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

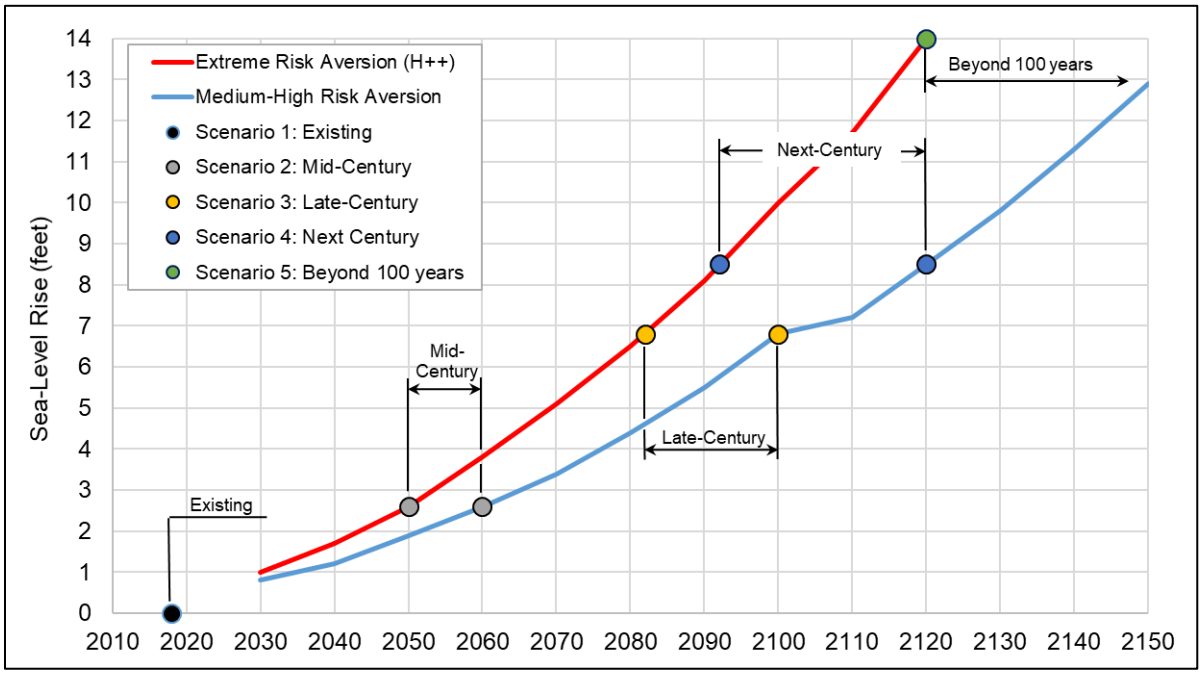
Hazards study (see Final EIR Appendix 15) that considered the high-risk sea-level rise projection and the "H++" scenario, based on the Ocean Protection Council's April 2017 *Rising Seas in California: An Update of Sea-Level Rise Science* (Griggs et al. 2017)[21] and the CCC's 2018 *State Sea Level Rise 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.

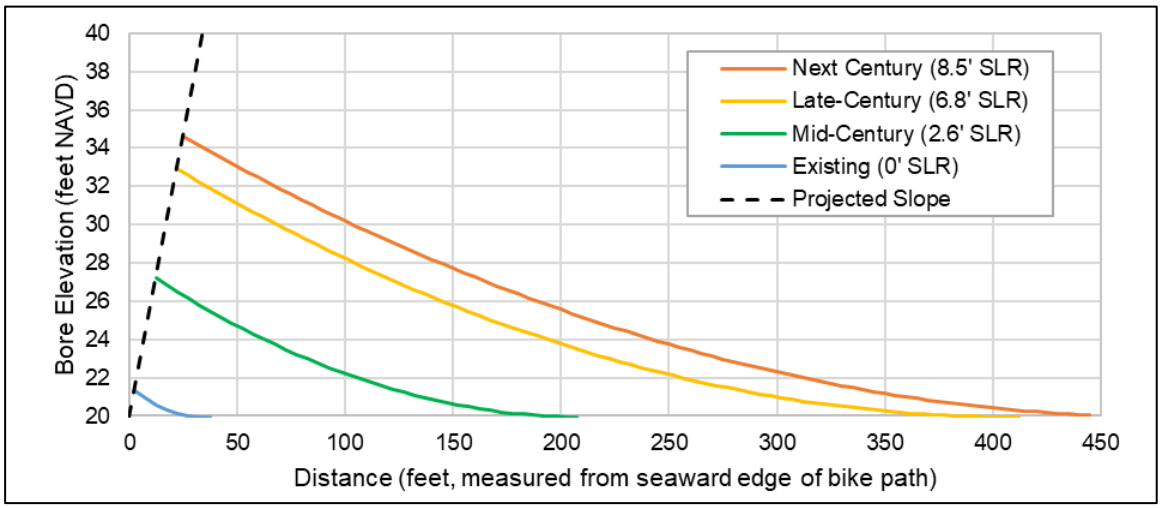


SOURCE: Final EIR Appendix 15A; OPC 2018

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.

