



FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

Seawater Desalination Project At Huntington Beach: Outfall/Intake Modifications & General Lease – Industrial Use (PRC 1980.1) Amendment (Lease Modification Project)

State Clearinghouse No. 2001051092
CSLC EIR Number: 794; PRC 1980.1

Responsible Agency:
California State Lands Commission
100 Howe Avenue, Suite 100 South
Sacramento, CA 95825



Established in 1938

October 2017



MISSION STATEMENT

The California State Lands Commission provides the people of California with effective stewardship of the lands, waterways, and resources entrusted to its care through preservation, restoration, enhancement, responsible economic development, and the promotion of public access.

CEQA DOCUMENT WEBSITE

www.slc.ca.gov/Info/CEQA.html

Project Geographic Location (General Lease – Industrial Use PRC 1980.1)

| | Latitude | Longitude |
|-------------------------|-----------------|------------------|
| End of Intake Pipeline | N 33° 38' 39" | W 117° 58' 43" |
| End of Outfall Pipeline | N 33° 38' 38" | W 117° 58' 44" |

Source: Santa Ana Regional Water Quality Control Board, National Pollutant Discharge Elimination System (NPDES) Permit No. CA8000403

Document prepared in coordination with:



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California State Lands Commission

PART I – PREFACE

Final Supplemental Environmental Impact Report for the Seawater
Desalination Project at Huntington Beach: Outfall/Intake
Modifications & General Lease – Industrial Use (PRC 1980.1)
Amendment (State Clearinghouse No. 2001051092), October 2017

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PART I. PREFACE TO FINAL SUPPLEMENTAL ENVIRONMENTAL IMPACT REPORT

I.1 PURPOSE

This Final Supplemental Environmental Impact Report (EIR) has been prepared for consideration by the California State Lands Commission (Commission or CSLC) as a responsible agency in accordance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines (Pub. Resources Code, § 21000 et seq. and Cal. Code Regs., tit. 14, § 15000 et seq.). The document analyzes the potential significant impacts associated with the Seawater Desalination Project at Huntington Beach: Outfall/Intake Modifications & General Lease – Industrial Use (PRC 1980.1) Amendment (hereinafter referred to as the **Lease Modification Project**) in response to an application for a lease amendment submitted by Poseidon Resources (Surfside) LLC (Poseidon or Applicant).

The current “project” or proposed lease amendment analyzed in this Supplemental EIR would modify the offshore components of a seawater desalination facility that the City of Huntington Beach, as CEQA lead agency, approved in September 2010. The Commission subsequently approved an amendment to lease PRC 1980.1 that granted Poseidon a vested right to use existing subsea seawater intake and discharge pipelines during desalination operations at the City-approved desalination plant through August 7, 2026 ([Item 62](#), October 29, 2010); from the Commission’s perspective, its 2010 action continues to authorize desalination operations on the lease premises under the terms of the lease even though the Applicant has not, to date, received all permits needed to operate. The Commission’s only consideration is the proposed modifications to the approved lease, not the larger desalination plant project approved in 2010. Pursuant to State CEQA Guidelines section 15163, subdivision (e), before the Commission can act on the new lease amendment, the Commission must consider the Final Subsequent EIR approved by the City of Huntington Beach in 2010 (2010 FSEIR), as revised by this Supplemental EIR, and must, pursuant to State CEQA Guidelines section 15091, make a finding for each significant effect shown in the previous EIR as revised for the portion of the project within the Commission’s jurisdiction.

I.2 ORGANIZATION OF FINAL SUPPLEMENTAL EIR

The Final Supplemental EIR, which is reproduced for convenience in one three-part document with appendices, replaces the May 2017 Draft Supplemental EIR. Consistent with State CEQA Guidelines section 15132, the Final Supplemental EIR consists of the following elements:

- **Part I – Preface**
- **Part II – Comments and Responses to Comments** received on the Draft Supplemental EIR during the approximately 60-day public review period (from

May 26, 2017, through July 27, 2017), including a list of elected officials, public agencies, organizations, and other members of the public that commented on the Draft Supplemental EIR

- **Part III – Revisions to the Draft Supplemental EIR** and any other information added to the Supplemental EIR

Part III contains the entire text of the Draft Supplemental EIR, as revised, including changes to the text of the Draft Supplemental EIR in response to comments received or for reasons that include: to update information; to refine discussions and resolve internal inconsistencies; and to make minor format changes. Some changes have resulted in a shifting of text from one page to another. Except for minor format changes, all revisions to the Draft Supplemental EIR are shown as follows:

- Additions to the text of the Draft EIR are underlined
- Deletions of the text of the Draft EIR are shown as ~~strikeout~~

The Final Supplemental EIR may be viewed at the following repository locations and on the Commission’s website (www.slc.ca.gov/Info/CEQA/Seawater.html).

| | | |
|----------------------|--|---|
| Libraries: | Huntington Beach Central Library 7111 Talbert Ave. Huntington Beach, CA 92648 (714) 842-4481 | Main Street Branch Library 525 Main St. Huntington Beach, CA 92648 (714) 375-5071 |
| CSLC Offices: | California State Lands Commission Attn: Mark LeClair 200 Oceangate, 12th Floor Long Beach, CA 90802 (562) 590-5266 | California State Lands Commission Attn: Alexandra Borack 100 Howe Ave., Suite 100-South Sacramento, CA 95825 (916) 574-1310 |

I.3 PROJECT DESCRIPTION

The proposed Lease Modification Project would require the Commission to amend General Lease–Industrial Use PRC 1980.1 for use of an 11.78-acre parcel of tide and submerged lands in the Pacific Ocean, offshore of the AES Huntington Beach LLC (AES) Huntington Beach Generating Station (HBGS) and Huntington State Beach, near the city of Huntington Beach, Orange County. In 2010, as noted above, the Commission approved the portion of Poseidon’s proposed 50 million gallon per day (MGD) reverse osmosis¹ Huntington Beach Desalination Plant (**HB Desalination Plant** or **2010 Project**) located on state sovereign land ([Item 62](#), October 29, 2010). The 2010 lease amendment authorized Poseidon to use existing seawater once-through cooling (OTC) system pipelines associated with the upland HBGS. Poseidon’s Co-Lessee, AES, is

¹ Reverse-osmosis desalination plants take in seawater (generally 2 gallons for every 1 gallon of fresh water produced), and pass it through fine-pored membranes to separate fresh water from salt. The highly concentrated brine is then typically disposed of back into the ocean.

responsible for obligations under Lease PRC 1980.1 pertaining to the HBGS, and Poseidon is responsible for lease obligations pertaining to the HB Desalination Plant.

As approved, Poseidon has a vested right to use the pipelines for seawater desalination, through August 7, 2026 (a 20-year term), both as a co-located facility (the desalination plant uses HBGS OTC flows as source water) and as a stand-alone facility (after the HBGS Units 1 and 2 generators shut down [scheduled by December 31, 2020], and OTC flows cease with seawater intake for desalination only). In July 2016, Poseidon applied to the Commission to amend PRC 1980.1 to:

- Install four 1-millimeter wedgewire screens with a through-screen velocity of 0.5 feet per second or less on the offshore end of the seawater intake pipeline about 1,650 feet offshore to reduce entrainment and impingement to *de minimis* levels
- Install a multiport duckbill diffuser² on the offshore end of the discharge pipeline about 1,500 feet offshore to enhance brine mixing with seawater
- Reduce seawater intake volume, as a result of the above technology modifications, to 106.7 MGD (approximately 30 percent less source water than the 152 MGD volume approved by the Commission in 2010)

In 2017, Poseidon twice amended its application to the Commission.

- March 2017. Poseidon submitted a different brine diffuser design as part of its project description. The diffuser proposed in Poseidon's original application had six ports and Poseidon had proposed to close four of the six ports during stand-alone operation. (This six-port diffuser is analyzed in the Supplemental EIR as an alternative design.) The currently proposed diffuser has three duckbill ports with a 4.5-foot central port. The central port would be either open or closed (capped) as discussed and analyzed in the May 2017 Draft Supplemental EIR.
- July 2017. In its comments on the Draft Supplemental EIR, Poseidon proposed the following new Applicant Proposed Measure (APM) to install stainless steel wedgewire screens instead of copper nickel alloy screens as originally proposed.

APM-8: Composition and Maintenance of Wedgewire Screens. Poseidon shall install stationary wedgewire screens with a slot width of 1 millimeter and a through velocity of 0.5 feet/second or less (per Ocean Plan Section III.M.2.d(1)(c) requirements) at the existing HBGS intake pipeline riser prior to desalination plant commercial operation. The composition of the screens shall be stainless steel, unless Poseidon demonstrates to the satisfaction of California State Lands Commission staff that the use of copper nickel alloy screens would not result in chemical leaching in excess of Ocean Plan Water

² A multiport diffuser is a linear structure consisting of many more or less closely spaced ports or nozzles which inject a series of turbulent jets at high velocity into the ambient receiving water body.

Quality Objectives for Protection of Marine Life standards. Such demonstration must be based on data that has been reviewed and approved by the State and Regional Water Boards' staff and California Coastal Commission staff. The screens shall be maintained through boat-based air-burst wedgewire screen cleaning methods.

The full revised project description is provided in Section 2, *Project Description*, of this Supplemental EIR. Since certification of the 2010 FSEIR, Poseidon has not applied to make any physical changes to the upland HB Desalination Plant or the facility's onshore product water delivery and distribution systems.

I.4 “2010 PROJECT” ENVIRONMENTAL REVIEW/PERMITTING CHRONOLOGY

The following is a brief chronology of the environmental review and permitting process for Poseidon's HB Desalination Plant prior to or concurrent with the Commission's CEQA review for the proposed Lease Modification Project (see also Supplemental EIR Section 1.3, *Overview of Environmental Review Process*).

I.4.1 City of Huntington Beach: 2001-2010

In May 2001, initial CEQA review commenced when the City of Huntington Beach, as CEQA lead agency, released a Notice of Preparation (State Clearinghouse [SCH] No. 2001051092) for a co-located desalination plant. The City subsequently released a Draft EIR in September 2002, then a Recirculated Draft EIR (REIR) in April 2005 that contained new information on marine biology (entrainment and impingement), growth inducement, and project water compatibility. In September 2005, the City certified the REIR and approved the HB Desalination Plant (**2005 Project**). As shown in Table I-1, the upland (onshore) components of the proposed desalination plant evolved during the City's CEQA review; however, the proposed use of the existing AES intake and outfall pipelines for facility operations did not vary.

In 2010, the City, in its continuing role as CEQA lead agency, conducted additional environmental review to address changes to the HB Desalination Plant Project and its circumstances subsequent to the 2005 REIR, including: onshore facility revisions; product water transmission pipeline options in Huntington Beach, Westminster, Fountain Valley, Garden Grove, Santa Ana, Irvine, Newport Beach, and Costa Mesa; and both co-located and stand-alone operations. In September 2010, the City certified a Final Subsequent Environmental Impact Report (2010 FSEIR) that analyzed the HB Desalination Plant Project as a whole (**2010 Project**), including potential environmental effects, feasible alternatives, and mitigation measures. As part of its September 2010 approval of the HB Desalination Plant, the City made CEQA Findings and adopted a Mitigation Monitoring and Reporting Program and a Statement of Overriding Considerations.

**Table I-1. CEQA Lead Agency Review of the HB Desalination Plant
by the City of Huntington Beach**

| Document | Project Description (as stated in CEQANet www.ceqanet.ca.gov/) |
|--|---|
| <p align="center">5/17/2001 Notice of Preparation</p> | <p>The project involves the construction and operation of a 50 MGD seawater desalination plant within the City of Huntington Beach. The proposed site is located on a 3.9-acre portion of the 22-acre AES Huntington Beach Generating Plant located at 21730 Newland Street. An alternative location is under consideration to the immediate north of the proposed project site on land currently owned by Southern California Edison. The proposed desalination plant would consist of seawater intake pretreatment facilities, a seawater desalination plant utilizing reverse osmosis technology, product water storage, two pump stations, and 24- to 48-inch diameter product water transmission pipelines of up to 10 miles in length. <u>The facility would utilize existing AES intake and outfall pipelines for facility operations.</u></p> |
| <p align="center">9/19/2002 Draft EIR</p> | <p>The project proposes to implement a seawater desalination plant producing about 50 MGD of potable water. <u>The facility would intake raw seawater from the Pacific Ocean through the existing AES HBGS intake line, purify it utilizing reverse osmosis technology, discharge brine water through the existing AES outfall, and deliver potable product water to the regional water distribution system.</u> Off-site components include a water transmission pipeline alignment extending into the City of Costa Mesa and booster pump station with an unincorporated portion of Orange County.</p> |
| <p align="center">4/5/2005 Recirculated Draft EIR</p> | <p>The project consists of the construction and operation of a 50 MGD seawater desalination facility within the City of Huntington Beach. The facility would consist of seawater intake pretreatment facilities, a seawater desalination plant utilizing reverse osmosis technology, product water storage, two pump stations, materials storage tanks, and 42- to 48-inch diameter product water transmission pipeline possibly up to 10 miles in length in Huntington Beach and Costa Mesa. <u>The facility would utilize existing AES HBGS seawater intake and outfall pipelines for its operations.</u> The proposed desalination facility is located on an 11-acre portion of the 22-acre HBGS facility located at 21730 Newland Street, off Pacific Coast Highway.</p> |
| <p align="center">3/17/2006 Notice of Determination</p> | <p>Construction and operation of a 50 MGD seawater desalination facility that would provide potable drinking water for use by residents and businesses of Orange County. The project includes a 10,120 square foot (sq. ft.) administration building, a 38,090 sq. ft. reverse osmosis building, a 36,305 sq. ft. product water storage tank, and miscellaneous accessory structures on an 11 acre lease area. The proposed improvements include up to 10 miles of water transmission lines, which are in Huntington Beach and Costa Mesa, and 1 mile of which will be within the Coastal Zone, to connect to an existing regional transmission system in Costa Mesa and two off-site pump stations, one in unincorporated Orange County and one in the City of Irvine. The project also includes site remediation, and perimeter landscaping and fencing along Newland Street and Edison Avenue. <u>The desalination facility would withdraw source water from the existing permitted AES HBGS discharge pipeline, purify it utilizing reverse osmosis technology, and discharge concentrated seawater back to the existing HBGS's outfall for dilution with the remaining screened condenser cooling water, which then discharges back into the ocean.</u> The project's product water will be delivered to the distribution system and will be available on a wholesale basis.</p> |

Table I-1. CEQA Lead Agency Review of the HB Desalination Plant by the City of Huntington Beach

| Document | Project Description (as stated in CEQANet www.ceqanet.ca.gov/) |
|--|--|
| <p>5/5/2010 Subsequent EIR</p> | <p>The project consists of the construction and operation of a 50 MGD seawater desalination facility within the City of Huntington Beach. The facility would consist of seawater intake, pretreatment facilities, a seawater desalination plant utilizing reverse osmosis technology, post-treatment facilities, product water storage, pump stations, chemical storage tanks, electrical substation, and product water transmission pipeline options in the cities of Huntington Beach, Westminster, Fountain Valley, Garden Grove, Santa Ana, Irvine and Newport Beach, and Costa Mesa. <u>The facility would utilize existing AES HBGS seawater intake and outfall pipelines for its operations.</u> The proposed desalination facility is located on a 13-acre site comprised of a portion of the HBGS facility located at 21730 Newland Street, off Pacific Coast Highway and a City owned parcel abutting the HBGS facility.</p> |
| <p>6/17/2010 Subsequent EIR</p> | <p>NOTE: Review Per Lead Agency for Recirculation of Only Section 4.10. Please be advised that the City of Huntington Beach has determined to recirculate Section 4.10 (Ocean Water Quality and Marine Biological Resources) of the Draft Subsequent EIR for the Seawater Desalination Project at Huntington Beach.... The project consists of the construction and operation of a 50 MGD seawater desalination facility within the City of Huntington Beach. The facility would consist of seawater intake, pretreatment facilities, a seawater desalination plant utilizing reverse osmosis technology, post-treatment facilities, product water storage, pump stations, chemical storage tanks, electrical substation, and product water transmission pipeline options in the cities of Huntington Beach, Westminster, Fountain Valley, Garden Grove, Santa Ana, Irvine and Newport Beach, and Costa Mesa. <u>The facility would utilize existing AES HBGS seawater intake and outfall pipelines for its operations.</u> The proposed desalination facility is located on a 13 acre site comprised of a portion of the HBGS facility located at 21730 Newland Street, off Pacific Coast Highway and a City owned parcel abutting the HBGS facility.</p> |
| <p>8/24/2010 Final Subsequent EIR</p> | <p>NOTE: FINAL The project consists of the construction and operation of a 50 MGD seawater desalination facility within the City of Huntington Beach. The facility would consist of seawater intake, pretreatment facilities, a seawater desalination plant utilizing reverse osmosis technology, post-treatment facilities, product water storage, pump station, chemical storage tanks, electrical substation, and product water transmission pipeline options in the cities of Huntington Beach, Westminster, Fountain Valley, Garden Grove, Santa Ana, Irvine and Newport Beach, and Costa Mesa. <u>The facility would utilize existing AES HBGS seawater intake and outfall pipelines for its operations.</u> The proposed desalination facility is located on a 13-acre site comprised of a portion of the HBGS facility located at 21730 Newland Street, off Pacific Coast Highway and a City owned parcel abutting the HBGS facility.</p> |
| <p>11/4/2010 Notice of Determination</p> | <p>Construct and operate a 50 MGD seawater desalination facility within the City of Huntington Beach. The facility would consist of <u>seawater intake</u>, pretreatment facilities, a seawater desalination plant utilizing reverse osmosis technology, post-treatment facilities, product water storage, pump stations, chemical storage tanks, electrical substation, and product water transmission pipeline.</p> |

Source: CEQANet for SCH No. 2001051092 (www.ceqanet.ca.gov/).

