STAFF REPORT

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AMENDMENT OF LEASE AND REVISION OF RENT

APPLICANT/CO-LESSEES:

Poseidon Resources (Surfside) LLC (Poseidon Resources or Poseidon)

AES Huntington Beach LLC (AES)

EXECUTIVE SUMMARY:

This staff report concerns a seawater intake pipeline extending offshore approximately 1,650 feet and a discharge pipeline extending approximately 1,500 feet offshore, both located on approximately 11.78 acres of sovereign tide and submerged land located in the Pacific Ocean, offshore of Huntington State Beach in the city of Huntington Beach, Orange County.

The offshore pipelines are currently used for Once-Through Cooling at the upland Huntington Beach Generating Station pursuant to a lease with AES that the Commission authorized in February 2007. In 2010, the Commission authorized an amendment to AES's lease to include Poseidon Resources as a Co-Lessee and authorized the use of the intake and discharge pipelines as part of the proposed Huntington Beach Desalination Plant.

Poseidon has applied to the Commission to amend its existing lease to: (1) modify existing intake and discharge pipelines by installing within the lease footprint wedgewire screens and a multiport diffuser to the offshore ends of the pipelines; and (2) reduce seawater intake volume, as a result of the above technology modifications, to 106.7 million gallons per day from the 152 million gallons per day volume approved by the Commission in 2010, with a through-screen velocity at the surface water intake not to exceed 0.5 feet per second. A Supplemental Environmental Impact Report has been prepared to analyze these proposed changes. Together, the changes proposed by Poseidon, as refined in the environmentally superior alternative description in the Supplemental Environmental Impact Report, are referred to in this staff report as the Recommended Lease Modification Project.

The proposed physical modifications to the existing lease structures are required for Poseidon Resources to operate its proposed Huntington Beach Desalination Plant in accordance with the Desalination Amendment[1] adopted by the State Water Resources Control Board in May 2015. Both the multiport diffuser and wedgewire screens must be installed prior to operation of the Huntington Beach Desalination Plant if the Santa Ana Regional Water Quality Control Board, the state agency with authority pursuant to Water Code section 13142.5, subdivision (b) to address effects associated with the construction and operation of seawater desalination facilities, determines subsurface intakes are not feasible, brine cannot be diluted by wastewater, and no live organisms are in the discharge.

The Commission's discretionary action is to consider whether to: (1) certify the *Final Supplemental Environmental Impact Report for the Seawater Desalination Project at Huntington Beach: Outfall/Intake Modifications & General Lease – Industrial Use (PRC 1980.1) Amendment (Lease Modification Project)*, as a responsible agency under the California Environmental Quality Act; (2) authorize an amendment to the existing lease, and (3) authorize, pursuant to a rent review, an increase in the AES Base Rent.

In the application submitted to the Commission, as amended, Poseidon proposes the lease modification project with *stationary* stainless steel wedgewire screens. This proposal was analyzed in the Supplemental Environmental Impact Report as part of the proposed project. Poseidon's project proposal, including the use of stationary screens, is referred to herein as the "Proposed Lease Modification Project."

The Supplemental Environmental Impact Report (EIR) also identified an environmentally superior alternative to Poseidon's Proposed Lease Modification Project. The environmentally superior alternative included the same diffuser design proposed by Poseidon but changed the stationary screens to rotating brush-cleaned (self-cleaning) intake screens. This environmentally superior alternative is referred to herein as the "Recommended Lease Modification Project". Staff recommends that the Commission approve the Recommended Lease Modification Project (the environmentally superior alternative identified in the Supplemental EIR, including the proposed diffuser). The Supplemental EIR evaluated an alternative technology to the passive or stationary screens in Poseidon's project description, specifically the use of active (self-cleaning) intake screens, because they actively sweep debris and fouling organisms off the screens, and thus require fewer vessel trips to the offshore site to clean the

[1] *Amendment to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Non-substantive Changes (Desalination Amendment)* (https://www.waterboards.ca.gov/water_issues/programs/ocean/desalination/)

screens. Rotating brush-cleaned screens would be environmentally superior since the number of maintenance trips needed to clean the screens of debris and fouling organisms would be reduced from six to four vessel trips per year to the offshore site, resulting in lower air emissions over the operational life of the project.

SUMMARY OF EXISTING LEASE TERMS:

AREA, LAND TYPE, AND LOCATION:

11.78 acres, more or less, of sovereign tide and submerged land located in the Pacific Ocean, offshore of Huntington State Beach, city of Huntington Beach, Orange County.

AUTHORIZED USE:

Continued use and maintenance of one 14-foot-diameter seawater intake pipeline extending offshore approximately 1,650 feet offshore and one 14-foot-diameter discharge pipeline extending approximately 1,500 feet offshore.

