise complaints as soon as possible and minimize activities that would generate noise outside of structures. West Basin would be required to monitor noise levels at the facility to ensure that the proposed Project does not exceed El Segundo's and Manhattan Beach's

noise standards for residential uses, including nighttime noise standards. Mitigation Measure NOI-4 would require that West Basin design the facilities with acoustic treatments sufficient to meet local exterior noise standards.

Response MUP-8

As shown in Table 5.12-6, the measured daytime ambient noise level at the Strand and 45th Street was measured at approximately 59.3 dBA Leq. The Draft EIR concludes that temporary noise impacts during construction would be unavoidable, even at this intersection. The residential houses along 45th Street that may have a more direct line of sight to the noise generating activities would also experience significant noise impacts temporarily for construction of the south site. Sound walls would be constructed to minimize impacts.

Although the proposed Project is not in the city of Manhattan Beach, the ESGS South Site is located immediately adjacent to Manhattan Beach City limits and within 130 feet of residential units across 45th Street from the South Site. Accordingly, potential impacts to these Manhattan Beach residents are evaluated in light of Manhattan Beach's noise standards, including Manhattan Beach's nighttime noise standards. Compliance with the noise ordinance standards would require that the facility control noise sources to levels below existing ambient levels at the property line. Therefore, the proposed Project's contribution to the ambient noise would not be perceptible. Additionally, Mitigation Measure NOI-2 would require West Basin to document and attempt to resolve all operational noise complaints as soon as possible and minimize activities that would generate noise outside of structures. Impacts would be less than significant with mitigation. At further distance from the proposed Project site boundary, operational noise would attenuate with distance.

Response MUP-9

As noted in the Draft EIR on page 5.1-19, the proposed Project is not proposed in the vicinity of a state designated scenic highway. However, any project located along the coast is likely to impact to some extent highly valued views of the Pacific Ocean, which could impact visual character or quality as described in the CEQA Guidelines Appendix G. Impacts to visual character or quality are addressed in the Draft EIR on pages 5.1-19 through 5.1-25. Specifically related to the South Site which is nearest to 45th Street and residential land uses, the visual character of the area north of 45th Street is predominantly industrial. While proposed Project implementation would alter the ESGS South Site's visual character, it would not be altered such that it would become visually incompatible or visually unexpected when viewed in the context of the ESGS and adjacent Chevron facility to the east. The visual character of the area south of 45th Street is predominantly multi-family residential. The desalination facility structures would appear as a low-intensity use consistent with site zoning, and thus could result in greater compatibility with nearby residential uses than ESGS industrial facilities. The proposed Project's visual compatibility with the surrounding areas would be increased through implementation of Mitigation Measures AES-2 through AES-4, which would reduce impacts to a less than significant level.

While the proposed Project is not located within the City of Manhattan Beach, West Basin is sensitive to the needs of Manhattan Beach residents and intends to implement all feasible

mitigation measures to reduce impacts on its residents. As noted on page 5.1-3, Policy LU 5.1 under Goal LU-5 of the Manhattan Beach General Plan indicates, "[r]equire the separation or buffering of residential areas from businesses which produce noise, odors, high traffic volumes, light or glare, and parking through the use of landscaping, setbacks, or other techniques." Mitigation Measure AES-4 provides the "buffering" required in Policy LU 5.1, where the existing berm that buffers the proposed Project site from residential uses to the south would be re-landscaped to provide visual screening. See *Master Response: Environmental Impacts to the El Porto Community*.

Response MUP-10

As indicated in Mitigation Measure AES-4, the existing berm that buffers the proposed Project site from residential uses to the south would be re-landscaped to provide visual screening. The physical dimensions/shape of the berm would not be changed; only landscaping (to provide additional visual screening) would be affected.

The Draft EIR does not indicate that the proposed Project "won't matter because there's an existing tank on the property that's 100 feet above sea level." Rather the Draft EIR describes the context for the proposed Project that includes large tanks. As noted on page 5.1-7 Key View 2 shows "…large aboveground tank features … visible within foreground views". Page 5.1-12 indicates that, "[o]nce constructed, the facility would be visible from the neighboring areas including from the beach areas and from the Marvin Braude Coastal Bike Trail, and from motorists and pedestrians on 45th Street, ... The structures housing the treatment processes and administrative offices would be the tallest structures, with roof elevations up to 65 feet above existing ground surface (85 feet above msl). The existing cutter tank that will remain in place is 100 feet above mean sea level (msl) while Vista Del Mar is over 90 feet above msl at this location." Visual simulations provide viewshed impacts from 45th Street (Figure 5.1-8 and 5.1-13) and from the beach south of the site (Figures 5.1-7 and 5.1-12). Views from the Strand (frontage road between residences and the beach) would be similar to the views identified in Figure 5.1-7. The proposed Project would replace heavy industrial uses with light industrial structures. See *Master Response: Environmental Impacts to the El Porto Community*.

Response MUP-11

The EIR evaluates impacts of the two options (North Site and South Site) for locating the proposed Project at the ESGS facility. The commenter's recommendation for locating the proposed Project at the North Site is noted and will be forwarded to decision-makers for their consideration in taking action on the Project.

Response MUP-12

As described in the Draft EIR Section 3.1, the proposed Project proposes to use an ocean water intake system and brine discharge system consisting of repurposing and upgrading existing offshore intake and discharge tunnels. The proposed Project does not propose to use the outdated technology to provide ocean water for the desalination process. The reason coastally sited power plants are no longer allowed to use Once Through Cooling (OTC) is because the volume of water entrained by those facilities was very large and the unscreened intakes created a significant

adverse impact on the marine community. In contrast with the old power plants employing outdated OTC technology, the current desalination Project proposes to take in a daily volume of water that is one fourth the intake volume of the ESGS power plant; the proposed Project would also employ an intake flow rate that will be much slower (<0.5 fps) and employ a screened intake, as prescribed by the 2015 CA Ocean Plan. As such, the only similarity between a coastal power plant and the proposed Project is that they both rely on ocean water in their operations. Despite the safeguards in place for the current Project, as assessed and discussed in detail (Draft EIR pages 5.11-49 through 5.11-61), there remains a potential negative impact of the proposed Project on marine plankton through entrainment. As presented in the Draft EIR Section 5.11, *Marine Biological Resources*, this impact will be mitigated by off-site habitat enhancement commensurate with the estimated impact to the marine ecosystem (Draft EIR pages 5.11-63 through 5.11-64).

Response MUP-13

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*.

Response to Letter MYE: Frank Myers

Response MYE-1

The commenter is referred to *Master Response: Non-CEQA Issues* and *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter NEA: Jan Neal

Response NEA-1

West Basin has not finalized its funding portfolio for the Project, but financing methods may include any combination of public-private partnerships (P3), low interest loans, grant funding, and traditional financing through bonds or capital loans. West Basin recognizes the importance of having a thorough understanding of the costs and benefits of implementing ocean water desalination as a drinking water supply; hence, a study focused on the costs and benefits of proposed Project implementation was initiated in 2019. One of the objectives of this study is to evaluate the potential wholesale water rate increases within West Basin's service area resulting from proposed Project implementation. The study will analyze how affordability may be addressed through the rate making processes for drinking water wholesalers and retailers. The study is expected to be completed in 2020. See also *Master Response: Cost and Rates*.

Response NEA-2

New conveyance infrastructure would convey the desalinated water from the desalination facility to the existing distribution system that delivers potable water to local area and regional supply feeders owned by the Metropolitan Water District of Southern California (MWD), and they are described in Draft EIR Subsection 3.4.1 for the Local Project and in Subsection 3.4.2 for the Regional Project. This comment expresses an opinion about pipeline maintenance costs and does not speak to the adequacy of the Draft EIR. The maintenance of water supply infrastructure in the future will be necessarily similar to existing conditions.

Response NEA-3

The comment's observation that screening of equipment can block views and the comment's preference for no screening are noted and will be forwarded to decision-makers for their consideration in taking action on the Project. See also *Master Response: Non-CEQA Issues*.

Response NEA-4

The traffic impacts resulting from the proposed Project would only occur during construction, and are therefore considered temporary. Lane closures would only occur within segments of roadways within which pipelines are installed. Mitigation Measure TRA-1 would minimize the potential for the proposed Project's construction-related traffic to result in traffic delays or impacts on existing circulation patterns and intersection/roadway Level of Service. As soon as the pipeline is installed, the segment of the roadway would be opened. This means that temporary road closures would only occur in incremental segments of roadway, and will not occur along the entire segment of Vista Del Mar.

See also *Master Response: Environmental Impacts to the El Porto Community.*

Response NEA-5

The operational activities associated with the proposed Project are discussed in detail in Section 5.2, *Air Quality* on page 5.2-35. As shown in Table 5.2-12, on page 5.2-35, the unmitigated operational activities are not anticipated to exceed SCAQMD's recommended significance

thresholds. Therefore, air quality emissions from the operation of the proposed Project would be less than significant.

Response NEA-6

Impacts to wildlife are analyzed for both construction and operation phases of the Local Project and the Regional Project in Draft EIR Subsection 5.3.4, pages 5.3-31 to 5.3-38. No potentially significant impact to terrestrial biology were identified once operational. Mitigation measures apply to the construction phase.

Response NEA-7

The Draft EIR identifies that no local or regional energy conservation plans are directly applicable to the proposed Project, but acknowledges that the 2017 Scoping Plan Update includes high-level objectives and goals intended to reduce energy demand within the state's water sector and describes how the state is currently implementing several targeted agricultural, urban, and industrial-based water conservation, recycling, and water use efficiency programs as part of an integrated water management effort that will help achieve GHG reductions through reduced energy demand within the water sector.

The local climate action plans for LA County and El Segundo include measures for water conservation that are intended to reduce the energy use and GHG emissions associated with the conveyance and consumption of potable water. The 2015 El Segundo Energy Efficiency and Climate Action Plan (EECAP) indicates that community-wide GHG emissions associated with the conveyance and consumption of water constitute less than 0.005 percent of the city's total emissions in 2012. Nonetheless, the EECAP includes a community measure to promote water efficiency actions to enable exceedance of the SB X7-7 standard (reduce water consumption 20 percent by 2020), and municipal measures to implement a water leak detection program and to upgrade or incorporate water-conserving landscapes. Similarly, the 2020 Los Angeles County Climate Action Plan includes a measure to reduce per-capita water use, consistent with SB X7-7, through strategies that the County, in conjunction with local urban water agencies, will implement to promote water conservation throughout the unincorporated areas. The Draft EIR Section 5.5.4 (page 5.5-10) presents the increased energy used by proposed Project construction.

Response NEA-8

The Draft EIR Subsection 5.6.4 evaluates the proposed Project's impacts on soil erosion and loss of top soil. Since construction of the proposed Project would be required to comply with the requirements of the state Construction General Permit, described on pages 5.6-3, 5.6-4, and the El Segundo Municipal Code Chapter 5-4-9, described on page 5.6-6 and 5.6-7, both of which require best management practices to ensure stormwater is managed and erosion is controlled on construction sites, the Draft EIR concludes a less than significant impact during construction, and no impact during operations (see Draft EIR Table 5.6-3).

The Draft EIR Section 5.6, *Geology, Soils, and Seismicity*, page 5.6-11, explains that the nearest active fault to the proposed screened ocean intake and concentrate discharge sites is the Newport-Inglewood Fault Zone, located approximately 6 miles to the east. Since the proposed Project

components are not located on or near any active fault, there would not be any impact to a fault line from pile driving.

Response NEA-9

Mitigation Measure GHG-1 measure requires West Basin to minimize the proposed Project's energy demand and implement on-site renewable energy use before progressing through the remainder of the mitigation options identified in subsection 3 of Mitigation Measure GHG-1 (renewable power purchase agreement, renewable energy certificates, and carbon offsets) on the basis of the options' physical and economic feasibility. Mitigation Measure GHG-2 requires third-party verification.

West Basin is not proposing on-site solar power generation at this time because it may be more feasible and cost-effective to purchase renewable energy from SCE or another third-party, if and when the proposed Project is approved and constructed. One factor, as explained in the Draft EIR, is that because of SB 350 and California's RPS program, investor-owned utilities must increase procurement from eligible renewable energy sources to 50 percent of total procurement by 2030,[6] indirect emissions associated with the use of SCE's electricity will continue to drop through at least 2030 as more and more electricity from renewable power generators is brought onto the grid.

With regards to the comment's statement regarding the proposed Project's commitment to "real, actionable energy reductions," see response to comment MBCH3-58.

With regards to the comment's statement regarding a preliminary GHG report, see response to SLC-19 regarding the timing of the Energy Minimization and GHG Plan, which notes that the Draft EIR text on page 5.7-30 is modified as follows:

> **GHG-1:** West Basin shall prepare an Energy Minimization and GHG Reduction Plan <u>no later than 60 days</u> prior to the start of Project construction activities….

This change presented in the mitigation measure does not result in a decrease in the effectiveness of the proposed measure, does not result in a substantial increase in the severity of the identified impact after mitigation, and does not preclude meaningful review and comment.

Response NEA-10

Potential impacts from the discharge of brine on water quality are comprehensively assessed under Impact 5.9-2 (Draft EIR Subsection 5.9.4) and impacts on marine biological resources are assessed under Impact 5.11-1 (Draft EIR Subsection 5.11.4). The assessment of impacts to water quality and marine biological resources comprehensively applied and considered the applicable regulations discussed in the associated regulatory setting sections (Draft EIR Subsections 5.9.1 and 5.11.1 *et seq*.), including the Water Quality Objectives of the California Ocean Plan pertaining to salinity and other water quality constituents and pollutants.

[6] With the passing of SB 100, the RPS standard has increased to 60 percent by 2030. SB 100 also directs CARB to plan for 100 percent eligible renewable energy resources and zero-carbon resources by December 31, 2045.

Regarding impacts to water quality from the discharge of brine from the proposed Project, the assessment of impacts incorporates the numeric thresholds defined in the Ocean Plan for determining impacts from operation of the Local and Regional Project. Specifically relating to salinity, as described in detail under Impact 5.9-2 (Draft EIR Subsection 5.9.4), the California Ocean Plan limits the increase of salinity of receiving water from desalination plant discharges to a daily maximum of 2 parts per thousand (ppt) above natural background salinity at the boundary of the Brine Mixing Zone (BMZ), defined as the horizontal distance of 100 meters (328 feet) from the point of discharge. As presented in Table 5.9-6 and 5.9-8 (see LARWQCB-30 for further discussion relating to supplemental studies and revisions to the Draft EIR), the Local and Regional Projects would meet the Ocean Plan salinity standard at a maximum of 63 feet and 98 feet from the point of discharge, respectively, for all scenarios modeled. Similarly, for other water quality constituents, the analysis of water quality impacts incorporates the numeric water quality objectives defined in the Ocean Plan, and summarized in the Draft EIR Table 5.9-2. As discussed in detail under Impact 5.9-2, brine discharges would not cause or contribute to an exceedance of relevant water quality standards. The assessment of water quality impacts from the discharge of brine (Draft EIR Subsection 5.9.4) was incorporated into the analysis of impacts on marine biological resources potentially occurring due to changes in receiving water quality within the mixing zone at the outfall diffuser. As discussed in detail in Draft EIR Subsection 5.11.4 (page 5.11-56), because water quality constituents would not exceed existing background levels at the edge of the Zone of Initial Dilution (ZID), the discharge of brine would not be expected to pose any risk to marine habitats and taxa, including special-status fish, marine mammals, and sea turtles.

Response NEA-11

The proposed study on entrainment and shear stress mortality on planktonic organisms identified in Mitigation Measure BIO-M2 is intended to provide additional "real-world" information on the potential magnitude of entrainment by the intake as well as by the discharge plume. As presented in the Draft EIR Section 5.11, *Marine Biological Resources*, the effects of power plant Once Through Cooling (OTC) entrainment have been studied for the past 30+ years. The data from these entrainment studies provide substantial information on the potential magnitude of entrainment under high volume, high flow rate, and unscreened intake systems. Because of significant differences in design and operation of the proposed Project and these previously studied coastal power plants, many questions remain concerning precisely what planktonic taxa are entrained in a 1mm wedgewire screened intake operating at <0.5 fps, and the efficiency of this on reducing entrainment. The proposed Project has committed to mitigating these potential losses through off-site habitat restoration at an appropriate level, based on calculations of potential ecosystem impacts, as directed by the State Water Resources Control Board (SWRCB). But as illustrated in the discussion of potential Project entrainment impacts (Draft EIR pages 5.11-49 through 5.11-61), the potential effects on the ecosystem are uncertain and the proposed studies will provide scientific information that will inform and reduce this uncertainty.

Response NEA-12

The Traffic Control Plan, which is required by Mitigation Measure TRA-1, would minimize the potential for the Project's construction-related traffic to result in traffic delays or impacts on

existing circulation patterns and intersection/roadway Level of Service. Impacts would be reduced to a less than significant level. There would be no increase to safety hazards as disclosed on page 5.15-30 of the Draft EIR. While public input is not typically involved in preparation of a Traffic Control Plan, all local jurisdictions within which roadway impacts will occur will be consulted regarding encroachment into their rights-of-way. In this way, the local jurisdictions whose responsibility it is to maintain safety on local roadways will be involved in the planning process.

Response NEA-13

Regulations do not currently exist that would allow for Direct Potable Reuse (DPR) within the West Basin service area. However, as currently envisioned, future DPR regulations may specify a blending requirement, where highly treated water would be blended with potable water for treatment prior to distribution. Interestingly, the implementation of the proposed Project may position West Basin to support future DPR through use of the desalinated ocean water as a raw water source for blending when such regulations are in place. West Basin supports development of DPR as a part of a diversified water supply portfolio for the region. Development of the ocean water desalination would strengthen West Basin's ability to implement DPR in the future via raw water augmentation.

Response NEA-14

The 2015 Urban Water Management Plan (UWMP) was prepared in compliance with Water Code Section 10608.36 and California's Urban Water Management Planning Act (Act) (Water Code Sections 10610 through 10657). Those provisions require that every urban water supplier that provides municipal and industrial water to more than 3,000 customers (or supplies more than 3,000 acre-feet per year) prepare and adopt a UWMP every 5 years. The Act requires urban water suppliers to describe and evaluate sources of water supply, efficient uses of water, demand management measures, implementation strategy and schedule, and other relevant information and programs. In addition, the Act requires reporting agencies to describe their water reliability under single-dry-year, multiple-dry-year, and average-year conditions, with projected information in 5-year increments for 20 years. The water reliability analysis requires urban water suppliers to identify projected supplies to meet these demands. As with West Basin's previous Plans (1995, 2000, 2005, and 2010), the 2015 UWMP builds upon the goals and progress made in the preceding UWMP. The 2015 UWMP provides the most current planning projections of supply capability and demand developed through a collaborative process with Metropolitan Water District of Southern California (MWD), and it continues to serve as West Basin's master plan for reliable water supply and resources management.

The 2015 UWMP details how West Basin proposes to manage its water supplies and demands under all hydrology conditions, and demonstrates how West Basin proposes to meet its service area's retail demands and provide long-term water reliability and security over the next 25 years (see Draft EIR Subsection 2.3.2). West Basin as a public water wholesaler manages its own water supply portfolio, and the UWMP is where West Basin's water planning process is presented. See also *Master Response: Water Supply Alternative*.

Response NEA-15

Although West Basin appreciates the concern, the comment does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted.

Response NEA-16

As noted in Draft EIR Subsection 7.2.1, the direct introduction of advanced treated recycled water into the treated drinking water distribution system to produce a Direct Potable Reuse (DPR) supply faces the greatest challenges in regulation development, technology development, and public health safeguards. The implementation of the proposed Project would allow West Basin to position itself to consider DPR through raw water augmentation for blending when such regulations are in place. The absence of the proposed Project (the No Project Alternative) makes this alternative infeasible and too speculative for obtaining the goal of 21,500 AFY of potable drinking water.

Response NEA-17

The Draft EIR Section 2.10 presents the Project Development and Background, and, in that context, Subsection 2.10.1 describes the West Basin Pilot Project and Subsection 2.10.2 describes the Ocean Water Desalination Demonstration Facility and Water Education Center. Subsection 2.10.1 explains that the Pilot Project identified that membrane pretreatment followed by RO effectively treated seawater to meet West Basin's potable water standards and was successful in identifying optimal design and operating parameters for implementing desalination within its service area. Subsection 2.10.2 explains that the Demonstration Facility's specific objectives were to develop data for the permitting, design, construction, and operation of West Basin's proposed full-scale desalination facility. The Demonstration Facility ultimately provided field data for optimizing the proposed Project design so that it could produce high-quality potable water in accordance with public health safeguard while minimizing environmental impacts. All references cited in the Draft EIR are available by request; many of the studies, including the Pilot Program Final Comprehensive Report, and the Demonstration Project Final Report, are available online at: http://westbasindesal.com/research-and-planning.html.

Response NEA-18

The Draft EIR Section 2.10 presents the Project Development and Background, and in that context, Subsection 2.10.3 specifically describes the Harmful Algal Bloom and Marine Biotoxin Study. In an effort that was partially funded by DWR under Proposition 50, West Basin prepared the *Stormwater and Marine Biotoxin Monitoring Final Report* (Trussell Technologies 2009) and the associated monitoring activities identified stormwater input and harmful algal bloom effects on the desalination process at the West Basin Pilot Project. All references cited in the Draft EIR are available by request; many of the studies, including the *Stormwater and Marine Biotoxin Monitoring Final Report*, are available online at: http://westbasindesal.com/research-and-planning.html.

Response NEA-19

The Draft EIR Section 2.10 presents the Project Development and Background, and in that context, Subsection 2.10.9 specifically describes the Intake Biofouling and Corrosion Study. In 2016, West Basin partnered with Metropolitan Water District of Southern California (MWD) and commissioned an Intake Biofouling and Corrosion Study to identify suitable materials that are corrosion resistant and anti-biofouling to field-demonstrate their long-term corrosion and anti-biofouling performance. The study identified two main types of metals: copper-nickel alloys and steel alloys; unfortunately, as noted in the Draft EIR Table 2-2, two of the samples (the 90-10 Cu-Ni alloy samples) were lost at sea after collecting one year of data. The study had ample data to conclude the Copper:Nickel alloy samples had significantly less weight change than the stainless steel samples. See also Draft EIR Appendix 4B: Literature Review on Long Term Corrosion and Biofouling Resistance of Copper Nickel Alloys and Stainless Steels for Marine Applications; Technical Memorandum: Dissolution Estimate of Copper:Nickel Corrosion from Wedgewire Screens.

Response NEA-20

The Draft EIR Subsection 5.9.1 explains that the SWRCB defines subsurface intakes as the preferred technology for desalination facility water intake design. However, surface water intakes are allowed where subsurface intakes are found to be infeasible (SWRCB 2015). As explained and summarized in the Draft EIR Subsection 2.10.10, West Basin has extensively evaluated the technical, economic, social and environmental feasibility of incorporating subsurface seawater intake (SSI) systems into Project design. In 2015, West Basin initiated a site-specific feasibility study to evaluate using a SSI at the ESGS facility; see Draft EIR Appendix 2. As explained in the Draft EIR Subsection 7.2.3, the site specific study outlined the local geology and proximity to subsurface ocean water and evaluated numerous technologies that could access subsurface ocean water and concluded that due to the local geology, existing coastal development, subsurface water quality, potential for interference with the operation of the West Coast Seawater Barrier Project, and untested expensive technology, subsurface intakes would be infeasible. In response to this and similar comments on the Draft EIR, West Basin has prepared a Supplemental Subsurface Intake Feasibility Study (Final EIR Appendix 13); see *Master Response: Supplemental Studies*.

Response NEA-21

As explained in the Draft EIR Section 5, *Approach to Analysis*, impacts associated with the Local Project are assessed at a project-level, whereas impacts associated with the Regional Project are assessed at a project-level for those components that are known (such as the physical size of the facility) and a programmatic-level for those aspects of the proposed Project that are not well-defined (such as regional partners). Since project-level details were known for the majority of components analyzed in the Draft EIR, project-level analysis is appropriate where used in the Draft EIR.

The commenter is referred to *Master Response: Water Supply Alternatives* and *Master Response: Cost and Rates.*

Response to Letter NEE: Sean Neel

Response NEE-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved. The commenter is referred to *Master Response: Non-CEQA Issues*.

Response to Letter NEL: Tennyson Nelson

Response NEL-1

CEQA Guidelines Appendix F, Energy Conservation, does not provide specific thresholds (such as Zero Net Energy [ZNE]) for energy demand increases. In accordance with Appendix F of the CEQA Guidelines, and as described in Draft EIR Section 5.5.1, the proposed Project would result in a significant impact with regard to energy if the proposed Project would, among other things, conflict with adopted energy conservation plans. The Draft EIR identifies that no local or regional energy conservation plans are directly applicable to the proposed Project, but does identify the 2017 Scoping Plan Update as having applicable high-level objectives and goals intended to reduce energy demand within the state's water sector in the context of developing "more reliable water supplies for people, agriculture, and the environment, provided by a more resilient, diversified, sustainably managed water resources system." The Draft EIR concludes on page 5.5-22 that the increase in energy demand associated with the Project would represent 0.15 percent of the electricity use in Los Angeles County and would not be a significant or wasteful increase. On page 5.5-24 the Draft EIR states that the Local Project's estimated electrical consumption would account for approximately 0.08 percent of SCE's projected electricity sales. If using the lower baseline case provided in the comment, this percentage would be closer to 0.1 percent, still a small percentage of SCE sales. See responses to comments MBCH3-43, MBCH3-44, MBCH3-46, EOGB-4, EOGB-5, LAW2-5.

Response to Letter NOL: Phoebe Nolan

Response NOL-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved. The commenter is referred to *Master Response: Non-CEQA Issues*.

Response to Letter NOR: Robert Norrie

Response NOR-1

The commenter is referred to *Master Response: Non-CEQA Issues, Master Response: Water Supply Alternatives,* and *Master Response: Cost and Rates*.

Response to Letter ORA: Kelly Oram

Response ORA-1

The commenter is referred to *Master Response: Water Supply Alternatives* and *Master Response: Non-CEQA Issues*.

Response to Letter ORT: Evan Ortega

Response ORT-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Response to Letter PAN: Jerry Pancake

Response PAN-1

While West Basin appreciates the comment, it expresses an opinion and does not speak to the adequacy of the Draft EIR; see *Master Response: Non-CEQA issues*.

Response PAN-2

The Draft EIR Subsection 7.2.1 considered a range of water supply alternatives including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See Draft EIR Tables 7-1 and 7-2, and *Master Response: Water Supply Alternatives*.

Response PAN-3

While West Basin appreciates the comment, it expresses an opinion and does not speak to the adequacy of the Draft EIR; see *Master Response: Non-CEQA issues*.

Response to Letter PAN2: Jerry Pancake

Response PAN2-1

While West Basin appreciates the comment, it expresses an opinion and does not speak to the adequacy of the Draft EIR; see *Master Response: Non-CEQA issues*.

Response PAN2-2

The Draft EIR Subsection 7.2.1 considered a range of water supply alternatives including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See Draft EIR Tables 7-1 and 7-2, and *Master Response: Water Supply Alternatives*.

Response to Letter PAR: Kathleen Parker

Response PAR-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter PER: Cindy Perelson

Response PER-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response to Letter PHE: Andrew Phelps

Response PHE-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter PHE2: Andrew Phelps

Response PHE2-1

This comment letter states that a separate comment letter from Colleen Young provides better comments and then copies Ms. Young's comments verbatim. The reader is directed to the responses to comment for Colleen Young's comment letter (response to comment YOCO-1 through YOCO-16).

Response to Letter PHI: Wendy Phillips

Response PHI-1

The Draft EIR Subsection 5.11.4 explains on pages 5.11-49 through 5.11-61 that the potential effect of planktonic entrainment on marine ecosystems represents a potentially significant impact. However, the implementation of Mitigation Measure BIO-M2 would offset any potential marine ecosystem effects of Project-related entrainment and would reduce the potential impact to less than significant. The comment's concern about the creation of a "zone of extreme toxicity" is unsubstantiated by any scientific evidence. The Draft EIR extensively assessed the effects of the brine discharge (Draft EIR Section 5.9 on pages 5.9-49 through 5.9-61), as well as the potential effect of elevated brine concentrations and elevated contaminants in the discharge water on marine taxa (Draft EIR pages 5.11-56 through 5.11-58). Both the Hydrology and Water Quality (Section 5.9) and Marine Biological Resources (Section 5.11) analyses determined that the discharged volume of elevated brine would affect an extremely small areal extent, reaching background (ambient) salinity levels between 45 and 63 feet from the diffuser for the Local Project and between 70 and 98 feet for the Regional Project for all scenarios modeled, and that it posed no identifiable toxicity threat to marine biota for all scenarios modeled.

Response PHI-2

The Draft EIR Subsection 7.2.1 considered a range of water supply alternatives including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See Draft EIR Tables 7-1 and 7-2, and *Master Response: Water Supply Alternatives*. While West Basin appreciates the comment, it expresses an opinion and does not speak to the adequacy of the Draft EIR; see also *Master Response: Non-CEQA Issues*.

Response PHI-3

The comment provides a summary of the proposed Project as proposed and analyzed in the Draft EIR. The comment does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record. However, it should be noted that ferric chloride is a coagulant that consolidates suspended solids in the waste stream that are settled out before the decanted waste stream is discharged back to the ocean. As noted in Draft EIR Subsection 3.4.1, the clarified effluent would either be pumped to the head end of the desalination plant (i.e., washwater recycling) or it would mix with RO brine and be discharged to ocean.

Response PHI-4

The cost of a project is not considered an environmental impact under CEQA unless it results in physical changes to the environment. Since the cost of the proposed Project will not in itself result in physical changes, the proposed Project's effect on customer rates is not required to be considered in the Draft EIR. However, West Basin recognizes the importance of having a thorough understanding of the costs and benefits of proposed Project implementation and initiated a rate impact analysis in 2019. One of the objectives of this study is to evaluate the potential wholesale water rate increases within West Basin's service area resulting from proposed Project implementation, and how affordability may be addressed through the rate making processes for

drinking water wholesalers and retailers. The study is expected to be completed in 2020. See also *Master Response: Cost and Rates*.

Response PHI-5

The comment provides a summary of concerns that are subsequently elaborated on in the comment letter. Responses to these comments are addressed in response to comments PHI-6 through PHI- 23.

Response PHI-6

See response to comment PHI-1; the effluent discharged by the proposed Project would not creation zones of toxicity on the seafloor. Also, the Hyperion water Reclamation plant does not currently include any known brine discharges. Their National Pollutant Discharge Elimination System (NPDES) permit does include a standard limit on the salinity of their discharge. Hyperion's NPDES permit is available at: https://www.waterboards.ca.gov/losangeles/board_decisions/adopted_orders/docs/2171_R4-2010-0071_WDR_PKG.pdf.