Note: Text related to the offshore intake and discharge pipelines is underlined for emphasis.

The 2010 FSEIR was not legally challenged. When an environmental impact report is not legally challenged within the timeframe proscribed by CEQA, such document is conclusively presumed to be in compliance with CEQA for the purpose of being relied upon by a responsible agency. (Pub. Resources Code, § 21167.2).

I.4.2 California State Lands Commission: 2010

In October 2010, the Commission, acting as a CEQA responsible agency, reviewed and considered the information contained in the City of Huntington Beach’s 2010 FSEIR, and reached its own conclusion regarding the 2010 Project. The Commission adopted a Mitigation Monitoring and Reporting Program, CEQA Findings, and a Statement of Overriding Considerations, and approved an amendment to Lease PRC 1980.1 associated with the offshore components of the 2010 Project ([Item 62](#), October 29, 2010; see Part I, Section I.3, *Project Description*, above). The 2010 lease amendment was also not legally challenged.

I.4.3 California Coastal Commission (CCC): 2006 to Date

As noted in Supplemental EIR, Section 1.2, *Summary of Other Agency Roles*, in 2006 and again in 2010, the City of Huntington Beach approved coastal development permits (CDPs) for the portions of the HB Desalination Plant located within the City’s Local Coastal Program (LCP) jurisdiction. Both CDPs were appealed to the CCC. In 2006, the CCC found that substantial issue existed with respect to Poseidon’s conformity to LCP policies related to: protection of marine life, water quality, and environmentally sensitive habitat areas; energy use and development; and adequate public services. In November 2010, the CCC found substantial issue existed with the same LCP policies as in the 2006 appeal as well as LCP policies for: wetlands protection; the facility’s land use designation; public recreation; protection against seismic events and liquefaction; growth-inducement; and mitigation to the maximum extent feasible.

In November 2013, CCC staff recommended conditional approval of a CDP, requiring Poseidon to build a subsurface seawater intake system (instead of using the existing HBGS seawater intake pipeline), unless information was provided showing the infeasibility of subsurface intakes; however, Coastal Commissioners did not act on the CDP (Poseidon withdrew its application). After the 2013 hearing, CCC staff and Poseidon jointly convened an Independent Scientific Technical Advisory Panel (ISTAP) to review the feasibility of subsurface intake options for the HB Desalination Plant, including a more detailed analysis of offshore infiltration galleries, a subsurface intake alternative eliminated from further consideration in the 2010 FSEIR. In November 2015, following a multi-year two-phase review, the ISTAP (2015) submitted its Phase 2 Report on the feasibility of subsurface intake systems at the Huntington Beach site. The ISTAP Phase 2 Report concluded (pages 16-19): (1) a Beach Infiltration Gallery is technically infeasible at the Huntington Beach location; (2) two construction methods (trestle and

“float-in”) are feasible for constructing a Seafloor Infiltration Gallery; (3) the environmental impacts of the SIG options would not likely prohibit their implementation; (4) the open ocean intake option for a product capacity of 50 MGD may be economically feasible in the near future, depending on outcome of negotiations with OCWD; (5) the higher unit costs for the Seafloor Infiltration Gallery options significantly extend the period of time before the unit cost could be comparable to costs of other available water supplies; and (6) the Seafloor Infiltration Gallery option is not economically viable at the Huntington Beach location within a reasonable time frame, due to high capital costs and only modest reduction in annual operating costs compared to the open ocean intake option.” To date, the CCC has taken no action on the ISTAP recommendations or issued a CDP for construction and operation of the HB Desalination Plant.

I.4.4 Santa Ana Regional Water Quality Control Board (RWQCB): 2006 to Date & State Water Resources Control Board (SWRCB): 2015-2016

As noted in Supplemental EIR, Section 1.2, *Summary of Other Agency Roles*, in February 2012, the RWQCB renewed Order No. RB-2006-0034, National Pollutant Discharge Elimination System (NPDES) No. CA80000403 (previously issued on August 25, 2006) for a 5-year period. Both the 2006 and 2012 Orders prescribed waste discharge requirements (WDRs) for discharges from the HB Desalination Plant. The 2012 Order covered: information about the proposed HB Desalination Plant; effluent limitations; receiving water limitations; monitoring and reporting requirements under the NPDES permit; best management practices (BMPs) and pollution prevention; specifications for construction, operations, and maintenance; a compliance determination; and attachments related to the facility location, flow schematic, federal standards, monitoring, minimum levels, and other requirements. The RWQCB did not review the 2006 NPDES permit renewal pursuant to CEQA since such permits are statutorily exempt from CEQA (Stats. 1972, ch. 1256).³

In 2015, the SWRCB analyzed the potential environmental impacts of using seawater for desalination along the California coast in the Substitute Environmental Document (2015 SED) for the Amendments to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) Addressing Desalination Facility Intakes, Brine Discharges, and Incorporating Other Non-Substantive Changes (Desalination Amendment). The 2015 SED analyzed possible intake and outfall options for desalination facilities and recommended the use of certain technologies, subsequently detailed in the 2015 Ocean Plan, Chapter III.M.2.d.

³ California Water Code section 13389 states: “Neither the state board nor the regional boards shall be required to comply with the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code prior to the adoption of any waste discharge requirement, except requirements for new sources as defined in the Federal Water Pollution Control Act or acts amendatory thereof or supplementary thereto.”

III.M.2.d(1)(c). If subsurface intakes are not feasible, the regional water board may approve a surface water intake, subject to the following conditions:

- i. The [RWQCB] shall require that surface water intakes be screened. Screens must be functional while the facility is withdrawing seawater.
- ii. In order to reduce entrainment, all surface water intakes must be screened with a 1.0 [millimeter] (0.04 [inch]) or smaller slot size screen when the desalination facility is withdrawing seawater....
- iv. In order to minimize impingement, through-screen velocity at the surface water intake shall not exceed 0.15 meters per second (0.5 feet per second).

III.M.2.d(2)(a). The preferred technology for minimizing intake and mortality of all forms of marine life resulting from brine discharge is to commingle brine with wastewater (e.g., agricultural, municipal, industrial, power plant cooling water, etc.) that would otherwise be discharged to the ocean....

III.M.2.d(2)(b). Multiport diffusers are the next best method for disposing of brine when the brine cannot be diluted by wastewater and when there are no live organisms in the discharge. Multiport diffusers shall be engineered to maximize dilution, minimize the size of the brine mixing zone, minimize the suspension of benthic sediments, and minimize mortality of all forms of marine life.

The Desalination Amendment took effect as a new regulation on January 28, 2016.

In July 2016, RWQCB staff notified Poseidon that: (1) the 2012 Order is no longer valid; (2) the proposed HB Desalination Plant is a "new" desalination facility pursuant to the 2015 Ocean Plan; and (3) the RWQCB requires a new Water Code section 13142.5, subdivision (b) determination in accordance with the requirements of the 2015 Desalination Amendment. In its comment letter on this Draft Supplemental EIR, RWQCB staff states (comment A9-1):

The Santa Ana Water Board is the agency responsible for issuing the National Pollutant Discharge Elimination System (NPDES) permit for the discharge of brine and other wastes from the Project to the Pacific Ocean and for making a determination regarding the Project's consistency with Water Code section 13142.5(b) (CWC section 13142.5(b)). Poseidon submitted to the Santa Ana Water Board both a report of waste discharge and a request for a CWC section 13142.5 (b) determination. Santa Ana Water Board staff, in consultation with State Water Board staff, is currently reviewing this information, but has not yet determined whether the Project, as proposed, utilizes the best available site, design, technology, and mitigation measures feasible to minimize intake and mortality of all forms of marine life as required by CWC section 13142.5(b), and as further specified in the Water Quality Control Plan for the Ocean Waters of California (Ocean Plan). Water Board staff acknowledges that the analysis required by the Ocean Plan, in determining

consistency with CWC section 13142.5(b), is separate and distinct from the California State Lands Commission's (State Lands Commission's) analyses for the [Supplemental EIR]; however, a CWC section 13142.5(b) determination is subject to CEQA.

On August 28, 2017, RWQCB staff deemed complete Poseidon's application for a Water Code section 13142.5, subdivision (b) determination and Report of Waste Discharge (ROWD) for renewal/reissuance of the NPDES Permit for the proposed Huntington Beach Desalination Project following Poseidon's submission of over 100 technical reports, other documents, and responses to information requests. The results of the RWQCB's determination could result in changes, for which new CEQA or CEQA functional equivalent analysis would need to be conducted, to Poseidon's site (including a facility site outside the PRC 1980.1 lease boundaries), design, technology, or mitigation measures needed to conform to Water Code section 13142.5, subdivision (b).

I.5 CURRENT COMMISSION CEQA CHRONOLOGY AND DECISION-MAKING PROCESS

The State CEQA Guidelines stipulate that an EIR must be prepared for any project carried out or approved by a State or local public agency that may have a significant impact on the environment. The Commission has determined that the Lease Modification Project is a "project" as defined by CEQA (§ 21065) and the State CEQA Guidelines (§ 15378) and that it may have a significant impact on the environment.

The Commission, in its role as a responsible agency under CEQA,⁴ chose to prepare a supplement to the City of Huntington Beach's certified 2010 FSEIR in response to Poseidon's application for the Lease Modification Project. Because Poseidon only recently proposed to add screens and a diffuser to the offshore HB Desalination Plant pipelines after and in response to the 2015 Desalination Amendment, the environmental effects of these modifications were not analyzed in the certified 2010 FSEIR. Pursuant to State CEQA Guidelines section 15163, subdivision (a), the "lead or responsible agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if: (1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and (2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation."

This Final Supplemental EIR focuses on the environmental impacts due to the minor changes within the Commission's lease area to the approved HB Desalination Plant structures (intake and discharge pipelines) and operations (reduced intake water flow).

⁴ As CEQA lead agency for the HB Desalination Plant (2010 Project), the City of Huntington Beach has the principal responsibility for taking action on the overall HB Desalination Plant and it conducted an environmental review of the facility in the 2010 FSEIR. The Commission has responsibility for taking action on the offshore portion of the HB Desalination Plant within its jurisdiction.

The incremental effects of Poseidon’s proposed modifications are considered in this Final Supplemental EIR in combination with the environmental effects identified in the 2010 FSEIR and the SWRCB’s 2015 SED. In addition, the Supplemental EIR considers the combined impacts of the proposed offshore modifications and the onshore HB Desalination Plant Project facilities and how the impacts from the landward portion of the HB Desalination Plant Project, as analyzed in the 2010 FSEIR, may be altered by the modifications proposed by the Lease Modification Project. This approach complies with State CEQA Guidelines section 15163, subdivision (b), which provides that “[t]he supplement to an EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.”

The following is a brief chronology of the CEQA review process associated with the Lease Modification Project (see Supplemental EIR Section 1.3.3, *Public Scoping*).

- **November 18, 2016.** The Commission issued a Notice of Preparation (NOP) of a Supplemental EIR and Notice of Public Scoping Meeting to responsible and trustee agencies and other interested parties (pursuant to Pub. Resources Code, § 21080.4 and State CEQA Guidelines, § 15082, subd. (a)). Through the NOP, the Commission solicited comments on the Supplemental EIR’s scope during a 30-day comment period. More than 50 organizations and individuals provided written or oral comments.
- **December 14, 2016.** Commission staff held a scoping meeting at 4:00 p.m. in the City of Huntington Beach. At this meeting, the public and interested agencies were informed about the proposed Lease Modification Project and had the opportunity to provide recommendations for the scope and content of the environmental analysis.
- **May 26, 2017.** The Commission issued a Notice of Availability/Public Hearing of a Draft Supplemental EIR and released the Draft Supplemental EIR for at least a 45-day public review.
- **June 12, 2017.** Commission staff held a noticed public meeting on the Draft Supplemental EIR at 5:00 p.m. in the City of Huntington Beach. At this meeting, the public and interested agencies had the opportunity to comment on the Draft Supplemental EIR.
- **June 27, 2017.** Commission staff extended the public review period an additional 2 weeks to **July 27, 2017** (approximately 60 days total).
- **July through September 2017.** In preparing this Final Supplemental EIR, Commission staff obtained additional information as needed to respond to comments, responded to all comments received (see Part II of this Final Supplemental EIR Part II), and revised the Draft Supplemental EIR (see Part III).

The Commission will use this Final Supplemental EIR as part of its review of the proposed Lease Modification Project (a hearing on the Final Supplemental EIR and possible action on the Lease Modification Project is anticipated in Fall 2017 [see www.slc.ca.gov for meeting time and location]). The Commission must certify the following pursuant to State CEQA Guidelines section 15090.

- The Final Supplemental EIR has been completed in compliance with CEQA.
- The Final Supplemental EIR was presented to the Commission in a public meeting and the Commission reviewed and considered the information contained in the Final EIR prior to considering the proposed Project.
- The Final Supplemental EIR reflects the Commission’s independent judgment and analysis.

If the Commission certifies the Final Supplemental EIR, the Commission must make one or more written findings of fact for each significant environmental impact identified in the document before it can approve the Lease Modification Project. Possible findings are identified in State CEQA Guidelines section 15091.

- The Project has been changed (including adoption of mitigation measures) to avoid or substantially reduce the magnitude of the impact.
- Changes to the Project are within another agency’s jurisdiction and have been or should be adopted by such other agency.
- Specific considerations make mitigation measures or alternatives infeasible.

If any impacts identified in this Final Supplemental EIR cannot be reduced to a level that is less than significant, the Commission may issue a Statement of Overriding Considerations for Project approval if specific social, economic, or other factors justify the Project’s unavoidable adverse environmental effects. If the Commission certifies the Final Supplemental EIR and approves the Lease Modification Project, mitigation measures will be adopted as part of the approval and incorporated as lease conditions, and the Commission will issue a Notice of Determination.

I.6 SUMMARY OF MAJOR CHANGES TO DRAFT SUPPLEMENTAL EIR

Changes to the Draft Supplemental EIR are summarized below.

- In its comments on the Draft Supplemental EIR, Poseidon modified its Lease Modification Project description, and now proposes to use stationary stainless steel wedgewire screens instead of copper-nickel alloy wedgewire screens.
 - Poseidon’s new APM-8 commits to use of stationary stainless steel screens unless future data show, to the satisfaction of RWQCB, SWRCB, and Commission staffs, that there are no significant adverse

- environmental impacts associated with copper leaching from copper-nickel alloy screens that would violate Ocean Plan Water Quality Objectives.
- APM-8 requires screen maintenance to be performed via a boat-based, air-burst system, which is expected to occur once every other month for the stationary stainless steel screens.
 - Use of stainless steel screens reduces the significance of Impact OWQ/MB-5 from significant and unavoidable to less than significant.
 - Copper-nickel alloy screens are consequently analyzed as a Lease Modification Project alternative, not as part of the Project description.
- Diffuser entrainment analysis considers a worst-case scenario of 100 percent mortality associated with diffuser shear for CEQA impact determination not the 23 percent mortality relied on in the Draft Supplemental EIR.
 - Comments received from RWQCB/SWRCB staffs state that the 23 percent mortality estimate (1) is based on a particular case of a single jet discharging dense effluent oriented at an upwards angle of 60°; (2) does not take into account different diffuser designs because the estimate is purely a function of the discharge volume; and (3) is not a regulatory provision in the California Ocean Plan.
 - Entrained fish larvae estimates increased with use of the worst-case scenario.
 - MM OWQ/MB-7 is revised to account for 100 percent mortality from lethal diffuser shear, and the associated Area of Production Foregone (APF) is explained as a methodology in the analysis and included as fully compensatory mitigation for all direct and indirect impacts to marine biological resources, including special-status species. This reduces the impact significance for OWQ/MB-7 from significant and unavoidable to less than significant with mitigation.
 - Additional information is presented related to special-status species and the methodology for determining presence or absence of adult, juvenile, and larval stages for those organisms.
 - MM OWQ/MB-3a is revised to require Poseidon to return to the Commission, instead of staff, if vibratory pile driving is deemed infeasible.
 - Greenhouse gas emission impacts from construction and operation of the Lease Modification Project activities are analyzed, independent of APM-7. Impacts are found to be less than significant, both individually and cumulatively, prior to the implementation of any Applicant-Proposed Measures.
 - Additional text clarifies that the assessment of Lease Modification Project impacts, when considered together with the impacts of closely related projects,

takes into account the environmental resource affected, the distance between the projects and the potential impact location (e.g. offshore, onshore, both), the short-term, temporary nature of the Lease Modification Project construction impacts, and the long-term magnitude of the Lease Modification Project operational impacts.

I.7 REQUIREMENTS FOR RECIRCULATION

An EIR is required to be recirculated when significant new information is added to the EIR after public notice but before certification. New information is not significant unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect that project's proponents have declined to implement. Recirculation is not required when the new information clarifies or amplifies or makes insignificant modifications in an adequate EIR. The primary examples of when an EIR must be recirculated are identified below:

- A new significant environmental impact would result from the project or from a new mitigation measure. (State CEQA Guidelines, § 15088.5, subd. (a)(1).)
- A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance. (State CEQA Guidelines, § 15088.5, subd. (a)(2).)
- A feasible project alternative or mitigation measure considerably different from other previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to accept it. (State CEQA Guidelines, § 15088.5, subd. (a)(3).)