LEASE TERM:

20 years, beginning August 8, 2006.

CONSIDERATION:

Under the current lease, the Lessees' monetary obligations are as follows: (1) AES pays annual rent to the Commission in the amount of $111,060 (due to an annual adjustment of the original Base Rent amount of $82,000 by Consumer Price Index (CPI)) for all Urban Consumers, Los Angeles-Riverside-Orange County, California; (2) Poseidon Resources has an existing obligation to pay $115,500 annually beginning on the first day of the operation of the desalination facility to compensate for the use of Public Trust resources on sovereign land affected by increases in salinity from the desalination facility's brine-concentrated seawater discharge to the Pacific Ocean.

BACKGROUND:

The existing pipelines have been in operation since 1957 when the Commission authorized a 49-year lease to Southern California Edison (SCE) for the construction of pipelines for a Once-Through Cooling (OTC) system serving the upland SCE Electric Generating Station (Item 12, August 8, 1957). The offshore pipelines are currently used for OTC at the AES upland Huntington Beach Generating Station (HBGS), with the use of OTC at the HBGS scheduled to end on or before December 31, 2020. The Commission authorized the lease with AES in February 2007, for a 20-year term expiring on August 7, 2026 (Item 43, February 5, 2007). In 2010, the Commission authorized an amendment to Lease

No. PRC 1980.1, a General Lease – Industrial Use, to include Poseidon Resources as a Co-Lessee and authorize the use of the existing improvement for the proposed Huntington Beach Desalination Plant (Item 62, October 29, 2010).

PROPOSED OUTFALL/INTAKE MODIFICATIONS AND LEASE AMENDMENT PROJECT DESCRIPTION:

In 2016, Poseidon applied to the Commission to further amend Lease No. PRC 1980.1 to modify the offshore pipelines to be used by the Huntington Beach Desalination Plant. Proposed physical modifications include: installing stainless steel wedgewire screens with 1-millimeter (mm) (0.04-inch [in]) spacing to the end of the existing offshore seawater intake pipeline; and installing a multiport diffuser[2] to the end of the existing offshore discharge pipeline. The Supplemental EIR analyzed these proposed changes and identified an environmentally superior alternative, which is the Recommended Lease Modification project being recommended by staff (Recommended Lease Modification Project). Other proposed changes offshore consist of a reduction in seawater intake volume, riprap reconfiguration (moving existing riprap around the subsea HBGS intake and discharge pipeline towers), installation of pile foundations to support the wedgewire screens, and placement of two gravity anchor blocks where boats could moor while conducting maintenance on the screens.

Poseidon proposes to primarily operate the Huntington Beach Desalination Plant under stand-alone conditions (desalination plant discharges would not commingle with HBGS OTC flows). If OTC flows at the HBGS continue past 2020, there may be a period when the desalination facility would operate in a co-located mode with one of the HBGS power generating units in operation.

In March 2017, Poseidon amended its 2016 application when it submitted a new diffuser design, one with three duckbill nozzles and a 4.5-foot-diameter central port that would remain capped unless used for co-located operations (the originally proposed diffuser had six ports with four of the six ports closed during stand-alone operation). In June 2017, Poseidon amended its lease application again to modify the composition of the proposed wedgewire screens from copper nickel alloy (as first proposed) to stainless steel.

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[2] A multiport diffuser is a linear structure consisting of more or less closely spaced ports or nozzles which inject a series of turbulent jets containing desalination effluent (brine, filter backwash water, subsequent membrane rinse flow, and occasional stormwater) at high velocity into the ambient receiving waterbody. One purpose of the diffuser is to reduce salinity in the concentrated discharge and encourage dispersion of the discharge plume to comply with *Water Quality Control Plan for Ocean Waters of California* (California Ocean Plan) receiving water limits of 2 parts per thousand (ppt) above natural background salinity (about 35.5 ppt) at the edge of the 100-meter (328-foot) brine mixing zone.

Poseidon believes that its proposed modifications related to desalination intake and discharge operations are consistent with the following State Water Resources Control Board (State Water Board) requirements in the *Amendment to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Non-substantive Changes* (Desalination Amendment).

- **Ocean Plan[3] Chapter 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 regional water board 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 mm (0.04 in) or smaller slot size screen when the desalination facility is withdrawing seawater.
  iii. An owner or operator may use an alternative method of preventing entrainment so long as the alternative method results in intake and mortality of eggs, larvae, and juvenile organisms that is less than or equivalent to a 1.0 mm (0.04 in) slot size screen.
  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).

- **Ocean Plan Chapter 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.

  (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.