Response PHI-7

See response to comment PHI-1; the effluent discharged by the proposed Project would not create a zone of extreme toxicity. As discussed in detail in the Draft EIR Subsection 5.11.4 (page 5.11-56), because water quality constituents would not exceed existing background levels at the edge of the Zone of Initial Dilution (ZID), the discharge of brine would not be expected to pose any risk to marine habitats and taxa, including special-status fish, marine mammals, and sea turtles because of the small percentage of total open water habitat contained within the ZID and the limited exposure duration.

West Basin conducted a Demonstration Project, integrating the results of a previous Pilot Project (discussed in the Draft EIR Subsection 2.10.2, page 2-30). The Demonstration Project included a detailed study of the effects of brine discharge on local marine life from salinity and toxicity to support permitting, design, construction, and operation of West Basin's proposed full-scale desalination facility. Water quality evaluations of operational brine discharges conducted as part of the Pilot and Demonstration Projects (SPI 2017, 2018; incorporated by reference into the analysis of impacts presented in Draft EIR Subsection 5.9.4 and available as part of the Project Administrative Record and online at http://westbasindesal.com/research-and-planning.html) determined that the majority of constituents in the brine for which there is a numeric water quality objective (Draft EIR Table 5.9-2, page 5.9-8) complied with Ocean Plan water quality objectives. None of the constituents were determined to exceed existing background levels in Santa Monica Bay following discharge and dilution/dispersion associated with the proposed diffuser.

The Draft EIR acknowledges that the Los Angeles Regional Water Quality Control board (LARWQCB) may require additional information for the California Water Code (CWC) 13142.5(b) determination and NPDES permit. Additional modelling and ultimately monitoring for bioaccumulation of discharge constituents would be conducted if required under the permit conditions. However, for purposes of determining potentially adverse impacts to ocean water

quality and marine life, the Draft EIR adequately presents substantial evidence based on years of pilot testing and Demonstration Project testing that suggests bioaccumulation would not present significant impacts.

Response PHI-8

The Draft EIR Subsection 5.9.1 explains that the State Water Regional Control Board (SWRCB) defines subsurface intakes as the preferred technology for desalination facility water intake design. However, surface water intakes are allowed where subsurface intakes are found to be infeasible (SWRCB, 2015). As explained and summarized in the Draft EIR Subsection 2.10.10, West Basin has extensively evaluated the technical, economic, social and environmental feasibility of incorporating subsurface seawater intake (SSI) systems into Project design. In 2015, West Basin initiated a site-specific feasibility study to evaluate using a SSI at the El Segundo Generating Station (ESGS) facility; see Draft EIR Appendix 2. As explained in the Draft EIR Subsection 7.2.3, the site specific study concluded that due to the local geology, existing coastal development, subsurface water quality, potential for interference with the operation of the West Coast Seawater Barrier Project, and untested expensive technology, subsurface intakes would be infeasible. In response to this and similar comments on the Draft EIR, West Basin has prepared a Supplemental Subsurface Intake Feasibility Study (Final EIR Appendix 13); see *Master Response: Supplemental Studies*.

The Draft EIR analysis of entrainment impacts is presented in the Draft EIR Subsection 5.11.4 and is not based on a statement that the potential effects would be less than that caused by the existing power plant. The proposed intake system will operate at significantly lower intake flow rates (<0.5fps) than the power plant did and will employ 1-mm wedgewire screens. These two updates result in key differences in the operation between the existing ESGS Once Through Cooling (OTC) system and the proposed Project; as a result of the updates, impingement of all adult and larval fish is predicted to be eliminated. It should also be noted that both of these updates are required by the California SWRCB in its Ocean Plan Amendment (OPA), dated 2015. Finally, information on potential entrainment impacts, including species potentially entrained and the potential effect of that entrainment on marine ecosystems, is presented in the Draft EIR Subsection 5.11.4 on pages 5.11-49 through 5.11-61.

Response PHI-9

The use of subsurface intakes was investigated for feasibility as part of Project design. Subsurface intakes were assessed as part of the West Basin Ocean Water Desalination Program Master Plan (Arcadis, 2013) for the El Segundo Generating Station (ESGS) and Redondo Beach sites, and they were found to be infeasible for the proposed Project. In-depth technical and geological analyses and groundwater modeling for the ESGS site were also conducted as part of the Subsurface Intake Feasibility Study presented in Appendix 2A, Feasibility Assessment of Subsurface Seawater Intake**s**. As part of the preparation of the Final EIR, West Basin prepared a supplemental study that expands upon the Subsurface Intake (SSI) study provided in the Draft EIR, and responds to the concerns expressed by this, and other comments on the Draft EIR. The findings of this supplemental study support West Basin's conclusions in the Draft EIR, and provide support for future regulatory decisions. See *Master Response: Supplemental Studies.*

The Project proposes to utilize screened open water intakes as described in EIR Subsection 3.4.1. The quantification of impacts to marine life from the proposed Project intake and discharge is presented in Draft EIR Subsection 5.11.4. The comment is not clear as to what intake alternatives might be included in such a comparative analysis.

Response PHI-10

West Basin is proposing to develop a 20 million gallons per day (MGD) Local Project desalination facility. As described in the Draft EIR Subsection 3.4.1, the Local Project would require 45 MGD of ocean water to meet the 20 MGD product water volume. A Reduced Capacity Alternative is evaluated in the Draft EIR Subsection 7.3.3 and as explained, the Reduced Capacity Alternative would not substantially reduce the impacts of the proposed Project and would not as effectively reduce West Basin's reliance on imported water as would the proposed Project. As described in Draft EIR Section 5.9 and 5.11, the impact from the proposed Project resulting from the screened intake would be less than significant with mitigation, and the brine discharge meets State regulatory requirements of not exceeding 2 ppt well within 100 meters of the discharge. See Draft EIR pages 5.9-49 through 5.9-61.

Response PHI-11

See response to comment PHI-9.

Response PHI-12

The Draft EIR includes an analysis of impacts from nearby public viewpoints, such as the Marvin Braude Coastal Bike Trail and from motorists and pedestrians on 45th Street. Photo simulations were prepared for selected Key View locations to demonstrate the degree of change that would result from proposed Project implementation from public vantage points (see Figures 5.1-5 through 5.1-22). Numerous visual simulations from the public vantage points along the beach and in northern Manhattan Beach are included in the Draft EIR to disclose visual impacts of the proposed Project, and are accompanied by textual descriptions of the proposed changes. Most notable is Figure 5.1-7 and the accompanying text on page 5.1-37, which states that: "The proposed new ocean water desalination facility at the ESGS South Site would not result in any significant view blockage of beach areas or ocean views; refer to Figure 5.1-7. Views to some landscaped slopes would be replaced with Local Project ocean water desalination facility structures. The proposed structures would appear to encroach closer to beach areas when compared to the existing condition." The text explains that while new structures would be visible from the beach, view blockage of the beach or ocean views would not occur as a result of the proposed Project.

The Draft EIR describes the existing condition at the proposed Project site and surrounding area in order to establish the visual context and environmental baseline against which proposed Project impacts are analyzed. This baseline condition includes the large tanks referenced by the comment. As noted on page 5.1-7, Key View 2 shows "…large aboveground tank features … visible within foreground views". Page 5.1-12 indicates that, "[o]nce constructed, the facility would be visible from the neighboring areas including from the beach areas and from the Marvin Braude Coastal Bike Trail, and from motorists and pedestrians on 45th Street, ... The structures housing the treatment processes and administrative offices would be the tallest structures, with

roof elevations up to 65 feet above existing ground surface (85 feet above mean sea level [msl]). The existing cutter tank that will remain in place is 100 feet above msl while Vista Del Mar is over 90 feet above msl at this location." Visual simulations provide viewshed impacts from 45th Street (Figure 5.1-8 and 5.1-13) and from the beach south of the site (Figures 5.1-7 and 5.1-12). Views from the Strand (frontage road between residences and the beach) would be similar to the views identified in Figure 5.1-7. The proposed Project would replace heavy industrial uses with light industrial structures. See *Master Response: Environmental Impacts to the El Porto Community*.

Response PHI-13

Regarding the comment's concern that the environmental impacts of ocean desalination are not justified when the more cost-effective alternative of aggressive water conservation is available, see *Master Response: Greenhouse Gas Emissions and Energy Use* and *Master Response: Water Supply Alternatives.*

Response PHI-14

The Draft EIR Table 7-2 presents the results of the initial screening of alternatives. An economic impact analysis is not appropriate under CEQA unless physical changes to the environment attributable to the project could occur as a result of an economic impact. West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio. But the expansion of an existing conservation program, while less expensive than desalination, does not meet the objective of diversification; it's more of the same and puts West Basin at greater risk of relying on customer responses to a rationing program during a drought. West Basin's core mission is to ensure a reliable water supply in an economically responsible manner. Although the proposed Project may increase wholesale water rates supplied to local retailers, the ultimate goal of the Project is to stabilize water prices to minimize risks of substantially higher water costs that could occur with a less reliable water supply, which is subject to drought and risk of upset within California's vast water importation systems. See *Master Response: Water Supply Alternatives* and *Master Response: Cost and Rates.*

Response PHI-15

West Basin is a water wholesaler. As noted correctly by the comment, West Basin's water retailers control tiered pricing structures, not West Basin.

Response PHI-16

The Draft EIR Subsection 7.2.1 explains that West Basin's retail water agencies are required to comply with SB X7-7 (Water Conservation Act of 2009) water use reductions targets, while West Basin is not. However, West Basin uses its 2015 Urban Water Management Plan (UWMP) as a "Regional Alliance" UWMP to establish regional demand reduction targets for five of its eight retail agencies.[7] West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio.

[7] West Basin's Regional Alliance partners include the California Water Service (Hawthorne Region), City of El Segundo, City of Lomita, City of Manhattan Beach, and the Los Angeles County Waterworks District #29.

Response PHI-17

See response to comment PHI-16.

Response PHI-18

How any one retail customer conserves water in the home is an individual choice. Choices may be behavioral (taking shorter showers) or require hardware changes (installing a composting toilet or converting turf to a more sustainable landscape). West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio. The expansion of an existing conservation program does not meet the objective of water supply diversification and puts West Basin at greater risk of relying on customer responses to a rationing program during a drought.

Response PHI-19

West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio. However, the expansion of an existing conservation program does not meet the objective of diversification. Please see M*aster Response: Water Supply Alternatives*, and response to comments PHI-14 through PHI-18.

Response PHI-20

The commenter's concern with the operation of other regional desalination facilities, particularly the Claude Lewis Carlsbad Desalination Plant, does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted.

Response PHI-21

The commenter's concern with the operation of other regional desalination facilities, particularly the Redondo Beach Desalination Demonstration Project, does not specify any deficiencies in the analysis included in the Draft EIR. The incident involved water quality of the aquarium fish tanks. As a result, this comment has been noted for the record and no further response is warranted. For more info regarding the referenced incident, see page 4-4 of the *Ocean Water Desalination Demonstration Project*
http://westbasindesal.com/assets/Documents%20and%20Files/Project%20Materials/techincal-studies/OWDDF_Final%20Report_032818.pdf.

Furthermore, the Draft EIR discusses the treatment and handling of on-site chemicals (including chlorine) in Subsection 3.4.1 (Project Description); Draft EIR Subsection 5.8.4 (Hazards and Hazardous Materials) discusses the potential construction and operational impacts associated with hazardous materials, and; Subsection 5.11.4 (Marine Biological Resources, on page 5.11-60) discusses the potential effects on marine organisms from the chlorine discharges.

Response PHI-22

West Basin is required by CEQA to evaluate the impacts of construction and operation of the proposed Project on the environment. The Draft EIR fully analyzes those impacts. The incident cited by the comment regarding the Redondo Beach Desalination Demonstration Project involved

water quality of the aquarium fish tanks, which has nothing to with the proposed desalination process analyzed under CEQA in this EIR. The proposed Project's ocean discharge would be disinfected and de-chlorinated prior to discharge, and covered under an NPDES discharge permit with receiving water quality objectives. Although West Basin appreciates the concerns, the comment does not specify any deficiencies in the Draft EIR analysis. As a result, this comment has been noted for the record and no further response is warranted.

Response PHI-23

The comment is noted for the record.

Response to Letter POL: Linda Pollard

Response POL-1

While West Basin appreciates the comment, it does not address the adequacy of the environmental analysis included within the Draft EIR. No further response is warranted.

Response to Letter POM: Joie Pompilio

Response POM-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter POP: Mary Pope

Response POP-1

Although the Project is proposed to be located in the city of El Segundo, the commenter is correct in noting that the proposed Project is on the border of Manhattan Beach city limits. As discussed in the EIR, the ESGS South Site is within 130 feet of residential units across 45th Street, and the ESGS North Site is approximately 750 feet north with the intervening property remaining undeveloped. Accordingly, potential noise impacts to these Manhattan Beach residents are evaluated in the Draft EIR in light of Manhattan Beach's noise standards (See Section 5.12, *Noise*). Traffic impacts in the Draft EIR are analyzed based on the circulation system, which covers Manhattan Beach (see Section 5.15, *Transportation and Traffic*). Coastal access at the proposed Project site is covered in Section 5.14, *Recreation*, and chemical spills are assessed in Section 5.8 *Hazards and Hazardous Materials*. The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community.*

Response to Letter RAM: John Ramirez

Response RAM-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter REN: Michele Reniche

Response REN-1

The commenter is referred to *Master Response: Non-CEQA Issues* and *Response: Cost and Rates.*

Response to Letter RIZ: Joseph Rizzi

Response RIZ-1

Ocean water desalination that utilizes the pressure of the ocean to force seawater through membranes could result in an energy savings when compared to the proposed Project. But Santa Monica Bay is characterized by a gently sloping (approximately 0.5°) continental shelf (see Draft EIR Subsection 5.9.2 on page 5.9-28) and in order to achieve a pressure of 814 psi at a depth of 1,800 feet as described by the comment, the proposed facility would need to be located approximately 13 miles offshore. While it is unclear if the "constant free trickle of salt FREE water" would be scalable to the needs of West Basin, energy use might be the only environmental benefit of such a proposal. While the proposed Project anticipates returning the salts that came from the ocean to the ocean, the salts that are removed from the ocean at 1,800 feet offshore would simply remain in the ocean. While impacts to coastal residents might be minimized, impacts to the ocean floor would be maximized; it is not clear from the comment how it would result in positive impacts to ocean plants or sea creatures. The pipelines from the offshore location to the mainland would certainly traverse several active shipping lanes, which could cause impacts and conflicts during construction, and perhaps during operation. The concept of natural desalination is intriguing, but its utility at this scale is speculative at this time.

Response to Letter RIZ2: Joseph Rizzi

Response RIZ2-1

See response to comment RIZ-1.

Response to Letter SAB: Terri Sabosky

Response SAB-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Response to Letter SAC: Amanda Sackett

Response SAC-1

The comment refers to a request for permit extension; West Basin assumes this is referring to a request for an extension on the Draft EIR public comment period. West Basin initially provided a Draft EIR review and comment period of 60 days, from March 27, 2018, through May 25, 2018. In response to comments requesting an extension, West Basin granted a 31-day extension for review and comment on the Draft EIR. The public review period ended at 5 p.m. on Monday, June 25, 2018, providing a 91-day public review period.

Response SAC-2

Board members are available to receive public comment at every scheduled board meeting. Board members will be provided with all comments, and responses to comment received on the Draft EIR, as they consider certification of the EIR and Project approval. See also response to comment SAC-1

Response to Letter SALA: Steve Salas

Response SALA-1

The Draft EIR Subsection 7.2.1 evaluates a range of water supply alternatives, including recycling, and explains that expanding the existing recycled water use in the region will not completely offset the need for imported water. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. See M*aster Response: Water Supply Alternatives*.

Response to Letter SALO: Laura Salonen

Response SALO-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community* for a discussion of noise, air quality, and traffic impacts to the El Porto Community.

The commenter is referred to Section 7 of the Draft EIR which includes a lengthy discussion of proposed Project site alternatives considered.

Response to Letter SBE: Angelina Sberna

Response SBE-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted. The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Non-CEQA Issues*.

Response to Letter SCHR: Matthew Schroeder

Response SCHR-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community* for a discussion of noise, air quality, and traffic impacts to the El Porto Community.

Response to Letter SCHU: Janice Schultz

Response SCHU-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter SCHUJ: Juli Schulz

Response SCHUJ-1

West Basin is a recognized leader in recycled water production, conservation and education programs. Since 1995, West Basin has treated over 200 billion gallons of secondary effluent at Edward C. Little Water Recycling Facility (ECLWRF) and other satellite facilities for a range of water reuse applications, including producing advance treated recycled water for indirect potable water and industrial uses. The Draft EIR Subsection 7.2.1 evaluates a range of water supply alternatives, including the increased of non-potable recycling alternative, and explains that expanding the existing recycled water use in the region will not completely offset the need for imported water. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination.

Response to Letter SCHUV: Vic Schulz

Response SCHUV-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*.

Response to Letter SEN: Gary Senser

Response SEN-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community*.

Response to Letter SHA: Elias Shamos

Response SHA-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community*.

Response to Letter SIE: Bob Sievers

Response SIE-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter SIE2: Bob Sievers

Response SIE2-1

See response to comment SIE-1.

Response to Letter SIEN: Nate Sievers

Response SIEN-1

CEQA requires lead agencies to consider environmental effects associated with project approvals, but does not require any financial impact analysis regarding either the cost of the project itself, or potential impacts to property values for any parcels or communities adjacent to the project site. This comment also asks Project cost and liability questions that do not speak to the adequacy of the Draft EIR. See *Master Response: Non-CEQA Issues*.

Response to Letter SLO: Marilyn Slominski

Response SLO-1

The comment expresses concern about air quality, traffic, and noise. Air quality impacts are discussed in the Draft EIR in Section 5.2 beginning on page 5.2-22. Noise impacts are discussed in the Draft EIR in Section 5.12 on page 5.12-14. Traffic impacts are discussed in the Draft EIR in Section 5.15 on page 5.15-17. The Draft EIR concludes that there is potential for significant and unavoidable impacts related to air emissions during construction and increased noise during pile driving associated with construction activities. All other impacts were found to be less than significant with mitigation. Although West Basin appreciates the concerns raised, the comment does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary. See *Master Response: Environmental Impacts to the El Porto Community*.

Response SLO-2

CEQA requires lead agencies to consider environmental effects associated with project approvals, but does not require any financial impact analysis regarding either the cost of the project itself, or potential impacts to property values for any parcels or communities adjacent to the project site. Nevertheless, the community of El Porto has been in the shadow of the NRG facility for years. Locating a light industrial facility (desalination) in the middle of the existing NRG heavy industrial facility complex should not generally affect residential property or rental values in the adjacent communities. See *Master Response: Non-CEQA Issues*.

Response SLO-3

Air quality impacts are discussed in the Draft EIR in Subsection 5.2.4 beginning on page 5.2-22. Noise impacts are discussed in the Draft EIR in Subsection 5.12.4 beginning on page 5.12-14. Traffic impacts are discussed in the Draft EIR in Subsection 5.15.4 on page 5.15-17. The Draft EIR concludes that there is potential for significant and unavoidable impacts related to air emissions during construction and increased noise during pile driving associated with construction activities. All other impacts were found to be less than significant with mitigation. Although West Basin appreciates the concerns raised, particularly about the 5-year construction timeframe and impacts to quality of life, the comment does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary. See *Master Response: Environmental Impacts to the El Porto Community*.

Response to Letter SMI: Smithk601

Response SMI-1

West Basin appreciates the commenter's approval of the website. The commenter is referred to *Master Response: Non-CEQA Issues*.

Response to Letter SOD: Jane Soderberg

Response SOD-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community, Master Response: Cost and Rates,* and *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter SPI: Aaron Spiewak

Response SPI-1

Currently, West Basin recycles approximately 35 million gallons per day (MGD) of secondary effluent from Hyperion that makes up for the total existing customer demand within West Basin's service area. The Draft EIR Subsection 7.2.1 provided an in-depth analysis on West Basin's current planning efforts to increase recycled water. As noted in the analysis, under the current agreement (City of Los Angeles 2018) to upgrade Hyperion, the expansion of West Basin's Recycled Water Program would increase capacity to allow for the recycling of 70 MGD of secondary effluent. However, as explained in Subsection 7.2.1 the expansion of the existing recycled water use in the region will not completely offset the need for imported water. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. See response to comments HTB-37 and LAW2-42.

Response to Letter STAC: Christy Stanich

Response STAC-1

The Project proposes to utilize the best available linear diffuser design to minimize the mortality of all forms of marine; see *Master Response: Supplemental Studies* and Final EIR Appendix 14A prepared by Roberts (2019). The impacts of brine discharge have been evaluated in the Draft EIR consistent with the 2015 OPA, and consistent with Roberts, 2018.

The analysis of potential Project-related effects on marine ecosystems included an analysis of potential brine discharge toxicity (Draft EIR pages 5.11-56 through 5.11-58). As presented in the Draft EIR, after reviewing available scientific studies of salinity toxicity on marine taxa, it was determined that the salinity concentrations estimated to occur within the brine mixing zone (BMZ) for the Project did not exceed any documented or known concentrations at which toxic effects on marine taxa or ecosystems would be expected to occur.

See also *Master Response: Water Supply Alternatives.*

Response to Letter STAJ: Jim Stanich

Response STAJ-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community*.

Response STAJ-2

NRG Inc. owns the property on which the proposed Project would be located; West Basin would lease or otherwise acquire the property to be used for the Project. If the South Site is not chosen as the location for the proposed Project, NRG as the property owner, not West Basin, maintains discretion about the end use of the South Site.

Response STAJ-3

The Draft EIR Subsection 7.2.1 considered 11 alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse (see Draft EIR Table 7-1). West Basin is committed to continued water use efficiency programs and will continue to pursue aggressive conservation as a component of the water supply portfolio. However, the expansion of an existing conservation program does not meet the objective of diversification; it's just more of the same, and puts West Basin at greater risk of relying on customer responses to a rationing program during a drought. See *Master Response: Water Supply Alternatives*

Response STAJ-4

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*.

Response to Letter STAN: Travis Stansbury

Response STAN-1

The Draft EIR Subsection 7.2.1 considered a range of water supply alternatives including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. But the need for 21,500 acre-feet per year (AFY) equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in West Basin's 2015 Urban Water Management Plan (UWMP) Table 5-5 and the shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3). As noted in Section 4.5 of the 2015 and the 2010 UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015 and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section 9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its Water Reliability initiative.

Even with the maximum practicable conservation savings, increases in recycled water production, and expansion of groundwater supplies by retail agencies, West Basin's service area could experience a shortage of 20,342 acre-feet feet by 2020 and 21,500 AF by 2025 and beyond. In other words, the proposed Local Project is sized at 20 million gallons per day (MGD) (or approximately 21,500 AFY), to directly respond to the multi-dry year event shortfall. Thus, the proposed Project would provide the quantity of water necessary to make up the expected shortfall in imported water supplies for what are expected to be more frequent and severe future droughts. See Draft EIR Tables 7-1 and 7-2, and *Master Response: Water Supply Alternatives*.

Response to Letter STAU: Nic Stauber

Response STAU-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter STAV: Willliam Stavropolous

Response STAV-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter TEL: Ed Tellis

Response TEL-1

The Draft EIR Subsection 7.2.1 did indeed evaluate a stormwater capture alternative. As described in detail in Section 7 of the Draft EIR and in *Master Response: Water Supply Alternatives,* stormwater capture is problematic within the West Basin service area since percolation is not effective in conveying stormwater from the surface through the clay layers and into the potable aquifer. Stormwater injection would be required. For stormwater capture to be considered as a new local water supply for West Basin, stormwater runoff would not only have to be captured and stored within the West Coast Groundwater Basin when available, but it would also have to be produced as groundwater by West Basin's customer retail water agencies with groundwater rights. But the need for 21,500 acre-feet per year (AFY) equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in West Basin's Urban Water Management Plan (UWMP) Table 5-5 and the shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2015 and 2010 UWMP Table ES-3). As noted in Section 4.5 of the 2015 and the 2010 UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015 and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section 9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its water reliability initiative.

Even with the maximum practicable conservation savings, increases in recycled water production, and expansion of groundwater supplies by retail agencies, West Basin's service area could experience a shortage of 20,342 AF by 2020 and 21,500 AF by 2025 and beyond. In other words, the proposed Local Project is sized at 20 million gallons per day (MGD) (or approximately 21,500 AFY), to directly respond to the multi-dry year event shortfall. Thus, the proposed Project would provide the quantity of water necessary to make up the expected shortfall in imported water supplies for what are expected to be more frequent and severe future droughts. See Draft EIR Subsection 7.2.1, and *Master Response: Water Supply Alternatives.*

Response to Letter TIS: Ralph Tisdale

Response TIS-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community, Master Response: Cost and Rates,* and *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter TIS2: Ralph Tisdale

Response TIS2-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Non-CEQA Issues.*

Response TIS2-2

See Master Response: *Environmental Impacts to the El Porto Community*. See also response to comment MUP-4 through MUP-6. Operation of the proposed ocean water desalination facility would generate noise from the treatment equipment as well as from increased human activity on the property involved with operating and maintaining the facility. All stationary mechanical equipment (e.g., pumps, generators) would be housed within enclosed structures; therefore, noise generated by ocean water desalination facility operation would be minimal and would not adversely affect nearby sensitive receptors (residential uses located approximately 130 feet south of the ESGS South Site facilities). Major ocean water desalination facility components, such as the reverse osmosis (RO) system, would be fully enclosed in a building and thus would not generate operational noise levels that would expose persons to or generate noise levels in excess of applicable standards.

Operational noise from the desalinated water pump station and discharge pump station would occur approximately 275 feet from the nearest sensitive receptors (residential uses) to the south. At these distances, maximum noise levels from the Local Project discharge pump station (the nearest noise generator to the noise-sensitive receptors) would be approximately 62 dB, assuming no attenuation from enclosures, intervening structures, or topography, which could exceed Manhattan Beach's operational noise standards for residential uses. However, Mitigation Measure NOI-4 would require that West Basin enclose all noise-generating machinery to meet nighttime noise standards for residential uses, which would achieve 40 dBA attenuation. As a result, noise levels at the property line would be reduced to below operational noise standards for residential use.

Response TIS2-3

The commenter's concern about that the Project-related lane closures during construction would severely increase the delay southbound at the traffic light on 45th Street, will be addressed in preparation of the Traffic Control Plan that is required by Mitigation Measure TRA-1. Measures will be implemented as part of the Plan to reduce the potential for the proposed Project's construction-related traffic to result in traffic delays or impacts on existing circulation patterns

and intersection/roadway Level of Service. See also *Master Response: Environmental Impacts to the El Porto Community.*

Response TIS2-4

Air quality impacts are discussed in the Draft EIR in Subsection 5.2.4 beginning on page 5.2-22. Construction impacts are detailed in tables 5.2-9 and 5.2-10. As shown, the Draft EIR concludes that there is potential for significant and unavoidable impacts related to mass air emissions during construction. It is important to note that these conclusions are made based on attainment conditions within the entire South Coast Air Basin and do not necessarily indicate increased impacts adjacent to the proposed Project site. To address localized impacts, the Draft EIR also includes an analysis of air quality impacts to sensitive receptors, which includes residents within the El Porto community just south of the proposed Project site (see Draft EIR starting on page 5.2-45). In order to identify impacts to nearby sensitive receptors, the South Coast Air Quality Management District (SCAQMD) recommends using its Localized Significance Thresholds (LSTs). LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the *Final Localized Significance Threshold Methodology* (dated June 2003 [revised 2008]) for guidance (SCAQMD 2008c). The LST methodology assists lead agencies in analyzing localized air quality impacts to nearby sensitive receptors, and in this case analyses potential impacts to residences and other sensitive receptors adjacent to the proposed ocean water desalination facility within the El Porto community. As shown in the Draft EIR analysis on pages 5.2-46 through -55, neither construction nor operation would expose sensitive receptors within the El Porto community to substantial air pollutant concentrations, and localized impacts would be less than significant.

Response TIS2-5

The EIR evaluates impacts of the proposed Project at the North Site and South Site, which includes demolition of the ESGS Units 3 and 4 at the North Site (see Draft EIR pages 5.1-11, 5.1-21, and 5.1-23), and a thorough analysis of impacts on surrounding public views at the South Site (see Draft EIR 5.1-12 through 5.1-13; 5.1-16 to 5.1-17; 5.1-22; 5.1-24). The commenter's opinions regarding land use planning and Project location will be forwarded to the decision-makers for their consideration in taking action on the proposed Project. Refer to *Master Response: Non-CEQA Issues*.

Response to Letter UGA: Gregory Ugarte

Response UGA-1

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community, Master Response: Cost and Rates, Master Response: Water Supply Alternatives,* and *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter UNG: Joseph Ungoco

Response UNG-1

Regarding the public noticing process, West Basin complied with the requirements of CEQA as defined in the CEQA Guidelines Section 15087(a)(1-3). Section 15087(a) requires one of three notification methods: 15087(a)(1) publication in a newspaper of general circulation; 15087(a)(2) posting of notice on-site where the project would be implemented; or 15087(a)(3) direct mailing to the owners and occupants of property contiguous to the parcel on which the project would be located. West Basin exceeded the CEQA Guidelines by conducting all three methods of notification.

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Non-CEQA Issues*. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

Response to Letter VAN: Debra Van Neas

Response VAN-1

The commenter is referred to *Master Response: Non-CEQA Issues* and *Master Response: Greenhouse Gas Emissions and Energy.* Regarding alternatives to the proposed Project, the commenter is referred to *Master Response: Water Supply Alternatives.* While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted.

Response to Letter VIC: Norman Vickers

Response VIC-1

Desalination, specifically reverse osmosis, is a proven, advanced water treatment technology that is in use worldwide, including in San Diego, CA. Prior to introducing desalinated water into the West Basin drinking water conveyance system, West Basin would be required to apply for and receive a Permit to Operate a Public Water System (Health and Safety Code Section 116525) from the California Division of Drinking Water (DDW). See Draft EIR Table 3-11 for all permits and approvals with which West Basin will be required to comply prior to implementation of the proposed Project.

Response to Letter WAL: Mark Wald

Response WAL-1

The Draft EIR Subsection 7.2.1 considered a range of water supply alternatives including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See Draft EIR Tables 7-1 and 7-2, and *Master Response: Water Supply Alternatives*.

Response to Letter WEI: Kyle Weinsheim

Response WEI-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval. The community of El Porto has been in the shadow of the NRG facility for years. Locating a light industrial facility in the middle of the existing NRG heavy industrial facility complex should not generally affect residential property values in the adjacent communities.

See also *Master Response: Non-CEQA Issues.*

Response WEI-2

The comment expresses concern about odor and noise. Air quality impacts related to odor impacts are discussed in the Draft EIR in Subsection 5.2.4 beginning on page 5.2-55. Noise impacts are discussed in the Draft EIR in Subsection 5.12.4 on page 5.12-14. The Draft EIR concludes that there is potential for significant and unavoidable impacts related to increased noise during pile driving associated with construction activities. Odor impacts were found to be less than significant without mitigation. The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*: The North Site and South Site, which would both be located at NRG's facility in El Segundo. The North Site was evaluated as a part of the analysis in equal detail to the South Site. As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide if either site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

Response to Letter WEN: Laura Wenglikowski

Response WEN-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*.