While the Final Supplemental EIR has been revised where appropriate to respond to public comments, it does not contain any significant new information that would deprive the public of a meaningful opportunity to comment upon a substantial adverse environmental effect or a feasible way to mitigate or avoid such an effect. As discussed in Section I.6, the major changes to the Draft Supplement EIR do not meet the threshold for significant new information. Section III contains the revisions to the document.

California State Lands Commission

PART II – RESPONSES TO COMMENTS

Final Supplemental Environmental Impact Report for the Seawater
Desalination Project at Huntington Beach: Outfall/Intake
Modifications & General Lease – Industrial Use (PRC 1980.1)
Amendment (State Clearinghouse No. 2001051092), October 2017

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PART II. RESPONSES TO COMMENTS

II.1 INTRODUCTION

Consistent with State California Environmental Quality Act (CEQA) Guidelines section 15088, the California State Lands Commission (Commission or CSLC), as CEQA responsible agency, has evaluated the comments on environmental issues received from persons who reviewed the Draft Supplemental Environmental Impact Report (EIR) prepared for the Seawater Desalination Project at Huntington Beach: Outfall/Intake Modifications & General Lease – Industrial Use (PRC 1980.1) Amendment (Lease Modification Project) and prepared written responses. The State CEQA Guidelines further require the Commission to describe in its written response the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). If the Commission's position varies from recommendations and objections raised in the comments, the agency must address the major environmental issues raised and give details why any specific comments and suggestions were not accepted.

Part II of this Final Supplemental EIR contains copies of comment letters, excerpts of oral comments from the transcripts of the public meeting on the Draft Supplemental EIR held by Commission staff on June 12, 2017, and the Commission's responses. The following comments on the Draft Supplemental EIR were received (see Table II-1).

- Total comment letters submitted by letter or email: **75** elected officials (9); agencies (9); organizations (32) (several organizations submitted joint letters); public (23); and applicant (2)
- Speakers who provided oral comments at June 12, 2017, public meeting: **11**
- Approximately **1,400** comments from letter-writing campaigns in support of or opposed to the Lease Modification Project or desalination in Huntington Beach.

Section II.2 provides master responses to common significant environmental issues raised. Section II.3 provides responses to individual comments.

- Each commenter is assigned a unique comment set number (e.g., the nine letters from elected officials are assigned ID numbers E1 through E9; the nine agency letters are assigned ID numbers A1 through A9, etc.). Each comment set includes all written and oral comments provided by that commenter.
- Individual comments are assigned identification (ID) numbers, with each comment numbered in the margins of the comment letter or oral comment transcript.

Part III contains the complete Final Supplemental EIR with revisions to the text of the Draft Supplemental EIR.

Table II-1 Written Comments Provided on Draft Supplemental EIR and Comment Identification (ID) Numbers Used in this Final Supplemental EIR

| Commenter | Speaker at 6/21/17 Public Meeting | Comment IDs | |
|--|-----------------------------------|-------------|---------------|
| | | Set # | ID # |
| Elected Officials (Local, State, Federal Offices) | | | |
| City of Huntington Beach Mayor, Barbara Delgleize | — | E1 | E1-1 |
| City of Huntington Beach Councilman and Mayor Pro Tem, Michael Posey | — | E2 | E2-1 |
| City of Huntington Beach Council Member, Patrick Brenden | — | E3 | E3-1 |
| Orange County Board of Supervisors Chairwoman and Supervisor, 2 nd District, Michelle Steel | — | E4 | E4-1 |
| California Assembly, Assemblyman, 72 nd District, Travis Allen | — | E5 | E5-1 |
| California Assembly, Assemblymember, 74th District, Matthew Harper | — | E6 | E6-1 |
| California State Senate, State Senator, 36 th District, and Senate Republican Leader, Patricia C. Bates | — | E7 | E7-1 |
| California State Senate, State Senator, 37th District, John M.W. Moorlach | — | E8 | E8-1 |
| U.S. Congress, 48th Congressional District-CA, Dana Rohrabacher, MC | — | E9 | E9-1 |
| Agencies (Local/Regional, State) | | | |
| City of Huntington Beach Department of Community Development | — | A1 | A1-1 to A1-3 |
| City of Huntington Beach Environmental Board | — | A2 | A2-1 to A2-17 |
| Irvine Ranch Water District | — | A3 | A3-1 to A3-49 |
| Santa Margarita Water District | — | A4 | A4-1 |
| South Coast Air Quality Management District | — | A5 | A5-1 to A5-6 |
| California Coastal Commission | — | A6 | A6-1 to A6-15 |
| California Fish and Game Commission | — | A7 | A7-1 to A7-5 |
| California Department of Parks and Recreation Orange Coast District | — | A8 | A8-1 to A8-3 |
| Santa Ana Regional Water Quality Control Board and State Water Resources Control Board | — | A9 | A9-1 to A9-35 |
| Tribes | | | |
| None received | | | |
| Organizations | | | |
| Association of California Cities – Orange County | — | O1 | O1-1 |
| Banning Ranch Conservancy | — | O2 | O2-1 to O2-4 |
| Bolsa Chica Conservancy | — | O3 | O3-1 |
| Building Industry Association of So. California, Inc. | — | O4 | O4-1 |
| CalDesal | — | O5 | O5-1 |
| California Chamber of Commerce | — | O6 | O6-1 |

Table II-1 Written Comments Provided on Draft Supplemental EIR and Comment Identification (ID) Numbers Used in this Final Supplemental EIR

| Commenter | Speaker at 6/21/17 Public Meeting | Comment IDs | |
|---|-----------------------------------|-------------|-----------------|
| | | Set # | ID # |
| California Coastal Protection Network (meeting speaker: Susan Jordan) | Yes | O7 | O7-1 to O7-6 |
| California Coastkeeper Alliance | — | O8 | O8-1 |
| California Coastkeeper Alliance et al. (Joint Letter 1) <ul style="list-style-type: none"> • California Coastkeeper Alliance • Orange County Coastkeeper, Inland Empire Waterkeeper • California Coastal Protection Network • Residents for Responsible Desalination • Natural Resources Defense Council • Heal the Bay • Sierra Club • Surfrider Foundation • AZUL • Orange County Earth Stewards • Coastal Environmental Rights Foundation • Wholly H2O • Southern California Watershed Alliance • Oakviewcom UNIDAD • Endangered Habitats League • Environment California • Food & Water Watch • Seventh Generation Advisors • Orange County Environmental Justice • Santa Barbara Channelkeeper • Amigos de los Rios - Emerald Necklace • Environmental Justice Coalition for Water | — | O9 | O9-1 to O9-15 |
| California Coastkeeper Alliance et al. (Joint Letter 2) with Attachments A through H <ul style="list-style-type: none"> • California Coastkeeper Alliance • Orange County Coastkeeper • California Coastal Protection Network • Residents for Responsible Desalination • Natural Resources Defense Council • Heal the Bay • Surfrider Foundation • Sierra Club Angeles Chapter | — | O10 | O10-1 to O10-57 |
| Friends of Harbors, Beaches and Parks | — | O11 | O11-1 to O11-5 |
| Huntington Beach Chamber of Commerce | — | O12 | O12-1 |

Table II-1 Written Comments Provided on Draft Supplemental EIR and Comment Identification (ID) Numbers Used in this Final Supplemental EIR

| Commenter | Speaker at 6/21/17 Public Meeting | Comment IDs | |
|---|-----------------------------------|-------------|-----------------|
| | | Set # | ID # |
| Los Angeles/Orange Counties Building and Construction Trades Council | — | O13 | O13-1 to O13-2 |
| Los Angeles County Business Federation | — | O14 | O14-1 |
| Millennials for New Water | — | O15 | O15-1 to O15-3 |
| National Latina Business Women's Association – Orange County | — | O16 | O16-1 |
| Oakview ComUNIDAD et al. (Joint Letter) <ul style="list-style-type: none"> • Oakview ComUNIDAD • José Trinidad Castañeda III, Parks and Recreation Commissioner • Orange County Earth Stewards • AZUL • Mujeres de la Tierra • Environmental Justice Coalition for Water • Alliance of River Communities | — | O17 | O17-1 to O17-3 |
| Orange County Association of Realtors (meeting speaker: Connor O'Neill) | Yes | O18 | O18-1 |
| Orange County Black Chamber of Commerce | — | O19 | O19-1 |
| Orange County Business Council | — | O20 | O20-1 |
| Orange County Coast Keeper (meeting speaker: Ray Hiemstra) | Yes | O21 | O21-1 |
| Orange County Hispanic Chamber of Commerce | — | O22 | O22-1 |
| Orange County Realtors | — | O23 | O23-1 |
| Orange County Taxpayers Association | — | O24 | O24-1 to O24-2 |
| Orange County Water Independence, Sustainability and Efficiency | — | O25 | O25-1 to O25-5 |
| Orange County Young Republicans | — | O26 | O26-1 |
| Residents for Responsible Desalination (meeting speakers: Joe Geever and Merle Moshiri) | Yes (2) | O27 | O27-1 to O27-9 |
| Residents for Responsible Desalination/Cabrillo Wetlands Conservancy (meeting speaker: Mary Jo Baretich) | Yes | O28 | O28-1 to O28-18 |
| South Orange County Economic Coalition (meeting speaker: Wayne Brown) | Yes | O29 | O29-1 to O29-2 |
| Stanford Environmental Law Clinic, Deborah A. Sivas | | O30 | O30-1 to O30-7 |
| Surfrider Foundation (meeting speaker: Staley Prom) | Yes | O31 | O31-1 to O31-27 |
| William C. Velasquez Institute, Antonio Gonzalez, President (meeting speaker: Michelle Duman) | Yes | O32 | O32-1 to O32-4 |

Table II-1 Written Comments Provided on Draft Supplemental EIR and Comment Identification (ID) Numbers Used in this Final Supplemental EIR

| Commenter | Speaker at 6/21/17 Public Meeting | Comment IDs | |
|---|-----------------------------------|-------------|------------------|
| | | Set # | ID # |
| Public (Individuals) | | | |
| Mira Ballard | — | P1 | P1-1 to P1-2 |
| Suzanne Beukema | — | P2 | P2-1 |
| Henry Castignetti | — | P3 | P3-1 |
| Debbie Cook | — | P4 | P4-1 |
| Shirley Dettloff | Yes | P5 | P5-1 to P5-4 |
| Michael Grant, Michael Grant Construction Services | — | P6 | P6-1 |
| Carol Jean Hicks | — | P7 | P7-1 |
| Mary Julienne | — | P8 | P8-1 |
| Ed Laird, CEO, Laird Coatings | — | P9 | P9-1 |
| Ira Leibowitz | — | P10 | P10-1 to P10-5 |
| Bill McCarty | Yes | P11 | P11-1 |
| Debbie McCormick | — | P12 | P12-1 |
| Hildy Meyers | — | P13 | P13-1 |
| Linda Minko | — | P14 | P14-1 |
| Ken Normann | — | P15 | P15-1 |
| Carol Pilgrim | — | P16 | P16-1 |
| Joe Pusi | — | P17 | P17-1 |
| Joanne Rasmussen | — | P18 | P18-1 |
| Philip J.W. Roberts, PhD, PE | — | P19 | P19-1 |
| Dianna Sahhar | — | P20 | P20-1 |
| David J. Tanner | — | P21 | P21-1 to P21-8 |
| David Warga | — | P22 | P22-1 |
| Joan Wood | — | P23 | P23-1 |
| Support Campaign Form Letter | — | P24 | P24-1 |
| Opposition Campaign Form Letter | — | P25 | P25-1 to P25-25 |
| Applicant | | | |
| Scott Maloni, Vice President, Poseidon Resources (Surfside) LLC (Letter 1, 6/26/17) | — | AP1 | AP1-1 to AP1-132 |
| Scott Maloni, Vice President, Poseidon Resources (Surfside) LLC (Letter 2, 7/26/17) | — | AP2 | AP2-1 to AP2-7 |

II.2 MASTER RESPONSES (MR-1 THROUGH MR-8)

The master responses provided in Section II.2 address the many similar comments received from multiple commenters on the Draft Supplemental EIR and, therefore, many of the individual responses to comments (see Sections II.3 through II.7) refer back to these master responses.

II.2.1 MR-1. Scope of the Commission’s Discretionary Action

This initial Master Response clarifies what discretionary actions the Commission may take on Poseidon Resources (Surfside) LLC’s (Poseidon or Applicant) application to amend Lease PRC 1980.1. Comments on the scope of the project analyzed in the Supplemental EIR, the Commission’s continuing role as CEQA responsible agency, piecemealing, and related topics are addressed in other master responses below.

Representative Comments (see Part III for all comments)

“Support” Campaign Letter (P24). *The public benefit of this project is clear. The Orange County Water District (OCWD) has expressed an interest in adding desalinated water to its water portfolio so that it can protect the groundwater basin from the “boom and bust” nature of our increasingly dry climate. The project will also reduce Orange County’s dependence on imported water, which is more critical than ever.*

“Oppose” Campaign Letter (P25). *[S]ince 2010, the residents of Orange County have dramatically reduced their cumulative demand for freshwater - despite significant population and economic growth.... Whatever demand there was in 2010 has dramatically changed.*

As noted in Part I, *Preface*, and throughout the Supplemental EIR, the Commission received an application from Poseidon in 2016 to amend existing Lease PRC 1980.1 to install, within the lease footprint, wedgewire screens and a multiport diffuser on the offshore ends of existing subsea pipelines and to reduce seawater intake volumes (defined in the Supplemental EIR as the “**Lease Modification Project**”). The lease, which the Commission authorized in 2010 (see [Item 62](#), October 29, 2010),⁵ allows Poseidon to use these pipelines for co-located and stand-alone desalination operations without screens or a diffuser. Poseidon must obtain an amendment to the lease from the Commission, and other agency approvals, to install the screens and diffuser.

The Commission’s practice is to work with applicants to process applications it receives in a timely manner and to hear, at a noticed public meeting, such applications after the required CEQA review has occurred. The Commission’s options for the proposed offshore Lease Modification Project include: (1) decline to certify the Supplemental EIR,

⁵ Note: All previously considered Items considered by the Commission are available online at: <http://archives.slc.ca.gov/>

in which case no subsequent action on the proposed intake and discharge pipeline modifications would be taken at this time; (2) direct staff to conduct additional CEQA review (e.g., recirculate all or portions of the Final Supplemental EIR for additional public review or prepare a Subsequent EIR); or (3) certify the Supplemental EIR and approve or deny the Lease Modification Project. These options, or any variation thereof, does not terminate Poseidon’s **vested right to use the subsea pipelines for seawater desalination, through August 7, 2026, as approved by the Commission in 2010**. In *San Diego Navy Broadway Complex Coalition v. City of San Diego* (2010) 185 Cal. App. 4th 924, 940, the court concluded that the city did not need to prepare a supplemental EIR because the city lacked discretionary authority to address the potential environmental concerns regarding global climate change. “Where an agency has no authority to modify a project based on the analysis contained in the EIR, there is no basis for requiring the agency to prepare an EIR.” (*Id.* at p. 938.) In a situation similar to the matter before the Commission, the court reasoned that an agency should not be required to prepare a supplemental EIR concerning an environmental issue over which its discretionary authority does not extend to in light of the statutory presumption against additional environmental review, Pub. Resources Code, § 21166. (*Id.* at p.938, 939.)

The Commission’s action in 2010 followed the discretionary action by the City of Huntington Beach, as CEQA lead agency, to approve the onshore 50-million-gallon-per-day (MGD) desalination facility (defined throughout the Supplemental EIR as the “**2010 Project**” or “**HB Desalination Plant**”). The City’s action occurred after it conducted extensive environmental review from 2001 to 2010 (see Table I-1 in Section I, *Preface*) and certified a Final Subsequent EIR (2010 FSEIR) that analyzed the whole of the 2010 Project (onshore and offshore including onshore potable water distribution). The Commission considered the 2010 FSEIR in taking its separate action to approve the portions of the 2010 Project located within the Commission’s jurisdiction. The 2010 FSEIR and 2010 Commission lease amendment were never subjected to legal attack.

Given Poseidon’s vested right in the form of Lease PRC 1980.1, and the minor additions proposed (see master response MR-2, *Lease Modification Project Scope*), the Commission’s discretionary action is limited to the Lease Modification Project application, not the onshore 50 MGD HB Desalination Plant or any interest the Orange County Water District (OCWD) may have in diversifying its water portfolio by adding desalinated water or Groundwater Replenishment System water.

- 1) Any Commission discretionary action taken on the Lease Modification Project would not affect the 2010 approval by the City for the onshore facility. Decisions regarding current Project need, how desalinated water in Orange County may be used and distributed onshore, consistency with Water Code section 13142.5, subdivision (b), or consistency with the California Coastal Act (Pub. Resources Code, § 30000 et seq.) must be appropriately made by the City of Huntington Beach as CEQA lead agency, or by other applicable CEQA responsible agencies

that have not issued current permits for the portions of the 2010 Project covered by their respective authorities, including the OCWD, Santa Ana Regional Water Quality Control Board (RWQCB), and California Coastal Commission (CCC).

- 2) A Commission discretionary action to approve or deny the proposed amendment would not terminate Poseidon’s lease. Poseidon may continue to submit applications for lease amendments, including any modifications authorized by other agencies for the portion of the 2010 Project authorized under Lease PRC 1980.1, until the lease expires in August 2026.