If the Santa Ana Regional Water Quality Control Board (Regional Water Board), the state agency with authority pursuant to Water Code section 13142.5, subdivision (b) (Section 13142.5(b)), **determines subsurface intakes are not feasible and brine cannot be diluted by wastewater and there are no live organisms in the discharge** (emphasis added), both the multiport diffuser and wedgewire screens must be installed prior to operation of the Huntington Beach

[3] https://www.waterboards.ca.gov/water_issues/programs/ocean/docs/cop2015.pdf

Desalination Plant. Installation could occur only after other federal, state, regional, or local government entities with applicable jurisdiction issue approvals. The proposed screens and diffuser allow for both stand-alone operation and short-term co-located operation scenarios.

The proposed offshore construction is anticipated to begin in late 2019 and be completed within 2 years. Diffuser installation would take 2 months and screen installation would take 3 months. If the diffuser and screens are installed concurrently, the total construction time would be 5 months.

PROPOSED LEASE AMENDMENT:

Poseidon Resources' application to amend Lease No. PRC 1980.1 (Proposed Lease Amendment) would modify several provisions of the existing lease and add additional provisions to authorize the project modifications analyzed in the Supplemental EIR. Essentially, the Proposed Lease Amendment would authorize the project modifications, including three physical modifications to the previously Commission-authorized desalination project. These include:

(1) Install four stainless steel wedgewire screen manifolds, with 1-mm spacing at the end of the pipeline, along with foundations to support the screens on the existing seawater intake pipeline.

(2) Install a multiport seawater diffuser on the offshore end of the existing seawater outfall to enhance brine mixing with seawater.

(3) Reduce the average annual seawater intake volume to 106.7 million gallons per day (MGD) (from a 2010 Project volume of 152 MGD) with a through-screen velocity at the surface water intake not to exceed 0.5 feet per second.

(4) Replace the existing Exhibit A, Site and Location Map, and Exhibit B, Land Description, with the attached Exhibit A, Land Description, and Exhibit B, Site and Location Map (for reference purposes only).

The following amendments to the lease are also proposed:

- Pursuant to a rent review, increase the AES Base Rent to $111,060, which shall continue to be adjusted annually for CPI as provided in the original lease.
- The Proposed Lease Amendment would increase the amount of Poseidon Resources' annual payment to the Commission for impacts to Public Trust resources to $300,000 beginning within six months of commercial operations of the desalination plant. This provision would also designate these funds for the Bolsa Chica Lowlands Restoration

Project to ensure that the compensation is used to offset any potential Public Trust resource impacts near the Lease Modification Project site.

- Because the Recommended Lease Modification Project involves additional offshore construction activities, the Proposed Lease Amendment requires an increase in the surety bond amount the Lessees are required to provide from $1,000,000 to $6,000,000.
- The Proposed Lease Amendment also modifies a lease provision that requires Poseidon Resources to complete construction of the desalination facility within 8 years of the October 29, 2010 amendment. This condition would be amended to require Poseidon Resources to complete construction of the onshore Huntington Beach Desalination Plant and appurtenant facilities prior to the expiration of the lease term (August 7, 2027).
- The Proposed Lease Amendment requires Poseidon Resources to comply with the mitigation monitoring program developed in the Commission-prepared Supplemental Environmental Impact Report (see Exhibit C) and sets forth other construction and operational requirements to ensure State resources remain protected and impacts are minimized.

ENVIRONMENTAL REVIEW OF DESALINATION AT HUNTINGTON BEACH:

The following provides a chronology of the environmental review and permitting process for Poseidon's Huntington Beach Desalination Plant Project prior to or concurrent with the Commission's current review, pursuant to the California Environmental Quality Act (CEQA), of the Proposed Lease Amendment.

City of Huntington Beach (CEQA lead agency):

In May 2001, the City of Huntington Beach (City), as CEQA lead agency, released a Notice of Preparation (NOP) (State Clearinghouse No. 2001051092), which initiated the CEQA review for the construction and co-located operation (with the AES HBGS) of a 50 MGD reverse osmosis desalination plant, including use of the existing AES offshore intake and discharge pipelines for desalination purposes. In September 2002, the City released a Draft EIR. In April 2005, the City released a Draft Recirculated EIR (REIR). In September 2005, the City certified the REIR and approved the Huntington Beach Desalination Plant Project.

In 2010, the City, in its continuing role as lead agency, conducted additional CEQA review to address changes to the Huntington Beach Desalination Plant Project and its circumstances after 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 EIR (2010 FSEIR) that analyzed the Huntington Beach Desalination Plant Project as a whole, including potential environmental effects, feasible alternatives, and mitigation measures. As part of its September 2010 approval of the Huntington Beach Desalination Plant Project, the City made CEQA Findings and adopted a Mitigation Monitoring and Reporting Program and a Statement of Overriding Considerations. The 2010 FSEIR was not legally challenged. When an EIR is not legally challenged within the timeframe allowed 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). The City also issued a coastal development permit (CDP) for the Desalination Plant pursuant to its adopted Local Coastal Program. In 2010, the CDP was successfully appealed to the California Coastal Commission (CCC), which has yet to act on the appeal.