Response to Letter WIC: Kelly Wickemeyer

Response WIC-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). The community of El Porto has been in the shadow of the NRG facility for years. Locating a light industrial facility in the middle of the existing NRG heavy industrial facility complex should not generally affect residential property values in the adjacent communities. As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Water Supply Alternatives.*

Response to Letter WILC: John Wilcox

Response WILC-1

Regarding the comment's statement about the cost and energy intensiveness of desalination, see *Master Response: Greenhouse Gas Emissions and Energy Use* and *Master Response: Cost and Rates.*

Response WILC-2

See *Master Response: Environmental Impacts to the El Porto Community*. See also response to comment MUP-4 through MUP-6. Operation of the desalination facility would generate noise from the treatment equipment as well as from increased human activity on the property involved with operating and maintaining the facility. However, all stationary mechanical equipment (e.g., pumps, generators) would be housed within enclosed structures; therefore, noise generated by ocean water desalination facility operation would be minimal and would not adversely affect nearby sensitive receptors (residential uses located approximately 130 feet south of the ESGS South Site facilities). Major ocean water desalination facility components, such as the reverse osmosis (RO) system, would be fully enclosed in a building and thus would not generate operational noise levels that would expose persons to or generate noise levels in excess of applicable standards.

Response WILC-3

Table 7-2 is a summary of the results of the screening of alternatives that is presented in the Draft EIR Subsection 7.2.1; specifically, see pages 7-6 through 7-30 for further explanation. The Draft EIR Subsection 7.2.1 considered a range of water supply alternatives including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See also Draft EIR Tables 7-1, response to comment CULV-9, PHI-18 and *Master Response: Water Supply Alternatives*.

While maximizing the use of existing sources may reduce some of the need for imported water in the future, current water supply sources do not holistically improve water security, or alleviate the susceptibility of imported water availability during drought conditions, and would not collectively eliminate the need for imported water. West Basin's future water supply diversification would result in a reduction in imported water which would allow for an increase in conservation programs and recycled water, and ocean water desalination should it be approved as a supply source.

West Basin acknowledges the commenter's position to the proposed Project, and the referenced articles, both of which pre-date the release of the Draft EIR. A more recent March 2019 publication titled, "Coordinated Strategic Plan to Advance Desalination for Enhanced Water Security" (National Science and Technology Council 2019), notes that "Desalination is an important part of a comprehensive approach to improve water availability, resiliency, and security in the U.S."

Response WILC-4

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary. See also *Master Response: Non-CEQA Issues* and *Master Response: Cost and Rates*.

Response to Letter WIL: Tom Williams

Response WIL-1

The cost of a project is not considered an environmental impact under CEQA unless it results in physical changes to the environment. Since the cost of the proposed Project will not in itself result in physical changes, the proposed Project's effect on customer rates is not required to be considered in the Draft EIR. However, West Basin recognizes the importance of having a thorough understanding of the costs and benefits of proposed Project implementation and initiated a rate impact analysis in 2019. One of the objectives of this study is to evaluate the potential wholesale water rate increases within West Basin's service area resulting from proposed Project implementation, and how affordability may be addressed through the rate making processes for drinking water wholesalers and retailers. The study is expected to be completed in 2020. See *Master Response: Cost and Rates*.

Response to Letter WIL2: Tom Williams

Response WIL2-1

While West Basin acknowledges the commenter's relevant work history, the comment does not identify any specific inadequacies in the Draft EIR analysis. As such, this comment is noted for the record and no further response is warranted. Please also see *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response WIL2-2

As stated on West Basin's website (http://westbasindesal.com/draft-eir.html), "the key documents referenced in the Draft EIR which support the analyses are included in the Appendices. West Basin has also posted its planning and research studies (including the Ocean Water Desalination Program Master Plan) on its website at http://westbasindesal.org/research-and-planning.html. Other referenced documents cited and listed in each section on the Draft EIR may be accessed in-person at West Basin's headquarters" in Carson.

The comment states that the Draft EIR should be recirculated. Per CEQA Guidelines Section 15088.5, "New information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project's proponents have declined to implement." Furthermore, "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." The questions raised by the comment, and any revisions that have been made to the Draft EIR in response, are not significant in a way that would require recirculation of or supplement to the Draft EIR because they provide additional clarifications, and do not change any of the impact determinations, previously discussed in the Draft EIR. In addition, the Draft EIR is comprehensive and robust, compiled by scientists and experts in their respective environmental fields. West Basin as the lead agency under CEQA believes it complies with the requirements of CEQA and is supported with substantial evidence. For these reasons, recirculation on the Draft EIR is not required.

Response to Letter WIL3: Tom Williams

Response WIL3-1

As stated on West Basin's website (http://westbasindesal.com/draft-eir.html), "the key documents referenced in the Draft EIR which support the analyses are included in the Appendices. West Basin has also posted its planning and research studies (including the Ocean Water Desalination Program Master Plan) on its website at http://westbasindesal.org/research-and-planning.html. Other referenced documents cited and listed in each section on the Draft EIR may be accessed in-person at West Basin's headquarters" in Carson.

Response to Letter WIL4: Tom Williams

Response WIL4-1

The Draft EIR includes setting information for all environmental topics analyzed in Section 5, *Environmental Analysis*. The commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18) for impacts to communities in the area in which proposed Project facilities would be implemented.

Response to WIL5: Tom Williams

Response WIL5-1

While West Basin appreciates the comment, it does not identify any specific deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted.

The comment states that the Draft EIR should be recirculated. Per CEQA Guidelines Section 15088.5, "New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project's proponents have declined to implement." Furthermore, "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." In response to comments, some changes have been made to the EIR. However, neither the methodologies employed nor the conclusions reached have changed in any way that implicates a significant environmental impact not identified in the Draft EIR, a substantially more severe significant environmental effect than indicated, or a new feasible alternative or mitigation measure that West Basin refuses to implement. The Draft EIR is comprehensive and robust, compiled by scientists and experts in their respective environmental fields. West Basin as the lead agency under CEQA believes it complies with the requirements of CEQA and is supported with substantial evidence. For these reasons, recirculation of the Draft EIR is not required.

Response WIL5-2

The Draft EIR Subsection 7.2.1 evaluates a range of water supply alternatives, including recycling, and explains that expanding the existing recycled water use in the region will not completely offset the need for imported water. Even expanding the recycled water production at the Hyperion Water Reclamation Plant to its full capacity would not eliminate imported water demands in Southern Los Angeles County. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination.

Indirect Potable Reuse (IPR) would treat wastewater from local wastewater treatment plants (such as the Hyperion Water Reclamation Plant) for injection into the West Coast Groundwater Basin. Once injected, overlying pumpers with storage and extraction rights would benefit from the new water supply resulting in greater conjunctive management of the Basin. Currently the City of Los Angeles is evaluating opportunities to develop an IPR project including developing an appropriate treatment technology, identifying an advanced water treatment plant location, and assessing storage and extraction well field opportunities. IPR continues to represent a drought-resilient source of groundwater replenishment that will replace and reduce imported water demands in the region as groundwater production from the Basin increases. However, West Basin is not the sole provider of IPR in the region, does not have access to adequate source water for the production of IPR in sufficient quantities, does not own groundwater rights that could augment the District's water supplies through IPR, and would require agreements with overlying pumpers and changes in basin operations that are well beyond West Basin's ability to implement on its own. As such, the alternative would not augment West Basin water supplies or obviate the need

for water supply portfolio diversity provided by the proposed Project. See also *Master Response: Water Supply Alternatives.*

Response WIL5-3

The Local Project components are described in the Draft EIR Subsection 3.4.1 and the Regional Project components are described in the Draft EIR Subsection 3.4.2. The Local Project construction is described in the Draft EIR Section 3.5 while the Regional Project construction is described in the Draft EIR Section 3.6. Every topical section in Section 5 (Environmental Analysis) distinguishes between the Local Project and the Regional Project when discussing and analyzing the potential impacts of each Project component (Ocean Water Desalination Facility, Screened Ocean Intake and Concentrate Discharge, Desalinated Water Conveyance Components).

Response WIL5-4

The purpose of an EIR is to identify the significant effects of a project on the environment (CEQA Guidelines Section 21002.1(a)) and the discussion in the EIR should focus on those potential effects of a proposed project which the lead agency has determined are, or may be, significant (CEQA Guidelines Section 21002.1(c)). The piped water would meet strict SWRCB Division of Drinking Water (DDW) water quality requirements, it would not have a significant effect on the environment and no change to the Draft EIR is required. See *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response WIL5-5

The commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response WIL5-6

As stated on West Basin's website (http://westbasindesal.com/draft-eir.html), "the key documents referenced in the Draft EIR which support the analyses are included in the Appendices. West Basin has also posted its planning and research studies (including the Ocean Water Desalination Program Master Plan) on its website at http://westbasindesal.org/research-and-planning.html. Other referenced documents cited and listed in each section on the Draft EIR may be accessed in-person at West Basin's headquarters" in Carson.

Draft EIR Section 5.4 addresses Cultural Resources and is supported by Draft EIR Appendix 7A (Cultural Resources Assessment) which describes the cultural setting, the research design and research methods. Draft EIR Subsection 5.8.4 addresses hazards and hazardous materials.

Response WIL5-7

The geoarchaeological review included on page 5.4-24 of the Draft EIR provides a discussion of sea-level change from the Late Pleistocene to Early Holocene. The discussion states that the proposed offshore component location would have been located on dry land and has the potential to contain archaeological resources dating from 12,000 years ago, when Native Americans entered the region, to 4,000 years ago, when sea-level stabilized at its current level.

Response WIL5-8

The Draft EIR Subsection 7.2.1 considered 11 alternatives, including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse (see Draft EIR Table 7-1). See also *Master Response: Water Supply Alternatives.*

Response WIL5-9

As explained in the Draft EIR Section 2.10, West Basin is a regional water wholesaler, and sells water to its customers, the local retailers, who in turn sell water to customers through local distribution systems that currently manage, and will continue to manage, diurnal demands.

Response WIL5-10

The commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response WIL5-11

Regarding the comment's question about growth inducement and "more reliable/lower costs for whom," the Draft EIR text on page 3-3 under the Section 3.3, *Project Objectives*, states that the beneficiaries of reliable water are West Basin customers: "West Basin's goal is to guarantee future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio, consistent with goals for desalinated ocean water supplies identified in West Basin's 2015 Urban Water Management Plan. The need for water supply reliability has been highlighted by increased frequency and prolonged duration of recent droughts and decreasing reliability of imported water supplies." Regarding costs, see Master Response: *Cost and Rates.*

Response WIL5-12

See response to comment WIL-1.

Response WIL5-13

As discussed extensively in the Draft EIR Section 5.11, *Marine Biological Resources*, the greatest potential for direct and indirect effects of the proposed Project during construction and operation is on macrobiota. The reason that microbiota such as holoplankton (those that spend their entire life cycles as plankton) are not emphasized, as outlined in the original 316(b) guidance (EPA 1977), is that: 1) holoplankton have very short generation times, on the order of hours to a few days for phytoplankton and a few days to weeks for zooplankton; 2) they have the capability to reproduce continually (asexually in the case for phytoplankton); and 3) many of the most abundant phytoplankton and zooplankton species along the coast of California have populations that span the entire Pacific and in some cases all of the world's oceans. In contrast, meroplankton, including invertebrate and fish larvae, have: 1) much shorter spawning seasons, in some cases a single month; 2) their distributions are restricted to the narrow shelf along the coast and have specific habitat requirements which further restricts their distribution, and; 3) entrainment of larvae has a greater likelihood of negatively impacting the adult populations. Consequently, this Draft EIR focuses on meroplankton when assessing proposed Project impacts.

Response WIL5-14

The *Identification of Resources Within Project Site* Subsection in the Draft EIR beginning on page 5.4-19 provides a summary of the identification efforts for historic architectural resources as well as archeological resources for both onshore and offshore components.

Response WIL5-15

The comment regarding historical aerial photographs does not identify a specific concern and does not comment on the adequacy of the Draft EIR. Without a stated specific concern, West Basin is unable to provide a specific response. As a result, this comment has been noted for the record and no further response is necessary.

The comment regarding Chevron marine and offshore spills presumably refers to offshore spills attributed to Chevron offshore operations. The comment does not explain how offshore spills by Chevron or any other company would have any effect on or from the proposed Project. Note that oil spilled in the ocean floats on the top of the ocean surface, whereas the proposed Project's source water would be from the inflow pipe on the ocean floor. Thus, there would likely be minimal interaction between future oil spills and the proposed Project.

This comment regarding "natural offshore oil seeps = Brea = faults to surface" is indistinct but appears to express concern regarding active faults and natural oil seeps relative to the proposed Project. With regard to offshore faults and any work on the ocean floor, as discussed in the Draft EIR, Section 5.6, *Geology, Soils, and Seismicity*, page 5.6-11, the proposed Project components are not located on any active fault.

Response WIL5-16

This comment does not provide a specific concern regarding the basin or the adequacy of the Draft EIR. Without a specific concern, West Basin is unable to provide a specific response. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-17

The comment expresses concern about "water quality – Chevron oil spill." While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-18

As discussed in the Draft EIR, Section 5.6, *Geology, Soils, and Seismicity*, page 5.6-11, the proposed Project components would not be located on any active fault.

With regard to the use of "SCEqCntr" data, it is assumed that the comment is referring to the Southern California Earthquake Data Center (SCEDC). Data available from the SCEDC is used in Draft EIR Section 5.6, *Geology, Soils, and Seismicity*, on page 5.6-10 (SCEDC is a part of the Working Group on California Earthquake Probabilities), and page 5.6-11, where their data on the Palos Verdes Fault Zone is used.

With regard to seismicity resulting in seiches or tsunamis, the effects and associated coastal flooding and tsunami impacts, including sea level rise, are discussed in the Draft EIR Section 5.9, *Hydrology and Water Quality*, Impact 5.9-6 on pages 5.9-72 through 5.9-78. As explained on page 5.9-72, sea level rise is an existing environmental condition, and unless the proposed Project will exacerbate this condition, it is not considered potentially significant impacts under CEQA. Also note that seiches are damaging waves that occur within closed water bodies, a condition not present here.

Response WIL5-19

West Basin acknowledges the commenter's credentials and relevant work history.

Response WIL5-20

The language included in the Notice of Availability is appropriate for the current stage of the proposed Project. The conditional tense is used throughout the EIR to describe what might result if (conditioned on) the proposed Project were to be approved and permitted to operate. If and when West Basin's Board of Directors certifies the EIR and considers Project approval, more definitive statements about the Project would be able to be made.

Response WIL5-21

As explained in the Draft EIR Section 5, *Approach to Analysis*, impacts associated with the Local Project are assessed at a project-level, whereas impacts associated with the Regional Project are assessed at a project-level for those components that are known (such as the physical size of the facility) and a programmatic-level for those aspects of the proposed Project that are not well-defined (such as regional partners). Every topical section in Draft EIR Section 5 distinguishes between impacts resulting from each the Local Project and the Regional Project. The assessment of impacts resulting from the Regional Project are assessed in terms of the incremental increase potentially resulting from the additional build out and operation, in addition to impacts described for the Local Project facilities. If substantial changes are proposed to the Project Description in the future, or substantial changes in circumstance under which the Project is being undertaken occur following certification of this Final EIR, or if new information which was not known at the time the EIR is certified becomes available, a subsequent or supplemental environmental review would be required (CEQA Guidelines Section 21166). But there is no reason or requirement to revise this EIR to be entirely programmatic, since project-level details are known at this time.

Response WIL5-22

Million gallons per day (MGD) is a flow rate, and acre-feet per year (AFY) is a unit of volume. They are used differently throughout the Draft EIR on purpose. No changes have been made to the Draft EIR in response to this comment.

Response WIL5-23

The Draft EIR Section 5.16, *Utilities and System Systems*, Subsection 5.16.2 describes the available service area water supplies and describes the 64,468 afy of adjudicated groundwater water rights, and recycled water.

Response WIL5-24

As explained in Draft EIR Section 1.1, the Local Project would provide approximately 10 percent of West Basin's water demand, relieving pressure on the heavily constrained supply of imported water available to West Basin. The Local Project would be used to serve communities within West Basin's service area. The Regional Project would be initiated by West Basin in partnership with other local and regional partners, such as Metropolitan Water District of Southern California (MWD), to meet the demands and increase water supply reliability for a larger portion of the Southern California community.

Response WIL5-25

The Local Project components are described in the Draft EIR Subsection 3.4.1 the Local Project construction is described in the Draft EIR Section 3.5. The Regional Project components are described in the Draft EIR Subsection 3.4.2 and the Regional Project construction is described in Draft EIR Section 3.6. See also response to comment WIL5-3.

Response WIL5-26

See response to comment LARWQCB-22.

Response WIL5-27

See response to comment WIL5-4. This comment requests information that is not relevant to the Draft EIR analysis. No response is warranted.

Response WIL5-28

The EIR Section 3.1, *Project Overview* (see Final EIR Section 11) explains that a desalinated water conveyance system would be constructed to deliver water produced at the new desalination facility to the local and regional water supply systems. The EIR Section 3.2, *Project Location* (see Final EIR Section 11) explains "***the new conveyance system would connect to the local distribution system*** serving the cities of El Segundo, Redondo Beach, Lawndale, Gardena, and Hawthorne and portions of unincorporated Los Angeles County, and/or MWD's feeder system" (emphasis added[8]). Proposed distribution pipeline alignments and pump station locations are shown in EIR Figure 3-5.

Response WIL5-29

The definition of "appurtenant" can be found in any online dictionary (https://www.merriam-webster.com/dictionary/dictionary).

Response WIL5-30

The references cited by the comment, although interesting in an historic sense and representative of what taxa occupied specific intertidal and pelagic environments mid-20th Century, provides little to no added support to the assessment of potential effects of the proposed Project on the

[8] The new (underlined) text was added in response to comment MWD-1.

species that occupy those ecological niches under existing conditions. The proposed Project assessment assumed that all microbiota would be potentially impacted by either the Project's ocean water intake or its effluent discharge. Having an extensive taxonomic species list would not change that assessment. See response to comment WIL5-13.

Response WIL5-31

Regarding populations analyzed related to environmental justice, the commenter is referred to *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response WIL5-32

See the Draft EIR Section 2.2, *Project-Level and Program-Level Analysis in This Draft EIR*, and Section 5, Subsection *Approach to Analysis*. This comment requests definitions of words out-of-context that are not relevant to the Draft EIR analysis.

Response WIL5-33

As explained in the Draft EIR Section 5, *Approach to Analysis*, impacts associated with the Local Project are assessed at a project-level, whereas impacts associated with the Regional Project are assessed at a project-level for those components that are known (such as the physical size of the facility) and a programmatic-level for those aspects of the Project that are not well-defined (such as regional partners). Every topical section in Draft EIR Section 5 distinguishes between impacts resulting from each of the two Projects. The assessment of impacts resulting from the Regional Project is assessed in terms of the incremental increase potentially resulting from the additional build out and operation of the described Local Project facilities.

Response WIL5-34

The baseline conditions against which the potential direct and indirect impacts of the proposed Project(s) (and alternatives) are assessed are based on the quality of environmental resources within the proposed Project area at the time of the issuance of the Notice of Preparation (NOP), as well as the existing regulatory framework relevant to construction and operation of the proposed Project. If substantial changes are proposed to the Project Description, or substantial changes in circumstance under which the proposed Project is being undertaken occur following certification of this Final EIR, or if new information which was not known at the time the EIR was certified becomes available, a subsequent or supplemental environmental review would be required (CEQA Guidelines Section 21166). But there is no reason or requirement to revise this EIR to be entirely programmatic, since project-level details are known at this time.

WIL5-35

The Draft EIR Figure 3-1 is a Vicinity Map and shows the proposed Project location relative to the Los Angeles International Airport (LAX). The Draft EIR explains on Sections 3.2. *Project Location* and 5.3.2 *Environmental Setting* that the desalination facility site is approximately 2.5 miles southwest of LAX.

Response WIL5-36

This comment requests definitions of words out-of-context that are not relevant to the Draft EIR analysis.

Response WIL5-37

This comment requests definitions of words out-of-context that are not relevant to the Draft EIR analysis.

Response WIL5-38

As described in Draft EIR Section 3.3, *Project Objectives*, West Basin's goal is to guarantee future water supply reliability for service area customers by adding a locally produced, drought-proof potable water source to the West Basin supply portfolio. As noted in response to comment WIL5-4, the purpose of an EIR is to identify the significant effects of a project on the environment (CEQA Guidelines Section 21002.1(a)) and the discussion in the EIR should focus on those potential effects of a proposed project which the lead agency has determined are, or may be, significant (CEQA Guidelines Section 21002.1(c)). Draft EIR Section 5.11.3 therefore, considers the proposed Project's potentially significant impacts on Marine Biological Resources, and describes the significance thresholds and criteria that are utilized in the analysis.

Response WIL5-39

The Project objectives "control of water" and "control of pricing" focus on control. As explained in the Draft EIR Subsection 7.2.1 for example, increased conservation would not improve West Basin's local control of future water costs and long-term price stability; the stormwater capture alternative would not improve West Basin's local control of future water costs and long-term price stability; the increased recycling alternative would not improve West Basin's local control of future water costs and long-term price stability.

See also response to comment WIL-1.

Response WIL5-40

See *Master Response: Cost and Rates*.

Response WIL5-41

While West Basin appreciates the comment, it requests information that is not relevant to the Draft EIR and does not specify any deficiencies in the analysis. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-42

While West Basin appreciates the comment, it requests information that is not relevant to the Draft EIR and does not specify any deficiencies in the analysis. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-43

The definitions of "reasonable" and "determined" are not intended to be technical and can be found in any online dictionary (https://www.merriam-webster.com/dictionary/dictionary).

West Basin recognizes the importance of having a thorough understanding of the costs and benefits of proposed Project implementation and initiated a rate impact analysis in 2019. One of the objectives of this study is to evaluate the potential wholesale water rate increases within West Basin's service area resulting from proposed Project implementation, and how affordability may be addressed through the rate making processes for drinking water wholesalers and retailers. The study is expected to be completed in 2020. See also *Master Response: Cost and Rates*.

Response WIL5-44

See response to comment WIL5-39.

Response WIL5-45

See response to comment WIL5-43, and *Master Response: Cost and Rates*.

Response WIL5-46

See response to comment WIL5-13. Draft EIR Subsection 5.11.4 discusses if, and to what degree, the proposed Project could have an adverse impact on marine biological resources. The Draft EIR Table 5.11-9 presents the area of production foregone[9] (APF) estimates associated with the screened ocean intake, and Table 5.11-12 presents the APF estimates resulting from turbulent discharge associated mortality.

Response WIL5-47

The Draft EIR used common terms, and their definitions can be found in a dictionary (e.g., at https://www.dictionary.com/).

Response WIL5-48

This comment requests definitions of words out-of-context that are not relevant to the Draft EIR analysis.

Response WIL5-49

Additional setting information relating to local groundwater conditions is not required to adequately support the assessment of impacts presented in Draft EIR Subsection 5.9.4. As described in detail under Impact 5.9-3 (Draft EIR Subsection 5.9.4, page 5.9-61 *et seq*.), groundwater levels in the City of El Segundo vary, but are typically 20 feet below ground surface. While proposed Project construction may require dewatering where deep excavations encounter shallow or perched groundwater, any such dewatering activities would be temporary, highly localized, and would involve the extraction of low volumes of shallow groundwater (i.e., not groundwater from aquifers used for municipal or industrial water supply). As such, dewatering

[9] The potential impact that entrainment of larval fish and invertebrate taxa could have on the marine ecosystem in terms of loss of energy transfer from one trophic level to another, and overall loss of productivity of the Project marine study area, is referred to as the area of production foregone (APF).

activities conducted during construction would not result in significant long-term effects to local groundwater supplies.

Response WIL5-50

As explained in the Draft EIR Section 2.10, West Basin was formed in 1947 as an imported water wholesaler for the southwestern portion of Los Angeles County. West Basin's 185-square-mile service area is composed of 17 cities and several unincorporated areas. As a regional water wholesaler, West Basin purchases water from the MWD as one of its 26 member agencies. West Basin then sells water to its customers, the local retailers, who in turn sell water to its customers through local distribution systems that currently manage diurnal demands. The local systems will continue to operate as they have; only the West Basin portfolio would be different.

Response WIL5-51

As noted in Draft EIR Subsection 7.2.1, the direct introduction of advanced treated recycled water into the treated drinking water distribution system to produce a Direct Potable Reuse (DPR) supply faces the greatest challenges in regulation development, technology development, and public health safeguards. The implementation of the proposed Project would allow West Basin to position itself to consider DPR through raw water augmentation when such regulations are in place. The absence of the proposed Project (the No Project Alternative) makes this alternative infeasible and too speculative for obtaining the goal of 21,500 AFY of potable drinking water.

Response WIL5-52

See response to comment WIL5-50.

Response WIL5-53

The comment expresses concern about MWD's IRP and WaterFix. While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-54

See response to comment WIL5-49.

Response WIL5-55

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-56

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-57

CEQA Guidelines Section 21082.2 explains that "economic impacts which do not contribute to, or are not caused by, physical impacts on the environment" are not to be considered substantial evidence and do not need to be addressed in an EIR. Please see *Master Response: Cost and Rates* and *Master Response: Non-CEQA Issues.*

Response WIL5-58

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-59

The text referred to in the Draft EIR on page 2-8 clearly states that the volumes are for 2014, and not an annual rate that would apply to multiple years. In addition, the comment requests definitions to distinguish certain common water supply terms (e.g., recharge versus replenishment, extract versus produce), none of which addresses the adequacy of the Draft EIR. No edits were made in response to this comment.

Response WIL5-60

This comment requests definitions of words out-of-context and descriptions that are not relevant to the Draft EIR analysis.

Response WIL5-61

The language cited ("Protect and restore important ecosystems") from Section 2.3, *Introduction*, is language from the 2014 California Water Action Plan (revised in 2016). Draft EIR Subsection 2.3.2 intends to describe applicable plans that the proposed Project demonstrates compliance with related to desalination, which is a key component of a reliable diverse water supply portfolio, and incorporated into numerous state and local planning efforts.

Response WIL5-62

The language cited in this comment is from Draft EIR Section 2; specifically, Subsection 2.3.1, *Imported and Local Water Supplies*. The discussion is addressing groundwater supplies and, in context, attempts to explain "[T]he groundwater extraction in the West Coast Groundwater Basin has been in decline since 2011, with the extracted volume recorded in Fiscal Year 2015-16 of approximately 31,600 AFY (WRD, 2017). The drivers for declining utilization of the adjudicated extraction rights are manifold. Historical contamination from leaky underground storage tanks and seawater intrusion have made it challenging to find groundwater of high quality within the WCGB. ***Additionally, surging real estate prices and competition for land have made acquiring suitable sites that can produce high quality of groundwater with minimum treatment costly. If treatment is needed, high land costs compounded with high treatment costs further discourage retailers and other groundwater right holders to use such a resource when more economical imported water is readily available***." [emphasis added]

This comment requests definitions of words out-of-context, and for information that are not relevant to the Draft EIR analysis. No response is warranted. See also *Master Response: Cost and Rates*.

Response WIL5-63

The language cited in this comment is from Draft EIR Section 2; specifically, Section 2.3.1; *Imported and Local Water Supplies*. The discussion is addressing recycled water supply, and the cited text explains, "[A]ny further investigations beyond the pilot project ***would*** require subsequent interagency agreements . . . (emphasis added)" if additional investigations were pursued. No additional investigations have been pursued and therefore, there are no drafts for administrative, costs, and financing arrangements, costs, and financing.

Response WIL5-64

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-65

See response to comment WIL5-22. While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-66

See response to comment WIL5-22.

Response WIL5-67

The comment provides information regarding census tracts receiving identical quality/pressures/flows while paying the same rates and surcharges in the West Basin service area, however this information does not appear to identify any specific inadequacies in the Draft EIR analysis. As such, this comment has been noted for the record and no further response is warranted. Please also see *Master Response: Environmental Justice* (see also Final EIR Section 18).

Response WIL5-68

See response to comment WIL5-47.

Response WIL5-69

See response to comment WIL5-13. The comment's request to revise all reference related to ecosystem, biology, and "outfall" is unclear and not specific. This comment does not address any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-70

As part of the Project planning efforts, West Basin prepared preliminary cost estimates for the proposed Project that are included in the Ocean Water Desalination Program Master Plan prepared in 2013. This cost estimate is available on the District's website:

> http://westbasindesal.com/assets/Documents%20and%20Files/Research%20Documents/Ocean%20Water%20Desalination%20Program%20Master%20Plan_PMP%20Vol%20I%20(2013).pdf

These preliminary cost estimates provide a planning-level range of total Project costs that include costs for constructing the treatment facility (including the offshore intake and discharge modifications) and the product water distribution system as well as annual operations and maintenance costs. These preliminary estimates provide a sense for the ultimate scale of the costs, but present a wide range to account for uncertainty. As the Project design is refined, including permitting and mitigation commitments, actual Project costs will also become more refined.

West Basin has not finalized its funding portfolio for the Project, but numerous financing methods are available that may include any combination of public-private partnerships (P3), low-interest loans, grant funding, and traditional financing through bonds or capital loans. West Basin anticipates developing the most cost effective approach available. However, the cost of a project is not considered an environmental impact under CEQA unless it results in physical changes to the environment. Because the cost of the Project will not in itself result in physical changes, the Project's effect on customer rates is not considered an environmental impact. But, West Basin recognizes the importance of having a thorough understanding of the costs and benefits of implementing ocean water desalination as a drinking water supply; hence, a study focused on the costs and benefits of Project implementation was initiated in 2019. One of the objectives of this study is to evaluate the potential wholesale water rate increases within West Basin's service area resulting from Project implementation. The study will analyze how affordability may be addressed through the rate-making processes for drinking water wholesalers and retailers. The study is expected to be completed in 2020. Impacts on rates will depend in part on the financing approach, discussed above. Please also see *Master Response: Cost and Rates*.

Response WIL5-71

The commenter is referred to Draft EIR Appendix 2A, Feasibility Assessment of Subsurface Seawater Intakes Proposed Desalination Facility El Segundo California, and Appendix 2B, Seabed Infiltration Gallery Construction and Life-Cycle Costs for the extensive evaluations undertaken by West Basin regarding subsurface intakes. Also refer to *Master Response: Supplemental Studies.* The Supplemental Subsurface Feasibility Study which is provided as Final EIR Appendix 13, explains the feasibility of the SSI technologies depends on a variety of site-specific criteria listed in the Ocean Plan (2015) and presents discussions on hydrogeological constraints, oceanographic constraints, geochemical and water quality constraints, land use and sensitive habitats, maintenance, and other technical and economic risk factors for each type of subsurface intake.

Regarding any impacts to cost within West Basin's service area, see *Master Response: Cost and Rates.* See also *Master Response: Environmental Justice* (see also Final EIR Section 18); however, it is not evident from the comment how subsurface intakes associated with the proposed Project could impact environmental justice.