II.2.2 MR-2. Lease Modification Project Scope

Commenters during scoping and on the Draft Supplemental EIR raised concerns about the scope of the project analyzed by the Commission.

Representative Comments (see Part III for all comments)

Irvine Ranch Water District (A3). *The DSEIR is a focused document that addresses only the Outfall/Intake Components of the Current Desal Project⁶ on the legally flawed theory that the scope of the DSEIR need only be commensurate with CSLC’s jurisdiction and approval authority.*

California Coastkeeper Alliance et al. (O10). *[T]he Commission cannot ... consider the Lease Modification a separate “Project” when it is an integral part of a larger project to build and operate a seawater desalination facility.*

Stanford Environmental Law Clinic (O30). *The Commission must, as a matter of law, evaluate the proposed lease modification (as it did the original lease in 2010) as part of the whole Project [the proposed regional desalination facility], not a separate, different, or smaller project.*

The Commission stands by its determination, provided in Supplemental EIR Section 1.4, *Purpose and Scope of Supplemental EIR*, that the proper project scope is that provided in Supplemental EIR Section 2, *Project Description*. This scope encompasses those activities proposed in Poseidon’s application to the Commission, specifically, the proposed installation on subsea pipelines (pipelines that were approved for desalination use in 2010) of wedgewire screens and a multiport diffuser. The argument that the proposed modifications are selectively narrow and require a new complete review of the 50 MGD HB Desalination Plant Project approved in 2010 does not consider the extensive environmental review that has already occurred, the Applicant’s vested rights, the characteristics of the proposed modifications, and other considerations.

⁶ Defined by Commenter as “the 2010 Desal Project plus all modifications to that project since the 2010 FSEIR, including entirely new and different planned distribution and delivery system project components for Project Water, new treatment technologies related to new and different Project Water end use specifications, and modifications to the Outfall/Intake Components under consideration by the CSLC.”

A. Prior Environmental Review and Roles of Other Agencies (2010 to 2017)

The HB Desalination Plant, including onshore components and offshore pipelines, underwent extensive environmental review from 2001 through 2010 that culminated in the certification of a Final Subsequent EIR by the City of Huntington Beach, as CEQA lead agency (see Table I-1 in Section I, *Preface*). As a CEQA responsible agency, the Commission acted in October 2010 and approved the portion of the 2010 Project within the Commission’s jurisdiction (on 11.78 acres of tide and submerged lands), by authorizing the use of the subsea pipelines for co-located and standalone desalination operations (see [Item 62](#), October 29, 2010). Although 7 years have passed since 2010, Poseidon still needs approvals from several other agencies to build the HB Desalination Plant (see Phase I Section I.4, “2010 Project” *Environmental Review/Permitting Chronology*, and Supplemental EIR Section 1.2, *Summary of Other Agency Roles*).

- A Coastal Development Permit (CDP) issued in 2010 by the City of Huntington Beach pursuant to its Local Coastal Program was appealed to the CCC, which has yet to take action on the portion of the desalination plant in the coastal zone.
- In 2012, the Santa Ana RWQCB issued Poseidon a National Pollutant Discharge Elimination System (NPDES) permit with findings that covered: information about the project; effluent and receiving water limitations and monitoring and reporting requirements; best management practices; specifications for construction, operations, and maintenance; a Water Code section 13142.5, subdivision (b) compliance determination; and other considerations. That permit expired prior to construction of the plant and the RWQCB has not completed its new review of Poseidon’s desalination facility’s consistency with Water Code section 13142.5, subdivision (b), which now includes new standards adopted in 2015.⁷
- The OCWD “has not reached any conclusions or made any decisions regarding how desalinated [water] could be used by the District and distributed to the local water community, so no specific conveyance and utilization option has been formally selected.” (Letter from Michael R. Markus, General Manager, to The Honorable Gavin Newsom, State Lands Commission, September 8, 2017.)

B. Relationship of Lease Modifications to Approved Lease and Minor Additions/Changes to Lease (State CEQA Guidelines, § 15163, subd. (a)(2))

In July 2016, Poseidon applied to the Commission to amend Lease PRC 1980.1 consistent with the 2015 Desalination Amendment by placing screens and a diffuser on

⁷ In 2015, the State Water Resources Control Board (SWRCB) amended the California Ocean Plan to address desalination operations. The SWRCB (2015a) conducted its own environmental review associated with the 2016 Desalination Amendment in the *Final Substitute Environmental Documentation Amending the Ocean Plan Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Non-Substantive Changes* (2015 SED), which is incorporated by reference throughout the Commission’s Supplemental EIR and included in Exhibit E2 of that document.

the ends of the existing offshore pipelines within the approved lease boundaries. The Commission reviewed Poseidon’s application consistent with the Permit Streamlining Act (Gov. Code, § 65920 et seq.), and determined that: (1) Poseidon is in compliance with its lease; (2) Poseidon has a vested right to use the pipelines for seawater desalination until August 7, 2026; and (3) without the proposed modifications, Poseidon would be unable to conduct stand-alone desalination operations consistent with the 2015 Desalination Amendment and its vested right to do so under PRC 1980.1.

The Commission has also determined that the technological modifications proposed by Poseidon constitute “minor additions or changes [that] would be necessary to make the previous EIR apply to the project in the changed circumstances.” (See State CEQA Guidelines, § 15163, subd. (a)(2).) The “changed circumstances” applicable to the Lease Modification Project as determined by the Commission are as follows:

- The 2010 Project did not propose modifications to the existing subsea pipelines on Lease PRC 1980.1; such modifications are now contemplated in Poseidon’s new lease amendment application.
- The 2010 FSEIR did not address potential significant impacts (e.g., to ocean water quality and marine biological resources, air quality, greenhouse gas emissions, and marine transportation) associated with construction activities in the ocean offshore Huntington State Beach, which are required to install the proposed wedgewire screens and multiport diffuser on the subsea pipeline ends.

The Commission based its determination of “minor additions or changes” on a comparison between what the Commission previously authorized in Poseidon’s existing lease (see [Item 62](#), October 29, 2010) and what Poseidon seeks in its new application.

C. Scope of Similar Commission-Approved Projects

The activities contemplated in Poseidon’s application are similar in scope and utility to the San Onofre Nuclear Generating Station (SONGS) Offshore Large Organism Exclusion Device (LOED) Installation Project, for which the Commission adopted a Mitigated Negative Declaration (MND) in 2012 ([Item C78](#), October 19, 2012).⁸ In that project, Southern California Edison Company was obligated to comply with Section 2.C.(1) of the SWRCB’s Once Through Cooling (OTC) Policy⁹ by installing two LOEDs

⁸ As described in the SONGS LOED project MND (www.slc.ca.gov/Info/CEQA/SONGS_LOED.html), each LOED was a 64-foot square structure that would stand 19 feet in height, approximately 1 foot above the top of the offshore intake structure velocity cap, and approximately 6 feet, 7 inches below the surface of the water at mean lower low water level (i.e., lowest low tide). The four primary walls of the structure were 36 feet long, and the shorter “corner” walls were just under 20 feet in length. The LOEDs were designed to prevent the entrapment in the SONGS OTC intake structures of large marine organisms (e.g., Pacific harbor seal, California sea lion, green sea turtle, and giant and large sea bass).

⁹ www.waterboards.ca.gov/water_issues/programs/ocean/cwa316/docs/amdplcy052512.pdf

(one around each of the two Offshore Intake Structures at SONGS Units 2 and 3) during a 12-week construction period. Although the project involved offshore construction on existing pipelines much like the Lease Modification Project, the Commission believed that a MND provided the appropriate level of environmental review. In preparing the MND and approving the LOED project, the Commission analyzed only the impacts of the proposed project, not the larger SONGS operational impacts. Here, the Commission determined that a Supplemental EIR was appropriate because Poseidon's application introduced minor additions and changes to the existing offshore pipelines.

In 2008, the Commission approved the use of existing intake and outfall structures for a desalination plant in Carlsbad. In the unpublished *San Diego Coastkeeper v. California State Lands Commission* (2010) Cal. App. Unpub. LEXIS 9797, the appellate court upheld the Commission's action to not prepare a supplemental EIR and approve a lease amendment for the desalination facility, which proposed to use the Encina Power Station's existing pipelines and cooling water in its desalination processes. The court found that the environmental implications of a stand-alone desalination facility had already been analyzed in an EIR certified by the City of Carlsbad, acting as CEQA lead agency, and that the Commission's action was supported by substantial evidence and consistent with the CEQA statutory scheme. Although the HB Desalination Plant also proposes to use existing HBGS pipelines for co-located and stand-alone operations, the Commission determined, as discussed above, that Poseidon's application introduced minor additions or changes to these offshore pipelines that were not previously analyzed in an EIR and, therefore, that a Supplemental EIR is required.

D. Summary

In summary, the Commission's discretionary action would apply to a modification of Poseidon's current existing lease, and does not require a new review of the HB Desalination Plant Project approved by the City of Huntington Beach in 2010. The following factors were considered in this determination.

- Poseidon's rights under the initial lease have vested, precluding a re-evaluation of the earlier, final CEQA review (the Commission's 2010 lease amendment authorizes desalination operations on the lease premises under existing lease terms whether or not the Lease Modification Project is approved at this time).
- During application processing pursuant to the Permit Streamlining Act, CEQA scoping, and preparation of the Supplemental EIR, the Commission consistently treated Poseidon's application as a request to modify a vested lease and as a project that is subject to CEQA and permit-processing deadlines.
- The Commission has reviewed the project before it in a limited way, by comparing what had already been approved with what is being proposed within the Commission's jurisdiction.

Such determination is consistent with *Benton v. Board of Supervisors* (1991) 226 Cal. App. 3d 1467, 1476, which stated to do otherwise as determinative of the scope of the project for purposes of CEQA review would constitute a triumph of form over substance, and *Fund for Environmental Defense v. County of Orange* (1988) 204 Cal. App. 3d 1538, 1542-1548.

II.2.3 MR-3. Responsible Vs. Lead Agency & Supplemental Vs. Subsequent EIR

Commenters during scoping and on the Draft Supplemental EIR raised concerns that the Commission must act as the lead agency (i.e., not continue as a responsible agency) and must prepare a subsequent EIR that reanalyzes the entire HB Desalination Plant Project approved by the City of Huntington Beach and Commission in 2010, not just Poseidon's proposed new intake and outfall Lease Modification Project.

Representative Comments (see Part III for all comments)

California Coastkeeper Alliance et al. (O10). *When an EIR has been certified, but the project has not yet commenced, CEQA imposes continuing obligations on public agencies. In particular, CEQA **requires** a Subsequent EIR not a narrow Supplemental EIR, where there are changes to a project, changes to circumstances under which it will be taken, and/or new information available, such that new or more severe significant impacts will result.*

Stanford Environmental Law Clinic (O30). *In proposing to approve a discretionary lease modification nearly seven years after the Project was approved (but never commenced), the Commission, as a matter of law, necessarily assumes CEQA "lead agency" status for the Project, whether or not it wants to do so.*

Irvine Ranch Water District (A3). *CEQA requires preparation of new or subsequent EIR because the 2010 Desal Project has fundamentally changed since 2010, and the major changes to the 2010 Desal Project must be comprehensively analyzed consistent with CEQA prior to or concurrently with review of the Outfall/Intake Components. The 2010 Desal Project relied on direct surface distribution of Product Water to the potable delivery systems of Orange County retail water agencies (Surface/Potable Distribution Components). The Current Desal Project [the 2010 Desal Project plus all modifications to that project since the 2010 FSEIR] is now proposed to distribute and deliver Product Water by injecting it into the groundwater aquifer and blending it with higher quality groundwater....*

California Coastal Commission (A6). *[I]n addition to evaluating these newly proposed offshore Lease Modification Project components, the CEQA analysis [should] be broadened and modified to address onshore project changes, changed circumstances, and new information applicable to the Poseidon Project that have occurred or been developed since the EIR was certified by the City of Huntington Beach in 2010.... In addition, there is new information available today that was not available during the 2010 CEQA review. For example, there is new information and sources about sea level rise ("SLR") and new guidance on how to address SLR.*

A. Continuing Role as a Responsible Agency

In 2010, the Commission, acting as a responsible agency, complied with CEQA by considering the 2010 FSEIR prepared by the City of Huntington Beach and reaching its own conclusion to amend the lease to include the portion of the 2010 Project under its jurisdiction. (State CEQA Guidelines, § 15096 subd. (a).) Such action provided Poseidon with a vested right in the form of the executed lease. Responsible agencies generally are limited to complying with CEQA by relying on the environmental document prepared by the lead agency. (State CEQA Guidelines, § 15162, subd. (f).)

When Poseidon submitted the application to the Commission to modify the previously approved lease, the question before the Commission was whether the previously certified 2010 FSEIR retained some informational value, and if so, whether to proceed under CEQA's subsequent review provisions. (*Friends of the College of San Mateo Gardens v. San Mateo County Community College District* (2016) 1 Cal.5th 937, 952.) CEQA includes a strong presumption against requiring further environmental review once an EIR has been prepared. Public Resources Code section 21166 states “no subsequent or supplemental environmental impact report shall be required” unless one of the triggering events listed in that section occurs. When a project has been subject to environmental review and received approval, section 21166 limits the circumstances under which a subsequent or supplemental EIR must be prepared.

In reviewing the proposed lease modifications, the Commission determined that the 2010 FSEIR retained informational value, except that the 2010 FSEIR did not contemplate the offshore pipeline modifications. The Commission then determined a Supplemental EIR, consistent with State CEQA Guidelines sections 15163, was appropriate to make the minor additions and changes needed to make the 2010 FSEIR adequate for the Commission's consideration of the proposed changes for the lease modification. State CEQA Guidelines section 15163, subdivision (a), specifically contemplates a responsible agency can prepare a supplemental EIR.

The Commission did not become a lead agency simply because it found it necessary to prepare additional environmental documentation. State CEQA Guidelines section 15096, subdivision (e) contemplates several options when a responsible agency finds the final EIR prepared by the lead agency not adequate for its use. It states the responsible agency must either:

1. Take the issue to court within 30 days after the lead agency files a notice of determination;
2. Be deemed to have waived any objection to the adequacy of the EIR;
3. Prepare a subsequent EIR if permissible under section 15162; OR
4. Assume the lead agency role as provided in section 15052, subdivision (a)(3).

Here, the Commission decided to proceed under CEQA's subsequent review provisions as an option explicitly authorized under CEQA Guidelines section 15096, subdivision (e)(3), and prepare a supplemental EIR under section 15163 where it determined a full subsequent EIR under section 15162 was not required.

Because the Commission already approved the portion of the 2010 Project under its jurisdiction, Poseidon has a vested right in the form of an executed lease. As a responsible agency, the Commission prepared a Supplemental EIR for the Lease Modification Project. It is appropriate for the Commission to focus its review on the modifications within Commission's jurisdiction because CEQA does not require an agency to review issues over which it has no discretionary authority. (See *San Diego Navy Broadway Complex Coalition v. City of San Diego* (2010) 185 Cal.App.4th 924 [Court found that because the reviewing body's authority to shape the approval was limited solely to issues of the project's design and aesthetics, it was not required to prepare an EIR to examine other issues, such as the project's global climate change impacts]; See also *Friends of Westwood, Inc. v. City of Los Angeles* (1987) 191 Cal.App.3d 259, 266 ["touchstone" of CEQA is whether the approval process involved allows the agency to shape the project in a way that can respond to any of the concerns which might be identified in an EIR]; *Mountain Lion Foundation v. Fish & Game Com.* (1997) 16 Cal.4th 105, 116 [noting unless a public agency can shape the project in a way that would respond to concerns raised in an EIR, such review would be a meaningless exercise].) Issues with upland operations such as changes in water distribution were not included in Poseidon's application to the Commission and are not located on property managed by the Commission. Because the Commission's authority is narrowly tied to state-owned lands and resources and no approval is needed for modifications made onshore, the Commission appropriately focused its environmental review to proposed work on lands within its jurisdiction. If Poseidon seeks to modify the 2010 Project in ways outside of the Commission's jurisdiction, those modifications will be reviewed and vetted by other governmental agencies with broader regulatory authority.

B. Applicable Standard for Preparing a Supplemental EIR

Under Public Resources Code section 21166, subdivision (a), when an EIR has been prepared for a project, no subsequent or supplemental EIR shall be required by the lead agency or by any responsible agency, unless one or more of the following events occurs: **(a) substantial changes are proposed in the project which will require major revisions of the environmental impact report.** California Code of Regulations section 15162, subdivision (a), further defines when this threshold has been met for subsequent EIRs.

- (a) When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

- (1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of ***new significant environmental effects or a substantial increase in the severity of previously identified significant effects*** (emphasis added);
- (2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified effects; or
- (3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
 - A. The project will have one or more significant effects not discussed in the previous EIR;
 - B. Significant effects previously examined will be substantially more severe than shown in the EIR;
 - C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - D. Mitigation measures or alternatives which are considerable different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Pursuant to State CEQA Guidelines section 15163, subdivision (a), the “lead or responsible agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if: (1) any of the conditions described in Section 15162 would require the preparation of a subsequent EIR, and (2) only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.” In *City of Irvine v. County of Orange* (2015) 238 Cal. App. 4th 526, 539-40, the court concluded that “the choice to proceed by way of a supplemental as distinct from a subsequent EIR is a discretionary one” that will be upheld if there is any reasonable basis for the agency’s determination. In *Temecula Band of Luiseno Mission Indians v. Rancho Cal. Water Dist.* (1996) 43 Cal. App. 4th 425, 437, the court ruled that an agency preparing a supplemental EIR “is specifically authorized to limit its consideration of the later project to effects not considered in connection with the earlier project.”