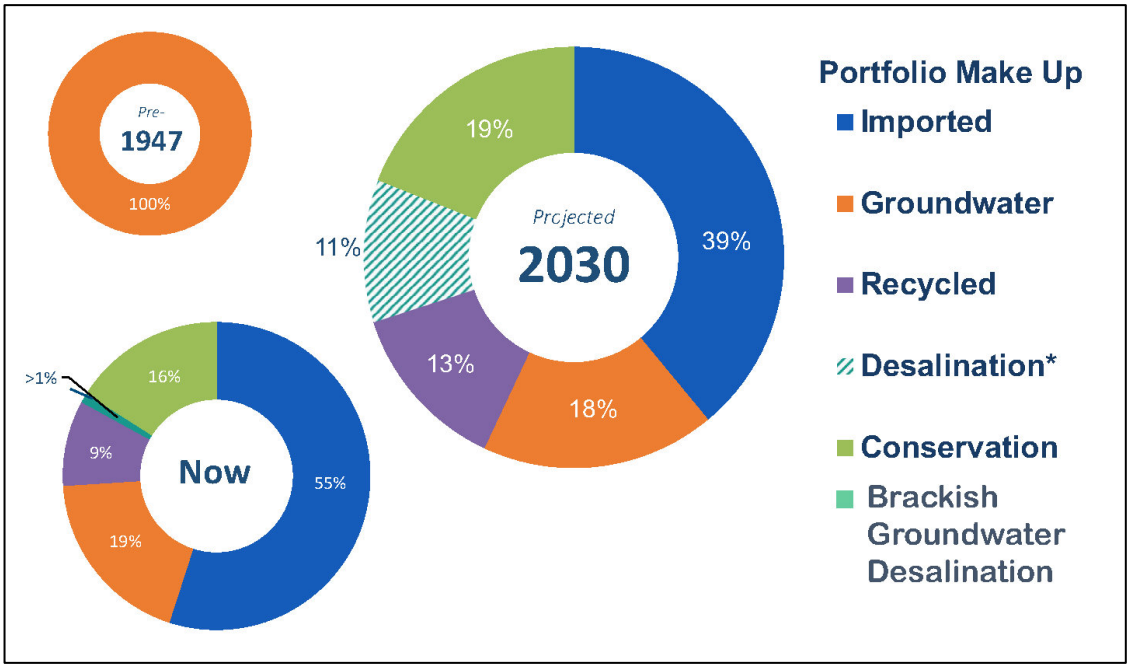
  However, as currently envisioned, future DPR regulations may specify a blending requirement, where highly treated wastewater would be blended with potable water for treatment prior to distribution. Significantly, the implementation of the proposed Project may position West Basin to support future implementation 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).

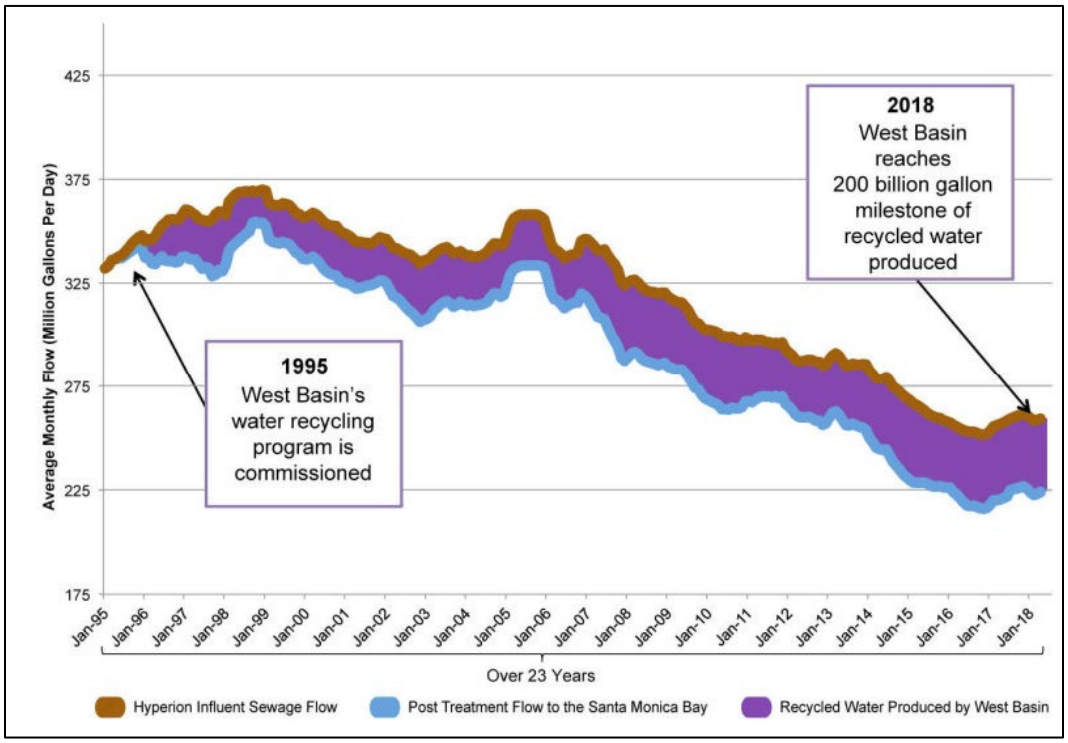
In summary, the water supply alternatives that were discussed in the Draft EIR (including increased conservation, stormwater capture, and IPR and DPR) contribute to the goal of ensuring future water supply reliability, consistent with goals identified in West Basin's 2015 UWMP. West Basin's vision statement 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