Response WIL5-72

See *Master Response: Cost and Rates*.

Response WIL5-73

The commenter is referred to Draft EIR Appendix 2B, Seabed Infiltration Gallery Construction and Life-Cycle Costs, for more discussion of the topic. The Draft EIR used common terms, and their definitions can be easily found in a dictionary, available at: https://www.dictionary.com/).

Response WIL5-74

The comment does not specify any deficiencies in the Draft EIR analysis. Some of the references in the EIR include publication dates, and others, like websites, do not. No further response is warranted.

Response WIL5-75

Refer to response to comment WIL5-6.

Response WIL5-76

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary. For water cost see *Master Response: Cost and Rates.*

Response WIL5-77

The comment's request for a model that covers "entire existing distribution system and their peak/normal/low flow and pressure and flow rates" is not relevant to the analysis included in the Draft EIR. If and when the Local Project and/or Regional Project is approved and built, West Basin will ensure pipelines are sized appropriately to connect with MWD's existing infrastructure.

Response WIL5-78

The comment states "TBR" and is found elsewhere in the comment letter to mean: "TBR = To Be Revised/Updated by 06/30/18." This comment is unclear and does not speak to the adequacy of the Draft EIR and no further response is warranted.

Response WIL5-79

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-80

See *Master Response: Cost and Rates*.

Response WIL5-81

The comment states "TBR" and is found elsewhere in the comment letter to mean: "TBR = To Be Revised/Updated by 06/30/18." This comment is unclear and does not speak to the adequacy of the Draft EIR and no further response is warranted.

Response WIL5-82

Please refer to Draft EIR Section 2.9 for more information about the CEQA-Plus requirements and how they were addressed in the Draft EIR. Impact BIO 5.3-1, which begins on page 5.3-31, discusses the proposed Project's potential to adversely affect species protected under the Federal Endangered Species Act.

Response WIL5-83

CEQA-Plus requirements for the State Revolving Fund program for low interest loans to public agencies are discussed and defined in the Draft EIR Section 2.9, starting on page 2-23. References for the CEQA-Plus-specific analyses associated with Air Quality, Biological Resources, Cultural Resources, and Environmental Justice, are incorporated into the appropriate Reference Subsections on the Draft EIR; see Subsection 5.2.7, Subsection 5.3.7, Subsection 5.4.7, and Section 6.4, respectively.

Response WIL5-84

The comment states "TBR" and is found elsewhere in the comment letter to mean: "TBR = To Be Revised/Updated by 06/30/18." This comment is unclear and does not speak to the adequacy of the Draft EIR and no further response is warranted.

Response WIL5-85

The geoarchaeological review in the Draft EIR on page 5.4-24 includes the offshore component and concludes that offshore construction has the potential to encounter submerged archaeological resources. Draft EIR Appendix 7B references past borings: "Marine borings near the coastal margin near the ESGS Facility have been interpreted as "Recent and Upper Pleistocene" (Holocene and Late Pleistocene) dune sands (California State Lands Commission, 2016)."

Historical aerial imagery can be found at historicaerals.com as well as FrameFinder (http://mil.library.ucsb.edu/ap_indexes/FrameFinder/).

Response WIL5-86

The Wilmington Generating Station is discussed in the Draft EIR on pages 5.4-16 and -18 as part of the historical context for electricity generation in Los Angeles because it was the first generating station in Los Angeles which allowed for growth of the city. The discussion provides background for assessing the significance of the El Segundo Generating Station which is located within the proposed Project area.

Historical aerial imagery can be found at historicairals.com as well as FrameFinder (http://mil.library.ucsb.edu/ap_indexes/FrameFinder/).

Response WIL5-87

The conclusions in the paragraph cited by the comment come directly from the Draft EIR Appendix 7B, West Basin Municipal Water District Ocean Water Desalination EIR – Geoarchaeological Review. Further, the information provided in the Draft EIR is consistent with the findings included in Appendix 7B. Appendix 7B states: "The offshore portion of the ocean water intake system which includes the construction of a screened intake facility located 2,500 feet west of the proposed desalination facility is underlain by Pleistocene sedimentary deposits (Qps). Marine borings near the coastal margin near the ESGS Facility have been interpreted as "Recent and Upper Pleistocene" (Holocene and Late Pleistocene) dune sands (California State Lands Commission, 2016). Since current sea level was established approximately 4,000 years ago, the offshore portion appears to have the potential to contain cultural remains dating between approximately 12,000 and 4,000 years ago." The Draft EIR on page 5.4-30 states that "the sediments underlying the screened ocean intake and discharge area have the potential to contain buried archaeological deposits that may qualify as historical resources under CEQA." And as such, "construction of the Local Project ocean intake and concentrate discharge structures has the potential to encounter subsurface archaeological deposits that qualify as historical resources under CEQA, and may result in a significant impact. Implementation of Mitigation Measures CUL-1 through CUL-5 would be required to ensure that the proposed Project's potential impacts to archaeological resources that may qualify as historical resources are less than significant."

The comment states that the Draft EIR should be recirculated. Per CEQA Guidelines Section 15088.5, "New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that the project's proponents have declined to implement." Furthermore, "Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR." In response to comments, some changes have been made to the EIR. However, neither the methodologies employed nor the conclusions reached have changed in any way that implicates a significant environmental impact not identified in the Draft EIR, a substantially more severe significant environmental effect than indicated, or a new feasible alternative or mitigation measure. The Draft EIR is comprehensive and robust, compiled by scientists and experts in their respective environmental fields. West Basin as the lead agency under CEQA believes it complies with the requirements of CEQA and is supported with substantial evidence. . For these reasons, recirculation of the Draft EIR is not required.

Response WIL5-88

The geoarchaeological review in the Draft EIR on page 5.4-24 includes the offshore component and concludes that offshore construction has the potential to encounter submerged archaeological resources. Mitigation Measure CUL-3 (page 5.4-33) has been revised to include monitoring methodology for offshore components, which includes the inspection of a 5 percent sample of sediments produced during dredging. See response to comment SLC-14.

Response WIL5-89

Refer to response to comment WIL5-6 and WIL5-74.

Response WIL5-90

The comment states "TBR" and is found elsewhere in the comment letter to mean: "TBR = To Be Revised/Updated by 06/30/18." This comment is unclear and does not speak to the adequacy of the Draft EIR and no further response is warranted.

Response WIL5-91

The terms used in Subsection 5.5.4, on pages 5.5-10 and 5.5-11 provide qualified perspectives on the future of renewable energy. The statement that there is a financial incentive to avoid waste is supported by common logic as is the view that green building practices will save energy costs in the future.

Response WIL5-92

The discussion of the 2017 Scoping Plan Update referenced by the comment occurs in the impact analysis for ENERGY 5.5-1 regarding whether the Project would conflict with adopted energy conservation plans. The Draft EIR identifies that no local or regional energy conservation plans are directly applicable to the Project, but does identify the 2017 Scoping Plan Update as having applicable high-level objectives and goals intended to reduce energy demand within the state's water sector in the context of developing "more reliable water supplies for people, agriculture, and the environment, provided by a more resilient, diversified, sustainably managed water resources system."

With no adopted local or regional energy conservation plans to analyze, the impact analysis for ENERGY 5.5-1 can only rely on relevant adopted state and federal plans, if they exist. Though the 2017 Scoping Plan Update is not an energy conservation plan per se, it includes energy conservation goals and policies that apply generally to the proposed Project, and it is relevant to the impact analysis on page 5.5-15 because it acknowledges that water supply reliability may have to take precedence over achieving GHG emission reductions from water sector activities where a potential conflict exists.

The local climate action plans for LA County and El Segundo include measures for water conservation that are intended to reduce the energy use and GHG emissions associated with the conveyance and consumption of potable water. The 2015 El Segundo Energy Efficiency and Climate Action Plan (EECAP) indicates that community-wide GHG emissions associated with the conveyance and consumption of water constitute less than 0.005 percent of the city's total emissions in 2012. Nonetheless, the EECAP includes a community measure to promote water efficiency actions to enable exceedance of the SB X7-7 standard (reduce water consumption 20 percent by 2020), and municipal measures to implement a water leak detection program and to upgrade or incorporate water-conserving landscapes. Similarly, the 2020 Los Angeles County Climate Action Plan (CAP) includes a measure to reduce per-capita water use, consistent with SB X7-7, through strategies that the County, in conjunction with local urban water agencies, will implement to promote water conservation throughout the unincorporated areas.

The Project proposes to replace imported MWD water with desalinated water. Notwithstanding the fact that the energy used to deliver the City of El Segundo's water supply is a very small contributor to the city's overall GHG emissions, the proposed Project's increased energy use over imported water should not prevent the City of El Segundo from achieving the goals of its EECAP because the Project is net carbon neutral with respect to GHG emissions. The relatively high cost and energy footprint of desalinated water should provide additional incentives for conservation, and thus the Project should not conflict with the water conservation goals of both the El Segundo EECAP and the Los Angeles County CAP.

Response WIL5-93

See response to comment WIL5-92.

Response WIL5-94

See response to comment WIL5-92.

Response WIL5-95

Other than improving the reliability of water supply to those service areas, the proposed Project would not result in changes to or impacts on those service areas and their existing distribution networks. Figure 3-5 provides an overview of pipeline routes needed to connect the desalination facility with the regional water supply network. CEQA does not require the presentation of information that has no bearing on analyzing the proposed Project. No edits were made in response to this comment.

Response WIL5-96

As explained in the response to comment WIL5-18, Southern California Earthquake Data Center (SCEDC) information was presented in the Draft EIR Section 5.6, *Geology, Soils, and Seismicity*, on page 5.6-10 (SCEDC is a part of the Working Group on California Earthquake Probabilities), and page 5.6-11, where their data on the Palos Verdes Fault Zone is used.

Response WIL5-97

This comment does not define the term "sub-sector" (the term is not used in the Draft EIR) and does not provide a specific concern regarding the adequacy of the Draft EIR. Without a specific concern, West Basin is unable to provide a specific response. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-98

This comment appears to contain seismic data that is unintelligible. It also does not define the term "sub-sector" (the term is not used in the Draft EIR) and does not provide a specific concern regarding the adequacy of the Draft EIR. Without a specific concern, West Basin is unable to provide a specific response. Regarding the use of SCEDC data, this comment repeats earlier incorrect concerns that information from the SCEDC was not used. As explained in the responses to comment WIL5-18 and WIL5-96, SCEDC information was used in the Draft EIR Section 5.6,

Geology, Soils, and Seismicity, on page 5.6-10 (SCEDC is a part of the Working Group on California Earthquake Probabilities), and 5.6-11.

Regarding active faults beneath the site, as explained in the response to comment WIL5-18, and as discussed in the Draft EIR, Section 5.6, *Geology, Soils, and Seismicity*, page 5.6-11, the proposed Project components are not located on any active fault.

Response WIL5-99

The offshore facilities consist of the existing intake and outfall tunnels, and proposed intake and discharge structures, which are located on the ocean floor approximately 2,500 feet from the shoreline and outside of the tsunami inundation area, as shown on Figure 5.9-3.

Response WIL5-100

Impacts relating to tsunami, coastal flooding, wave run-up, and storm tides, including potential future risks from sea level rise, are assessed in detail in the Draft EIR Subsection 5.9.4 under Impact 5.9-6 (page 5.9-72 *et seq*.). The analysis evaluates potential impacts associated with constructing and operating each of the three primary elements of the proposed Project, including offshore, coastal, and inland Project components for both the Local and Regional Projects. No revisions to the Draft EIR have been made in response to this comment.

Response WIL5-101

This comment does not identify a concern or comment on the adequacy of the Draft EIR. The comment consists of the acronym "TBR," defined earlier in the comment letter as a comment to be revised or updated later. Without a specific concern to address, West Basin is unable to provide a specific response. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-102

This comment does not identify a concern or comment on the adequacy of the Draft EIR. The comment consists of the acronym "TBR," defined earlier in the comment letter as a comment to be revised or updated later. Without a specific concern to address, West Basin is unable to provide a specific response. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-103

This comment highlights several words on page 5.9-47 but does not identify a concern or comment on the adequacy of the Draft EIR. The comment consists of the acronym "TBR," defined earlier in the comment letter as a comment to be revised or updated later. Without a specific concern to address, West Basin is unable to provide a specific response. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-104

The comment is unclear but appears to take issue with the fact that there are no other hazardous materials mitigation measures required for proposed Project facilities other than the screened

ocean intake and concentrate discharge facilities. As discussed in the Draft EIR on pages 5.9-41 through 5.9-43, Section 5.8, *Hazards and Hazardous Materials*, provides details of a mitigation measure developed for all construction groundwater dewatering effluent. Mitigation Measure HAZ-1, Waste Management Plan, requires West Basin or its contractor(s) to develop a groundwater dewatering control and disposal plan that identifies likely groundwater dewatering locations, the method to analyze groundwater for hazardous materials, and appropriate treatment and/or disposal methods. While this mitigation measure is not required to reduce or avoid a significant impact to water quality due to mandatory regulatory requirements, it is mentioned in Section 5.9, *Hydrology and Water Quality*, because implementation of the measure would further reduce, avoid and/or minimize the potential for hazardous contaminants to be present in dewatering discharges.

Response WIL5-105

This comment highlights several words on page 5.9-56 but does not identify a concern or comment on the adequacy of the Draft EIR. The comment consists of the acronym "TBR," defined earlier in the comment letter as a comment to be revised or updated later. Without a specific concern to address, West Basin is unable to provide a specific response. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-106

This comment requests minor formatting changes and direct public access to the cited sources in Draft EIR Section 5.9, *Hydrology and Water Quality*. The format of the citations does not affect the ability to accurately identify citations nor does it address the adequacy of the Draft EIR. Regarding the access to the cited sources, all of the cited sources used in the Draft EIR are available by request at the West Basin administrative office.

Response WIL5-107

This comment requests minor formatting changes and direct public access to the cited sources in Draft EIR Section 5.9, *Hydrology and Water Quality*. The format of the citations does not affect the ability to accurately identify citations nor does it address the adequacy of the Draft EIR. Regarding the access to the cited sources, all of the cited sources used in the Draft EIR are available by request at the West Basin administrative office.

Response WIL5-108

This comment requests minor formatting changes and direct public access to the cited sources in Draft EIR Section 5.9, *Hydrology and Water Quality*. The format of the citations does not affect the ability to accurately identify citations nor does it address the adequacy of the Draft EIR. Regarding the access to the cited sources, all of the cited sources used in the Draft EIR are available by request at the West Basin administrative office.

Response WIL5-109

The presence and potential direct and indirect effects of the proposed Project on fish species and squid populations within Santa Monica Bay (SMB) and the marine study area are extensively covered in the Draft EIR Section 5.11, *Marine Biological Resources*; the fish taxa inhabiting

SMB in general, and the marine study area specifically, and their ecosystem roles are provided in the Draft EIR on pages 5.11-8, 5.11-15, 5.11-16, and 5.11-18 through 5.11-21. Similar information is provided for Market squid in the Draft EIR on pages 5.11-20-5.11-21 and in the Draft EIR on pages 5.11-31 through 5.11-36. The Draft EIR does not require an ecosystem model to assess potential Project effects on fish or Market squid. These were both considered and evaluated for all potential direct and indirect effects of the proposed Project as presented in the Draft EIR on pages 5.11-36 through 5.11-76. The comment implies that the Project will result in some type of plant/animal/biotic/nutrient level changes with no scientific data or studies to support this assertion. Potential effects on ecosystem productivity from intake and discharge shear stress entrainment are estimated by calculating potential Area of Production Foregone or Lost (APF), as required by the SWRCB. The Ocean Plan Amendments of 2015 can be viewed at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/rs2015_0033_sr_apx.pdf.

Response WIL5-110

See response to comment WIL5-109.

Response WIL5-111

The Draft EIR Subsection 5.11.2 describes the regional oceanographic conditions, marine habitats, and biological resources of SMB in general, and conditions which occur within the marine study area specifically; pages 5.11-12 through 5.11-18 present information on existing marine habitats and communities while commercial and recreational fishing and harvesting are discussed on pages 5.11-31 through 5.11-33. As presented in the impact analysis and discussion of proposed Project effects on marine taxa, habitats and ecosystems (Draft EIR pages 5.11-37 through 5.11-76) are considered for all direct and indirect impacts. Potential effects on ecosystem productivity from intake and discharge shear stress entrainment is estimated by calculating potential APF, as required by the SWRCB. The Ocean Plan Amendments of 2015 can be viewed at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2015/rs2015_0033_sr_apx.pdf. See also response to comments to WIL5-109.

Response WIL5-112

The Draft EIR identifies key infaunal, epifaunal, and macrobenthic marine taxa inhabiting both of the dominant seafloor habitats in the marine study area (soft and hard substrate) as well as within the pelagic water column (Draft EIR pages 5.11-12 through 5.11-23). The assessment of potential Project related effects on these taxa are discussed in the Draft EIR pages 5.11-37 through 5.11-76. The potential impact analysis assumed that all trophic levels and sub-groups within a trophic level would be potentially affected the same and have similar recoveries following the disturbance, as confirmed by scientific citations provided throughout the analysis.

Response WIL5-113

The Draft EIR used common terms to describe biological organisms and communities, and their definitions can be easily found in a dictionary, available at: https://www.dictionary.com/.

Response WIL5-114

See response to comment WIL5-67.

Response WIL5-115

See response to comment WIL5-67.

Response WIL5-116

See responses to comments WIL5-47 and WIL5-67.

Response WIL5-117

See response to comment WIL5-67.

Response WIL5-118

See response to comment WIL5-67.

Response WIL5-119

See response to comment WIL5-67.

Response WIL5-120

See response to comment WIL5-67.

Response WIL5-121

See response to comment WIL5-47.

Response WIL5-122

See response to comment WIL5-22.

Response WIL5-123

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-124

This comment does not address any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-125

This comment requests information that is not relevant to the Draft EIR analysis. No response is necessary.

Response WIL5-126

This comment requests information that is not relevant to the Draft EIR analysis. No response is necessary.

Response WIL5-127

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response WIL5-128

See response to comment WIL5-122.

Response WIL5-129

See response to comment WIL5-22.

Response WIL5-130

The definition of "anticipates" and "financial incentives" can be found in any online dictionary (https://www.merriam-webster.com/dictionary/dictionary).

While CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors, evidence of economic and social impacts that do not contribute to, or are not caused by physical changes in the environment, are not required to be addressed in an EIR (CEQA Guidelines Section 15064(f)(6)). See also *Master Response: Non-CEQA Issues*.

Response WIL5-131

The definitions of "viable, responsible, uncertain, dependence, and satisfy" are not meant to be technical and may be found in any online dictionary (https://www.merriam-webster.com/dictionary/dictionary). See also response to comment WIL-1 and WIL5-39.

Response WIL5-132

The comment refers to a reference that is cited within an EIR referenced document. The February 2012 Residence, Structure, and Object Record was prepared by the CA Resources Agency, Department of Parks and Recreation. West Basin has no control over and cannot alter these records.

Response WIL5-133

Refer to response to comment WIL5-6.

Response WIL5-134

Refer to response to comment WIL5-6.

Response WIL5-135

Refer to response to comment WIL5-6.

Response WIL5-136

Refer to response to comment WIL5-6.

Response WIL5-137

The comment does not specify any deficiencies in the Draft EIR analysis. As a result, this comment has been noted for the record and no further response is necessary. Please see *Master Response: Non CEQA Issues.*

Response WIL5-138

The comment does not identify any concern or comment on the adequacy of the Draft EIR. As explained in the response to comment WIL5-18, and as discussed in the Draft EIR, Section 5.6, *Geology, Soils, and Seismicity*, page 5.6-11, the proposed Project components are not located on any active fault. As explained in the response to comment WIL5-98, if and when the proposed Project is approved by the West Basin Board of Directors, West Basin would conduct a final geotechnical investigation that would inform the final design of the Project, incorporate relevant mitigation measures from the EIR, and comply with all federal, state, and local regulations, including the California Building Code and local building codes.

Response to Letter WIN: Carol Wingate

Response WIN-1

NRG will still own the ESGS property proposed for use under the Project; West Basin will lease the necessary property from NRG. The proposed Project should have no effect on the tax revenue to the City of El Segundo.

Response WIN-2

The proposed Project is a coastal-dependent industrial use proposed to be located on an industrially zoned site where industrial uses are or have been located. The Draft EIR evaluates aesthetic impacts of the proposed Project in Section 5.1, *Aesthetics, Light & Glare*, pages 5.1-9 through 5.1-29-. Land use impacts are discussed in Section 5.10, *Land Use and Planning,* pages 5.10-14 through 5.10-37. The Draft EIR also comprehensively addresses all other potential physical environmental impacts associated with implementing the proposed Project in Sections 5 and 6 of the Draft EIR. The proposed Project would construct a light industrial structure on coastal property that has historically been developed with power generating facilities. Replacement of portions of those facilities would soften the views compared to the existing industrial character. See *Master Response: Environmental Impacts to the El Porto Community*.

Response WIN-3

As described in the Draft EIR Section 5.5.4, under "Electrical Energy Demand and Infrastructure" (page 5.5-20), Southern California Energy (SCE) is the electricity provider for demand associated with the proposed Project. Additionally, the Draft EIR concludes that the expected increase in demand for electricity does not exceed available supply or distribution infrastructure capabilities that could result in the construction of new energy facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Regarding the question of who will profit, West Basin will consider whether the proposed Project is in the best interests of the community. As a public agency, West Basin would not generate a profit on the creation of potable water that serves to stabilize water reliability and pricing. See *Master Response: Cost and Rates.*

Response WIN-4

The comment questions how much CO_2 and other pollutants would be released by the proposed ocean water desalination facility. Greenhouse gas emissions are discussed in the Draft EIR in Subsection 5.7.4 beginning on page 5.7- 22. Air quality impacts are discussed in the Draft EIR in Subsection 5.2.4 beginning on page 5.2-22. GHG operational emissions are identified in Table 5.7-3 on page 5.7-24. Emissions of greenhouse gases CO_2, CH_4, and NO_2 are reported using the term carbon dioxide equivalents (CO_2e). Net CO_2e emissions for the proposed Project are stated to be 10,959 $MTCO_2e$ per year prior to mitigation. With implementation of mitigation, the emissions of CO_2 are found to be less than significant.

Response WIN-5

The potential effect of increased salinity on marine biota and ecosystems is discussed in Draft EIR Section 5.11, *Marine Biological Resources*, on pages 5.11-56 through 5.11-58.

Response WIN-6

The City of El Segundo can rezone the ESGS property as it sees fit. However, since the NRG facility will not be shutting down, it will remain on-site.

Response WIN-7

West Basin has not finalized its funding portfolio for the proposed Project, but financing methods may include any combination of public-private partnerships (P3), low interest loans, grant funding, and traditional financing through bonds or capital loans. See also *Master Response: Cost and Rates*.

Response WIN-8

The Draft EIR explores and evaluates other CEQA alternatives in Section 7.3, including an alternative at the AES Redondo Beach Generating Station (RBGS) (see Subsection 7.3.2). The Draft EIR provides a detailed analysis of alternatives as required by CEQA that explains the rationale for selecting the ESGS sites over other sites including the RBGS site. As stated in the Draft EIR on Section 7.4 Environmentally Superior Alternative page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

See also *Master Response: Water Supply Alternatives.*

Response WIN-9

West Basin initially provided a Draft EIR review and comment period of 60-days, from March 27, 2018, through May 25, 2018. In response to comments requesting an extension, West Basin granted a 31-day extension for review and comment on the Draft EIR. The public review period ended at 5 p.m. on Monday, June 25, 2018, providing a 91-day public review period.

Response to Letter WOO: Darryl Woodcock

Response WOO-1

WOO-1

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is more appropriate for the ocean water desalination facility, if and when the Project is considered for approval.

A Mitigation Monitoring and Reporting Program (MMRP) will be prepared for the proposed Project which will include a comprehensive plan of all mitigation measures to be implemented, the identity of the entities responsible for implementation and for monitoring, and timing requirements.

See also *Master Response: Water Supply Alternatives* and the analysis included in Draft EIR Section 7, *Alternatives to the Project.*

Response to Letter YOCO: Colleen Young

Response YOCO-1

The comment provides an introduction to subsequent comments. Contrary to the comment and as noted in Draft EIR Subsection 7.1.3, the Local and Regional Projects would result in significant and unavoidable impacts only on Air Quality and Noise during construction. The statement in the comment that the Draft EIR anticipates "significant environmental effects, direct, indirect, and cumulative environmental impacts of this project will occur in the following environmental areas: air quality, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, transportation and traffic, noise, aesthetics, light and glare, terrestrial biological resources, marine biological resources, public services, utilities and service systems, recreation, land use and planning, cultural resources" is not correct. Several of these issues have less than significant environmental impacts or no environmental impacts. Please refer to Draft EIR Table 1-1 which provides a summary of impacts, mitigation measures, and conclusions for all topical areas evaluated in the Draft EIR.

Response YOCO-2

The comment reiterates the significant and unavoidable findings on the Draft EIR related to air emissions during construction and noise during construction (pile driving). No response is warranted.

Response YOCO-3

The Notice of Availability (NOA) correctly identifies the fact that the proposed Project site "is identified on the 'Cortese List' (Government Code Section 65962.5) as having the potential for soil and groundwater contamination at the site from past uses on-site and neighboring sites." Further information on the hazardous material sites in and/or near the proposed Project site is provided in the Draft EIR Subsection 5.8.4 in the discussion of Impact HAZ 5.8-3 on Draft EIR page 5.8-28.

Response YOCO-4

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response YOCO-5

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary.

Response YOCO-6

The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community* for a discussion of traffic, noise, and air quality impacts to the El Porto Community.

Response YOCO-7

To address encountering contaminated soil, Mitigation Measures HAZ-1 and HAZ-2 require preparation and implementation of procedures and protocols for training demolition and construction workers in recognizing hazardous materials, describing all waste streams, managing excavated soil, and testing of soils to identify the appropriate handling and disposal of soils. In addition, as explained in DEIR Section 5.2, *Air Quality*, in Impact AQ 5.2-1, page 5.2-23, the proposed Project would be required to comply with the South Coast Air Quality Management District (SCAQMD) requirements for controlling fugitive dust pursuant to SCAQMD Rule 403. Details of the procedures to comply with Rule 403 are listed in Mitigation Measure AQ-1 on page 5.2-40, and include watering of active work surfaces, covering of stockpiles, work prohibitions if wind speeds exceed 25-mile per hour, and the covering of trucks transporting soil off-site. Compliance with existing regulations and implementation of the mitigation measures would ensure contaminated materials are properly handled and contained to prevent fugitive dust and spillage from trucks transporting contaminated materials.

Response YOCO-8

The commenter is referred response to *Master Response: Cost and Rates* and *Master Response: Environmental Impacts to the El Porto Community*.

Response YOCO-9

Regarding impacts to the neighboring community, see *Master Response: Environmental Impacts to the El Porto Community.*

Response YOCO-10

CEQA requires lead agencies to consider environmental effects associated with project approvals, but does not require any financial impact analysis regarding either the cost of the project itself, or potential impacts to property values for any parcels or communities adjacent to the project site. Nevertheless, locating a light industrial facility (desalination) in the middle of the existing NRG heavy industrial facility complex should not generally affect residential property or rental values in the adjacent communities. See *Master Response: Non-CEQA Issues*.

Response YOCO-11

The water supply alternatives included in the Draft EIR Alternatives assessment (Subsection 7.2.1) include increased conservation, increased recycling, stormwater capture, increased non-potable reuse, and direct potable reuse. As determined in the Draft EIR, these supply alternatives would be implemented in addition to the proposed Project to establish a balanced water supply portfolio that maximizes the production of local water supplies. As described in detail in West Basin's Urban Water Management Plan (UWMP), the demand for water in the West Basin service area cannot be fully met with any one of the local water supply alternatives, but rather requires a balanced portfolio approach. Ocean desalination is one component of this balanced local water supply approach. For example, the need for 21,500 acre-feet per year (AFY) equates directly to the difference between total supplies and total demands (20,342 acre-feet) during a multi-dry year event similar to the 2012-2015 drought conditions, as shown in UWMP Table 5-5

and the shortfall assumes the District continues to manage water supplies and reduce demand for water through the continued implementation of conservation savings, recycled water production, and the expansion of groundwater supplies by the retail agencies, to the maximum extent practicable. Draft EIR Table 2-1 displays the expected increases in these supplies between 2015-2040 (see also West Basin 2010 and 2015 UWMP Table ES-3). As noted in Section 4.5 of the 2015 and the 2010 UWMP, West Basin is actively diversifying its water supply portfolio beyond traditional imported water and groundwater supplies, and both the 2015 and 2010 UWMPs dedicate entire sections to discussing alternative supply programs such as recycled water (Section 9), desalinated ocean water and brackish groundwater (Section 10), and increased water use efficiency programs (Section 7). West Basin is pursuing these alternative supplies as part of its water reliability initiative.

For more information, see also *Master Response: Water Supply Alternatives,* and *Master Response Greenhouse Gas Emissions and Energy Use.*

Response YOCO-12

The Draft EIR Subsection 7.2.1 evaluates a stormwater capture alternative. As described in detail in Section 7 of the Draft EIR and in *Master Response: Water Supply Alternatives,* stormwater capture is problematic within the West Basin service area since percolation is not effective in conveying stormwater from the surface through the clay layers and into the potable aquifer. Stormwater injection would be required. For stormwater capture to be considered as a new local water supply for West Basin, stormwater runoff would not only have to be captured and stored within the West Coast Groundwater Basin when available, but it would also have to be produced as groundwater by West Basin's customer retail water agencies with groundwater rights. Furthermore, stormwater capture would not be available during a multi-dry year event. See Draft EIR Subsection 7.2.1, response to comment YOCO-11, and *Master Response: Water Supply Alternatives.*

Response YOCO-13

This comment letter expresses concerns regarding (1) airborne contamination from disturbing contaminated soils, (2) transporting contaminated soil through city streets, (3) effects from the chemicals to be used in the desalination plant, and (4) the brine to be returned to the ocean.

As discussed in the Draft EIR Section 5.8, *Hazards and Hazardous Materials*, pages 5.8-12 through 5.8-14, West Basin is aware of the previous releases of hazardous materials at the ESGS site, specifically at the Surface Retention Basins and Gas Compressor Area in the North Site, and the former fuel storage tanks at the South Site.

As explained on pages 5.8-12 and 5.8-13, the Retention Basins at the North Site were cleaned out and closed in 2015. The investigations concluded that the use of the Retention Basins had not resulted in hazardous levels of metals, volatile organic compounds (VOCs), petroleum hydrocarbons, or polynuclear aromatic (PAHs) in groundwater or soils. The human health risk assessment concluded that the residual concentrations of the constituents of potential concern in soil were below industrial/commercial and construction worker risk levels. The investigations also concluded that the petroleum hydrocarbons and VOCs identified in the groundwater

throughout the ESGS facility are generally attributed to the petroleum hydrocarbon groundwater plume that has migrated from the Chevron Refinery plume to the east.