Master response MR-2, *Lease Modification Project Scope*, addresses the Commission’s determination with respect to the applicability of section 15163, subdivision (a)(2). With respect to the applicability of subdivision (a)(1), in *Bowman v. City of Petaluma* (1986)

185 Cal. App. 3d 1065, 1081, the court said the applicable test was “whether the record as a whole contains substantial evidence to support a determination that the changes in the project were not so substantial as to require major modifications to the EIR.” *Bowman* involved revisions to a traffic plan for a residential development with a certified EIR. The city decided the threshold was not met to require a supplemental EIR and prepared an addendum. Incidentally, the court found that the 17 percent increase in daily trips from the modified project to be insubstantial. (*Id.* at 1079). The applicability of section 15162 that “no subsequent EIR shall be prepared for that project” came into play because in-depth review of the project had already occurred, the time for challenging the sufficiency of the original EIR had long since expired, and the question decided was that circumstances had not changed enough to justify repeating a substantial portion of the process.

C. Comments Asserting “Changed Circumstances”

Several commenters state that a new subsequent EIR instead of a supplemental EIR must be prepared because the 2010 Project has changed significantly since its approval in 2010, as have the circumstances surrounding it. A frequently cited example of “changed circumstances” is that new delivery options are under consideration by the Project proponent and the Orange County Water District that would involve significant impacts that were never considered in the original CEQA analysis.

Other than Poseidon’s application to implement the Lease Modification Project, neither the City of Huntington Beach nor OCWD nor other entity to date has submitted detailed proposed physical changes to the 2010 Project, including to the Project’s potable water distribution system. Furthermore, the Lease Modification Project does not change the onshore components of the desalination facility. As noted in master response MR-1, *Scope of the Commission’s Discretionary Action*, the OCWD recently stated that it “has not reached any conclusions or made any decisions regarding how desalinated [water] could be used by the District and distributed to the local water community, so no specific conveyance and utilization option has been formally selected.” (Letter from Michael R. Markus, General Manager, to The Honorable Gavin Newsom, State Lands Commission, September 8, 2017.) This statement is consistent with information presented in the Supplemental EIR that:

Given the expected timeline for the [HB Desalination Plant's] permitting process, OCWD has also concluded that it would not be prudent to begin an extensive environmental analysis related to use of the desalinated water in OCWD's operations and facilities, along with distributing the water to other agencies, prior to the approval of the permits for the [Huntington Beach Desalination Plant]. Decisions by the Regional Board and the other permitting agencies may result in new or different information that could increase the cost of the desalinated water and/or modify OCWD's plans for using and distributing the water. (Letter from Michael R. Markus, OCWD General Manager, to Kurt Berchtold, Santa Ana RWQCB, March 20, 2017.)

Based on this information, potential changes in the distribution of desalinated water onshore by local or regional water agencies are speculative at this time and not germane to the offshore Lease Modification Project before the Commission. CEQA does not require analysis of speculative impacts, and the Commission need not prepare a subsequent EIR to address environmental impacts of future actions that are uncertain, such as an onshore desalinated water distribution system that may or may not differ from the distribution system already evaluated in the 2010 FSEIR. (See *Citizens for a Sustainable Treasure Island v. City & County of San Francisco* (2014) 227 Cal. App. 4th 1036, 1058.)

D. Comments Asserting “New Information” Exists Since 2010 FSEIR Certification that Requires Preparation of a Subsequent EIR

CEQA provides that a subsequent or supplemental EIR is required if “[n]ew information, which is not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.” (Pub. Resources Code, § 21166, subd. (c).) Examples of issues not addressed in the 2010 FSEIR certified by the City of Huntington Beach include the need for the 2010 Project in light of recent water conservation and water availability through the OCWD/Orange County Sanitation District’s Groundwater Replenishment System, changes in ocean water quality regulations with adoption of the 2015 Desalination Amendment, and onshore site inundation associated with sea-level rise. In order to necessitate further environmental review, new information must be of substantial importance and must show: (A) the project will have one or more significant effects not discussed in the prior EIR; (B) significant effects previously examined will be substantially more severe than shown in the previous EIR; (C) mitigation measures or alternatives previously found infeasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative. (State CEQA Guidelines, § 15163, subd. (a)(3).)

D.1 Project Need

Unlike the National Environmental Policy Act (NEPA), CEQA does not require a detailed description of the “purpose and need” of the project. Rather, under CEQA, the Project Description shall include a description of the project objectives, which helps to develop of reasonable range of alternatives and aid in preparing the findings or statement of overriding considerations. Here, the objectives of the Lease Modification Project before the Commission are more narrowly focused on trying to meet obligations set forth in the Desalination Amendment to the State Water Resources Control Board’s Ocean Plan (see Section 2.2, *Project Objectives*). However, for background and informational purposes, the Supplemental EIR included information about the broader HB

Desalination Plant objectives. No more information on the objectives is required in the Supplemental EIR to adequately evaluate the proposed changes involved in the proposed lease modification before the Commission.

The Commission incorporated by reference into the objectives section of the Supplemental EIR (see Section 2.2, *Project Objectives*) the “previously-approved need for the HB Desalination Plant [Project],” as set forth in the 2010 FSEIR. The 2010 FSEIR identified the Huntington Beach Desalination Plant Project as one of several local water projects currently being proposed to meet Orange County’s ongoing water needs in four different ways (see 2010 FSEIR pages 3-79 through 3-80).

- Provide Orange County with increased water supply reliability during times of drought or during shortages in other water supplies
- Replace imported water supplies that have been, and will be, lost by Orange County to statewide and environmental needs
- Provide a planned-for water supply source to accommodate Orange County’s increasing water needs as shown in the water plans adopted by state, regional and local water agencies
- Provide a new water supply source, thus allowing operational flexibility in managing the amount of groundwater pumped from underground aquifers. This would assist in protecting the Orange County Groundwater Basin from seawater intrusion and/or replace groundwater supplies lost to overdraft concerns

The OCWD/Orange County Sanitation District’s Groundwater Replenishment System is now producing water for indirect potable reuse by purifying and injecting highly treated wastewater that would have previously been discharged into the ocean (see description in Supplemental EIR Section 3.2.4, *Onshore Potable Water Distribution Pipeline*). However, the 2015 update of the OCWD’s Groundwater Management Plan identifies new potable water produced at the HB Desalination Plant as a planned future water supply (page 2-11) given a local and regional need based on limited imported water supplies, declining Santa Ana River flows, and increased demand for water. Similar information is provided in the City of Huntington Beach 2015 Urban Water Management Plan (June 2016), which states “OCWD’s current Long-Term Facilities Plan...identifies the [HB Desalination Plant] as a priority project and...the single largest source of new, local drinking water available to the region” (page 7-3). The HB Desalination Plant water supply is also identified in the Municipal Water District of Orange County (MWDOC) Urban Water Management Plan 2015 Update and Orange County Water Reliability Study, and the MWDOC has recently stated that the HB Desalination Plant Project is “part of our [water management plan] to reduce our demand for imported water, thereby strengthening our reliability and helping meet our goal of diversifying our water supply portfolio.” (Letter from Robert J. Hunter, MWDOC General Manager, to Kurt Berchtold, Santa Ana RWQCB, July 7, 2016.)

These regional water reliability studies and similar correspondence identify Orange County's need for a diverse set of potable water supply options including the HB Desalination Plant Project, as set forth in the 2010 FSEIR and incorporated by reference in the Commission's Supplemental EIR. This information does not constitute new information of substantial importance or trigger the conditions in State CEQA Guidelines, section 15163, subdivision (a)(3)(A)-(D). CEQA does not require more than this information as part of the Project Description (see State CEQA Guidelines, § 15124, subd. b).

D.2 2015 Desalination Amendment and 2014 and 2015 ISTAP Reports

Several commenters state that a new or subsequent EIR is warranted because the SWRCB's 2015 amendment to the Water Quality Control Plan for the Ocean Waters of California (Desalination Amendment), which was adopted by the SWRCB on May 6 2015, and took effect as a new regulation on January 28, 2016, is a changed circumstance, and that the ISTAP reports released in 2014 and 2015 constitute new information (see Phase I, Section I.4.3, *California Coastal Commission (CCC): 2006 to Date*, and Section I.4.4, *Santa Ana Regional Water Quality Control Board (RWQCB): 2006 to Date & State Water Resources Control Board (SWRCB): 2015-2016*).

Prior to approving the Desalination Amendment, the SWRCB prepared an Substitute Environmental Document (2015 SED) that analyzed potential environmental impacts of using seawater for desalination along the California coast (see master response MR-2, *Lease Modification Project Scope*, under footnote 8). The 2015 SED, which is incorporated by reference in the Supplemental EIR, analyzed possible intake and outfall options for desalination facilities, and made recommendations for the use of certain technologies. In approving the Desalination Amendment, the SWRCB added considerations for intake and brine discharge technology including by requiring new or expanded seawater desalination plants to use the best available, site, design, technology, and mitigation measures feasible to minimize intake and mortality of all forms of marine life. Based on the best available science, the Desalination Amendment identified preferred technologies, including subsurface intake systems if feasible; however, alternative methods can be used if subsurface intake systems are not feasible at a particular site and are demonstrated to be as protective of marine life as the preferred technologies. As excerpted from the Executive Summary of this Supplemental EIR, the sections of the Desalination Amendment relevant to the proposed Lease Modification Project state in part:

- If subsurface intakes are not feasible, the regional water board...shall require that surface water intakes be screened. Screens must be functional while the facility is withdrawing seawater. (Chapter III.M.2.d(1)(c)(i).)
- The preferred technology for minimizing intake and mortality of all forms of marine life resulting from brine discharge is to commingle brine with wastewater

(e.g., agricultural, municipal, industrial, power plant cooling water, etc.) that would otherwise be discharged to the ocean.... Multiport diffusers are the next best method for disposing of brine when the brine cannot be diluted by wastewater and when there are no live organisms in the discharge. Multiport diffusers shall be engineered to maximize dilution, minimize the size of the brine mixing zone, minimize the suspension of benthic sediments, and minimize mortality of all forms of marine life. (Chapter III.M.2.d(a), (b).)

Information on both the Desalination Amendment and ISTAP reports is provided in the Supplemental EIR (see Sections 1.2.2, *Santa Ana RWQCB Permitting Status*, and 1.2.3, *CCC Permitting Status*). General Lease–Industrial Use PRC 1980.1, as amended in 2010, provides Poseidon with a vested right to use the existing HBGS seawater intake pipeline for co-located and stand-alone operations until 2026. In 2016, Poseidon submitted a new application to the CSLC to amend PRC 1980.1 to install a screen and a multiport diffuser on the seaward end of the HBGS seawater intake and discharge pipeline, respectively, pursuant to Ocean Plan Chapter III.M.2.d as described above.

The Commission considered information from the 2010 FSEIR, 2014-15 ISTAP Reports, and 2015 SED in evaluating alternatives to the Lease Modification Project. The 2010 FSEIR analyzed different intake technology alternatives (Section 6.4), including vertical, slant and horizontal intake beach wells and subsurface infiltration gallery intake systems. The 2010 FSEIR found that subsurface intakes were infeasible or more impactful to the environment than the HB Desalination Plant as proposed (Section 6.4).

As described in this Supplemental EIR Section 5.3.4, *Alternatives Eliminated from Further Consideration, ISTAP Alternatives*, the ISTAP reviewed the feasibility of subsurface intake options for the HB Desalination Plant and concluded that alternative subsurface intakes, while technically feasible, “were found not to be economically viable at the Huntington Beach location within a reasonable timeframe, due to high capital costs.” Regarding the analysis of slant wells in the ISTAP reports, both the ISTAP Phase 1 Report and the 2010 FSEIR considered beach well intake alternatives. As described in Supplemental EIR Section 5.3.3, *Alternatives Eliminated from Further Consideration, Alternatives Eliminated in the 2010 Final Subsequent Environmental Impact Report*, the 2010 FSEIR concluded that beach well intakes, including slant intake wells, would have greater impacts to benthic and marsh habitat, public access, aesthetics, geology and soils, hazards, and product water quality. Likewise, the Phase 1 ISTAP Report concluded that slant wells could potentially result in adverse groundwater impacts. Because slant wells would not reduce or avoid any of the Lease Modification Project’s significant impacts and would impact additional resource areas, the Supplemental EIR eliminated slant wells from further detailed consideration. Ultimately, the ISTAP Reports represent the opinions of the scientists that participated in the ISTAP process. Other experts or scientists may have different opinions. As part of the CEQA process, the Commission independently reviewed and analyzed these differing opinions

and concluded that the ISTAP Reports are an appropriate body of expert opinions and information that may be used in the Supplemental EIR.

The Commission’s review of Poseidon’s application subsequently and properly focused on technological modifications to the proposed surface intake method (screens and diffuser) and analyzed these impacts in comparison to those impacts considered in the 2010 FSEIR (see Table 1-3, *Considerations Relevant to the Supplemental EIR Scope*). As discussed in master response MR-2, *Lease Modification Project Scope*, the Commission determined that only minor additions or changes to the 2010 FSEIR are necessary to make the previous EIR adequately apply to the project in the changed circumstances. The Lease Modification Project does not involve major revisions to the HB Desalination Plant Project that would require major revision to the 2010 FSEIR.

The Santa Ana RWQCB, in coordination with the SWRCB, is the agency designated under the Desalination Amendment to determine, on a project- and site-specific basis and in consultation with the SWRCB, the best available site, design, technology and mitigation measures for the HB Desalination Plant Project.¹⁰ As noted in Supplemental EIR Section 1.2.2, *Santa Ana RWQCB Permitting Status*: (1) the RWQCB is currently conducting the Water Code section 13142.5, subdivision (b) analysis in accordance with the Desalination Amendment, the results of which could result in a change to Poseidon’s site, design, technology, or mitigation measures needed to conform to the Desalination Amendment; and (2) at such time as the RWQCB completes its Water Code section 13142.5, subdivision (b) determination, if the RWQCB identifies any changes, new CEQA or CEQA functional equivalent analysis would need to be conducted pursuant to such action. The RWQCB’s responsibility for implementing the requirements of the Ocean Plan and issuance of a NPDES permit is further defined in its own comment letter (Comment A9-1), which states:

Water Boards staff acknowledges that the analysis required by the Ocean Plan, in determining consistency with CWC [California Water Code] section 13142.5(b), is separate and distinct from the California State Lands Commission’s ... analysis for the SEIR; however, a CWC section 13142.5(b) determination is subject to CEQA.

Such changes or alterations are within the responsibility and jurisdiction of the Santa Ana RWQCB, not the Commission (see also State CEQA Guidelines, § 15091, subd. (a)(2)). As such, the CSLC’s decision to prepare a Supplemental EIR at this time is reasonable.

¹⁰ Water Code section 13142.5, subdivision (b) provides in part: “[f]or each new or expanded coastal ... industrial installation using seawater for cooling, heating, or industrial processing, the best available site, design, technology, and mitigation measures feasible shall be used to minimize the intake and mortality of all forms of marine life.”

D.3 Sea-Level Rise

The Commission provides information on sea-level rise in Supplemental EIR Section 8.1, *Climate Change and Sea-Level Rise Considerations*, including recent information not included in the 2010 FSEIR, because in addition to the environmental review required pursuant to CEQA, a public agency may consider other information and policies in its decision-making process. Specifically, in its 2016-2020 Strategic Plan, the Commission recognizes the coastal management challenges posed by climate change and sea-level rise in relation to its Public Trust responsibilities and commits to incorporating strategies to meet these challenges in its analyses, planning, and decisions. As stated in Section 8.1, Governor Brown’s Executive Order B-30-15 instructed all State agencies to take climate change into account in their planning and investment decisions and to give priority to actions that build climate preparedness. Please also note that the State of California released the final “Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy” (Safeguarding Plan) on July 31, 2014, to provide policy guidance for State decision-makers, including the Commission, as part of continuing efforts to prepare for climate risks. The 2014 Safeguarding Plan and the recently published draft 2017 update,¹¹ to which Commission staff contributed, describes dozens of recommendations to safeguard ocean and coastal ecosystems and resources as part of its policy recommendations.

The information provided in Section 8.1 includes estimates by the National Research Council (2012) that, compared to year 2000 levels, the southern California region could see up to 1 foot of sea-level rise by the year 2030, 2 feet by 2050, and possibly over 5 feet by 2100. The Commission also identifies that the City of Huntington Beach’s Sea-Level Rise Vulnerability Assessment (2014) “identifies assets that are vulnerable to coastal flooding and inundation within the City’s designated Huntington Beach ‘planning area,’ which would include the HB Desalination Plant.” Regarding climate change, Section 8.1 also cites Tebaldi (2012) that along with higher sea levels, higher intensity and more frequent precipitation events due to climate change will further impact coastal areas, which in turn will likely result in increased wave run up, storm surge, and flooding in coastal and near coastal areas.

Because the existing HBGS pipelines are submerged (at a depth of approximately 33 feet mean lower low water) and the proposed wedgewire screens and multiport diffuser would also be submerged and located on the pipeline risers above the seafloor, the inundation/flooding risk presented by sea-level rise is not a factor affecting the Commission’s jurisdiction at this time and location, and until more is observed or known about how climate effects alter sediments in the nearshore subtidal areas where the

¹¹ <http://resources.ca.gov/climate/safeguarding/>

facilities are located, any conclusions or statements about risks would be speculative. Furthermore, Section 8.1 notes that “not enough is known about the potential climate change-driven changes to seafloor sediment at the Lease Modification Project site to draw conclusions about effects on the proposed intake screens and diffuser that Poseidon proposes to install on the risers (towers) of the existing Huntington Beach Generating Station (HBGS) subsea pipelines.”