As explained on page 5.8-13, contaminated soil was removed from the Gas Compressor Area in the North Site. Post-excavation verification samples confirmed that the concentrations of vanadium and nickel, the chemicals of concern, in remaining soil are below background levels. In addition, four abandoned Chevron pipelines crossing the excavation area, along with 650 pounds of soil, were removed and sent to an off-site disposal facility permitted to accept the material.

As explained on pages 5.8-13 and 5.8-14, the above-ground fuel tanks and some contaminated soil was removed in 2011 and 2013 from the South Site. The location of the former tanks was capped and some shallow soil beneath the caps is contaminated with total petroleum hydrocarbons (TPH) in the gasoline, diesel, and motor oil range. Approximately 1,000 cubic yards of contaminated soil mostly limited to the top 18 inches of soil have TPH concentrations above regulatory standards.

The Draft EIR acknowledges and West Basin is aware of the contaminated soil beneath the former fuel tanks cap and also recognizes that the other sites discussed above may have residual levels of contaminated soil that, if disturbed, will require appropriate management. To address encountering contaminated soil, Mitigation Measures HAZ-1, *Waste Management Plan*, and HAZ-2, *Project Demolition and Construction Health and Safety Plan*s, will be prepared and implemented to establish procedures and protocols for training demolition and construction workers in recognizing hazardous materials, describing all waste streams, managing excavated soil, and testing of soils to identify the appropriate handling and disposal of soils. In addition, as explained in the Draft EIR Section 5.2, *Air Quality*, in Impact AQ 5.2-1, page 5.2-23, the proposed Project would be required to comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403. Details of the procedures to comply with Rule 403 are listed in Mitigation Measure AQ-1 on page 5.2-40, and include watering of active work surfaces, covering of stockpiles, work prohibitions if wind speeds exceed 25 miles per hour, and the covering of trucks transporting soil off-site. Compliance with existing regulations and implementation of the mitigation measures would ensure contaminated materials are properly handled and contained to prevent fugitive dust and spillage from trucks transporting contaminated materials.

The chemicals to be used in the desalination facility are discussed in the Draft EIR, Section 3, *Project Description*, on pages 3-3 through 3-9, which describe the desalination facility and the chemicals that would be used to treat the seawater. As discussed in Section 5.8, *Hazards and Hazardous Materials*, page 5.8-20, the Hazardous Materials Business Plan (HMBP) program would require West Basin to prepare and implement an HMBP that would describe procedures and protocols for the safe storage, handling, transport, and disposal of hazardous materials. The HMBP would be submitted to the local Certified Unified Program Agency (CUPA), the El Segundo Fire Department Environmental Safety Division, for their review and approval. Compliance with all applicable federal and state regulations would ensure that chemicals are handled properly and that spill prevention and response procedures are in place.

Brine disposal procedures and process are discussed in the Draft EIR, Section 3, *Project Description*, on pages 3-12 and 3-13. Impacts to ocean waters from the discharge of brine are assessed in detail under Impact 5.9-2 (Draft EIR Subsection 5.9.4 page 5.9-49 et seq.). The assessment of impacts to water quality comprehensively applied and considered the applicable regulations discussed in the regulatory setting subsection (Draft EIR Subsection 5.9.1, et seq.), such as the Water Quality Objectives of the California Ocean Plan. The assessment of water quality impacts from the discharge of brine (Draft EIR Subsection 5.9.4) was incorporated into the analysis of impacts on marine biological resources potentially occurring due to changes in receiving water quality within the mixing zone at the outfall diffuser. As discussed in detail in the Draft EIR Subsection 5.11.4 (page 5.11-56), because water quality constituents would not exceed existing background levels at the edge of the Zone of Initial Dilution (ZID), the discharge of brine would not be expected to pose any risk to marine habitats and taxa, including special-status fish, marine mammals, and sea turtles.

Response YOCO-14

The City of Los Angeles owns and operates Hyperion Water Reclamation Plant; not West Basin as the comment stated. Hyperion is a wastewater treatment facility that produces secondary effluent. In 1991 West Basin and City of Los Angeles reached an agreement to deliver treated sewer water from the City's Hyperion plant to West Basin Water Recycling Facility in El Segundo**.** The Draft EIR (Subsection 2.3.1; *Imported and Local Water Supplies*, on page 2-9) provides further detail of West Basin's Recycled Water Program. Today, West Basin produces approximately 40 MGD of non-potable and indirect potable reuse water for its service area, and relies on this long-term partnership with the City of Los Angeles for access to secondary effluent from the Hyperion Water Reclamation Plant (Hyperion). West Basin continues to explore the expansion of its Recycled Water Program and intends to increase capacity to allow for the recycling of 70 MGD of secondary effluent. However, as explained in Section 7, expanding recycled water use in the region will not completely offset the need for imported water. Even expanding the recycled water production from Hyperion Water Reclamation Plant to its full capacity would not eliminate imported water demands in Southern Los Angeles County. Nor would it eliminate the need for additional water supply diversification afforded by ocean water desalination. As described in Section 7, West Basin as a responsible water supply manager is considering the addition of ocean water desalination to augment water supply reliability in addition to other local water supply development efforts. See also *Master Response: Water Supply Alternatives.*

Response YOCO-15

West Basin is committed to partnering with regional agencies to maximize other local water supplies in addition to ocean water desalination. Ocean water desalination is just one component of a balanced local water supply approach, with the Local Project supplying approximately 10 percent of West Basin's total water demand. This type of water supply diversification balances benefits and risks associated with each supply type. Since ocean water desalination requires greater energy to produce, the portfolio approach provides a portion of water supply that would maximize the benefits of drought-proof reliability. Developing a drought-proof portion of the local water supply substantially increases water supply reliability resulting in fiscally and environmentally responsible water supply planning.

Response YOCO-16

The commenter is referred to *Master Response: Cost and Rates* for a discussion of proposed Project costs. The Draft EIR Subsection 7.2.1 considered a range of water supply alternatives including increased conservation, stormwater capture, increased non-potable recycling, indirect potable reuse, and direct potable reuse. See Draft EIR Tables 7-1 and 7-2, and *Master Response: Water Supply Alternatives*. While West Basin appreciates the comment, it expresses an opinion and does not speak to the adequacy of the Draft EIR; see *Master Response: Non-CEQA Issues*.

Response to Letter YOJE: Jefferson Young

Response YOJE-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. See *Master Response: Environmental Impacts to the El Porto Community* and *Master Response: Non-CEQA Issues*.

Response to Letter YOJU: Julie Young

Response YOJU-1

While the comment does not explicitly express a comment about the Draft EIR, the commenter may be concerned about impacts regarding the El Porto community. The commenter is referred to *Master Response: Environmental Impacts to the El Porto Community.*

Response YOJU-2

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR; see *Master Response: Non-CEQA Issues* and *Master Response: Environmental Impacts to the El Porto Community.*

The Draft EIR evaluates two possible locations for the ocean water desalination facility throughout Section 5, *Environmental Analysis*. The North Site and South Site would both be located at NRG's facility in El Segundo and zoned the same Heavy Industrial (see the Draft EIR page 5.10-34). As stated in the Draft EIR on page 7-59, "…West Basin has concluded that the ESGS North Site is environmentally superior to the ESGS South Site." West Basin's Board of Directors will ultimately decide which site is most appropriate for the ocean water desalination facility, if and when the Project is approved.

The commenter is also referred to Section 5.11, *Marine Biological Resources*, for a discussion of environmental impacts related to sea life.

Response YOJU-3

Air quality impacts are discussed in detail in the Draft EIR in Subsection 5.2.4 beginning on page 5.2-22. Noise impacts are discussed in detail in the Draft EIR in Subsection 5.12.4 beginning on page 5.12-14. Marine Biological Resources are discussed in detail in the Draft EIR in Subsection 5.11.4 beginning on page 5.11-38. Table 3-5 of the Draft EIR identifies estimated construction durations for each phase of the proposed Project. The Draft EIR concludes that there is potential for significant and unavoidable impacts related to air emissions during construction, particularly for daily pollutant mass emissions of NOx, and increased noise during pile driving associated with construction activities. More detail on the significant construction-related air quality impacts can be found in the Draft EIR on pages 5.2-33 and -34. All other air quality related impacts were found to be less than significant with mitigation.

Response to Letter ZAN: Chad Zani

Response ZAN-1

West Basin is committed to continued water use efficiency programs and will continue to pursue conservation as a component of the water supply portfolio. But the expansion of an existing conservation program does not meet the objective of diversification. Please see M*aster Response: Water Supply Alternatives*.

However, the brine discharge from the proposed Project will not sink to the ocean floor and kill everything, as suggested by the comment. As explained in Draft EIR Subsection 5.9.4, the brine modeling conducted for the proposed Project (Draft EIR Appendix 4C and Final EIR Appendix 14) demonstrates that operational discharges from the Local Project would meet the threshold of being less than 2 ppt above ambient conditions within the 100 meters (328 feet) from the point of discharge as prescribed in the California Ocean Plan. Therefore, brine discharges from the Local Project would not exceed or violate the California Ocean Plan salinity standards or degrade water quality in terms of salinity; impacts related to salinity would be less than significant.

Response to Letter ZAR: Lori Zarenski

Response ZAR-1

Although West Basin appreciates the concern, the comment does not specify any deficiencies in the Draft EIR analysis. It is unclear what "financial gain" is at stake since West Basin is a not-for-profit municipal utility. Regardless, West Basin conducts its procurement activities in accordance with standards for ethical conduct as recommended by the Institute for Supply Management (ISM) and the West Basin ethical procurement practices are detailed on their website: http://www.westbasin.org/about-us/doing-business. See also *Master Response: Cost and Rates*.

Response to Letter ZAR2: Lori Zarenski

Response ZAR2-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is warranted; see *Master Response: Non-CEQA Issues*.

Response ZAR2-2

See response to comment ZAR-1.

Response to Letter ZUA: Jacqueline Zuanich-Ferrell

Response ZUA-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

Response to Letter ZUA2: Jacqueline Zuanich-Ferrell

Response ZUA2-1

While West Basin appreciates the comment, it does not specify any deficiencies in the analysis included in the Draft EIR. As a result, this comment has been noted for the record and no further response is necessary; see *Master Response: Non-CEQA Issues*.

SECTION 18
Revisions to the Draft EIR Text

Introduction to Revisions to the Draft EIR Text

Responses to comments on the Draft EIR have resulted in revisions to the Draft EIR text. Other minor clarifications have also been made. This section reflects all changes made to the Final EIR in ~~strikeout~~/underline text, and will be adopted as part of the Final EIR by West Basin when certifying the Final EIR and approving the proposed Project. All revisions to the Project Description are found in Final EIR Section 11, *Refinements to the Project Description*.

Section 1, Executive Summary

The Draft EIR text on page 1-1 is revised as follows:

> The Local Project would provide approximately ~~11~~ 10 percent of West Basin′s water demand, relieving pressure on the heavily constrained supply of imported water available to West Basin. The new water source would increase the overall water supply reliability, drought resiliency, local control, and water security in the region.

Section 2, Introduction and Project Background

The Draft EIR text on page 2-22 is revised as follows:

> West Basin has included this analysis of best available site, best available design, best available technology, and best available mitigation measures to assist the LARWQCB in its ~~determine~~ determination of the best combination of feasible alternatives to minimize intake and mortality of all forms of marine life pursuant to the OPA.

The Draft EIR text on page 2-23 is revised as follows:

> ~~If a listed species may be adversely affected by a Project, SWRCB staff will confer with the USFWS, and/or NMFS to inform these agencies of Project impacts to any federally listed species or critical habitat~~.

The Draft EIR text on page 2-37 is revised as follows:

> Although the technical memorandum found that SSIs could have advantages over screened ocean intakes, since SSIs collect water through sand sediment which acts as a natural barrier to organisms, and thus eliminates ~~with regard to~~ impingement and entrainment ~~and~~ while reducing~~es~~ pretreatment requirements, results indicated that

significant additional geotechnical feasibility studies would be required for this intake option.

The Draft EIR text on page 2-37, Footnote No.7, is revised as follows:

[7]SWRCB amended the California Ocean Plan on May 6, 2015, to address desalination facilities withdrawing seawater ("Desal Amendments"). As a result, Ocean Plan Section III.M.2(d)(1) now requires that ~~in requesting~~ while making a Water Code Section 13142.5(b) determination for an ocean desalination facility, the ~~owner or operator of a proposed seawater desalination facility~~ LARWQCB must consider whether subsurface intakes are feasible to minimize intake and mortality of all forms of marine life.

Section 3, Project Description

All revisions to the Project Description are found in Final EIR Section 11, *Refinements to the Project Description*.

Section 4, Basis of Cumulative Analysis

The Draft EIR text on page 4-5 in Table 4-1 is revised as follows:

City of Redondo Beach		
22	Waterfront Development Project (Portofino Way and Torrance Circle)	Demolition of approximately 207,402 SF of existing structures Retention of 12,479 SF of existing development Construction of up to 511,460 SF of retail, restaurant, creative office, specialty cinema, a public market hall, and a boutique hotel Total of new and remaining development on-site would be 523,939 SF (304,058 SF of net new development) Status: ~~Application being processed, NOP circulated June-July 2014~~ Approval by City Council, under review by California Coastal Commission, construction anticipated ~~2017-2020~~ 2019-2021.

The Draft EIR text on page 4-6 in Table 4-1 is revised as follows:

23	South Bay Galleria Improvement Project (1815 Hawthorne Boulevard)	Increase existing SF by 217,864 SF, including department stores, mall shops, dining and entertainment. Overall density of development on the site (including retail, office, hotel, and housing) will increase to a maximum 1,943,965 sf of building floor area. Project will also include a hotel of up to 150 rooms and up to 300 ~~650~~ DU (townhomes, condos, and/or apartment homes). Status: ~~NOP posted October 2015~~Approved by Planning Commission on April 19, 2018 and on appeal to the City Council, construction anticipated ~~2017-2018~~ 2020-2023
24	Mixed-Use Development (1700 South Pacific Coast Highway)	~~149~~ 115 DU 2637,000 SF of commercial Status: Approved June 2016, construction to begin in 2019 ~~completed 2017~~

25	600 North Pacific Coast Highway	Expansion of existing automobile sales office/lot with adjacent property at 610 N. Pacific Coast Highway Status: ~~Initial project development stage~~ Project under construction in 2019

The Draft EIR text on page 4-10 is revised as follows:

> The volume generated would account for approximately ~~11~~ 10 percent of the total water demands, while the rest of the demand would be met by the use of imported water, recycled water, and water conservation.

Draft EIR text on pages 4-11 and 4-12 in Table 4-2 is revised as follows:

2	Los Angeles Department of Sanitation Hyperion Water Reclamation Plant	Los Angeles County	~~230~~ Design capacity 450; peak weather flow 800	N/A	Wastewater Discharge	Existing, Active
11	San Diego County Water Authority -Camp Pendleton Seawater Desalination Project	Camp Pendleton	~~100-150~~ Undetermined (pilot test facility of 20 gallons per minute)	Undeter-mined	Surface	In Feasibility Study

The Draft EIR text on page 4-15 is revised as follows:

> Currently, the Huntington Beach project is pending permits/approvals from the Coastal Commission and Regional Water Quality Control Board, and the State Lands Commission ~~has initiated~~ certified ~~an~~ Supplemental EIR in October 2017 prior to ~~considering~~ issuing a lease for the intake and discharge tunnels.[3]
>
> [3] ~~The NOP was released November 18, 2016.~~

The Draft EIR text on page 4-16 is revised as follows:

> In collaboration with the United States Marine Corps, the Water Authority ~~is currently~~was evaluating the feasibility of a potential regional desalination project located at Camp Pendleton in northern San Diego County. ~~The Camp Pendleton Seawater Desalination Project would involve an ocean water desalination facility producing between 100 to 150 MGD.~~ The Water Authority released the Camp Pendleton Seawater Desalination Project Feasibility Study in December 2009. The ~~project is considered very early in the development process and the~~ Water Authority was ~~is currently~~ conducting additional technical studies for the project, including parallel piloting of a screened ocean intake and subsurface intake, to evaluate an intake flow of up to 40 gallons per minute and treatment of up to 20 gallons per minute of seawater (SDCWA 2016 and 2017). However, in September 2018, the Water Authority decided to close down its work on a potential seawater desalination pilot plant at Camp Pendleton due to extraordinary permitting hurdles and related costs created by the State Lands Commission staff, along with the decreased potential that the plant will be needed in coming decades (SDCWA 2018).

Section 5.0, Environmental Analysis

The Draft EIR text in the footnote on page 5-3 is revised as follows:

> [3] Note that California Government Code Section 53091(d) states that "[b]uilding ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency." Furthermore, Section 53091(e) states that "[z]oning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water . . ." However, West Basin intends to make every effort to comply with all applicable building and zoning ordinances stipulated under the City of El Segundo Municipal Code in the construction and operation of the Ocean Water Desalination Project. The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.

Section 5.1, Aesthetics, Light & Glare

Draft EIR page 5.1-11 is revised as follows:

> Ocean intake and discharge construction would occur offshore in the open ocean. Construction equipment would include boats, barges, tug boats, and/or dive boats. Construction would occur over ~~24~~ 12 months . . .

Section 5.2, Air Quality

The Draft EIR text on page 5.2-20 is revised as follows:

> … For sites over 5 acres, if the emissions exceed the screening level thresholds in the lookup tables the site would have the potential to result in significant local impacts and the SCAQMD recommends air quality dispersion modeling to assess impacts to nearby sensitive receptors. This refined analysis uses the AERMOD dispersion model to determine the concentration of the pollutant at the nearby receptor locations. For NOx and CO emissions, concentrations derived from the dispersion modeling are converted to ppm, added to the existing background emissions, and compared to the appropriate ambient air quality standards shown in Table 5.2-1. For PM10 and PM2.5, concentrations are compared to an increase of 10.4 $\mu g/m^3$.

The Draft EIR text on page 5.2-40 is revised as follows:

> **AQ-1:** Prior to construction, West Basin shall confirm that the Grading Plan, Building Plans, and specifications stipulate that, in compliance with SCAQMD Rule 403, excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures, as specified in the SCAQMD's Rules and Regulations. In addition, SCAQMD Rule 403~~2~~ requires implementation of the following dust suppression techniques to prevent fugitive dust from creating a nuisance off-site and reduce construction-related fugitive dust impacts on nearby sensitive receptors:…

The Draft EIR text on page 5.2-46 is revised as follows:

> … It is noted that due to the location of the Project components, LST emissions associated with the construction of the onshore facilities for the ESGS were evaluated for a 5-acre site at 25 meters. Construction of offshore Project components were evaluated for a 5-acre site at 500 meters. Construction of the off-site conveyance pipeline was ~~were~~ evaluated for a 1-acre site at 25 meters. Where emissions exceed the screening tables, a refined analysis was conducted to determine the potential to result in significant impacts as discussed in Section 5.2.3 Significance Thresholds and Criteria – Localized Significance Thresholds.

The following footnote is added to Table 5.2-18 on page 5.2-47 as follows:

> ***Refined analysis for Offshore Emissions***[2]
>
> [2]The refined analysis utilized dispersion modeling. Because the Basin is in non-attainment for NOx, the threshold is based on California ambient air quality standards as identified in Table 5.2-1.

The Draft EIR text on page 5.2-47 is revised as follows:

> As identified in Table 5.2-18, incorporation of Mitigation Measures AQ-1 through AQ-3 for Local Project emissions for the screened ocean intake and concentration discharge facilities would result in less than significant impacts. Mitigated NOx emissions exceeds the LST screening tables for a 5-acre site at 500 meters. Therefore, a refined analysis was conducted to determine if the Project concentrations would exceed CAAQS for the specific Project conditions. Based on the results of the dispersion model, the impacts from the Project for the offshore emissions would not exceed the CAAQS and, therefore, the Project would result in less than significant impacts with respect to NOx emissions.

The Draft EIR text on page 5.2-48 is revised as follows:

> …The resulting health risk calculations were performed using a spreadsheet tool consistent with the OEHHA guidance. The spreadsheet tool incorporates the algorithms, equations, and a variable described above as well as in the OEHHA guidance, and incorporates the results of the AERMOD dispersion model. Risk assumptions and calculations for both unmitigated and mitigated scenarios are included in Appendix 3D, Air Quality/Greenhouse Gas Emissions Data, Health Risk Assessment.

The Draft EIR text on page 5.2-53 is revised as follows:

> …Construction of the Regional Project would contribute to the long-term emissions associated with the Project and would therefore add to the cumulative emissions experienced during the lifetime of nearby residents. Risk assumptions and calculations for both unmitigated and mitigated scenarios are included in Appendix 3D, Air Quality/Greenhouse Gas Emissions Data, Health Risk Assessment. ...

Section 5.3, Biological Resources – Terrestrial

The Draft EIR text on page 5.3-7 is revised as follows:

Local

As set forth by the California Government Code (CGC) Section 53091(d) and (e), West Basin would not be subject to compliance with local building and zoning ordinances, as the Project involves locating and constructing water-related facilities. The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.

The Draft EIR text on page 5.3-13 and -14 is revised as follows:

Restored Coastal Scrub

The restored coastal scrub plant community occurs along the slopes of the southwestern corner of the desalination facility site. This plant community is primarily composed of native vegetation, including common yarrow (*Achillea millefolium*), brittlebush (*Encelia farinosa*), Menzies' goldenbush (*Isocoma menziesii*), Douglas' nightshade (*Solanum douglasii*), lemonadeberry (*Rhus integrifolia*), and California buckwheat (*Eriogonum fasciculatum*), but also includes some non-natives, particularly Mexican fan palm (*Washingtonia robusta*), pine (*Pinus* sp.), New Zealand flax (*Phormium* sp.), and rabbitsfoot grass (*Polypogon monspeliensis*). This community corresponds to Menzie's golden bush scrub (*Isocoma menziesii Shrubland Alliance)* as described in the MCV and is considered a natural sensitive community with a state rank of S3. This community integrates into ornamental vegetation in the southeastern corner of the Project site. Water irrigation pipelines, which provide artificial irrigation, are present throughout this community.

Ornamental

Ornamental areas are present along the remainder of the slopes within the survey area, which are primarily found along the eastern half of the desalination facility site and along the entire length west of Vista Del Mar. These slopes are dominated by iceplant (*Carpobrotus edulis*), particularly in the southern half of the desalination facility site. Additional ornamental shrubs and trees, including Mexican fan palm, are present on the slopes in the northern half of the site. This community corresponds to Ice Plant Mats (*Mesembryanthemum* spp. - *Carpobrotus* spp. Herbaceous Semi-Natural Alliance) as described in the MCV, which does not identify a state ranking due to its dominance by non-native species. Thus, it is not considered a natural sensitive community.

Draft EIR text on page 5.3-29 is revised as follows:

California Brown Pelican

California brown pelican is a CDFW fully protected subspecies of the brown pelican that has been delisted from both the federal and ~~CESA~~ state endangered species lists

~~(formerly endangered on both)~~. It is a year-round resident of Los Angeles County. The brown pelican is found mostly offshore along coastal waters, but may also venture inland into large open waters; it is known to occur in inundated reservoirs throughout the county. It usually nests on the ground, in trees, or on cliffs along the Pacific Coast; refer to Appendix 6. However, the only breeding colonies of this subspecies along the California coast are located on Anacapa Island and Santa Barbara Island. The species is known to roost on mudflats, sandy beaches, wharfs, rocky areas, and jetties. The ~~Project~~ ESGS site is located along the California coast, where brown pelicans (as well as several other birds) can commonly be found foraging offshore; however, there is no suitable nesting habitat within a 250-foot buffer of the ESGS site~~within the survey area~~. This species was observed flying over the ~~Project~~ ESGS site during the November 2015 habitat assessment field survey. Roosting habitat in the form of sandy beach and a jetty exists at the ESGS site as it does within the entire Santa Monica Bay and Southern California coastline. However, because there is a high level of human activity along this section of beach, brown pelican is not expected to roost at the site and has not been observed roosting at the site. In addition, the sandy beach in this area is much narrower than similar and wider areas located to the immediate north and south that also provide sandy beaches that are suitable for roosting.

The Draft EIR text on page 5.3-32 is revised as follows:

Special-Status Plant Species

The ESGS is developed and is surrounded by two plant communities: restored coastal scrub and ornamental. The habitat assessment field survey did not identify any special-status plant species at the ESGS. All vegetated areas within the ~~survey area~~ ESGS north and south sites are manmade ornamental areas or areas that have been revegetated with a specific coastal scrub seed mix. Based on habitat requirements for specific species, the availability and quality of habitats needed by each special-status plant species, and the manmade nature of the on-site vegetation, it was determined that the ~~desalination facility~~ ESGS north and south sites do~~es~~ not provide suitable habitat that would support any of the special-status plant species known to occur in the its general vicinity. Therefore, Local Project ocean water desalination facility construction would not impact special-status plant species.

The Draft text on pages 5.3-36 through -38 for Mitigation Measures BIO-1, BIO-2, BIO-4, BIO-5, BIO-6, BIO-7, BIO-9 are revised and Mitigation Measure BIO-9B is added as follows:

BIO-1: Prior to commencement of ground-disturbing activities, West Basin shall ~~implement~~ develop a Worker Environmental Awareness Program (WEAP) to educate all construction personnel on the area's sensitive biological resources, environmental concerns, and mitigation. The WEAP must discuss the locations and types of sensitive biological resources on the ~~Project~~ ESGS site and adjacent areas, identify monitoring methods, provide pictures, and identify habitat and wildlife protection measures. WEAP training shall be conducted as necessary during mobilization, demolition, and construction activities. New employees that join the construction crew must complete the training prior to working on the Project. A copy of the training logs shall be made

available for inspection upon request by responsible agencies. The WEAP shall be administered by a qualified biologist.

BIO-2: During site mobilization, demolition, and construction, West Basin shall monitor the ~~on-shore construction~~ ESGS site sufficiently to ensure that sensitive species are avoided. The extent of monitoring shall be determined by a qualified biologist. At a minimum, monitoring shall occur when ground-disturbing activities are conducted for the first time in new areas on the ESGS site, as well as during vegetation removal. The qualified biologist shall prepare monthly reports identifying monitoring results for the duration of the construction period. The qualified biologist shall have a bachelor's degree in biology or related subject or equivalent experience, and at least one year of work experience with the special-status species (and their associated habitats) that have the potential to occur on or adjacent to the ESGS site.

BIO-4: West Basin shall implement the following measures during construction and operation to prevent the spread and propagation of nonnative, invasive weeds:

- Only certified weed-free straw, hay bales, and seed shall be used for erosion control and sediment barrier installations…

BIO-5: Construction activities involving vegetation removal shall be conducted between September 1 and December 31. For construction that occurs inside the nesting season (between January 15 and August 31), ~~West Basin~~ a qualified biologist shall conduct a pre-construction nesting avian species clearance survey in accordance with the following guidelines:

a) At least one pre-construction survey shall be conducted within 72 hours preceding initiation of vegetation removal and construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed 3 weeks in any given area, an interval during which birds may establish a nesting territory and initiate egg laying and incubation.

b) The survey shall cover all potential nesting habitat and substrate as well as roosting habitat on the Project site and within 500 feet of its perimeter.

c) If no active nests or roosts are identified, the construction work shall be allowed to proceed. The results of the clearance survey and any ongoing monitoring efforts and/or buffers shall be documented in ~~a~~ monthly compliance reports.

d) If the qualified biologist finds an active nest during the survey and determines that the nest may be impacted, a no-disturbance buffer zone shall be established (protected areas around the nest, typically established using pin flags or construction netting). The size of the buffer shall be determined by the qualified biologist in consultation with CDFW and USFWS, based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. These buffers are typically 300 feet from the nests or roosts of non-listed passerine species and 500 feet from the nests of raptors and listed species.

e) Any active nests or roosts observed during the survey shall be mapped on an aerial photograph using GPS, and provided in the monthly compliance report.

f) If active nests or roosts are detected during the survey, the qualified biologist shall monitor all nests or roosts at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified biologist, disturb nesting or roosting activities (e.g., excessive noise, exposure to exhaust), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified biologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed, or placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, placing noisy stationary construction equipment in acoustically engineered enclosures and/or relocating them away from noise-sensitive receptors, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.

BIO-6: ~~Prior to~~ Within 72 hours of the commencement of ground-disturbing activities, a qualified biologist shall conduct a pre-construction clearance survey for western snowy plover on and in the vicinity of the ~~Project~~ ESGS site. This shall include a focused search for western snowy plover in suitable habitat within 500 feet of proposed construction activities. Western snowy plover shall be avoided by workers waiting for western snowy plover to leave an area before working in it. If western snowy plovers are observed nesting within 500 feet of construction activities, a minimum buffer of 500 feet shall be delineated around the nest and monitored until the nest is no longer considered active.

BIO-7: A qualified biologist shall be present during all vegetation removal and construction on or immediately adjacent to the open beach. The qualified biologist shall be familiar with the identification of western snowy plover, their biology and ecology, and have field experience surveying from nests and conducting monitoring activities for western snowy plover. The qualified biologist shall be responsible for ensuring that no snowy plovers are present within the construction zone.

If western snowy plover are observed within Critical Habitat Subunit 45C, and no breeding behavior activity is observed, the Project biologist will establish appropriate buffers and monitor the western snowy plovers as needed until the snowy plover are no longer observed using these areas. The Project biologist will have the ability to halt Project construction activities, if necessary, to avoid unanticipated impacts, including significant disturbance, to the snowy plover foraging, roosting or breeding behavior.

BIO-9: Although surveys have shown the El Segundo blue butterfly is absent from the Project site, ~~O~~one year prior to commencement of ground-disturbing activities, an El Segundo blue butterfly focused survey shall be conducted by a qualified biologist within areas of the Project site containing suitable habitat supporting coast buckwheat during the adult flight season (mid-June to early September). The adult flight stage of this species can last as little as 4 days to as much as 2 weeks per individual. If this species is found, ground-disturbing activities shall not occur within these areas until West Basin consults with the USFWS and determines if avoidance measures are possible or if an incidental take authorization permit is required prior to Project construction. Avoidance measures shall be determined based on consultation with USFWS and may include avoidance of

occupied habitat, replacement of impacted habitat, and measures to control fugitive dust, which can adversely affect the species. The qualified biologist shall provide the results of the focused survey in the subsequent monthly compliance report. If El Segundo blue butterflies are found, the qualified biologist shall document butterfly mitigation, monitoring, and compliance efforts in the monthly compliance reports, including maps and photographs. The qualified biologist shall report all butterfly occurrences with the CNDDB. If avoidance of occupied or suitable habitat is not possible, West Basin shall consult with USFWS for replacement of impacted habitat at a ratio commensurate with the value of the affected area to be determined by USFWS.

BIO-9B: One year prior to commencement of demolition activities, a bat roosting survey will be conducted on the Project site to confirm the absence of any bat roosts. If bats are found to utilize any portion of the site, and avoidance is not feasible, West Basin shall report the findings to CDFW and will prepare and implement a bat relocation plan consistent with CDFW approved methods.

Draft EIR text on page 5.3-53 is revised as follows:

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens, 2009. A Manual of California Vegetation, 2nd Edition, California Native Plant Society, 2009.

California Department of Fish and Wildlife (CDFW), 2003. List of Terrestrial Natural Communities, 2003.

Sibley, D.A., 2014. The Sibley Guide to Birds, 2nd Edition, 2014.

Section 5.4, Cultural Resources

The Draft EIR text on page 5.4-7 is revised as follows:

California Public Resources Code Section 6313

PRC Section 6313(a) states that title to all abandoned shipwrecks, archaeological sites, and historic resources on or in the tide and submerged lands of California shall be in the custody and subject to the control of the State Lands Commission. The Commission may transfer title, custody, or control to other state agencies or recognized scientific or educational organizations, institutions, or individuals by appropriate legal conveyance. PRC Section 6313(d) requires permits be granted by the Commission for salvage operations involving submerged archaeological sites or submerged historic resources when the proposed salvage activity is justified by an educational, scientific, or cultural purpose, or the need to protect the integrity of the site or the resource. All activities permitted under subdivision (d) shall be accomplished under the direct supervision of a person who meets the qualifications required of a professional marine archaeologist as stated in PRC 6313(e)(2). The Commission shall provide for the disposition of all objects or other materials recovered as part of salvage operations, which may include provisions for display in museums, educational institutions, and other appropriate locations available to the public.

The Draft EIR text on page 5.4-32 is revised as follows:

Desalinated Water Conveyance Components

As noted above in the Local Project Impact CUL-5.4-1 discussion, no known historical resources were identified within the proposed desalinated water conveyance components as a result of the records search and survey. However, the geoarchaeological review indicates that the sediments underlying the eastern portions of the water conveyance components have the potential to contain buried archaeological deposits that may qualify as historical resources. Therefore, construction of the offshore and onshore portions of the ocean intake and concentrate discharge structures has the potential to encounter subsurface archaeological deposits that qualify as historical resources, resulting in a significant impact. Implementation of Mitigation Measures CUL-1 through CUL-5 would be required to ensure that the Project's potential impacts to archaeological resources that may qualify as historical resources are less than significant.

Because the phasing of the Regional Project is unknown at this time, additional historic architectural resources that qualify as historical resources may be identified as part of separate projects within and/or adjacent to the desalinated water conveyance components. Should additional historical resources be identified in the future, construction of the Regional Project's desalination water conveyance components could directly or indirectly impact these resources. Implementation of **Mitigation Measure CUL-12** would be required to ensure that the Project's potential impacts to historic architectural resources that may qualify as historical resources are less than significant.

Mitigation Measures:

Implement Mitigation Measures CUL-1 through CUL-5 and CUL-12 for impacts to historical resources resulting from construction of the ocean water desalination facility and the desalination water conveyance components.

The Draft EIR text on page 5.4-33 and -34 for Mitigation Measures CUL-1, CUL-3, and CUL-4 is revised as follows:

CUL-1: Prior to onshore and offshore ground-disturbing activities, West Basin shall retain a Qualified Archaeologist defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (U.S. Department of the Interior 2008). The Qualified Archaeologist shall be responsible for implementation of all cultural resources mitigation measures and will oversee Cultural Resource Monitors (CRMs) to monitor Project-related ground-disturbing activities. The CRMs shall have demonstrable monitoring experience and familiarity with the types of resources that may be encountered during Project-related ground-disturbing activities.

West Basin shall ensure that the Qualified Archaeologist oversees construction monitoring, mitigation, and curation activities necessary; fulfills all the requirements of these measures; ensures that the Qualified Archaeologist obtains technical specialists and CRMs; and ensures that the Qualified Archaeologist evaluates any cultural resources that are newly discovered.

A current schedule of anticipated Project activity shall be provided to the Qualified Archaeologist on a weekly basis during ground disturbance.

CUL-3: All Project related ground-disturbing activities occurring within the onshore and offshore geological formations that have the potential to contain buried archaeological deposits shall be subject to archaeological and Native American monitoring. Prior to ground-disturbing activities, West Basin shall prepare a CRMMP that summarizes monitoring methodology for both onshore and offshore components, identifies specifically the portions of the Project that require monitoring based on archaeological sensitivity of the geological formation underlying the Project components, and provides general and specific ~~measures~~ treatment to minimize potential impacts to inadvertent discoveries of archaeological resources. The CRMMP shall include inspection procedures developed by the Qualified Archaeologist in coordination with West Basin. The CRMMP shall include provisions for the inclusion of a Qualified Maritime Archaeologist to accompany any diving personnel to identify the presence of archaeological resources within anchorage locations and to monitor any associated sediment disturbance.

The CRMMP shall include protocol to be carried out in the event human remains are uncovered during Project construction. All work within 50 feet of any identified human remains shall be immediately halted, and the Los Angeles County Coroner shall be contacted to evaluate the remains and follow the procedures and protocols set forth in CEQA Guidelines Section 15064.5(e)(1). If the County Coroner determines that the remains are Native American, the California Native America Heritage Commission (NAHC) will be contacted by telephone within 24 hours of the find, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and PRC 5097.98 (as amended by AB 2641). The NAHC shall then identify a Most Likely Descendant (MLD) of the deceased Native American. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods. Per PRC 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this section (PRC 5097.98), with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.

Copies of the CRMMP shall reside with the Qualified Archaeologist, each monitor, and West Basin.

CUL-4: The Qualified Archaeologist and the CRMs shall have the authority to halt construction if previously unknown cultural resource sites or materials are encountered. All construction activities within 50 feet of the find shall halt, and redirection of ground disturbance shall be accomplished under the direction of the construction supervisor. In the event cultural resources are discovered during any offshore construction activities, Project personnel shall halt all activities in the immediate area and notify both the California State Lands Commission and a Qualified Maritime Archaeologist to determine the appropriate course of action. The Qualified Archaeologist shall determine what, if any, data recovery or other ~~mitigation~~ treatment is needed. The final disposition of archaeological and/or historical resources recovered on state lands under the jurisdiction of the California State Lands Commission must be approved by the Commission. Should cultural resources be identified during the geophysical survey and/or monitoring of offshore components, a Qualified Maritime Archaeologist shall be retained to prepare the

treatment plan, and the appropriate permits will be obtained from the State Lands Commission. Construction in the area shall not resume until the Qualified Archaeologist has completed data collection activities and the resource has been recorded.

The Draft EIR text on page 5.4-34 for Mitigation Measure CUL-5 is revised as follows:

CUL-5: Within 90 days after completion of ground-disturbing activities, West Basin shall prepare a CRR that specifies all field activities including dates, times and locations, findings, samplings and analysis. All survey reports, DPR 523 forms, and additional research reports not previously submitted to the CHRIS shall be included as an appendix to the CRR. All confidential information protected by relevant law and pertaining to cultural resources identified during monitoring shall remain confidential and will not be publicly disseminated.

The Draft EIR text is revised on page 5.4-34, where Mitigation Measure CUL-12 is added as follows:

CUL-12: Prior to development of the Regional Project's desalination water conveyance components, West Basin shall retain a qualified architectural historian to conduct a historical resources assessment. All identified historic architectural resources shall be assessed for the Regional Project's potential to result in direct and/or indirect impacts to those resources, and any historic architectural resource that may be affected shall be evaluated for potential significance (i.e., listing in the CRHR) prior to West Basin's approval of Project plans and publication of subsequent CEQA documents. The qualified architectural historian shall provide recommendations for avoiding or minimizing impacts, or for the treatment of historical resources that will be impacted by the Regional Project. West Basin shall implement the recommendations.

The Draft EIR text on page 5.4-39 is revised as follows:

TABLE 5.4-4
SUMMARY OF IMPACT CUL 5.4-3 PALEONTOLOGICAL RESOURCES

	Ocean Water Desalination Facility	Offshore Intake and Discharge Facilities	Inland Conveyance Facilities
Impact CUL 5.4-3: Impacts on paleontological resources.			
Local Project			
Construction	LTSM	LTSM ~~NI~~	LTSM
Operation	NI	NI	NI
Regional Project			
Construction	LTSM	NI	LTSM
Operation	NI	NI	NI

NOTES:
NI = No Impact, no mitigation proposed
LTSM = Less than Significant impact with mitigation

Screened Ocean Intake and Concentrate Discharge

Local Project screened ocean intake and concentrate discharge construction ~~would not~~ may involve excavations greater than 10 feet or that extend into older Quaternary alluvial deposits. Therefore, Local Project screened ocean intake and concentrate discharge construction ~~would not~~ may destroy a unique paleontological resource or site or unique geologic feature ~~and no impact would occur~~. However, with implementation of Mitigation Measures CUL-6 through CUL-11, impacts would be less than significant.

The Draft EIR text on page 5.4-43 for Mitigation Measure CUL-8 and CUL-10 is revised as follows:

CUL-8: Prior to the start of onshore or offshore ground-disturbing activities, West Basin shall ensure that the Qualified Paleontologist prepares a PRMMP in accordance with SVP guidelines. The PRMMP shall summarize paleontological resources monitoring methodology, identify at which depth and the specific portions of the Project where monitoring shall occur based on geological formation underlying the onshore and offshore Project components, and provide general and specific treatment to minimize potential impacts to inadvertent discoveries of paleontological resources. The final disposition of paleontological resources recovered on state lands under the jurisdiction of the California State Lands Commission must be approved by the Commission. The PRMMP shall function as the formal guide for monitoring, collecting, and sampling activities.

CUL-10: West Basin shall ensure that the PRMs monitor all construction-related grading, excavation, trenching, and boring in areas that involve excavations greater than ~~8~~10 feet and extend into older Quaternary alluvial deposits, ~~both~~ at the desalination facility site, ~~and~~ desalinated water conveyance pipeline alignment, and offshore Project components. In the event that the Qualified Paleontologist determines full-time monitoring is not necessary in locations that were identified as potentially fossil-bearing in the PRMMP, monitoring activities may be modified, at the direction of the Qualified Paleontologist.

West Basin shall ensure that the Qualified Paleontologist and PRMs have the authority to stop or redirect construction if a unique paleontological resource or site or unique geologic feature is encountered. Should a paleontological resource be identified at a depth of less than 10 feet and a PRM or the Qualified Paleontologist is not present, all construction shall halt and the Qualified Paleontologist shall be contacted to assess the discovery and develop appropriate treatment in coordination with West Basin.

West Basin shall ensure that the Qualified Paleontologist prepares a summary of monitoring and other paleontological activities that will be reported on monthly. The summary will include the name(s) of the Qualified Paleontologist or PRMs active during the month, general descriptions of training and monitored construction activities, and general locations of excavations, grading, and other activities. A section of the report shall include the geologic units or subunits encountered, descriptions of samplings within each unit, and a list of identified fossils. A final section of the report shall address any issues or concerns about the Project relating to paleontological monitoring, including any incidents of noncompliance or any changes to the monitoring plan.

Section 5.5, Energy

The Draft EIR text on page 5.5-15 is revised as follows:

> West Basin is committed to pursuing reasonable and feasible energy minimization and efficiency as part of the Project, including use of energy recovery devices (for the first pass reverse osmosis [RO] process) and energy efficient pumps. In implementing Mitigation Measure GHG-1, West Basin may ~~will~~ also use on-site solar power generation to reduce load demand from the grid…

Page 5.5-19 in the Draft EIR is revised as follows:

> **Impact ENERGY 5.5-4 ~~5.4-4~~:** Would the Project result in an increase…

Section 5.6, Geology, Soils, and Seismicity

No text changes are made.

Section 5.7, Greenhouse Gas Emissions

The Draft EIR text on page 5.7-30 and -31 for Mitigation Measure GHG-1 is revised as follows:

> **GHG-1:** West Basin shall prepare an Energy Minimization and GHG Reduction Plan no later than 60 days prior to the start of Project construction activities…
>
> 3) **GHG Mitigation Options** – The Energy Minimization and GHG Reduction Plan shall include GHG mitigation strategies that shall, at minimum, be sufficient to offset the Project's incremental GHG emissions over the net ~~zero~~ carbon neutral threshold of significance and shall be verifiable and feasible to implement over the Project life. The GHG Reduction Plan shall indicate how reductions will be achieved on an annual basis starting with operational year 1.

The Draft EIR text on page 5.7-32 for Mitigation Measure GHG-1 is revised as follows:

> West Basin shall implement items a. and b. and progress through the remaining GHG reduction strategies and offset strategies ~~remainder~~ (items c. through e.) to achieve the net carbon neutral threshold of significance. Selection and implementation of the options will be based on their ~~on the basis of the options'~~ physical and economic feasibility, as reasonably determined by West Basin, with low-cost options preferred over high-cost options. ~~In the event that options have equivalent costs, options enumerated higher in the above list shall be selected by West Basin over options enumerated later in the above list.~~

Section 5.8, Hazards and Hazardous Materials

The Draft EIR text on page 5.8-24 for Mitigation Measure HAZ-3 is revised as follows:

> **HAZ-3:** West Basin shall prepare an Anchoring Plan that applies to all ships, barges, and other ocean-going vessels and describes procedures for deploying, using, and recovering anchorages. The Anchoring Plan shall include, but not be limited to, the following elements:
>
> - A brief overview of the Project objectives.

- Description of anchor set and anchor leg (wires, winches, and other support equipment).
- Description of vessels to be anchored and support tugs to be used.
- Description and delineation of safety zone and anchor zone, including identification and mapping all areas of kelp, seagrasses, and hard substrate found within the work area. The anchoring plan shall ensure that these marine habitats of special significance shall not be impacted by the placement of vessel and buoy anchors, by dragging of anchors, buoy lines or cables, by riprap placement, or by sidecasting of dredging spoils.
- Identification of Contractor Vessels and Buoys, including daylight and nighttime marking schemes.
- Anchoring procedures.
- Local notice to U.S. Coast Guard and mariners.

All elements of the Anchoring Plan shall be in compliance with U.S. Coast Guard regulations.

Section 5.9, Hydrology and Water Quality

The Draft EIR text on page 5.9-8 is revised as follows:

> The *Water Quality Control Plan for Ocean Waters of California* (California Ocean Plan) (SWRCB 2015), adopted by the SWRCB in 1972 ~~May 2015 and effective January 2016~~, establishes water quality requirements and objectives for California's ocean waters and provides the basis for regulation of wastes discharged into the state's coastal waters. In 2015, the SWRCB adopted the Desalination Amendment, which has been in effect since 2016…

The Draft EIR text on page 5.9-11 is revised as follows:

> The California Ocean Plan water quality objectives are to be met after the initial dilution of a discharge into the ocean. The California Ocean Plan defines initial dilution as the process that results in the rapid and irreversible turbulent mixing of wastewater with ocean water around the point of discharge. For a submerged buoyant discharge, characteristic of most municipal and industrial wastes that are released from the submarine outfalls, the momentum of the discharge and its initial buoyancy act together to produce turbulent mixing. Initial dilution in this case is completed when the diluting wastewater ceases to rise in the water column and first begins to spread horizontally. For shallow water submerged discharges, surface discharges, and non-buoyant discharges, characteristic of cooling water wastes and some individual discharges, turbulent mixing results primarily from the momentum of discharge. Initial dilution, in these cases, is considered to be completed when the momentum induced velocity of the discharge ceases to produce significant mixing of the waste, or the diluting plume reaches a fixed distance from the discharge to be specified by the Regional Board, whichever results in the lower estimate for initial dilution…

The Draft EIR text on page 5.9-11 is revised as follows:

> …If the effluent density is greater than the ambient density ~~salinity~~, as occurs for desalination brine, it produces a negatively buoyant plume that sinks toward the seabed. ~~In this case, the edge of the ZID is located at the point where the discharge plume contacts the seafloor.~~

The Draft EIR on page 5.9-23 is revised as follows:

> ***California Coastal Commission Sea-Level Rise Policy Guidance***
>
> The CCC has developed Sea-Level Rise Policy Guidance intended to help local governments, permit applicants, and other interested parties address the challenges presented by sea-level rise in California's coastal zone. The CCC's adopted 2018~~2015~~ Sea-Level Rise Policy Guidance (CCC 2018~~2015~~) outlines the types of information, analysis, and design considerations that the agency's staff requires to determine whether shoreline projects conform to the above-listed Coastal Act policies…

The Draft EIR text on page 5.9-24 is revised as follows:

> [9] Note that California Government Code Section 53091(d) and (e) provide that building and zoning ordinances of a county or city "shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water . . ." However, the construction and operation of the Ocean Water Desalination Project would strive to comply with all appropriate building and zoning ordinances, as well as policies set forth in the City of El Segundo General Plan. The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.

The Draft EIR text on page 5.9-37 is revised as follows:

> The Intergovernmental Panel on Climate Change (IPCC) has indicated that globally, sea level rose at an average annual rate of approximately 1.5 millimeters from 1901 to 1990 and at an average annual rate of approximately 3.2 millimeters from 1993 to 2010 (IPCC 2013). By year 2100, sea levels may rise up to 55 inches (1.4-meter), causing a 45 percent increase in land in Los Angeles County to become more vulnerable to the 100-year flood event (CCC 2018~~5~~)…

The Draft EIR text on pages 5.9-50 through 5.9-53 is revised as follows:

> *Salinity*
>
> A multiport diffuser system typically consists of a series of nozzles that create relatively high-velocity jets to increase brine mixing through enhanced entrainment of ambient seawater and maintain a reasonable water jet velocity within the seawater column. The area where the mixing takes place is called the BMZ[19]. In an open ocean environment with dynamic mixing from ocean currents, tidal and wave actions such as Santa Monica

Bay, the use of a multiport diffuser system is effective in preventing dense, high-salinity water from accumulating on the seafloor.

The size and shape of the mixing zone depends upon the discharge rate, diffuser system design, initial salinity concentrations of the brine stream and the receiving water, and prevailing marine currents. The proposed multiport diffuser nozzles would be arranged in a ~~"rosette"~~ linear pattern (Figure 3-18c[1]). Brine from the Local Project desalination facility would be conveyed to the proposed diffuser via the existing ESGS concrete tunnel, as described in Section 3.4.1. Water depth at 2,078 feet offshore at the proposed diffuser location ranges from 28 to 34 feet. The proposed discharge structure design would consist of either a 44-foot-long linear diffuser with six 15.2-inch diameter ports, or a 93-foot-long linear diffuser with 14, 9-inch diameter ports (Figure 3-18c). For both linear diffuser design options, the port depth would be 24 feet below water surface and the diffuser port angle would be 60° from horizontal. ~~The diffuser has been designed with multiple ports inclined upward at a 46° angle[20] from the horizontal.~~ This orientation is intended to (1) ensure that the discharge ~~reduce jet exit velocity,~~ meets California Ocean Plan salinity requirements, (2) reduce jet exit velocity and ~~to reduce~~ shear stress so that turbulence-induced mortality of organisms that may be entrained into the diffuser jets are minimized (see Section 5.11, *Marine Biological Resources*), and ~~to~~(3) ensure that the discharge plume does not reach the ocean surface.

As described in Section 5.9.1, the California Ocean Plan limits the increase of salinity of receiving water from desalination plant discharges to a daily maximum of 2 parts per thousand (ppt) above natural background salinity. The owner or operator of a desalination facility must meet the salinity standard at the boundary of the BMZ, defined as the horizontal distance of 100 meters (328 feet) from the point of discharge. A significant impact related to water quality, water quality standards or Waste Discharge Requirements would occur if operational discharges from the Local Project resulted in a salinity level of 2 ppt above ambient salinity levels beyond the BMZ.

To determine whether the proposed discharge would comply with the California Ocean Plan BMZ salinity requirements, a brine plume mixing model that is consistent with the method approved by the SWRCB was conducted (Appendix ~~4C~~ 14). **Table 5.9-5** summarizes two operational scenarios based on the conceptual design described in Section 3, which were evaluated using the mixing model. A detailed description of the mixing model methodology and results are included in **Appendix ~~4C~~ 14A.** The model analysis assumes an ambient ocean water flow velocity of zero (i.e., conservatively assumes an absolutely still ocean environment where ocean currents and tides are absent and mixing of the discharge plume with the surrounding water occurs as a direct result of the use of the diffusers).

[1] Draft EIR Figure 3-18c has been revised to reflect the linear diffuser design. The revised figure is included in Final EIR Section 11, Refinements to the Project Description.

TABLE 5.9-5.
PROPERTIES OF EFFLUENT CONSTITUENTS FOR LOCAL PROJECT DISCHARGE SCENARIOS

		Brine			Washwater			Combined effluent			
Project	Case ID	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Density (kg/m^3)
Local	L1	20.9	17.6	68.0	4.5	17.6	34.0	25.4	17.6	62.0	1046.2
	L2	20.9	17.6	68.0	0.1	17.6	34.0	21.0	17.6	67.8	1050.8

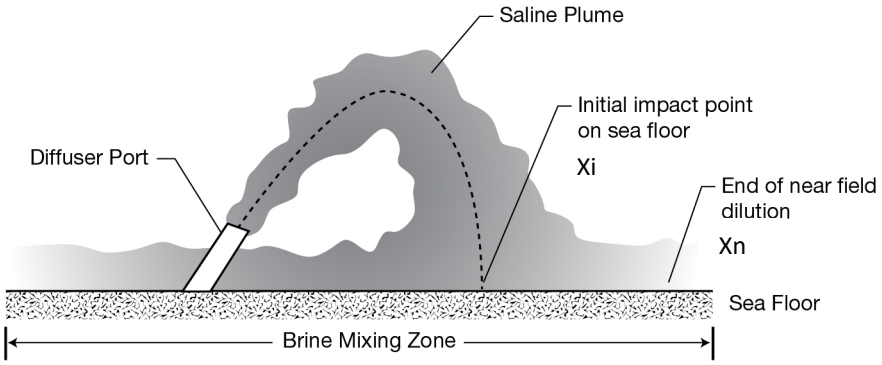
SOURCE: Roberts 2019~~8~~; Appendix 4~~C~~14A.

The size of a discharge plume and the extent of dilution depends, in part, on whether the plume is positively buoyant (light or rising), as occurs with typical wastewater discharges that have lower salinity and hence lower density than the ambient ocean water; or negatively buoyant (dense or sinking), as occurs for desalination brine discharges that have a higher salinity and hence higher density than the receiving ocean water. The latter represents the case applicable to this Project. Denser discharges are dispersed via an upward inclined jet that result in a plume that rises upward and then sinks down, making contact with the seafloor at some distance away from the diffuser nozzles (**Figure 5.9-4**). As the discharge plume ascends, the jet entrains ambient water, and the brine becomes diluted. Because the plume is denser than the receiving water, it reaches a terminal rise height and then falls back to the seafloor. Entrainment of seawater into the plume continues in the descending plume phase, promoting more mixing and dilution. After contacting the seafloor, the brine plume continues traveling horizontally and further entrains ambient seawater resulting in greater dilution. The region that encompasses the ascending plume, the descending plume, the point of impact with the seafloor, and the area of horizontal flow up to the point where momentum and turbulence-driven mixing dynamics cease is called the near field. The brine discharge model analysis estimated dilution ratios and salinity concentrations ~~at~~ where the plume contacts the seafloor (referred to as Xi) as well as ~~at~~ where the plume momentum from the nozzle becomes zero (referred to as Xn), representing the end of the near field (Figure 5.9-4). Given that the model assumes no additional mixing or dilution from ocean currents or tides, the model would not be able to predict additional dilution beyond where the plume momentum reaches zero.

Salinity Results and Discussion

The linear diffuser model analysis (Appendix 4~~C~~ 14A) demonstrates that operational discharges from the Local Project would not exceed 2 ppt above ambient conditions at the BMZ boundary. In fact, the model analysis indicates that the 2 ppt salinity threshold would be met ~~at a distance of 11.6 m (38 feet)~~ between the point at which the brine plume makes contact with the seafloor (at Xi), and ~~from the point of discharge~~ ~~(**Table 5.9-6**). Such a distance is well within the 100 meters (328 feet) from the point of discharge as prescribed in the California Ocean Plan~~ and ~~would translate to a circular area of approximately 0.1 acres around the diffuser.~~ ~~The terminal height would reach a maximum~~

~~of 19.5 feet above the seafloor for both scenarios and after descending and making contact with the seafloor, the model analysis indicates that the brine plume would continue entraining ambient seawater and further diluting until the plume momentum reaches zero (i.e.,~~ the edge of the near field (at Xn); ~~at 119~~ between 45 and 63 feet (13.7 m to 19.2 m) from the point of discharge (**Table 5.9-6**) for all scenarios modeled. The salinity at the edge of the near field would ~~decrease to 1.9~~ be equal to or less than 2 ppt above ambient, well within the distance of 100 meters (328 feet) prescribed in the California Ocean Plan. The total seafloor area from the diffuser to the edge of the near field (at Xn) would be an ~~circular~~ area of approximately ~~1~~ 0.3 and 0.5 acres (Appendix ~~4C~~14A). Thus, brine discharges from the Local Project would not exceed or violate the California Ocean Plan salinity standards or degrade water quality in terms of salinity; impacts related to salinity would be less than significant.



West Basin Ocean Water Desalination Project

SOURCE: Roberts 2019~~8~~; Appendix 14A ~~4C~~.

Figure 5.9-4
Characteristics of an Inclined Dense Jet

TABLE 5.9-6.
~~OPTIMUM PORT~~ LINEAR DIFFUSER CONFIGURATIONS FOR EACH LOCAL PROJECT FLOW SCENARIO WHERE ~~PORT DEPTH OF 20 FEET AND SALINITY INCREMENT LESS THAN 2 PPT AT THE JET IMPACT POINT~~ SALINITY INCREMENT AT THE END OF THE NEAR FIELD ≤ 2 PPT

		Diffuser Details				Impact Point			BMZ[1]			UM3 predictions at top	
Project	Case ID	Number of ports	Port diameter (in)	Jet velocity (ft/s)	Diffuser length (ft)	Dilution Si	Length Xi (ft)	Salinity Increment (ppt)	Layer thickness, y_L (ft)	Distance, x_n (ft)	Area (acres)	Average dilution, S_{ta}	Entrained flow (mgd)
Local: 6 Port Diffuser	L1	6	15.2	5.2	44	8.9	16.9	3.2	4.9	63	0.42	3.6	66
Local: 14 Port Diffuser	L1	14	9.0	6.4	93	14.1	15.9	2.0	4.6	60	0.51	5.56	116
	L2	14	9.0	5.3	93	10.6	11.9	3.2	3.5	45	0.34	4.24	68

[1] The BMZ boundary is at the end of the near field. Flow properties there are the near field properties (Figure 5.9-4).
SOURCE: Roberts 2019; Appendix 14A.

		~~Effluent~~			~~Nozzle conditions~~					~~Dilution~~		~~Salinity Increment~~			
~~Project~~	~~Case ID~~	~~Flow (mgd)~~	~~Salinity (ppt)~~	~~Density (kg/m^3)~~	~~No.~~	~~Diam. (in)~~	~~Angle (deg)~~	~~Flow (cfs)~~	~~Velocity (ft/s)~~	~~At Impact Point, S_i~~	~~At Near Field, S_n~~	~~At Impact Point, S_i~~	~~At Near Field, S_n~~	~~Impact Point Length (ft)~~	~~Near Field Length (ft)~~
~~Local~~	~~L1~~	~~25.4~~	~~62.0~~	~~1046.2~~	~~4~~	~~15.0~~	~~46~~	~~9.8~~	~~8.0~~	~~14.3~~	~~14.9~~	~~2.0~~	~~1.9~~	~~38~~	~~119~~
	~~L2~~	~~21.0~~	~~67.8~~	~~1050.8~~	~~4~~	~~12.4~~	~~46~~	~~8.1~~	~~9.7~~	~~17.3~~	~~18.0~~	~~2.0~~	~~1.9~~	~~38~~	~~119~~

~~NOTES:~~
~~Si and Sn refer to salinity and dilution at the point the plume contacts the seafloor (impact point) and at the edge of the near field, respectively (Figure 5.9-4).~~
~~SOURCE: Roberts 2018; Appendix 4C.~~

The Draft EIR text on pages 5.9-58 through 5.9-60 relating to the Regional Project compliance with Ocean Plan salinity requirements is modified as follows:

Screened Ocean Intake and Concentrate Discharge Structures

As described in Section 3.4.1, expansion of the Local Project to the Regional Project would involve expanding the Local Project intake and discharge structures to accommodate the 60 MGD Regional Project desalination facility. The intake structure would be modified through the installation of 8 additional wedgewire screens to pre-installed risers (comprising 12 total for the Regional Project), as described in Section 3.4.1. The Local Project diffuser structure would be modified through the ~~removal~~ replacement of the existing ~~four duckbill~~ diffusers (either six or 14 depending on diffuser design) ~~and the installation of eight smaller diameter duckbill~~ with larger diameter diffusers ~~(Section 3.4.1)~~. The ~~eight duckbill~~ diffusers for either linear diffuser design would be inclined upwards at a ~~26~~ 60° angle from the horizontal ~~(reduced as compared to the Local Project)~~ to meet California Ocean Plan salinity requirements and to maintain a submerged discharge plume.

Salinity

As described for the Local Project, a significant impact related to water quality, water quality standards or Waste Discharge Requirements would occur if operational discharges from the Regional Project result~~ed~~ in salinity concentrations greater than 2 ppt above ambient salinity levels at the edge of the BMZ, which would be an exceedance of the receiving water salinity limitation detailed in Chapter III.M.3 of the Ocean Plan (see Section 5.9.1).

The methodology and assumptions for assessing Regional Project salinity impacts are the same as described for the Local Project and are presented in detail, with the results, in Appendix ~~4C~~ 14A. **Table 5.9-7** summarizes two Regional Project scenarios which were used in the mixing model to evaluate compliance. The model analysis assumes a port depth of ~~20~~ 24 feet below sea surface~~, eight~~ and all discharge ports at a ~~26~~ 60° angle. Additionally, zero water flow or movement from ocean current and tides is assumed, consistent with the California Ocean Plan methodology for assessing salinity increases from desalination facilities.

TABLE 5.9-7.
PROPERTIES OF EFFLUENT CONSTITUENTS FOR REGIONAL PROJECT DISCHARGE SCENARIOS

		Brine			Washwater			Combined effluent			
Project	Case ID	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Flow (mgd)	Temp. (°C)	Salinity (ppt)	Density (kg/m^3)
Regional	R1	62.7	17.6	68.0	13.5	17.6	34.0	76.2	17.6	62.0	1046.2
	R2	62.7	17.6	68.0	0.3	17.6	34.0	63.0	17.6	67.8	1050.8

SOURCE: Roberts 201~~8~~; Appendix 14A~~4C~~.