As noted in *California Building Industry Association v. Bay Area Air Quality Management District*, CEQA does not require an analysis of impacts the environment has on a project, but rather impacts a project has on the environment. See 62 Cal. 4th 369, 378 (2015); see also *Cal. Building Industry Assn. v. Bay Area Air Quality Management Dist.*, 2 Cal. App. 5th 1067, 1077 (2016). Thus, under such circumstances, while analysis of a proposed project’s impacts on sea-level rise is required under CEQA, the reverse (analysis of potential sea level rise or coastal erosion on a proposed project) is not, and as a result, the information and guidance related to sea-level rise published since 2010 does not constitute new information of substantial importance or trigger the conditions in State CEQA Guidelines, section 15163, subdivision (a)(3)(A)-(D). Instead, the discussion of climate change and sea-level rise provided in the Supplemental EIR is intended to provide the local/regional overview and context that the Commission may consider in taking action on the proposed Lease Modification Project as part of its Public Trust analysis and responsibilities under Executive Order B-30-15.

II.2.4 MR-4. Piecemealing

Several commenters accuse the Commission of piecemealing, or artificially and illegally dividing a single, integrated project (i.e., the Huntington Beach Desalination Plant) into segments (i.e., the Lease Modification Project proposed in Poseidon’s 2016 application to the Commission and defined in the Supplemental EIR) so as not to reveal its full extent.

Representative Comments (see Part III for all comments)

Irvine Ranch Water District (A3). Segmentation or “piecemealing” the environmental review of the Current Desal Project violates CEQA. CEQA Guidelines, § 15378 (EIR must evaluate the “whole of the action”). The purpose of the piecemealing prohibition is to prevent segmented review focused on only certain project components resulting in: (1) a failure to identify the severity of adverse impacts of the entire project as planned; (2) a failure to identify and consider a reasonable range of alternatives to avoid or reduce impacts of the entire project as planned; and (3) a failure to consider and prescribe all feasible and available mitigation measures to reduce adverse impacts of the entire project as planned.

California Coastkeeper Alliance et al. (O10). By defining an integral part of the whole project as a separate “Lease Modification Project” when that separate project in and of

itself would have no independent utility, the SLC is engaged in illegal “piecemealing” of the project and its foreseeable adverse impacts.

Stanford Environmental Law Clinic (O30). *The desalination facility has correctly been defined as a single CEQA “project” for years, in a single EIR, and the activities that will take place on trust lands under the Commission’s jurisdiction are an integral part of that Project. The Commission’s new attempt to slice off the lease modification from the rest of the Project and consider only that slice, in order to avoid considering the broader impacts of significant Project changes and new information, is the quintessential “piecemealing” or “segmentation” that the courts have long forbidden.... If Commission staff believes that a portion of the Project – e.g., the water delivery system – is too speculative or indeterminate to evaluate at this time, the proper remedy is to wait for additional details from the Project proponent, not to illegally segment the impacts analysis and approve a piece of the Project.*

The concept of “piecemealing” under the CEQA, is where a public agency improperly divides up a single project into smaller individual projects in order to avoid its responsibility to consider the environmental impacts of the project as a whole. See *Sierra Club v. West Side Irr. Dist.* (2005) 128 Cal.App.4th 690.

As noted in several comments, State CEQA Guidelines section 15378, subdivision (a), states:

- (a) "Project" means the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: ...
 - (3) An activity involving the issuance to a person of a lease, permit, license, certificate, or other entitlement for use by one or more public agencies.

Poseidon already holds a vested lease from the Commission for the 2010 Project. The project currently proposed to the Commission, which requires a lease amendment, is the Lease Modification Project as described in Section 2, *Project Description*. This Supplemental EIR analyzes the entire modification request submitted to the Commission. The Commission is reviewing this request as a single discretionary decision.

In 2010, the Commission applied the definition of “project” provided in the State CEQA Guidelines to the HB Desalination Plant when it issued a lease for the use of offshore pipelines for co-located and stand-alone desalination operations through August 2, 2026 (see [Item 62](#), October 29, 2010). The Lease Modification Project analyzed here is in response to an amendment to the Ocean Plan that was adopted after the certification of the 2010 Project. As stated in master response MR-2, *Lease Modification Project Scope*, the Commission determined that the technological modifications proposed by Poseidon constitute “minor additions or changes” to the previously certified 2010 FSEIR to make it adequately apply to the approval action before the Commission. (See State

CEQA Guidelines, § 15163, subd. (a)(2)). Common sense dictates that this more limited discretionary action by the Commission does not require a new review of the entire HB Desalination Plant Project approved in 2010. Therefore, the analysis of Poseidon's proposed technical modifications presented in this Supplemental EIR does not divide the HB Desalination Plant into segments and hide its full extent.

The Supplemental EIR analyzes the entirety of the project before the Commission (the Lease Modification Project). Furthermore:

- The HB Desalination Plant has already undergone final CEQA review.
- Poseidon's rights under the initial lease have vested, precluding a re-evaluation of the earlier, final CEQA review.
- During application processing pursuant to the Permit Streamlining Act, CEQA scoping, and preparation of the Supplemental EIR, the Commission consistently treated Poseidon's application as a request to modify an already-permitted lease and only as a new project for purposes of processing deadlines.
- The Commission has reviewed the entire project before appropriately by comparing what had already been approved with what is being proposed for Commission action.

Such determination is consistent with *Benton v. Board of Supervisors* (1991) 226 Cal. App. 3d 1467, 1477 (finding that a county properly limited its environmental analysis to the incremental effects of the relocation of a proposed building on a winery) and *Temecula Band of Luiseno Mission Indians v. Rancho Cal. Water Dist.* (1996) 43 Cal. App. 4th 425, 437 (upholding a water district's analysis of the incremental effects of a pipeline modification).

The City of Huntington Beach analyzed a desalinated water delivery system in its 2010 FSEIR; any changes to this system are currently speculative. Pursuant to Water Code section 13142.5, subdivision (b), the Santa Ana RWQCB also continues to evaluate alternative sites, design, and technologies for the Huntington Beach Desalination Plant, with no fixed date by which such evaluation would be completed (see Supplemental EIR Section 1.2.2, *Santa Ana RWQCB Permitting Status*). For the Commission to delay application processing to wait for additional details on an indeterminate project is inconsistent with CEQA (which does not require a reviewing agency to wait until speculative events occur before completing its environmental review), permit-processing deadlines, and Commission established practice of working to process applications in a timely manner prior to hearing such applications after CEQA review (see master response MR-1, *Scope of the Commission's Discretionary Action*).

II.2.5 MR-5. Diffuser Entrainment Mortality and Species Affected

Commenters on the Draft Supplemental EIR raised concerns about how the Commission calculated the potential mortality of marine species from diffuser shear.

Representative Comments (see Part III for all comments)

Santa Ana RWQCB (A9). *[Draft Supplemental EIR] Page 4-60. The State Water Board's Final Staff Report Including the Final Substitute Environmental Documentation Adopted May 6, 2015: Amendment to the Water Quality Control Plan for Ocean Waters of California Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Non-substantive Changes (Staff Report) contains an estimate that 23 percent of the total water entrained in dilution is exposed to shearing-related mortality. The 23 percent estimate is based on a particular case of a single jet discharging dense effluent oriented at an upwards angle of 60°. The 23 percent estimate does not take into account different diffuser designs because the estimate is purely a function of the discharge volume. As indicated in Appendix F1, the shearing-related mortality caused by a 6-port diffuser discharging at a lower velocity is likely to be lower than the shearing-related mortality caused by a 2-port diffuser discharging at a higher velocity. **It is important to note that the 23 percent estimate contained in the Staff Report is not a regulatory provision in the Ocean Plan [emphasis added].** The following paragraph on pages 115-116 of the [S]taff Report provides additional information on assessing shearing-related mortality:*

"Discharging through multiport diffusers would require an assessment of mortality that occurs as a result of the increased salinity at the discharge and any shearing-related mortality associated with the diffusers even though the effects will likely be minimal from properly sited multiport diffusers (Foster et al. 2013; Bothwell comment letter 2014). An owner or operator could use existing shearing data (see discussion in section 8.5.1.2 above) that has been approved by the regional water board or alternately, could elect to do their own diffuser entrainment modeling under the guidance and approval of the regional water board. Empirical studies of diffuser-related mortality are technically feasible and encouraged, but may be cost prohibitive. As more studies are done, there will be more information available on how to better estimate diffuser-related mortality in order to establish a performance standard for alternative brine disposal technologies."

*Therefore, this excerpt makes it clear that the applicable regional water board has discretion to determine whether to use the 23 percent mortality estimate, or some other estimate based on other existing shearing data. Water Boards staff is still evaluating shearing-related mortality from the proposed diffuser design, so the Santa Ana Water Board staff has yet to determine how shearing-related mortality should be assessed for the Project. The SEIR should include a diffuser-specific analysis of shearing-related mortality in the SEIR to determine whether the 23 percent mortality estimate is appropriate. **The Draft Supplemental EIR should not have used the assumption that 23 percent of the total water entrained in dilution would be exposed to shearing related mortality [emphasis added];** a project-specific analysis of the proposed diffuser should be conducted to determine the correct percent.*

Dr. Philip Roberts (A19). *The topic of shear-induced mortality by diffusers is an emerging one, for which there are few scientific data or studies. None, for example, address the brief exposure of organisms to turbulence as they traverse the jets. The mechanistic relationships between turbulence and organism damage are speculative at this point so conservative assumptions are warranted. It is important, however, not to be overly conservative.... Ultimately, the issue here is simple and straightforward: Should we assume 23% or 100% or some other fraction of entrained flow as subject to lethal turbulence? For 60° nozzles, 23% is a reasonable estimate; for horizontal dense jets dominated by momentum over most of their trajectory, it could approach 100%.*

Santa Ana RWQCB (A9). *[T]he estimates of mortality are based on data from a 2003-04 study. This data set is now 14 years old and will be 17 years old by the proposed construction completion date for the facility. The SEIR should be revised to include an analysis of the scientific validity of relying on a data set that is almost two decades old. The Santa Ana Water Board intends to seek neutral third party review of the scientific validity of relying on the 2003-04 data.*

California Coastal Commission (A6). *As part of the formal consultation the Regional Board is conducting in its review of the Poseidon Project, we have prepared two technical memoranda that review and critique the Poseidon entrainment data and studies referenced in the [Draft Supplemental] EIR and that show substantially different and higher annual entrainment impacts than identified in the [Draft Supplemental] EIR.*

A. 23% vs. 100% Mortality

In preparing the Draft Supplemental EIR analysis on diffuser shear mortality, the Commission staff:

- Reviewed information from the Monterey Peninsula Water Supply Project Draft EIR (SCH # 2006101004), which used a model developed by Dr. Phil Roberts in its analysis of shearing associated with discharging brine and other substances, commingled with wastewater, through the existing 170+ port diffuser currently used by the Monterey Regional Water Pollution Control Agency.
- Contracted with Dr. Pete Raimondi, who prepared the report contained in Appendix F1 of the Supplemental EIR
- Reviewed information provided by the Applicant's technical experts, TWB Environmental Research and Consulting and Michael Baker International, that presented justification contained in Appendix F2 for why the Roberts model should not be applied to the Lease Modification Project
- Reviewed the SWRCB (2015a) SED, including information presented in Desalination Plant Entrainment Impacts and Mitigation – Expert Review Panel III (Foster et al., 2013; as cited in SWRCB 2015a), which is incorporated by reference in this Supplemental EIR, that indicated in its general impact assessment of desalination plants that larvae in 23 percent of the total water entrained in dilution would be exposed to shearing related mortality

As stated in Draft Supplemental EIR Section 4.1.4.2 (Ocean Water Quality and Marine Biological Resources – Operational Impacts, Impact OWQ/MB-7: Impact to Special Status Species Populations of Diffuser Operation):

In the absence of information justifying use of assumption number other than 23 percent for the proposed diffuser, the Commission is using this guidance from the SWRCB when presenting estimates of diffuser entrainment.

The Commission appreciates the clarifying comments received from RWQCB staff, including that the 23 percent estimate contained in the SED Staff Report is not a regulatory provision in the Ocean Plan, as well as Dr. Roberts and has revised the Draft Supplemental EIR accordingly. The Commission acknowledges that the applicable regional water board, in this case the Santa Ana RWQCB, is the agency with discretion to determine whether to use the 23 percent mortality estimate, or some other estimate based on other existing shearing data.

In the absence of a determination by the RWQCB or a project-specific entrainment mortality estimate from the proposed diffuser, for which experts provide contradicting conclusions as what models may or may not be used to calculate such an estimate, the Supplemental EIR is revised to conservatively assume a worst-case scenario that larvae in 100 percent of the total entrained volume of diffuser dilution water would be killed by exposure to lethal turbulence. Using the assumption that larvae in 100 percent of the total entrained volume of diffuser dilution water would be killed by exposure to lethal turbulence would encompass the mortality that would be estimated by any project-specific analysis of the proposed diffuser; therefore, the Commission believes using the 100 percent assumption represents a reasonable worst-case scenario for CEQA impact analysis.

B. Use of Study Data

Sampling data from 2003-2004 (MBC and Tenera 2005) are used in the analysis conducted in this Supplemental EIR for several reasons.

- No significant, semi-permanent oceanographic changes (e.g., changes in ocean currents) in the Southern California Bight have been documented since 2003-2004 to suggest any corresponding changes in planktonic spatial distribution patterns since 2003-2004.
- The 2003-2004 Huntington Beach entrainment study that is the source of the 2003-2004 data (MBC and Tenera 2005) was conducted consistent with Ocean Plan protocols designed to account for variation in oceanographic or hydrologic conditions and larval abundance and diversity such that abundance estimates are reasonably accurate.

| Ocean Plan Protocol | 2003-04 Data Sampling Method |
|---|--|
| The study period shall be at least 12 consecutive months. | Monthly sampling occurred for 12 consecutive months. |
| Samples must be collected using a mesh size no larger than 335 microns and individuals collected shall be identified to the lowest taxonomical level practicable. | 333-micron mesh nets were used and macroinvertebrates were identified to the lowest practicable taxonomic level. |

The 2003-2004 data were used in Poseidon's Empirical Transport Model/Area of Production Foregone (ETM/APF) calculations, which are considered in the analyses of diffuser entrainment impacts presented in this Supplemental EIR. ETM/APF models are based on risk of entrainment mortality. Risk is assessed as a measure relative (proportion) to the population at risk (source water body). Source water body is determined as a function of ocean currents and species life histories (larval period) and habitat composition near to the intake and diffuser. As stated above, currents and habitats have not changed substantially since 2004. ETM/APF should be robust to the specific species sampled or when they are sampled so long as the species are representative of the suite of species entrained and if the habitat characteristics and transport factors (e.g., currents) are largely unchanged between periods.

APF is defined per Raimondi (2011) as follows: "The Area of Production Foregone is an estimate of the area of habitat that, if provided, would produce the larvae lost due to entrainment and therefore compensate for the impact." Furthermore, the APF relies on representative taxa drawn from the entrainment sampling results. Therefore, it does not directly assess the entrainment of all forms of marine life. Rather, by using taxa that represent the variety of habitats that produced members of the entrained community, the APF produces an estimated area of habitat that, if restored, would produce comparable biological material to offset the production lost to entrainment. The APF does not and cannot directly account for impacts to those taxa not included in its calculation, but the habitat created would compensate for impacts to all forms of marine life. As stated in the SWRCB's SED (page 81), "This means that the average APF for a small subset of species (e.g., 15–20 species) is characteristic of the much larger community, even a community comprised of thousands of different types of organisms." Appendix E of the SED (page E-92) further states that APF models can translate ETM results to help understand the scale of loss:

It is based on the idea that losses from environmental impacts can usually only be estimated from a group of species and... provides a currency (i.e., habitat acreage) that may be useful for understanding the extent of compensation required to offset an impact. In APF the concern is more that each taxon is representative of other taxa that are either unsampled (most invertebrates, plants and holoplankton) or not analyzed (the vast majority of fish). In APF, the average loss across taxa then represents the average loss across all entrained organisms. This is a fundamental difference between APF and other economic based models... The underlying

statistical-philosophic basis of APF addresses one of the most problematic issues in impact estimation: the typical inability to estimate impact for unevaluated taxa.

In its comment letter on the Draft Supplemental EIR (Comment A6), the CCC staff referred to, and the preparers of this Final Supplemental EIR reviewed, the CCC's Draft *Technical Memorandum – Review and analysis of expected entrainment effects at and near Poseidon's proposed Huntington Beach Desalination Project* (dated August 3, 2017). In its Draft Memo, the CCC staff provided a review of Poseidon's approach to identifying expected entrainment rates at the proposed intake location. The CCC memo, among other conclusions, states that with inclusion of Emerita (sand crab) in the ETM/APF analysis, entrainment impacts would be substantially greater than those presented in the Draft Supplemental EIR. At this time, neither the data in the Draft Memo nor the conclusions about including Emerita in the ETM/ATP analysis have been peer reviewed.