Salinity Results and Discussion

Assuming the most conservative scenario, the model analysis (Appendix ~~4C~~ 14A) demonstrates that operational discharges from the Regional Project would meet the California Ocean Plan salinity standard (**Table 5.9-8**). Also, the operational discharges would remain below the water surface (i.e., the plume would remain submerged), consistent with California Ocean Plan requirements. The California Ocean Plan salinity limit of 2 ppt above ambient would be met at the point of ~~initial dilution~~ impact with the seafloor (at Xi, see Figure 5.9-4), located ~~66 feet from the diffuser (representing a circular area of approximately 0.3 acres around the diffuser) for the assessed operational discharge scenarios. Meeting the 2 ppt salinity requirement~~ at ~~66~~ 24.8 feet (~~29.9~~7.6 m) from the point of discharge with the 14-port diffuser configuration, ~~would be~~ well within the California Ocean Plan allowable distance of 328 feet or 100 meters (the maximum allowable BMZ). As the discharge plume continues to entrain ambient seawater and ~~further~~ continues to dilute within the near field, salinity at Xn would be ~~reduced to 1.7~~ equal to or less than 2 ppt (Table 5.9-8) above ambient for all scenarios modeled. The edge of the near field (Xn) would be located ~~203~~ 70 to 76 feet from the diffuser for the 14-port configuration, representing an ~~circular~~ area of approximately ~~3~~ 0.7 acres around the diffuser. Furthermore, as described for the Local Project, the computed salinities would occur only along the seabed. Salinities would decrease with height in the water column and would be above ambient salinity concentrations only near the seabed (Appendix ~~4C~~ 14A).

TABLE 5.9-8.
~~OPTIMUM~~ LINEAR DIFFUSER PORT CONFIGURATIONS FOR EACH REGIONAL PROJECT FLOW SCENARIO WHERE ~~PORT DEPTH OF 20 FEET AND SALINITY INCREMENT LESS THAN 2 PPT AT THE JET IMPACT POINT~~ SALINITY INCREMENT AT THE END OF THE NEAR FIELD ≤ 2 PPT

		Diffuser details				Impact Point			BMZ[1]			UM3 predictions at top	
Project	Case ID	Number of ports	Port diameter (in)	Jet velocity (ft/s)	Diffuser length (ft)	Dilution Si	Length Xi (ft)	Salinity Increment (ppt)	Layer thickness, y_L (ft)	Distance, x_n (ft)	Area (acres)	Average dilution, S_{ta}	Entrained flow (mgd)
Regional: 6 Port Diffuser	R1	6	23.6	6.5	44	8.9	26.2	3.2	7.6	98	0.89	3.6	198
Regional: 14 Port Diffuser	R1	14	13.9	8.0	93	14.3	24.8	2.0	7.2	76	0.74	5.62	352
	R2	14	13.9	6.6	93	10.7	18.7	3.2	5.4	70	0.65	4.30	208

[1] The BMZ boundary is at the end of the near field. Flow properties there are the near field properties (Figure 5.9-4).
SOURCE: Roberts 2019; Appendix 14A.

		~~Effluent~~			~~Nozzle conditions~~					~~Dilution~~		~~Salinity Increment~~			
~~Project~~	~~Case ID~~	~~Flow (mgd)~~	~~Salinity (ppt)~~	~~Density (kg/m^3)~~	~~No.~~	~~Diam. (in)~~	~~Angle (deg)~~	~~Flow (cfs)~~	~~Velocity (ft/s)~~	~~At Impact Point, S_i~~	~~At Near Field, S_n~~	~~At Impact Point, S_i~~	~~At Near Field, S_n~~	~~Impact Point Length (ft)~~	~~Near Field Length (ft)~~
~~Regional~~	~~R1~~	~~76.2~~	~~62.0~~	~~1046.2~~	~~8~~	~~13.4~~	~~26~~	~~14.7~~	~~15.0~~	~~14.3~~	~~16.9~~	~~2.0~~	~~1.7~~	~~66~~	~~203~~
	~~R2~~	~~63.0~~	~~67.8~~	~~1050.8~~	~~8~~	~~11.1~~	~~26~~	~~12.2~~	~~18.1~~	~~17.2~~	~~20.3~~	~~2.0~~	~~1.7~~	~~66~~	~~203~~

~~SOURCE: Roberts 2018; Appendix 4C.~~

~~The incremental salinity increase from operational discharges would meet the 2 ppt threshold at the impact point, 66 feet from the diffuser for both Scenario R1 and R2. Therefore, the area where salinity concentration would be greater than 2 ppt would be restricted to a small area (less than 0.3 acre) around the diffuser and above the seafloor, which would attenuate rapidly with distance from the nozzle.~~

The analysis of the proposed Regional Project operational discharges indicates that, for ~~both~~ all scenarios modeled, the discharge of brine would meet California Ocean Plan salinity standards. The Regional Project would therefore, not exceed or violate the California Ocean Plan salinity standards or degrade water quality in terms of salinity; impacts related to salinity would be less than significant.

The Draft EIR text on page 5.9-77 in Mitigation Measure HYDRO-1 is revised as follows:

HYDRO-1: West Basin shall contract a California licensed engineer to update as required ~~prepare~~ a Coastal Hazard Resiliency Study focused on the ESGS site, consistent with the methods for assessing sea-level rise in the current CCC's Sea Level Rise Policy Guidance ~~(CCC 2015)~~, over the Project planning horizon. Recommendations in the Study shall be incorporated into the final design and construction specifications of the Project as applicable to minimize conflicts with the applicable Coastal Act Section 30235 (Construction altering natural shoreline) and Section 30253 (Safety, stability, pollution, energy conservation, visitors). At a minimum, the study shall: . . .

The Draft EIR text on page 5.9-80 is revised as follows:

California Coastal Commission (CCC), 2018. Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits, Adopted August 12, 2015, updated November 7, 2018.

Section 5.10, Land Use and Planning

The Draft EIR text on pages 5.10-3 and 5.10-4 is revised as follows:

California Coastal Commission Sea Level Rise Adopted Policy Guidance

In August 2015, the Sea Level Rise Policy Guidance document was unanimously adopted for use by the CCC (CCC 2015). This document provides an overview of the best available science on sea-level rise and recommended methodology for addressing sea-level rise in Coastal Commission planning and regulatory actions. This guidance is a comprehensive, multi-purpose resource that will be updated periodically to address new sea-level rise science and information. Some of the principles listed in the document for addressing sea-level rise in the coastal zone that apply to the proposed Project include:

Minimize Coastal Hazards through Planning and Development Standards

7. **Minimize hazard risks to new development over the life of authorized structures.**

8. Minimize coastal hazard risks and resource impacts when making redevelopment decisions.

Maximize Protection of Public Access, Recreation, and Sensitive Coastal Resources

12. Maximize natural shoreline values and processes; avoid expansion and minimize the perpetuation of shoreline armoring.

In November 2018, the CCC adopted an update to the 2015 Sea Level Rise Policy Guidance (CCC 2018). The revisions address the State's updated understanding of sea level rise science and best planning practices for anticipated impacts. The changes mainly concern updated references to best available science, including revisions to sea level rise projections. Notably, while the 2015 guidance identified and incorporated findings from a 2012 National Research Council report (NRC 2012) as the best available science at the time, the 2018 updates revise much of that discussion to incorporate the findings of two Ocean Protection Council studies (Griggs, et al. 2017 [OPC 2017] and OPC 2018) as the best available science.

The Draft EIR text on page 5.10-22 is revised as follows:

The proposed Local Project ocean water desalination facility would be subject to compliance with the El Segundo LCP, as this Project component is sited within the coastal zone. In addition, the Local Project would comply with the Sea Level Rise Policy Guidance principles because it would be located within the existing boundaries of the energy facilities and would avoid expansion and minimize the perpetuation of shoreline armoring. A recent study of coastal hazards (see Final EIR Appendix 15) indicates the Project site could be subject to unmitigated coastal hazards associated with wave run-up late in the century under a medium to high sea level rise scenario. Accordingly, the Project site plan would be modified to mitigate exposure to such risks. These potential modifications would take into consideration sea level rise over the next approximately 100 years and reduce the Project's exposure to coastal hazards consistent with the CCC's updated 2018 Sea Level Rise Policy Guidance.

The Draft EIR text on page 5.10-29, Footnote No. 11, is revised as follows:

[11] Since the proposed Project would involve the construction of a water infrastructure project by West Basin Municipal Water District (West Basin), it is exempt from local land use, grading, and building permit requirements (California Government Code Section 53091). However, West Basin intends to comply with applicable General Plan and city building codes and as such they are evaluated in this section. The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.

The Draft EIR text on page 5.10-34 is revised as follows:

> The City of El Segundo Zoning Map identifies the Project site as within the Heavy Manufacturing (M-2) zoning district[12]. In addition, ~~A~~as previously noted, the LCP Issue Identification section specifies that height, setback, and bulk requirements are those allowed by the City's M-2 Zone, except that in the SA designated lands, energy development will be limited to stringent development criteria set forth therein designed to not restrict public access.
>
> ESMC Chapter 15-6B, *Heavy Industrial (M-2) Zone*, provides standards for development within lands zoned M-2. All uses within the M-2 Zone are required to comply with the development standards contained in ESMC Section 15-6B-7, *Site Development Standards*.~~12~~ These development standards involve TDM and trip reduction criteria (pursuant to ESMC Chapter 15-16), general provisions (pursuant to ESMC Title 15-2), and development regulations for allowable lot area, building/structure height, setbacks, lot frontage, building area, walls/fences, and access.
>
> [12] Since the proposed Project would involve the construction of a water infrastructure project by West Basin Municipal Water District (West Basin), it is exempt from local land use, grading, and building permit requirements (California Government Code Section 53091). However, West Basin intends to comply with applicable General Plan and city building codes and as such they are evaluated in this section. The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.

The Draft EIR text on page 5.10-37 is revised to update the Coastal Commission 2015 reference to 2018 as follows:

> By year 2100, sea levels may rise up to 55 inches (1.4-meter), causing a 45 percent increase in land in Los Angeles County to become more vulnerable to the 100-year flood event (CCC 2018~~5~~).

The Draft EIR text on page 5.10-38 is revised as follows:

> California Coastal Commission (CCC), 2018. Sea Level Rise Policy Guidance: Interpretive Guidelines for Addressing Sea Level Rise in Local Coastal Programs and Coastal Development Permits, Adopted August 12, 2015, Updated November 7, 2018.
>
> National Research Council (NRC), 2012. *Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future*, Washington, DC: The National Academies Press, https://doi.org/10.17226/13389.
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Section 5.11, Marine Biological Resources

The Draft EIR text on page 5.11-29 in table 5.11-3 (column six) has been updated for White sharks as follows:

> **Low-Moderate** ~~**Not Expected**~~ **to Low**. Present in coastal waters throughout the State ~~but typically north of the study area~~. with inshore coastal waters frequently used as foraging areas for juveniles. The presence of juvenile White sharks has been noted to increase in SMB during El Niño conditions, but this increase is typically expected to occur north of the study area.

The Draft EIR text on page 5.11-34 is revised as follows:

National Estuary Program

The Santa Monica Bay National Estuary Program (SMBNEP) was established under 1987 CWA Section 320 and is intended to protect and restore Santa Monica Bay's resources. The Santa Monica Bay Restoration Commission (SMBRC) is responsible for developing, updating, and implementing the Bay Restoration Plan (BRP). The SWRCB and The Bay Foundation (TBF), a non-profit entity, serve as the hosting entity that provide physical locations, staffing, and matching funds to support the SMBNEP activities. The Bay Foundation also receives, administers, and uses grant funds from different entities to implement many Projects identified in the BRP. The SMBRC in its Bay Restoration Plan (SMBRC 2013) have adopted 14 restoration goals that include objectives to improve water quality through enhancement of current regulatory frameworks and collaborative, integrated watershed-wide planning and implementation. These goals include the minimization of potential entrainment and impingement effects of desalinization facilities.

Draft EIR text on page 5.11-35 is revised as follows:

> ~~***Environmentally Sensitive Habitat Areas***~~
>
> ~~Under the California Coastal Act, Environmentally Sensitive Habitat Areas (ESHA) are defined as "any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." According to El Segundo's Local Coastal Program, there are no ESHAs in El Segundo's coastal zone, thus, Coastal Act Sections 30240(a) and (b) are not applicable (City of El Segundo 1980). Section 5.3, Biological Resources – Terrestrial discusses the presence of artificially introduced buckwheat, which is the host plant for the protected El Segundo blue butterfly.~~

The Draft EIR text on page 5.11-39 is revised as follows:

> The dredging, temporary stockpiling of dredged sediments, ~~and~~ temporary removal and replacement of armor rock, and anchoring by Project work vessels, can be expected to result in the temporary disturbance of both soft-bottom and artificial hard-bottom habitats in the offshore Project work area.

The Draft EIR text on page 5.11-42 is revised as follows:

> Once the modifications to the screened ocean intake and outfall structures are completed, the temporarily removed armor rock would be replaced to anchor and protect the new seafloor-based intake and outfall structures. ~~Additional armor rock may be required which would provide more artificial hard substrate than is currently present at the Project site~~…

The text in the Draft EIR on Page 5.11-47 is revised as follows:

> As illustrated in Table 5.11-7, underwater sound levels high enough to potentially cause acute damage to fish is <~~1~~ 2 meters for a vibratory hammer and ~~1-11~~≤ 18 meters for an impact hammer, depending on the pile composition and diameter used for the piling. Cumulative SEL levels resulting in ~~B~~behavioral changes ~~sound levels~~, depending on the type of pile hammer used, range between 12 and 215 meters. ~~Level A~~ SEL Cumulative harassment underwater sound levels for marine mammals range between 0.1 and ~~108~~ 34.8-meters, depending on the species, piling composition and diameter, and type of hammer used. Ambient underwater noise for a major harbor like San Francisco is estimated at approximately 150 dB (CalTrans 2009) and 138 dB for coastal locations (Wilson et al. 1997; Fabre and Wilson 1997)…

The Draft EIR text on page 5.11-50 in Table 5.11-7 is revised as follows:

TABLE 5.11-7
ESTIMATED VIBRATORY AND IMPACT HAMMER PILE-DRIVING SOUND LEVELS AND DISTURBANCE TO CRITERIA LEVELS

		Distance to Sound Level Thresholds (meters) for ~~Non-impulsive~~ Vibratory Hammer Sound Sources[2]								
		SEL Cumulative Threshold [4]			SEL Cumulative Threshold [3, 4]					
Pile Type	Equipment Type	187 dB (Fish ≥2g)	183 dB (Fish < 2g)	150 dB (Fish-Behavioral) [3, 4]	199 dB (Low-Frequency Cetaceans)	198 dB (Mid-Frequency Cetaceans)	173 dB (High-Frequency Cetaceans)	201 dB (Phocid Pinnipeds)	219 dB (Otariid Pinnipeds)	Attenuation Equipment
12-inch Steel Pipe Pile[1]	Vibratory	~~1~~ 0.0	~~1~~ 0.0	12	~~20~~ 2.3	~~108~~ 0.1	~~29.5~~ 2.1	~~12.1~~ 1.2	~~0.9~~ 0.1	None
13-inch Steel Pipe Pile[1, 5]	Vibratory	1.0	~~1~~ 2.0	~~25~~ 22.0	~~20~~ 4.3	~~108~~ 0.2	~~29.5~~ 3.8	~~12.1~~ 2.3	~~0.9~~ 0.2	None
16-inch Steel Pipe Pile[1]	Vibratory	1.0	~~1~~ 2.0	4.0	~~58.5~~ 5.1	~~5.2~~ 0.3	~~86.5~~ 4.4	~~35.6~~ 2.7	~~2.5~~ 0.2	None
16-inch Fiberglass/ concrete pile[1]	Vibratory	0.0	1.0	1.0	~~4.3~~ 1.8	~~0.4~~ 0.1	~~6.4~~ 1.6	~~2.6~~ 1.0	~~0.2~~ 0.1	None
		Distance to Sound Level Thresholds (meters) for ~~Impulsive~~ Impact Hammer Sounds Sources[2]								
		SEL Cumulative Threshold			SEL Cumulative Threshold [3, 4]					
Pile Type	Equipment Type	187 dB (Fish ≥ 2 g)	183 dB (Fish < 2 g)	150 dB (Fish-Behavioral) [3, 4]	183 dB (Low-Frequency Cetaceans)	185 dB (Mid-Frequency Cetaceans)	155 dB (High-Frequency Cetaceans)	185 dB (Phocid Pinnipeds)	203 dB (Otariid Pinnipeds)	Attenuation Equipment
12-inch Steel Pipe Pile[3]	Impact	~~6~~ 1.0	~~11~~ 1	100	~~1.1~~ 1.8	0.1	2.2	~~0.7~~ 1.0	~~0.0~~ 0.1	None
13-inch Steel Pipe Pile[3, 4, 5]	Impact	~~0~~ 10.0	~~0~~ 18.0	215	29.2	1.0	34.8	15.7	1.1	None
16-inch Steel Pipe Pile[3]	Impact	~~3~~ 2.0	~~5~~ 3.0	63	~~2.7~~ 4.8	~~0.2~~ 0.2	5.5	~~1.7~~ 2.5	~~0.1~~ 0.2	None
16-inch Fiberglass/ concrete pile[3]	Impact	~~0~~ 1.0	1.0	76	~~0.2~~ 1.2	~~0.0~~ 0.0	~~0.5~~ 1.4	~~0.1~~ 0.6	~~0.0~~ 0.0	None

NOTES:

1 Vibratory pile driving hammers have been documented to reduce underwater noise levels a minimum of 14-15 dB and up to 28-29 dB, depending on the pile type, water depth, and type of hammers being used (Caltrans 2015). Estimating the potential underwater noise attenuation distances for steel pipe and fiberglass/concrete pilings using a vibratory hammer, underwater noise levels documented for impact hammers were reduced by 14 dB.

2 NOAA 2018b, NOAA 2016b; NMFS 2016; Caltrans 2015, AMS 2019

3 Time duration for using an impact hammer to set any pilings to desired depth assuming the vibratory hammer cannot, by itself, achieve required anchor depth was <1 hour. Calculations assumed ~~4,440~~ 50 blows per piling, 2 piles per day, XLogR = 15, pulse duration = 0.8 seconds, ~~2.5~~ 2.0 weighting factor adjustment.

4 In calculating the potential SEL cumulative or behavioral threshold distances for fish, if no RMS values available for pile driving calculation, the mean of Peak dB and SEL dB values used. If no SEL value available for the pile driving calculation, then the RMS values is used.

5. Data for the installation of the 13-inch steel pilings reflect very shallow water conditions on the Mad River in Arcata, CA and appear to reflect unique underwater noise reflective conditions.

The Draft EIR text on page 5.11-51 in Table 5.11-8 is revised as follows:

TABLE 5.11-8
FISH LARVAE USED FOR APF CALCULATION, THEIR CONTRIBUTION TO THE LARVAL COMMUNITY AND TO THE APF CALCULATION, PROPORTIONAL MORTALITIES (P_M), AND SIZE OF LARVAE

		Contribution to larval community[1] (%)	Contribution to APF calculation[1] (%)	P_m Local[1,2]	P_m Regional[2,1,3]	Mean Size of Larvae[4] (mm)
Fish Taxa						
Atherinopsidae	Silverside	14	25	$3.45x10^{-3}$	$1.04x10^{-2}$	9.9/9.1
Engraulidae	Anchovy	13	23	$2.38x10^{-4}$	$7.15x10^{-4}$	8.9
Genyonemus lineatus	White Croaker	11	20	$4.55x10^{-4}$	$1.37x10^{-3}$	2.4/2.9
Hypsoblennius spp.	Combtooth Blenny	6.5	0.2	$4.33x10^{-4}$	$1.30x10^{-3}$	NA /2.35
Citharichthys spp.	Sanddab	5	2	$1.62x10^{-4}$	$4.88x10^{-4}$	NA
Paralichthys californicus	California Halibut	1.8	6	$2.60x10^{-4}$	$7.80x10^{-4}$	2.0/NA
Gobiidae	CIQ Goby	1.5	1	$2.39x10^{-3}$	$7.19x10^{-3}$	NA
Paralabrax spp.	Sea Bass	1.3	5.5	$5.41x10^{-4}$	$1.63x10^{-3}$	NA
Parophrys vetulus	English Sole	1.25	2	$1.19x10^{-4}$	$3.58x10^{-4}$	NA
Pleuronichthys guttulatus	Diamond Turbot	0.43	1.5	$3.35x10^{-3}$	$1.00x10^{-2}$	NA
Seriphus politus	Queenfish	0.07	1.5	$5.41x10^{-5}$	$1.63x10^{-4}$	NA
Sciaenidae	Unid. Croakers	NA	12.6	$7.36x10^{-4}$	$2.21x10^{-3}$	2.9

~~SOURCE: HDR 2018., Tenera 2014.~~
NOTES: NA = Not Available; [1]Data based on Tenera and MBC 2008, [~~1~~2]Mean of 41 and 45 MGD intake; [~~2~~3]Mean of 123 and 136 MGD intake; [4] Project marine study area/SCB; data based on Tenera 2014

The Draft EIR text on page 5.11-52 is revised as follows:

> It should be noted that these APF calculations do not take into account the use of wedgewire screens, potentially excluding larvae that are > 1 mm in size, or the intake flow rate~~, and the potential exclusion of larvae that are > 1 mm in size~~. For example, Tenera 2014 (see Draft EIR Appendix 4A) concluded that the entrainment of Silverside fish larvae, which account for approximately 14 percent of the Project marine study area larval fish population (Table 5.11-8), would be excluded from entrainment because ~~of their mean size being 9 mm, and because~~ larvae below 7 mm in size did not occur in the Project marine study area (Table 5.11-8, Tenera 2014). Tenera (2014) also concluded that entrainment of other fish larvae that were > 1 mm in size would be substantially reduced, if not eliminated. Tenera (2014) assumed 100 percent entrainment for each of the 12 fish species used in their calculations of mortalities and in the estimation of APF. However, as evidenced from the size distribution of silverside larvae, using data on larval sizes could refine the potential for larval entrainment. Unfortunately, data on larval sizes only existed for 6 of the 12 species used by Tenera (2014). By assuming reduced entrainment for larvae > 1 mm in size for these 6 species, and 100 percent entrainment for the 6 species where data on larval size was lacking, the APF declined by ~11 percent (Table 5.11-9). If

reductions in entrainment of larvae was extrapolated to all 12 out of the 12 fish species, APF would decline by ~24 percent (Table 5.11-9).

That potential reductions in larval entrainment by wedgewire screens can occur has been noted by the SWRCB, which cited a study at the Diablo Canyon Nuclear power plant in the technical support for OPA 2015 where use of wedgewire screens reduced larval entrainment 4.6 to 15.8 percent over the open intake. However, this study did not employ reduced flow in its assessment of entrainment reductions; with reduced intake flow entrainment of larval fish could be even less (OPA 2015). Other studies cited by the SWRCB demonstrated reductions in entrainment as high as 66 percent. It should be noted that the majority of these studies focused on larval fish body length and not head diameter in assessing percentages of potential reductions occurring when using wedgewire screens. It was because of this uncertainty in the effectiveness of wedgewire screens that the SWRCB concluded that, "Additionally, even though wedgewire screens can reduce entrainment mortality of juvenile and adult fish and essentially eliminate impingement mortality, intake-related mortality will be site and species-specific. Empirical studies on wedgewire screen efficacy may be required to test the models that have been designed to estimate entrainment. There also may be a need to empirically measure entrainment at individual desalination facilities." Consequently, the calculation of APF for an unscreened ocean intake located offshore of the ESGS (HDR 2018) potentially overestimates the loss of productivity to the marine ecosystem from entrainment, since most of the entrainment would be restricted to larvae < 1 mm in diameter or fish larval head size (Tenera 2014).

The Draft EIR on page 5.11-53 is revised as follows:

Therefore, the implementation of **Mitigation Measure BIO-M2** would reduce Project related entrainment impacts of ~~non-special-status~~ all marine taxa, to less than significant after mitigation.

The Draft EIR text on page 5.11-54 in Table 5.11-9 is revised as follows:

TABLE 5.11-9
AREA PRODUCTION FOREGONE (APF) ESTIMATES FOR OPEN AND 1 MM WEDGEWIRE SCREENED OCEAN INTAKE FOR THE WEST BASIN DESALINIZATION PROJECT LINEAR DIFFUSER

Intake	APF Estimates for an Unscreened Intake[1] (acres)	APF Estimates for a Wedgewire Screened Intake with a 1% reduction in entrainment (acres) consistent with the CA Ocean Plan	APF Estimates for a Wedgewire Screened ~~Equipped~~ Intake Accounting for Exclusion of certain > 1 mm larvae[2] (acres)	APF Estimates for a Wedgewire Screened ~~Equipped~~ Intake with 100% Exclusion of Silverside Larvae[3] (acres)	APF Estimates for a Wedgewire Screen Intake with a 24% reduction in Entrainment[4] (acres)
Local (41 MGD)[5]	16.4	16.2	14.5~~2~~	14.2	12.5
Local (45 MGD)[6]	18.1	17.9	16.0~~3~~	15.6~~4~~	13.8
Regional (123 MGD)[5]	49.1	48.7	43.6~~59~~	42.5~~3~~	37.3
Regional (136 MGD)[6]	54.4	53.8	48.3~~25~~	47.1~~07~~	41.3

SOURCE: [1] HDR 2018 [4]~~Tenera 2014.~~ All calculations include 1:10 scaling of estuarine: midwater habitat for non-estuarine fish species (Allen and Pondella 2006).

NOTES: [2] APF wedgewire screen values ~~are~~ based on estimated reductions in entrainment of ~~assorted~~ certain fish and invertebrate larvae, depending on the spectrum of larval sizes for each species. ~~(from a spectrum of larval sizes for each species)~~ when a 1.0-mm Wedgewire Screen is utilized ~~and~~ as presented in Tenera 2014.

[3] APF wedgewire screen values ~~are~~ calculated by excluding entrainment of Silverside larvae based on data in Tenera et al. 2014. All calculations include 1:10 scaling of estuarine: midwater habitat for non-estuarine fish species (Allen and Pondella 2006).

[4] Estimated mortality reductions if data existed for 12 out 12 species used for APF calculation and all species have some reductions in entrainment.

[5] Treated waste washwater is internally recycled.

[6] Treated waste washwater is NOT internally recycled.

The Draft EIR on page 5.11-58 through -60 is revised as follows:

Shear Stress

Mortality due to turbulence-induced shearing stress from the discharge of brine can impact plankton, particularly thin-shelled bivalve and gastropod veligers (Jessopp 2007; Zhang et al. 2017). Shearing stress from discharge of water through multiport diffusers has been modeled in a number of scientific studies and has been found to vary depending on a variety of factors, including the angle of the diffusers and water discharge velocities (Foster et al. 2013; Roberts 2018). The discharge of the brine entrains ambient seawater into a turbulent discharge plume wherein marine organisms face a greater risk of shear-induced damage and mortality. For the Local Project, Roberts (2019~~8~~) ~~used a preliminary and evolving methodology (which has not yet been approved) to~~ estimates that approximately ~~119-126~~ 66 - 116 MGD of ambient seawater would become entrained by the turbulent discharge of the Project's outfall (see Appendix ~~D3~~14A). If it is assumed that all organisms entrained into the turbulent discharge flow will suffer mortality, then the estimated APF of this entrainment would vary from ~~47-50~~ 26.3 - 46.3 acres due to the large volume of water that would be entrained by the discharge (**Table 5.11-12**). This could be considered a potentially significant impact.

However, the ocean produces a substantial amount of natural turbulence due to the action of wind and waves (Mann and Lazier 1991). This "background" turbulence is typically

manifested at length scales > 1 mm, depending on forcing intensities. The Project-induced turbulence that needs to be mitigated would occur at length scales of < 1 mm (Roberts 2018). If the APF calculation is adjusted for Project-induced turbulences, i.e. by excluding some organisms > 1 mm for which there exists data, then the APF can initially decrease from ~~47- 50~~ 26.3 - 46.3 acres to ~~39- 42~~ 21.7 - 38.2 acres for the Local Project (Table 5.11-12).

Additionally, all of the organisms < 1 mm in size are not expected to be affected to the same extent by shear stress due to their natural elasticity and in the case of some invertebrate larvae, the hardness of their shells. Recent studies of turbulence-induced shearing mortalities on invertebrate organisms demonstrate that a number of taxa, including polychaetes, barnacles, cyprids and bryozoans show no effects from turbulent transport at velocities as high as 3 m/s (Jessopp 2007). At a velocity of 3 m/s, which is comparable to the discharge velocities of the Local Project, predicted to vary from 2.7 - 3.3 m/s (8 - 10 feet/s), the impact of turbulence-associated shear mortality would principally affect thin-shelled veligers such as those of *Mytilus edulis* and the gastropod *Littorina littorea* (Jessopp 2007). For these types of organisms, shear-induced mortalities vary from 15 to 35 percent of the population (Jessopp 2007; Zhang 2017). Because these types of veligers typically comprise a varying proportion of the plankton < 1 mm in size, taking the mortality of the total plankton population to be the midpoint of this range (25 percent) would represent a worse-case scenario for invertebrates and for fish eggs and larvae, which are typically more elastic and can be expected to withstand minimal levels of shear stress compared to thin shelled mollusks. Applying a 25 percent mortality rate to the discharge entrainment APF calculations further reduces the estimated APF acreage to ~~9.8- 10.4~~ 5.4 - 9.5 for the Local Project (Table 5.11-12). However, although the OPA requires mitigation, it is unclear from current policy guidance how to calculate a scientifically accurate ~~fair~~ compensation at this time. The RWQCB is currently evaluating methodologies.

As discussed above concerning ocean water intake entrainment, the potential magnitude of entrainment from the Project's brine discharge is uncertain, primarily due to limited and pertinent scientific data concerning invertebrate and larval fish mortality that may actually occur from discharge turbulence. Scientific data that can be applied (Jessopp 2017; Zhang 2017) indicate that turbulence-induced mortality on invertebrates and fish larvae in the open ocean is far less than 100 percent and could be 15 percent or lower. As also discussed above for Project related intake entrainment, although the potential overall magnitude and effect of discharge turbulence-induced entrainment of larvae < 1 mm may be in question, the potential effect of injured or killed marine fish and invertebrates may still have a significant impact on the marine ecosystem.

Regardless of the magnitude of the impact of discharge-induced entrainment, it would be expected to be reduced through the application of mitigation to restore or enhance marine or coastal habitat, which could include a local coastal marsh restoration Project such as the Ballona Wetlands Restoration Project. Therefore, the implementation of Mitigation

Measure BIO-M2 would reduce Project related entrainment impacts of non-special-status taxa, to less than significant after mitigation.

Finally, as mentioned above, the potential for entrainment of special-status taxa would be negligible to non-existent. For example, the lack of veliger larvae or juvenile fish stages of black abalone and giant sea bass in any of the studies of plankton conducted in the last decade in the Project marine study area (Tenera and MBC 2008; Tenera 2014), the lack of kelp beds or other suitable habitat which provide the primary food source of both black abalone and Giant sea bass (Butler et al. 2009) in reasonable proximity to the intake and discharge tunnels, and the survivability of either taxas larvae to travel the requisite distance to the Project site from existing supporting habitat, as well as the > 1 mm egg and larval body size of giant sea bass, all support a determination of a very low to non-existent potential for substantial larval densities to be effected by Project entrainment that would pose a significant risk to the survivability and recovery of these species. Therefore, potential entrainment impact would be less than significant with implementation of Mitigation Measure BIO-M2.

TABLE 5.11-12
AREA PRODUCTION FOREGONE (APF) ESTIMATES FOR TURBULENT DISCHARGE-ASSOCIATED MORTALITY FOR THE WEST BASIN DESALINIZATION PROJECT LINEAR DIFFUSER

~~Intake~~	~~Estimated Entrained Flow (MGD)[1]~~	~~100% Mortality Discharge APF[2] (acres)~~	~~< 1 mm Mortality Discharge APF[3] (acres)~~	~~25% < 1 mm Mortality Discharge APF[4] (acres)~~
~~Local (41 MGD)~~	~~119~~	~~47.5~~	~~39.2~~	~~9.8~~
~~Local (45 MGD))~~	~~126~~	~~50.3~~	~~41.6~~	~~10.4~~
~~Regional (123 MGD))~~	~~678~~	~~270.8~~	~~223.6~~	~~55.9~~
~~Regional (136 MGD)~~	~~693~~	~~276.7~~	~~228.5~~	~~57.13~~

Intake Volumes	Estimated Entrained Flow (MGD)[1]		100% Mortality Discharge APF[2] (acres)		< 1 mm Mortality Discharge APF[3] (acres)		25% < 1 mm Mortality Discharge APF[4] (acres)	
	6-Port	14-Port	6- Port	14-Port	6-Port	14-Port	6-Port	14-Port
Local (41 MGD)[5]	66	116	26.3	46.3	21.7	38.2	5.4	9.5
Local (45 MGD)[6]		68		27.1		22.4		5.6
Regional (123 MGD)[5]	198	352	79.1	140.6	65.2	116	16.3	29.0
Regional (136 MGD)[6]		208		83		68.5		17.1

NOTES:

1 Volume of estimated entrained flow from Roberts 2018~~9~~.

2 Mortality assessed as 100% of organisms of all size classes in the entrained flow;

3 100% of organisms < 1mm in size with a proportional percentage of organisms > 1 mm being affected based on Tenera 2014;

4 Assumes 25% mortality of organisms < 1 mm in size, based on observed mortalities of marine taxa from Jessopp 2007 and Zhang et al. 2017. Entrainment includes 1:10 scaling of estuarine:midwater habitat for non-estuarine fish species (Allen and Pondella 2006).

5 Treated waste washwater is internally recycled.

6 Treated waste washwater is NOT internally recycled.

The Draft EIR text on page 5.11-62 to -63 in Mitigation Measure BIO-M1 is revised as follows:

The plan shall incorporate, but not be limited to the following BMPs:

- Pile driving shall be conducted only between June and November to avoid gray whale migration, unless NMFS in their Section 7 consultation with the USACE determines that the potential effect to marine mammals is less than significant.
- A ~~1,600-foot (500-meter)~~ safety zone at least 1,600 feet (500 meters) in size shall be established and maintained around the sound source for the protection of marine mammals and sea turtles in the event that sound levels are unknown or cannot be adequately predicted. If NOAA or the USACE requests that the size of the safety zone be increased when NOAA or the USACE issues a permit for Project pile-driving, then the larger of the NOAA-requested or USACE-requested safety-zone size will be established and maintained around the sound source.[2]
- Work activities shall be halted when a marine mammal or sea turtle enters the ~~1,600-foot (500-meter)~~ safety zone, and shall cease until the mammal has been gone from the area for a minimum of 15 minutes.
- A "soft start" technique shall be used in all impact hammer sourced pile driving, giving marine mammals an opportunity to vacate the area.
- A NMFS-approved biological monitor will conduct daily surveys before and during impact hammer pile driving to inspect the work zone and adjacent SMB waters for marine mammals. The monitor will be present as specified by NMFS Fisheries during the pile-driving phases of construction.
- In-water sound level monitoring will be conducted during all pile-driving activities.

Page 5.11-76 in the Draft EIR is revised as follows:

Because of the Project's nature and scope, neither construction nor operation activities would interfere substantially with the movement of any native, resident, or migratory fish, or with wildlife species, or with established native resident or migratory wildlife. Through regulatory permitting compliance, including OPA, the Project's geographic scope of marine resource effects would be limited to the immediate area of the Project's intake and discharge facilities, and adverse effects would be fully offset ~~though~~ through OPA compliance.

The Draft EIR text on page 5.11-77 through -92 is revised as follows:

Applied Marine Sciences, 2018. Populated NOAA 2018 Acoustic Technical Guidance Excel Spreadsheets for West Basin Desalination Project.

Caltrans, 2009. Technical Guidance for Assessment and Mitigation of Hydroacoustic Effects of Pile Driving on Fish,

2 This BMP was edited in response to comment SLC-29.

https://tethys.pnnl.gov/sites/default/files/publications/Caltrans_2009_Guidance_Manual_for_noise_effects_on_fish.pdf, Accessed August 30, 2019.

National Oceanic and Atmospheric Administration (NOAA), 2018b. User Manual for Optional Spreadsheet Tool - 2018 Acoustic Technical Guidance. Available at: https://www.fisheries.noaa.gov/action/user-manual-optional-spreadsheet-tool-2018-acoustic-technical-guidance.

Santa Monica Bay Restoration Commission. 2013. Bay Restoration Plan. Adopted December 19, 2013. Available at: https://www.smbrc.ca.gov/about_us/smbr_plan/docs/smbrplan2013_adopted.pdf

Section 5.12, Noise

The Draft EIR text on page 5.12-3 is revised as follows:

> City policies pertaining to noise are contained in the Land Use and Noise Elements. ~~Since the proposed Project would involve the construction of a water infrastructure project by West Basin, it is exempt from local land use, grading, and building permit requirements (California Government Code Section 53091).~~ The policies outlined in the *City of El Segundo General Plan* (General Plan) Land Uses Element and Noise Element are considered relevant to the proposed Project, as described below.

The Draft EIR text on page 5.12-27 for Mitigation Measure NOI-5 is revised as follows:

> **NOI-5:** Prior to conducting sheet piling installation activities within 100 feet of the existing ~~Chevron~~ storage tank, West Basin shall conduct a vibration analysis of the local impact area to evaluate the potential for the construction methods to damage the tank. If vibration analysis concludes that construction methods could result in vibration beneath the tank that could result in structural damage, West Basin shall modify construction methods to ensure vibration would not be generated at levels that could damage the tank. ~~West Basin shall provide the assessment to Chevron for their review and comment.~~ West Basin shall monitor the existing ~~Chevron~~ storage tank for damage during construction activities within 25 feet of the tank. If damage from project-related vibration is detected, West Basin shall cease construction until methods are developed to avoid further damage and West Basin shall repair the damage.

Section 5.13, Public Services

No text changes are made to this section.

Section 5.14, Recreation

The Draft EIR text on page 5.14-6 is revised as follows:

- Regional Pump Station Optional Site 5, which is sited within the westernmost edge of the Chester Washington Golf Course in unincorporated Los Angeles County.

Section 5.15, Transportation and Traffic

No text changes are made to this section.

Section 5.16, Utilities and Service Systems

The Draft EIR text on page 5.16-4 and -5, Footnote No. 1, is revised as follows:

> [1] California Government Code Section 53091(d) states that "Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency." However, construction and operation of the Ocean Water Desalination Project would strive to demonstrate compliance with the applicable building ordinances stipulated under the City of El Segundo Municipal Code. The subject Government Code section does not apply to Local Coastal Programs, including zoning ordinances of a city or county incorporated into or adopted for the purpose of implementing Local Coastal Programs.

Section 6, Other CEQA Considerations

The Draft EIR text in Section 6.2.4 *Water Supply and Demand*, on page 6-7 is revised as follows:

> As described above, the Project involves construction and operation of an ocean water desalination facility, along with related water infrastructure components, including a screened ocean intake, concentrate discharge structure, and desalinated water conveyance facilities. As discussed in greater detail below, although the Project would provide an "essential service" (potable water), the Project's water supply would serve to replace imported water. The Local Project would meet ~~11~~ 10 percent of West Basin's total water demand in 2040, including conservation…

6.3 Environmental Justice

The Draft EIR text in Section 6.3.2, from the top of page 6-10 to the bottom of page 6-12, is replaced with the following text:

6.3.2 Environmental Setting

Potentially Affected Populations

The study area for environmental justice effects includes areas that may experience adverse human health or environmental effects resulting from construction and operation of the Local Project and Regional Project. Based on a review of Section 5 analyses, this includes portions of El Segundo (where the desalination facility would be located); Manhattan Beach (directly adjacent to the desalination facility); Hawthorne (where the pump station and desalinated water conveyance facilities would be located); and Lawndale, Gardena, and unincorporated neighborhoods (adjacent to conveyance facility

routes). **Table 6-2** lists all of the census tracts potentially affected by the Local Project and Regional Project facilities.

Minority Populations

According to the federal Council on Environmental Quality (CEQ) guidelines for environmental justice analyses (CEQ 1997), minority populations should be identified where either (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is "meaningfully greater" than the majority population percentage in the general population or other appropriate unit of geographic analysis. CEQ guidance does not define the term "meaningfully greater;" however, the Federal Interagency Working Group on Environmental Justice NEPA Committee's *Promising Practices for EJ Methodologies* (FIWGEJ 2016) suggests that the 50 percent approach and the "meaningfully greater" approach should be used together, and that "The Meaningfully Greater analysis requires use of a reasonable, subjective threshold (e.g., ten or twenty percent greater than the reference community)." This analysis embraces the NEPA Committee's advice on this approach.

Information regarding racial and ethnic diversity in the study area was derived from the 2015 American Community Survey administered and published by the U.S. Census Bureau, which provides estimates based on surveys conducted from 2011 to 2015. The West Basin service area as a whole has a total minority population percentage greater than 50 percent, and thus, as a reference population, West Basin represents a minority population. However, the minority population percentages of individual cities, communities, and census tracts within the West Basin service area differ widely, reflecting different local patterns of diversity, separation, and integration. For example, the cities of Rolling Hills, West Hollywood, Manhattan Beach, Hermosa Beach, and Malibu have non-Hispanic white (non-minority) population percentages of 72 to 85 percent, while the City of Inglewood has a minority population percentage of 97 percent (U.S. Census Bureau 2016).

Selected racial and ethnic characteristics of the census tracts potentially affected by the Local and Regional Project components are summarized in Table 6-2. The final column presents the "total minority" population percentage, which for this analysis is considered to include all residents who reported their race and ethnicity as anything other than non-Hispanic white to the U.S. Census Bureau. As shown in italics in this final column, most of the census tracts have minority populations of over 50 percent.

Because the West Basin service area has a minority population of over 50 percent, the "meaningfully greater" approach also is used here to identify minority populations that exceed the percentage of the service area. As explained above, no official threshold defines this term, and a lead agency must select a threshold that provides a reasonable and meaningful basis for comparison. Given the wide range of minority population concentrations within the service area, from nearly all residents of Westmont to merely 15 percent of Malibu residents (U.S. Census Bureau 2016), an inclusive threshold is used to acknowledge areas of particularly high minority populations: any census tracts within

the potential area of environmental impact that have concentrated minority populations greater than the service area (68.8 percent) are considered to be "meaningfully" greater.

As shown in Table 6-2, all of the census tracts within the cities of Hawthorne, Lawndale, and Gardena, as well as the Del Aire neighborhood in unincorporated Los Angeles County, have higher minority population percentages than the West Basin service area as a whole. The minority population percentages in the cities of El Segundo, Redondo Beach, and Manhattan Beach are substantially lower than the West Basin service area as a whole and also below 50 percent; therefore, these areas are not considered to have minority populations for the environmental justice evaluation.

TABLE 6-2
MINORITY POPULATIONS IN THE STUDY AREA (2011-2015)

Geography	Black or African American alone, not Hispanic or Latino	Asian alone, not Hispanic or Latino	Hispanic or Latino (Of any Race)	Total Minority (Other Than Non-Hispanic White)
West Basin Service Area [a]	18.3%	12.4%	33.5%	*68.8%*
City of El Segundo				
CT 6200.02	2.4%	7.9%	19.4%	32.9%
CT 6201.02	0.4%	4.5%	15.3%	32.4%
City of Hawthorne				
CT 6020.02	6.1%	7.8%	78.9%	***95.6%***
CT 6021.03	11.3%	2.3%	73.4%	***89.3%***
CT 6021.04	27.2%	1.9%	61.2%	***96.1%***
CT 6021.05	19.8%	4.4%	68.3%	***94.4%***
CT 6021.06	18.0%	6.0%	63.4%	***92.7%***
CT 6024.02	11.9%	7.5%	60.0%	***82.2%***
CT 6024.03	17.2%	10.6%	60.2%	***95.2%***
CT 6024.04	22.7%	9.4%	58.4%	***92.3%***
CT 6025.04	32.5%	12.1%	44.4%	***95.3%***
CT 6025.05	29.7%	5.7%	54.9%	***95.2%***
CT 6025.06	44.9%	4.0%	43.2%	***97.5%***
CT 6025.07	47.9%	3.6%	33.0%	***95.4%***
CT 6025.08	30.1%	7.0%	46.3%	***93.7%***
CT 6205.09	14.0%	14.2%	63.8%	***96.9%***
CT 6027	63.8%	4.5%	23.5%	***97.3%***
CT 6037.03	3.5%	13.4%	50.1%	***73.3%***
CT 6037.04	26.7%	8.0%	56.5%	***98.0%***
City of Gardena				
CT 6026	62.0%	2.7%	22.5%	***96.5%***
CT 6035	9.9%	27.9%	45.3%	***86.1%***

CT 6036	6.4%	28.1%	35.0%	***71.9%***
City of Lawndale				
CT 6038.01	16.4%	7.8%	61.0%	***92.1%***
CT 6308.02	6.7%	9.1%	70.8%	***91.1%***
CT 6039	6.8%	9.5%	65.2%	***84.3%***
City of Redondo Beach				
CT 6205.01	8.0%	11%	16.7%	44.7%
City of Manhattan Beach				
CT 6202.01	2.7%	5.2%	12.2%	24.0%
Unincorporated Los Angeles County Tracts				
CT 6022 (Del Aire)	12.9%	6.5%	52.0%	***76.7%***
CT 6023.01 (Wiseburn)	2.7%	8.9%	52.9%	*67.4%*
CT 6037.02 (Alondra Park)	3.2%	29.7%	34.3%	*68.5%*

NOTES:
The first three columns are selected minority group populations for illustrative purposes, and are not intended to sum to the total minority percentage in the final column.
[a] The West Basin Service Area population is approximated by combining the populations of incorporated cities, census-designated places, and census tracts covering the service area jurisdictions. Some variation occurs as a result of service area boundaries that differ from census boundaries.

CT = census tract

SOURCE: U.S. Census Bureau 2016.

Low-Income Populations

This analysis uses two methods for identifying communities of concern related to income levels, based on two sets of guidelines: CEQ guidance and California Regional Water Management Guidelines. Both of these methods are addressed below.

The CEQ environmental justice guidance states that "…low-income populations in an affected area should be identified with the annual statistical poverty thresholds from the Bureau of the Census' Current Population Reports, Series P-60 on Income and Poverty" (CEQ 1997, page 25). USEPA guidance (1998) recommends the use of Census data on poverty income as one indicator, as well as other available data. Unlike the CEQ guidance on minority populations, none of the environmental justice guidance documents contains a quantitative definition of what proportion of low-income individuals defines a low-income population. The annual statistical poverty thresholds are based on family income. A threshold of 50 percent of individuals in families with incomes below the poverty threshold (similar to the 50 percent threshold used to identify a minority population) would be an overly restrictive threshold for identifying a low-income population due to the nature of the poverty thresholds, which are not adjusted for regional costs of living, and are below levels commonly considered low-income in many areas of California. For the purposes of this environmental justice analysis, the method of identifying low-income populations within the study area must account for regional costs of living. Therefore, this analysis uses a comparative approach and identifies a low-income population if the proportion of people with family incomes below the poverty

threshold is greater than that within the general population; in other words, if the percentage of such people in any of the communities considered is greater than 14.2 percent. As shown in Table 6-3, nearly all of the census tracts within the cities of Hawthorne and Lawndale, as well as the Del Aire neighborhood in unincorporated Los Angeles County, have meaningfully greater percentages of people with incomes below poverty than the West Basin service area as a whole. Therefore, these are considered low-income populations. The low-income percentages associated with the cities of El Segundo, Redondo Beach, and Manhattan Beach, as well as the specific census tracts identified within the City of Gardena, are not considered to be low-income populations for the environmental justice evaluation.

TABLE 6-3
INCOME AND POVERTY IN THE STUDY AREA (2011-2015)

Geography	Median Household Income	Individuals with Family Income Below Poverty Threshold
West Basin Service Area [a]	n/a [b]	14.2%
City of El Segundo	$85,727	7.3%
CT 6200.02	$72,708	5.0%
CT 6201.02	$80,536	3.8%
City of Hawthorne	***$44,504***	***20.1%***
CT 6020.02	***$39,609***	***21.1%***
CT 6021.03	***$32,632***	***21.6%***
CT 6021.04	***$41,813***	***25.7%***
CT 6021.05	***$40,262***	***24.0%***
CT 6021.06	***$43,520***	13.1%
CT 6024.02	$50,680	***17.7%***
CT 6024.03	***$46,880***	***18.7%***
CT 6024.04	***$47,917***	***17.3%***
CT 6025.04	***$38,579***	***21.8%***
CT 6025.05	***$31,021***	***40.5%***
CT 6025.06	***$37,768***	***24.0%***
CT 6025.07	***$38,036***	***30.3%***
CT 6025.08	***$42,925***	***18.9%***
CT 6205.09	$49,769	***19.2%***
CT 6027	$77,708	***17.7%***
CT 6037.03	$83,000	2.1%
CT 6037.04	***$42,668***	***27.0%***
City of Gardena	***$47,674***	***15.0%***
CT 6026	$50,358	11.8%
CT 6035	$66,419	8.6%
CT 6036	$77,083	6.1%
City of Lawndale	***$47,540***	***17.8%***

CT 6038.01	***$46,576***	***19.7%***
CT 6308.02	$51,735	***20.4%***
CT 6039	***$47,386***	***14.9%***
City of Redondo Beach	$105,145	4.7%
CT 6205.01	$121,960	1.8%
City of Manhattan Beach	$143,527	4.0%
CT 6202.01	$124,545	9.5%
Unincorporated Los Angeles County Tracts		
CT 6022 (Del Aire)	$58,074	***20.1%***
CT 6023.01 (Wiseburn)	$75,050	8.2%
CT 6037.02 (Alondra Park)	$76,625	12.8%

NOTES:
[a] The West Basin Service Area population is approximated by combining the populations of incorporated cities, census-designated places, and census tracts covering the service area jurisdictions. Some variation occurs as a result of service area boundaries that differ from census boundaries.

[b] Median household income is not reported for the West Basin Service Area as a whole because this geographic area is not captured by Census boundaries. For informational purposes only, the weighted average of median household incomes of all geographies in this service area is $75,196.

CT = census tract

SOURCE: U.S. Census Bureau 2016.

Additionally, California's Integrated Regional Water Management guidelines provide criteria for identifying "disadvantaged communities" during water resources planning efforts. Under the California Water Code, a disadvantaged community is defined as one with an annual median household income that is less than 80 percent of the statewide median household income (California Water Code, Section 79505.5[a]). The statewide median household income for the period 2011-2015 was $61,818. Therefore, the threshold of 80 percent of the statewide median is $49,454. As shown in Table 6-3, many of the census tracts within the cities of Hawthorne and Lawndale have median incomes below this figure, and are therefore identified as disadvantaged communities and low-income populations.

These two approaches identify slightly different groups of census tracts as low-income. This may be related to different average household/family sizes (because poverty thresholds are based on family size, but median income is not) or other factors.

The Draft EIR text starting at the bottom of page 6-12 is revised as follows:

6.3.3 Significance Thresholds and Criteria

For the purposes of this EIR and consistency with NEPA or CEQA-Plus Guidelines, applicable local plans, and agency and professional standards, the Proposed Project would be considered to have a significant effect on environmental justice if it would:

- Affect the health or environment of minority or low-income populations disproportionately.

Impacts and Mitigation Measures

Construction-related environmental impacts would be felt within portions of El Segundo, Lawndale, Hawthorne, Gardena, and Manhattan Beach, as well as several unincorporated neighborhoods within Los Angeles County. For the purposes of this discussion and as identified in Tables 6-2 and 6-3, the cities of El Segundo and Manhattan Beach are not low-income or minority communities and are excluded from consideration herein. As a result, the only construction-related Project activities that would occur in minority and low-income communities are the installations of conveyance facilities for both the Local and Regional Projects. As described in the Draft EIR on page 3-32, approximately 9.3 miles of pipeline would be installed belowground for the Local Project and 4.9 miles of belowground pipeline and a new pump station would be installed for the Regional Project. Conveyance facilities would be installed at a rate of approximately 150 feet per day.

Construction impacts of the Project are explained in detail within Sections 5.1 through 5.16 of the Draft EIR. Environmental topics that have the potential to exacerbate existing disproportionate impacts on minority and low-income populations during construction include Sections 5.2, *Air Quality*, 5.8, *Hazards and Hazardous Materials*, and 5.12, *Noise*. As explained within Sections 5.8 and 5.12, short-term temporary impacts related to hazardous materials use/transport and construction noise would result from construction of conveyance facilities within roadway rights-of-way identified on Figure 3-5. While the conveyance facilities traverse low-income and minority communities such as Hawthorne, Gardena, and Lawndale, and portions of unincorporated Los Angeles County, the movement of construction along an alignment would result in transitory impacts at any one location, but would not result in disproportionately high and adverse impacts for minority and low-income populations.

The primary construction-related environmental impacts that could have the potential to exacerbate existing disproportionate impacts on minority and low-income populations include emissions of pollutant concentrations emitted near sensitive receptors (see Section 5.2, *Air Quality*, pages 5.2-45 to 5.2-54). All other criteria pollutant air quality impacts (all sensitive receptors including NOx and PM10) are based on a regional scale within the South Coast Air Quality Management District (SCAQMD) and thus do not differentiate between census tracts in West Basin's service area, either low-income/minority or not. As identified in Table 5.2-18, incorporation of Mitigation Measures AQ-1 through AQ-3 for emissions attributable to the Local Project desalinated water conveyance facilities would result in less than significant impacts. As a result, construction of the conveyance facilities would not expose minority or low-income populations to substantial pollutant concentrations per localized significance thresholds; therefore, impacts from construction emissions would not be disproportionately high or adverse for minority or low-income populations.

Generally speaking, operation of proposed facilities including desalination facilities and the pump station, would not create localized impacts that could disproportionately ~~negatively~~ affect public health within ~~the~~ surrounding minority or low-income

~~environment or~~ communities~~y public health~~ (as evidenced in the analyses provided within ~~other s~~Sections 5.1 through 5.16 of this EIR).

~~Based on all census data presented above, Local Project and Regional Project components in the cities of El Segundo and Hawthorne would not be located in areas with significantly larger minority and/or low-income populations on average, relative to the overall characteristics of their respective cities. The proposed locations of the ocean water desalination facility and pump station have been based on criteria such as elevation and proximity and connectivity to existing facilities.~~ The ocean water desalination facility would be located in El Segundo, which is not a low-income or minority community, and therefore is excluded from consideration of environmental justice impacts herein. Additionally, d~~D~~uring operation of the Local and Regional Projects, residential areas would not be significantly impacted because the location of the ocean water desalination facility would be within an existing power generating facility site.

The only Project facility to be operated in low-income or minority communities would be the Regional Project pump station. Operation of the proposed pump station could occur adjacent to low-income or minority residential areas, but all potential locations are on vacant and/or disturbed land. ~~Even though the proposed regional pump station could be located within an area of the city of Hawthorne with a higher minority population (Black or Hispanic), the area is not considered to have a significantly high minority population because it is within 10 percent of the overall city's minority population percentage.~~In addition, the construction of the pump station was found to have less than significant impacts for most resource topics identified in Section 5.1 through 5.16. As a result, ~~the census data shows that the location of the Local and Regional Project would not be within areas significantly characterized by low income or minority populations. Nonetheless,~~ the location of such facilities in areas characterized by minority or low income populations would not be disproportionately high and adverse. ~~adversely affect the environment or public health of such communities~~. ~~Impacts are considered less than significant.~~ However, as described in Draft EIR Section 2.2, this EIR addresses some aspects of the Regional Project (60 MGD) at a "programmatic level," pursuant to CEQA Guidelines Section 15168. And if and when West Basin considers moving forward with a larger (up to 60 MGD) facility, the specific locations and designs (which are not known at this time) would require subsequent project-level environmental review pursuant to CEQA Guidelines Section 15168(c).

The Draft EIR text in Section 6.4, *References*, on pages 6-13 and 6-14, is augmented with the following:

Council on Environmental Quality (CEQ), 1997. Environmental Justice Guidance Under the National Environmental Policy Act, https://www.epa.gov/sites/production/files/2015-02/documents/ej_guidance_nepa_ceq1297.pdf, Accessed August 28, 2019.

Federal Emergency Management Agency (FEMA), 2005, Final Draft Guidelines for Coastal Flood Hazard Analysis and Mapping for the Pacific Coast of the United States, https://www.fema.gov/media-library-data/840f98e4cb236997e2bc6771f04c9dcb/Final+Draft+Guidelines+for+Coastal+Flood+Hazard+Analysis+and+Mapping+for+the+Pacific+Coast+of+the+United+States.pdf, Accessed August 28, 2019.

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Office of the California Attorney general (OAG), 2012. Environmental Justice at the Local and Regional Level Legal Background, https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/ej_fact_sheet.pdf?, Accessed August 28, 2019.

U.S. Census Bureau, 2016. 2011-2015 American Community Survey 5-year estimates, Product DP05, ACS Demographic and Housing Estimates, selected geographies.

Section 7, Alternatives to the Proposed Project

The Draft EIR text on Page 7-20 is revised as follows:

> This alternative ~~and~~ will also require construction and operation of additional downstream advanced water treatment facilities for TDS reduction.

The Draft EIR text on Page 7-35 is revised as follows:

> Given that there are no known examples of permitted offshore desalination facilities in the world, such an approach is considered to have very high risk~~s~~ and not considered as proven.

The Draft EIR text on Page 7-47 is revised as follows:

> ***Greenhouse Gas Emissions***
>
> The AES Redondo Beach Generating Station Alternative would involve a similar construction duration and scope of activities as those proposed under the Ocean Water Desalination Project at the ESGS North Site, and slightly less GHG emissions compared to the Project at the ESGS South Site due to reduced construction-related GHG emissions as compared to the ESGS South Site. The RBGS site would have similar GHG emissions as the proposed Project with similar impacts to GHG emissions and mitigation, and therefore similar impacts to energy.

The Draft EIR text on page 7-52 is revised as follows:

Greenhouse Gas Emissions

Construction and operation of a Reduced Capacity Alternative would have fewer greenhouse gas emissions and therefore energy impacts than the proposed Project. Total GHG emissions would be reduced in comparison to the proposed Project due to a slight reduction in construction emissions and approximately 50% reduction in operational GHG emissions (prior to mitigation) due to reduced water production and hence reduction in the overall energy demands. However, the embedded GHG intensity, expressed in terms of MT CO_2e per volume of water produced would remain the same. In addition, this alterative could result in increased imported water as compared to the proposed Project (although not increased compared to existing conditions).

The Draft EIR text on page 7-56 is revised as follows:

Greenhouse Gas Emissions

This alternative would increase GHG emissions and energy associated with construction due to additional construction-related grading. GHG impacts and energy during operational phase would be similar to the proposed Project.

SECTION 19
References Included in the Final EIR

All references previously cited in the Draft EIR have not been reproduced below.

Applied Marine Sciences, 2018. Populated NOAA 2018 Acoustic Technical Guidance Excel Spreadsheets for West Basin Desalination Project.

Applied Marine Science, 2019. Site Selection for West Basin Desalination Project: Comparison of 316(b) Data From Santa Monica Bay, California. **(Final EIR Appendix 12)**

Bearzi, Maddalena and Saylan, Charles A, 2011. Cetacean Ecology for Santa Monica Bay and Nearby Areas, California in the Context of the Newly Established MPAs, Bulletin of the Southern California Academy of Sciences: Vol. 110: Iss. 2, Available at: http://scholar.oxy.edu/scas/vol110/iss2/4, Accessed August 28, 2019

California Air Pollution Control Officers Association (CAPCOA), 2008. CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. Sacramento, CA, http://opr.ca.gov/docs/june08-ceqa.pdf, Accessed March 29, 2019.

California Air Resources Board (CARB), 2017. California's 2017 Climate Change Scoping Plan, https://ww3.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, Accessed August 31, 2019.

California Coastal Commission (CCC), 2010. MWD letter to San Diego County Water Authority, dated January 20, 2010. Cited within the California Coastal Commission Addendum to R2-E-06-013 Revocation Request – Poseidon Resources (Channelside) LLC – Carlsbad Desalination Facility: https://documents.coastal.ca.gov/reports/2010/2/W6a-2-2010.pdf.

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California Department of Fish and Wildlife (CDFW), 2003. List of Terrestrial Natural Communities, 2003.

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California Energy Commission, 2018. *2018 Integrated Energy Policy Report Update, Volume II*, Available at: https://www.energy.ca.gov/2018_energypolicy/, Accessed March 29, 2019.

California Resources Agency, 2009. Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97, http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf, Accessed March 29, 2019.

City of Los Angeles, 2018. Memorandum of Agreement No. WRT-17-3001 Between LA Sanitation, LADW&P, and West Basin MWD Related to Hyperion Membrane Reactor Pilot Facility, file:///G:/17xxxx/D170766.00%20-%20West%20Basin%20MWD%20Ocean%20Desalination%20DEIR/06%20Project%20Library/Admin%20Record%20-%20References/Final%20EIR/LA%202018.pdf, accessed August 28, 2019.

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County of Los Angeles, 1973. Beach Use Agreement Between the County of Los Angeles and Standard Oil Company of California, Executed on August 7, 1973.

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Geosyntec, 2017. Subsurface Seabed Well Construction Costs, Proposed Desalination Facility, El Segundo, California, May 2017. **(Final EIR Appendix 13D)**

Geosyntec, 2019a. Supplemental Feasibility Assessment of Subsurface Seawater Intakes Along the Santa Monica Bay Coast, Proposed Desalination Facility, El Segundo, California, May 16, 2019. **(Final EIR Appendix 13A)**

Geosyntec, 2019b. Supplemental Evaluation of Feasibility of Horizontal Directionally Drilled Subsurface Intakes Proposed, Desalination Facility, El Segundo, California, May 15, 2019. **(Final EIR Appendix 13B)**

Geosyntec, 2019c. Review of Brine Discharge Calculations for West Basin Ocean Water Desalination Plant, April 8, 2019. **(Final EIR Appendix 14B)**

GHD, 2018. Intake Screen Approach Velocity. Reference Number 11146384. Prepared by Mark Waer and Mark Donovan, GHD for Zita Yu, West Basin Water District.

GHD, 2019a. Challenges and Risks Associated with Subsurface Intake Construction via HDD, June 11, 2019. **(Final EIR Appendix 13C)**

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