The ETM/APF calculations presented in Appendix F1 (Table 1 – Comparison of Proposed Modifications with 2010 Analysis) and used in the Supplemental EIR are based on Poseidon's ETM/APF analysis. As stated above, the APF does not and cannot directly account for impacts to those taxa not included in its calculation, but the habitat created would compensate for impacts to all forms of marine life.

The Santa Ana RWQCB has the authority to review and judge the age of the data used for the entrainment analyses by the Desalination Amendment and if additional species, such as Emerita, should be included or excluded. At its discretion, the RWQCB may permit the use of existing entrainment data to meet this requirement. In addition, Mitigation Measure OWQ/MB7, *Develop and Implement a Diffuser-Operation Marine Life Mitigation Plan*, requires Commission staff to coordinate its review of the Diffuser-Operation Marine Life Mitigation Plan with RWQCB and CCC staffs ensuring that the Diffuser-Operation Marine Life Mitigation Plan includes an APF that has been vetted by these agencies. As discussed below, the Commission anticipates that the RWQCB will review the data as part of its separate regulatory scheme pursuant to its Water Code section 13142.5, subdivision (b) determination. However, for purposes of this Supplemental EIR, the Commission has reviewed the data and has determined that it is appropriate for the environmental analysis contained herein.

C. Third-Party Review

The Santa Ana RWQCB staff recently announced plans to initiate a neutral third-party review of models and studies submitted by Poseidon as part of Poseidon's application to the RWQCB for a NDPES permit and determination regarding the HB Desalination Plant's consistency with Water Code section 13142.5, subdivision (b).

A critical component of Water Boards staff's consideration of the Water Code section 13142.5(b) determination application is the completion of a neutral third party review

of certain models and studies submitted by Poseidon as part of its application. In May 2017, Water Boards staff initiated discussions with Poseidon regarding this neutral third party review and agreed to use a separate process to the Water Boards' internal peer review process (more detail below) in order to expedite the process.¹² For the past several months, Poseidon and Water Boards staff have diligently worked with CONCUR, Inc.¹³ to initiate this neutral third party review in a timely manner. While much progress has been made in terms of how the process will function, Poseidon and the Santa Ana Water Board staff have reached an impasse regarding selection of the neutral third party reviewers and the final questions for the reviewers.... I have decided to seek this neutral third party review using the State Water Board's peer review process. (Letter from Hope Smythe, Executive Officer, Santa Ana RWQCB, to Scott Maloni, Poseidon, September 12, 2017.)

On August 28, 2017, the Santa Ana RWQCB deemed complete Poseidon's application for the NPDES permit and Water Code section 13142.5, subdivision (b) determination.

Commission staff notes that a disagreement among experts over the potential operational effects of the Lease Modification Project to marine biological resources may exist as indicated in the Supplemental EIR (see, for example, Appendix F1, which contains the conclusions of the Commission's biological expert, Dr. Peter Raimondi, and Appendix F2, which contains the conclusions of experts who assisted in the preparation of Poseidon's application to the Commission). The RWQCB's neutral third-party review may result in additional disagreement among experts over the models and studies submitted by Poseidon as part of its RWQCB application. Pursuant to State CEQA Guidelines section 15151, Standards for Adequacy of an EIR:

An EIR "should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

On September 29, 2017, shortly before publication of this Final Supplemental EIR, the Santa Ana RWQCB proposed a timeline for its third-party review pursuant to Ocean Plan Chapter III.M.2.a, with a proposed completion date of late December 2017.

¹² Chapter III.M.2.a.(1) of the State Water Board's Water Quality Control Plan for Ocean Waters (Ocean Plan) provides that, in reviewing application materials for a desalination facility, a regional water quality control board (regional water board) may "require an owner or operator to hire a neutral third-party entity to review studies and models and to make recommendations to the regional water board."

¹³ Poseidon selected CONCUR (<https://www.concurinc.com>) to facilitate the third-party review process.

Consequently, the review is outside the control of Commission staff, and the results of the third-party review will likely not be received and analyzed until next year, may not provide new information, and may result in additional disagreement among experts. For the reasons provided above, the Commission believes that its use of a worst-case scenario and 2003-2004 data is consistent with CEQA and the State CEQA Guidelines.

II.2.6 MR-6. Marine Protected Areas

Commenters on the Draft Supplemental Impact Report (SEIR) stated that the CLSC failed to analyze potential impacts to Marine Protected Areas (MPAs).

Representative Comments (see Part III for all comments)

California Fish and Game Commission (FGC) (A7). *FGC reiterates its support of efforts to reduce impacts to marine resources by evaluating potential project impacts to individual MPAs, the MPA network as a whole, and site-specific marine resources during permitting and decision-making processes. [W]e urge SLC to require that proposals for seawater desalination facilities avoid or minimize impacts to MPAs and all marine resources through best available siting, design, and technology.*

California Coastal Commission (A6). *The 2010 CEQA review was completed before MPAs were designated within the Southern California Bight. Several of these MPAs are within source water bodies that would experience entrainment-related effects due to Poseidon's proposed use of the power plant intake. Although Poseidon has stated that the organisms originating in nearby MPAs represent a very small percentage of all the organisms it expects to entrain, it is not yet clear whether those organisms represent a much larger proportion of those originating in a particular MPA—that is, an MPA may provide a relatively small number of the roughly 100 million organisms Poseidon would entrain each year, but those entrained organisms may represent a relatively large proportion of the organisms exported from the MPA to support California's marine life ecosystems. We recommend the [Supplemental] EIR be revised to more fully evaluate how the LMP would adversely affect the intended productivity and connectivity of the affected MPA system.*

California Department of Parks and Recreation (A8). *While some impacts to Marine Protected Areas (MPAs) have been taken into consideration, the effects that a reduction of meroplankton and fish larvae would have on the complex biotic communities outside the MPAs, particularly in the area immediately offshore of the existing plant at Huntington State Beach (HSB), have not been addressed in the Draft Supplemental EIR for the proposed project.*

California Coastkeeper et al. (O10). *[I]n recognition of the statutory and regulatory purposes and goals of the MPAs, as well as its commitments under the MPA MOU, the SLC should assess the Project's impacts on the species, habitats, and ecosystems that are located within the nearby MPAs; on the MPAs' ability to function as a network; and on the MPAs' ability to provide long-term ecological and other benefits for California's marine ecosystems.... The Draft [Supplemental] fails to consider whether the project might draw its source water from nearby MPAs, and, if so, what impact this might have.*

For reasons described in master responses MR-2, *Lease Modification Project Scope*, and MR-3, *Responsible vs. Lead Agency & Supplemental vs. Subsequent EIR*, the Commission is not required to reconsider its 2010 Findings for the HB Desalination Plant in conjunction with the information on MPAs presented in Section 4.1.1.3, *Marine Protected Areas and Areas of Special Biological Significance [ASBS]* of the Supplemental EIR. Specifically, the Commission determines that the activities proposed in the Lease Modification Project do not create a new or substantially more severe significant impact due to the proposed pipeline changes, changed circumstances, or new information.

One commenter states that the 2010 approval took place “before MPAs were designated within the Southern California Bight.” In fact, MPAs did exist prior to 2010, but were in the process of being updated pursuant to the Marine Life Protection Act of 1999. This Act directed the state to redesign and update its system of MPAs, using best available science to increase coherence and effectiveness of MPAs and ensure they are functioning as a sustainable “network” of reserves. Between 2004 and 2012, the Fish and Game Commission completed the new MPA regulations for the entire coast through a series of rulemaking efforts and associated environmental documents. The South Coast Study Region, which includes the project area, was completed in December 2010. One of the modifications in the updated regulations was to re-designate the Bolsa Chica State Marine Park as a State Marine Conservation Area.

Section 4.1.1.3 of the Supplemental EIR includes a map of MPAs and ASBSs and identifies MPAs and ASBSs near the Lease Modification Project site; the map indicates the nearest MPA to the Lease Modification Project is the Bolsa Chica State Marine Conservation Area, which is approximately 4.3 miles northwest, and the nearest Area of Special Biological Significance is located more than 9 miles southeast and down current of the Project site. While the updated regulations for Southern California MPAs, including at Bolsa Chica, are a consideration for the Commission pursuant to its Public Trust responsibilities and its commitments under the Marine Protected Area Memorandum of Understanding, the re-designation in itself does not constitute or give rise to one of the triggers listed above, and therefore does not alter the Commission’s 2010 Findings of “less than significant impact” associated with impingement and entrainment effects of the Huntington Beach Desalination Plant Project on marine biological resources. Instead, the Commission appropriately evaluated and disclosed the physical changes to the environment resulting from the proposed modifications to the project, including the addition of the diffuser and screens.

As stated in master response MR-1 and throughout the Supplemental EIR, the Commission’s current discretionary action applies to the Lease Modification Project, not the Huntington Beach Desalination Plant Project. The Commission’s action in 2010 granted Poseidon a vested right to use the offshore pipelines for seawater desalination as a co-located and stand-alone facility. The City of Huntington Beach’s certified 2010

FSEIR found that impacts to marine organisms due to the potential entrainment resulting from the Huntington Beach Desalination Plant Project:

...are relatively small, and would not substantially reduce populations of affected species, or affect the ability of the affected species to sustain their populations. Therefore, entrainment impacts would be less than significant.

Similarly, in its Findings approving the lease amendment required for the offshore portion of the HB Desalination Plant, the Commission found that the impingement and entrainment effects of the desalination plant on marine biological resources in regards were “less than significant impact” (see Section 4.1.4, *Ocean Water Quality and Marine Biological Resources, Environmental Impact Analysis and Mitigation*). In its 2015 SED, the SWRCB (2015a) also reported:

A study was done to estimate impingement and entrainment at the Huntington Beach standalone desalination facility using data from the Huntington Beach Generating Station. Based on these estimations, the Huntington Beach facility intake under stand-alone operation at 152 [million gallons per day (MGD)] (intake flow rate) would result in an estimated average impingement of 0.3 [kilogram (kg)] (0.7 [pound (lb)]) of fish and 0.1 kg (0.2 lb) of shellfish daily. No threatened or endangered species are expected to be impinged. This rate of impingement was considered less than significant. (City of Huntington Beach, 2010) Larval entrainment losses due to operation of the project in the stand-alone operating condition are projected to affect only a small fraction of the larvae within the source water (0.02–0.33 percent). Impacts on marine organisms due to the potential entrainment resulting from the project are relatively small, and would not substantially reduce populations of affected species, or affect the ability of the affected species to sustain their populations. Therefore, entrainment impacts would be less than significant. (City of Huntington Beach 2010.)

This Supplemental EIR incorporates by reference the City’s 2010 FSEIR, the Commission’s Findings of Less than Significant Impact, and the SWRCB’s 2015 SED.

As stated in master response MR-2, the Supplemental EIR analyzes the impacts of those activities proposed in Poseidon’s new application to amend lease PRC 1980.1. Those activities include a significant reduction in seawater intake volume, to 106.7 MGD—approximately 30 percent less source water than the 152 MGD volume approved by the Commission in 2010—and the installation of wedgewire screens and a multiport diffuser on the offshore ends to the subsea pipelines authorized for desalination use in 2010. As noted in the Supplemental EIR (see also master response MR-3, *Responsible vs. Lead Agency & Supplemental vs. Subsequent EIR*, Subpart 4D.2, *2015 Desalination Amendment and 2014 and 2015 ISTAP Reports*, regarding compliance with the Desalination Amendment), Poseidon’s application to amend its

lease with the Commission was submitted in response to certain requirements of the 2015 Desalination Amendment, particularly the following Ocean Plan sections.

- If subsurface intakes are not feasible, the regional water board...shall require that surface water intakes be screened. Screens must be functional while the facility is withdrawing seawater. (Chapter III.M.2.d(1)(c)(i).)
- The preferred technology for minimizing intake and mortality of all forms of marine life resulting from brine discharge is to commingle brine with wastewater (e.g., agricultural, municipal, industrial, power plant cooling water, etc.) that would otherwise be discharged to the ocean.... Multiport diffusers are the next best method for disposing of brine when the brine cannot be diluted by wastewater and when there are no live organisms in the discharge. Multiport diffusers shall be engineered to maximize dilution, minimize the size of the brine mixing zone, minimize the suspension of benthic sediments, and minimize mortality of all forms of marine life. (Chapter III.M.2.d(a), (b).)

The Supplemental EIR (Section 4.1, *Ocean Water Quality and Marine Biological Resources*) provides a robust analysis of potential impacts to marine organisms from Lease Modification Project activities, which include those organisms that occur in and outside of MPAs. Specifically, in Section 4.1.4.2, *Ocean Water Quality and Marine Biological Resources – Operation Impacts*, the Supplemental EIR addresses the potential for operation of the intake screens and discharge diffuser to have detrimental effects on marine biological resources and ocean water quality. The focus of this Supplemental EIR is on impacts to special-status species, pursuant to the significance criteria listed in Section 4.3.1, *Significance Criteria*. To address potential significant impacts to such species, the Supplemental EIR identifies Mitigation Measure OWQ/MB-7, *Impact to Special Status Species Populations of Diffuser Operation*, which requires compensatory mitigation of the area of production forgone (APF) as a result of diffuser operation.

In response to comments received, several revisions to the Draft Supplemental EIR are incorporated in this Final Supplemental EIR.

- The Supplemental EIR is revised to clarify the assumption that some larval fishes that originated from an MPA (likely Bolsa Chica, given its proximity to the Project), may be present in Project impact areas.
- The impact analysis for Impact OWQ/MB-7 in Section 4.1.4.2, *Ocean Water Quality and Marine Biological Resources, Operational Impacts*, is revised to clarify that the assessment of impacts to special-status species assumes that larvae of affected species may be associated with MPAs and that the APF considers and compensates for all direct and indirect entrainment impacts to all organisms in the affected source water body because it considers both the affected species itself and its contribution to the ecological community, and

inherently considers special-status species, including those associated with MPAs.

After consultation with RWQCB staff and the Commission’s expert, Dr. Peter Raimondi, the Final Supplemental EIR also revises the following impact determinations:

- Impact OWQ/MB-6: Impact to Special Status Species Populations of Intake Flow Reduction (Compared to 2010 Project) and Use and Maintenance of Wedgewire Screens: determined to be a less than significant impact
- Impact OWQ/MB-7: Impact to Special Status Species Populations of Diffuser Operation: determined to be a less than significant with mitigation

As noted in Section I.4.4, *Santa Ana Regional Water Quality Control Board (RWQCB): 2006 to Date & State Water Resources Control Board (SWRCB): 2015-2016*, in its comment letter on this Draft Supplemental EIR (comment A9-1), RWQCB staff states that the Santa Ana Water Board, not the Commission, “is the agency responsible for issuing the National Pollutant Discharge Elimination System (NPDES) permit for the discharge of brine and other wastes from the Project to the Pacific Ocean and for making a determination regarding the Project’s consistency with Water Code section 13142.5(b) (CWC section 13142.5(b)).” This will include a determination or whether Poseidon’s proposal for the entire Huntington Beach seawater desalination facility (not simply the offshore modifications to the Commission’s 2010 lease) avoids or minimizes impacts to MPAs and all marine resources through best available siting, design, and technology.

II.2.7 MR-7. Cumulative Impacts

Commenters on the Draft Supplemental EIR raised concerns about the adequacy of the cumulative effects analysis.

Representative Comments (see Part III for all comments)

California Coastkeeper Alliance et al. (O10). [S]ince certification of the 2010 SEIR, there are numerous significant changed circumstances in the surrounding area that will contribute to cumulative impacts from the Project, including the new schedules for developing the Huntington Beach Energy Project, ASCON toxic landfill remediation, the proposal to demolish and develop the adjacent Tank Farm property, and the OCWD’s plan to develop alternative distribution systems from the proposed treatment plant property. These substantially changed circumstances will create new cumulatively significant adverse impacts and/or substantially change the impacts analyzed in the 2010 SEIR, including, but not limited to, cumulative air quality impacts already identified by the SLC in this Draft SEIR....

The SLC is responsible for identifying and evaluating the cumulative impacts for the entire Poseidon desalination facility. Substantial changes in the project, and substantial changes to relevant circumstances, result in significant new impacts and/or a significant

increase in the severity of the impacts identified in the 2010 SEIR. Yet the Draft SEIR completely ignores and fails to analyze substantial changes in relevant topic areas – for example: Geological Hazards, Biological Resources (terrestrial), Traffic & Parking, etc. Since these changed circumstances are totally dismissed, the Draft SEIR excludes important cumulative impacts. For example, but not an exhaustive list, the Draft SEIR fails to document and analyze the cumulative Air Quality and GHG emissions during simultaneous construction of the changes to both the offshore components [the so-called “Lease Modification Project”] and the onshore components of the project and surrounding onshore developments, and how those emissions will be compounded by new changes to traffic and parking. The Draft SEIR fails to identify significant changes or analyze the foreseeable changes to the entire project and closely related projects, and the cumulative impacts to the proposed project as a whole.

City of Huntington Beach Environmental Board (A2). *In addition, it is our assertion that the cumulative impacts of concurrent and neighboring projects: the upgrade of the HBGS, the redevelopment of the adjacent property known locally as the “Tank Farm,” the clean-up of the ASCON landfill Superfund site, as well as the revelation that treated water is planned to be transmitted to the site after co-location operations cease, qualify to require that “[a]n EIR must analyze cumulative impacts whenever a proposed project's individual impacts have the potential to combine with related impacts from other projects to compound environmental harm....”*

Irvine Ranch Water District (A3). *The DSEIR fails to identify the Recharge Distribution Components as a reasonably foreseeable future project for purposes of analyzing the cumulative impacts of its approval of the Outfall/Intake Components. This error is prejudicial because the adverse environmental impacts of implementing the 2010 Desal Project, including the Outfall/Intake Components, when considered together with the potential adverse environmental impacts of the Recharge Distribution Components, are reasonably likely to result in cumulatively considerable ground and surface water quality and water supply impacts, which the DSEIR failed to disclose.... Failure to include the Recharge Distribution Components among the list of probable future projects and to conduct, at a minimum, an analysis of potentially significant cumulative water quality and water supply impacts associated with those components renders the DSEIR inadequate.*

For reasons described in master responses MR-1, *Scope of the Commission’s Discretionary Action*, and MR-2, *Lease Modification Project Scope*, Poseidon's rights under the initial lease have vested, precluding a re-evaluation of the earlier, final CEQA review of the HB Desalination Plant Project (the Commission’s 2010 lease amendment would continue to authorize desalination operations on the lease premises under the terms of the existing lease whether or not the Lease Modification Project is approved at this time). The Supplemental EIR incorporates by reference the certified 2010 FSEIR.

Construction and operation activities associated with the Lease Modification Project, as described in Supplemental EIR Section 2, *Project Description*, can be summarized as follows.

| Stage | Project component | Location | Timing |
|---------------------|-------------------------------|---|---|
| Construction | Wedgewire Screen Installation | Approximately 1,650 feet offshore, directly above existing subsea intake pipeline tower | <ul style="list-style-type: none"> • Approximately 3-month construction period • Construction would occur after or at same time as diffuser installation |
| | Diffuser Installation | Approximately 1,500 feet offshore, directly above existing subsea discharge pipeline tower | <ul style="list-style-type: none"> • Approximately 2-month construction period • Construction would occur before or at same time as diffuser installation |
| | Both | <ul style="list-style-type: none"> • Work conducted from an anchored derrick barge with barge-mounted crane • Components fabricated at an off-site location, transported to the Port of Long Beach, loaded onto a support barge, and taken by barge to the installation site | <ul style="list-style-type: none"> • Maximum 5-month or 3-month construction period (depending on if separate or concurrent offshore construction) • Work hours limited to between 7 a.m. and 6 p.m. • Construction periods could overlap with land-based construction of HB Desalination Plant and offsite distribution system pipeline/pump stations |
| Operation | Wedgewire Screen Maintenance | Approximately 1,650 feet offshore, directly above existing subsea intake pipeline tower <ul style="list-style-type: none"> • One boat would anchor to gravity anchors near the wedgewire screen manifold • Divers use boat-based system to connect compressed air hose to each screen and air burst biofouling material | <ul style="list-style-type: none"> • Every other month (six times per year) for one day, two trips may potentially coincide with diffuser inspection trips. |
| | Diffuser Maintenance | Approximately 1,500 feet offshore, directly above existing subsea discharge pipeline tower and at the gravity anchors <ul style="list-style-type: none"> • One boat would anchor to gravity anchors near the outfall • Divers manually scrape for biofouling, as needed, during inspection trips | <ul style="list-style-type: none"> • Quarterly (four times per year) for one day, during diffuser inspection trips |

This Supplemental EIR appropriately analyzes cumulative impacts, i.e., the change in the environment which results from the incremental impact of the proposed short-term, offshore Lease Modification Project when added to other closely related past, present, and reasonable foreseeable probable future projects, consistent with State CEQA

Guidelines section 15355, subdivision (b). Supplemental EIR Section 3, *Cumulative Projects*, provides a detailed description of projects near the location of the proposed Lease Modification Project site that are either reasonably foreseeable or are expected to be constructed or operated during the Lease Modification Project life. As stated in the Supplemental EIR (page 3-1), “[t]he cumulative projects study area for this Supplemental EIR includes projects located in the immediate onshore, nearshore, and offshore areas of the Huntington Beach coast This study area also includes the offshore area between the Port of Long Beach ... and Huntington Beach where marine vessel traffic would occur.” Chapter 4 presents analyses of the cumulative impacts associated with those projects and existing projects in conjunction with the proposed Lease Modification Project. The Lease Modification Project impact assessment, when considered together with the impacts of closely related projects, takes into account the environmental resource affected, the distance between the projects and the potential impact location (e.g. offshore, onshore, both), the short-term, temporary nature of the Lease Modification Project construction impacts, and the long-term magnitude of the Lease Modification Project operational impacts.

A. Environmental Disciplines Improperly Omitted

These comments suggest that the cumulative impact analysis presented in the Supplemental EIR does not adequately evaluate the cumulative effects of the Lease Modification Project because it did not present impact analysis for all environmental disciplines analyzed in the 2010 Final EIR. These commenters essentially state that the Supplemental EIR conducted an overly narrow review of the Project and its potential cumulative effects by eliminating analysis of certain environmental disciplines.

The Supplemental EIR in Section 4.0 (*No Impacts/Not Significant Impacts*) clearly documented the rationale for eliminating specific environmental disciplines from evaluation in the Supplemental EIR. For example, the Supplemental EIR explained in detail why no further analysis of **Geology and Soils** and **Land Use and Planning** was required to supplement the 2010 FEIR. This narrowing of the scope for the cumulative impact analysis follows the rationale defined in Section 4.0 and summarized in Table 4-01 (*Environmental Issue Areas Analyzed*), where 10 environmental disciplines are described as being eliminated from analysis. Because none of the proposed changes to the project would potentially impact these 10 environmental disciplines, there was no need to analyze them in the cumulative impacts analysis. The purpose of a Supplemental EIR is only to respond to the specific project changes, changes in circumstances, or new information that triggered the need to prepare a further EIR.

B. Recharge Distribution Components and Distribution Pipeline

As several commenters pointed out, the Draft Supplemental EIR does not include groundwater recharge among the list of probable future projects and does not, therefore, analyze the potentially significant cumulative water quality and water supply

impacts associated with using desalinated water for groundwater recharge. Recharge distribution fails to meet the standard of a “closely related” or “reasonably foreseeable probable future” project identified in State CEQA Guidelines section 15355, subdivision (b), according to the Orange County Water District (OCWD), which is the agency “responsible for purchasing the [desalinated water from Poseidon’s proposed Huntington Beach Desalination Plant Project] and for permitting, financing, constructing and operating the necessary system to distribute the water to the local Orange County water community.” (Letter from Michael Markus, OCWD General Manager, to The Honorable Gavin Newsom, Commission Chair, September 8, 2017.)

These comments suggested that the cumulative project list included in the Supplemental EIR was incomplete because it does not include the Recharge Distribution Components or the distribution pipeline. However, consideration of either potential water distribution systems is premature due to their speculative nature. A cumulative impacts analysis is warranted only for projects that are reasonably foreseeable, which is defined in the Supplemental EIR (Section 3.1, *Methodology*) as those that were either proposed or approved at the time the Supplemental EIR analysis was initiated (i.e., November 2016, when the Notice of Preparation was issued).

As explained in Supplemental EIR Section 3.2.4 (*Cumulative Project List, Onshore Potable Water Distribution Pipeline*), the consideration of the distribution system as a cumulative project would be inappropriate because in March 2017, the Orange County Water District (OCWD) staff placed on hold any plans to begin an extensive environmental analysis related to use of the desalinated water in OCWD’s operations and facilities, along with distributing the water to other agencies, prior to the approval of the permits for the HB Desalination Plant.

This Final Supplemental EIR discussion in Section 3.2.4 applies equally to the potential Recharge Distribution Components. Comment A3-48 relies on an OCWD presentation that pre-dates the March 2017 letter referenced in Section 3.2.4. Given OCWD’s more recent decision to hold off on plans to engage in environmental review of a distribution system, the Supplemental EIR’s conclusion remains correct. Consideration of any potential future recharge system or the consideration of a modified distribution pipeline system (different from that analyzed in the 2010 FSEIR) is speculative, and not appropriate for consideration as a cumulative project in this Final Supplemental EIR.

If OCWD proposes to construct and operate a distribution system different from the one analyzed in the 2010 FSEIR, or Recharge Distribution Components, OCWD would compete environmental review of these systems. This is consistent with the Supplemental EIR’s statement in Section 1.2.5 (*Summary of Other Agency Roles, City of Huntington Beach and Orange County Water District*): “Future CEQA analysis may be needed to construct an onshore desalinated drinking water distribution system, for example if a proposed system differs from the distribution system previously evaluated.”

II.2.8 MR-8. Alternatives

Commenters on the Draft Supplemental EIR raised concerns about the adequacy of the alternatives analysis.

Representative Comments (see Part III for all comments)

Irvine Ranch Water District (A3). *The [Draft Supplemental] EIR fails to consider a reasonable range of alternatives, even for the limited project consisting of Outfall/Intake Components.... A new or Subsequent EIR must analyze a revised reasonable range of alternatives in light of changes to the Desal Project and new information of substantial importance to that Project.... The [Draft Supplemental] EIR fails to disclose the CSLC's rationale for selecting potentially feasible alternatives.*

California Coastal Commission (A6). *The [Draft Supplemental] EIR describes several potentially feasible and less environmentally damaging alternatives that were considered but eliminated from review. Two of those alternatives would have involved extending the existing intake from about two to four kilometers further offshore to nearby locations that would result in lower project entrainment rates.... We recommend that the SEIR consider potential alternative intake locations, taking into consideration updated analyses of potential entrainment effects.*

California Fish and Game Commission (FGC) (A7). *FGC encourages further consideration of subsurface intakes for the Poseidon project proposal consistent with the Ocean Plan Amendment. However, FGC questions the appropriateness or necessity of siting a 50 million gallon a day desalination plant off Huntington Beach given the availability of alternative sources of water to augment Orange County's water supply portfolio at a much lower economic and environmental cost.*

California Coastkeeper Alliance et al. (O10). *The State Lands Commission must analyze the seawater intake preferred alternatives [and] alternative sites that may be more feasible for subsurface intakes.*

Residents for Responsible Desalination and Cabrillo Wetlands Conservancy – Mary Jo Baretich (O28). *The [Supplemental] EIR needs to thoroughly analyze alternative sites that may be more feasible for preferred subsurface intakes, such as in South Orange County where they need the water and the ocean floor is more conducive to subsurface intake, and where there are no wetlands nearby with endangered and threatened species of birds.*

For reasons described in master responses MR-1, *Scope of the Commission's Discretionary Action*, and MR-2, *Lease Modification Project Scope*, Poseidon's rights under the initial lease have vested, precluding a re-evaluation of the alternatives analyzed in the earlier, final CEQA review of the HB Desalination Plant Project. The Supplemental EIR incorporates by reference the certified 2010 FSEIR and SWRCB 2015 SED but the alternatives analyzed in this Supplemental EIR are alternatives to the proposed Leased Modification Project.

This Final Supplemental EIR Chapter 5, Section 5.2.1 presents the CEQA requirements for alternatives, which are stated in State CEQA Guidelines, § 15126.6, subds. (a)-(d).

- An EIR need not consider every conceivable alternative to a project but must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation.
- Alternatives discussion shall focus on alternatives to the project or its location which can avoid or substantially lessen any significant effects of the project.
- The range of potential reasonable alternatives to the project shall include those that could feasibly accomplish most of the basic objectives of the project and avoid or substantially lessen one or more significant effects. Factors used to eliminate alternatives from detailed consideration include: failure to meet most of the basic project objectives, infeasibility, or inability to avoid significant environmental impacts.
- An EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the alternative's significant effects shall be discussed, but in less detail than the proposed project's significant effects.

CEQA's requirements for alternatives (defined in State CEQA Guidelines, § 15126.6) are summarized in Section 5.2.1, which defines the approach taken in the Supplemental EIR. Section 5.2.2 explains the methodology used to identify, screen, and either retain or eliminate each alternative. The Supplemental EIR need not consider alternatives that are beyond the scope of the proposed lease modification analyzed in the Supplemental EIR (see also master responses MR-1 and MR-2 above). Section 5.3.3 summarizes the alternatives eliminated from consideration in the 2010 FSEIR. These alternatives eliminated included alternative sites for the HB Desalination Plant, alternative ownership and operation of the HB Desalination Plant, and alternative configurations of the Desalination Plant at the Huntington Beach location. Table 5-2 summarizes the 2010 FSEIR alternatives that pertain to the intake and discharge components of the HB Desalination Plant. The rationale for elimination of each alternative is presented in Table 5-2. While these alternatives were considered for evaluation in the Supplemental EIR, each was ultimately eliminated from consideration for the same reasons presented in the 2010 FSEIR. Section 5.3 also describes new alternatives eliminated from further analysis: Intake Pipeline Extension and Two-port Diffuser. Section 5.3.4 summarizes the results of the two ISTAPs convened by the CCC and Poseidon to evaluate subsurface intake alternatives to open ocean intakes analyzed in the 2010 FSEIR.

Alternatives analyzed in the Supplemental EIR were selected based, in part, on their potential to reduce the significant and unavoidable impacts of the Lease Modification Project. Significant and unavoidable impacts defined in this Final Supplemental EIR are:

- Impact OWQ/MB-3: Impact to Special Status Species Populations and Movement of Marine Mammal Species as a Result of Underwater Noise during Construction
- Impact AQ-1: Air Emissions from Construction
- CMLTV-AQ-1: Cumulative Air Emissions from Construction

The conclusion of the alternatives analysis is presented in Section 6.5, *Comparison of Proposed Action and Alternatives and Environmentally Superior Alternative*. Impacts of the alternatives are analyzed in light of each alternative's potential to reduce or eliminate the significant impacts of the Lease Modification Project. A comparison of alternatives is presented in the Table 6-2 of the Supplemental EIR. The severity of effects for each analyzed impact is presented in Table 6-3.

A. Reasonable Range of Alternatives

Several commenters stated that the Supplemental EIR does not evaluate an adequate range of alternatives. As a Supplemental CEQA document, the Supplemental EIR was built on previously prepared and certified CEQA documents but limited in scope to the proposed modifications under review. While the alternatives fully analyzed in the Supplemental EIR included two alternatives and the No Project Alternative, the Supplemental EIR also summarized previously considered alternatives in Section 5.3.2 and evaluated the comparative merits of additional alternatives described in Sections 5.3.1, 5.3.2 and 5.3.4. This information will be considered by the Commission in decision-making process for the Lease Modification Project. As described above under Alternatives Background, the identification of alternatives for the Supplemental EIR was reasonably limited to those on Commission Lease Premises and those that would reduce or eliminate any significant and unavoidable impacts related to the Lease Modification Project. Also, as explained in Supplemental EIR Section 5.2.1, an EIR need not consider every conceivable alternative to a project. The Lead Agency may determine how many alternatives are required to consider a reasonable range.

B. Reconsider the Range of Alternatives in Light of New Information, Regional Water Supply Alternatives, and Alternatives Outside the Commission Lease Premises

Commenters note that there is additional information now available on water reliability in Orange County, the potential recharge distribution system, and the potential distribution system. Because the selection of alternatives is based in part on a potential alternative's ability to meet most basic project objectives, the commenters assert that the selection of alternatives should be reconsidered.

The Commission believes that the alternatives defined in the Supplemental EIR present a reasonable range, as required by CEQA. As noted, the selected alternatives pertain to

proposed Lease Modification Project that is under review, specifically the proposed installation of intake screens and a discharge diffuser system to the previously approved lease and project analyzed in the 2010 FSEIR. Such alternatives represent changes that could be made to the Lease Modification Project to avoid or lessen identified significant impacts while still accomplishing the basic objectives of complying with the Desalination Amendment. Because the new information is not within the scope of the project being analyzed, it would be inappropriate to tailor the alternatives around it.

Other commenters state that other desalination plant sites and subsurface intakes should be considered as alternatives. Supplemental EIR Table 5-2 in Section 5.3.3 explains the rationale for elimination of each of the alternatives eliminated in the 2010 FSEIR, including the alternative desalination plant site locations. Regarding Desalination Amendment compliance and subsurface intake alternatives, the Santa Ana RWQCB, not the Commission, is responsible for determining feasibility of subsurface intakes and compliance with Water Code section 13142.5, subdivision (b), specifically whether the Huntington Beach Desalination Plant Project, as proposed, utilizes the best available site, design, technology, and mitigation measures feasible to minimize intake and mortality of all forms of marine life as required by section 13142.5, subdivision (b), and as further specified in the Ocean Plan. As noted in other master responses above, the Commission has already granted Poseidon a vested right to use existing subsea seawater intake pipelines during desalination operations. In addition to Section 5.4.3, the feasibility and viability of subsurface intakes are disclosed throughout the Supplemental EIR. (See discussions in the following sections: Phase I, Section I.4.1, *California Coastal Commission (CCC): 2006 to Date*; master response MR-3, *Responsible Vs. Lead Agency & Supplemental Vs. Subsequent EIR*; and Supplemental EIR Section 1.2.3, *CCC Permitting Status*.)

Various regional water supply alternatives to the provision of desalinated water include an expansion of the OCWD/Orange County Sanitation District's Groundwater Replenishment System, and a deep aquifer recovery and treatment program. While some aspects of this information may be new, these general water supply or distribution options have been available to Orange County since before preparation of the Supplemental EIR and do not require a change in the alternatives considered. Water supply options other than water provided by the HB Desalination Plant may be considered by OCWD in its role as the region's water provider, but they are not reasonable alternatives to the Lease Modification Project. Because these regional alternatives and offsite alternatives are outside of the Commission's jurisdiction and unrelated to the specific issue of authorizing wedgewire screens and a multiport diffuser, they are not within the scope of the Supplemental EIR.