State Lands Commission (CEQA responsible agency):

In 2010, the Commission reviewed and considered the information contained in the City'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 No. PRC 1980.1 associated with the offshore desalination plant components (intake pipeline and outfall; Item 62, October 29, 2010). The 2010 lease amendment was not legally challenged.

Santa Ana Regional Water Board and State Water Board:

2010 OTC Policy: In May 2010, the State Water Board adopted a statewide policy on the use of coastal and estuarine waters for power plant cooling. Under this OTC Policy, which became effective October 1, 2010, AES is scheduled to eliminate the use of OTC at the HBGS by or before December 31, 2020.

2012 National Pollutant Discharge Elimination System (NPDES) Permit: In 2012, the Santa Ana Regional Water Board renewed for 5 years Order No. RB-2006-0034, NPDES No. CA80000403, to prescribe waste discharge requirements for discharges from the Huntington Beach Desalination Plant. The 2012 Order covered: information about the proposed desalination plant; effluent and receiving water limitations; monitoring and reporting requirements under the NPDES permit; best management practices 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.

2015 Desalination Amendment: The State Water Board analyzed the potential environmental impacts of using seawater for desalination along the California coast in a Substitute Environmental Document (2015 SED) before adopting the Desalination Amendment in May 2015. The 2015 SED analyzed desalination facility intake and outfall options and recommended the use of subsurface intakes and other certain technologies. The Desalination Amendment, which took effect as a new regulation in January 2016, clarifies the State Water Board's authority over desalination facility intakes and discharges; and provides direction to the regional water boards regarding the determination required by section 13142.5(b) for the evaluations of the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life at new or expanded seawater desalination facilities.

2016 "New Desalination Facility" Section 13142.5(b) determination review and NPDES review: In 2016, Regional Water Board staff notified Poseidon that the 2012 Order was no longer valid, that the Huntington Beach Desalination Plant is a "new" desalination facility pursuant to the 2015 Ocean Plan, and that the Board required a new section 13142.5(b) determination in accordance with the requirements of the Desalination Amendment. On August 28, 2017, the Regional Water Board deemed complete Poseidon's application for the NPDES permit and new section 13142.5(b) determination. The results of the Regional Water Board's determination could result in changes to Poseidon's proposed site (including a facility site outside the PRC 1980.1 lease boundaries), design, technology, or mitigation measures needed to conform to Section 13142.5(b).

2016 Formal Interagency Consultation: Since February 2016, State and Regional Water Boards and CCC staffs have engaged in a "formal consultation" for their respective reviews of the Huntington Beach Desalination Plant Project, pursuant to a request by the State Water Board, as required by the Desalination Amendment, that the regional water boards consult with the CCC and other state permitting agencies as they conduct their Section 13142.5(b) analyses and determinations. In August 2016, State Water Board staff also requested that the Commission participate in, and Commission staff agreed to, formal consultation following Poseidon's submittal of its lease amendment application to the Commission.

2017 Third Party Review: In reviewing application materials for a desalination facility, the 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." (Ocean Plan Chapter III.M.2.a.(1).) Regional Water Board staff note that "a critical component of staff's consideration of the 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, the Regional Water Board initiated a collaborative process with Poseidon to secure a third-party review. On September 12, 2017, Regional Water Board staff notified Poseidon that the original process had reached an impasse, and that the neutral third-party review would be conducted using the State Water Board's peer review process. On September 29, 2017, Regional Water Board staff provided a draft timeline with completion of the third-party review scheduled for late December 2017.

2018 Diffuser Shear Analysis: As an additional, separate process to the third-party review, the State Water Board contracted for the development of a diffuser-specific method to calculate shearing-related mortality.[4] The contractor will also identify the best available diffuser design that balances minimizing shearing-related mortality and salinity-related toxicity and assess if Poseidon's proposed diffuser (included in the Lease Modification Project) is consistent with the best available diffuser design. The final report under this contract is anticipated to be completed in January 2018.

STAFF ANALYSIS AND RECOMMENDATION:

Authority:

Public Resources Code sections 6005, 6216, 6301, 6501.1, and 6503; California Code of Regulations, title 2, sections 2000 and 2003.

Supplemental Environmental Impact Report:

The Commission, in its continuing role as a CEQA responsible agency, prepared a supplement to the City's 2010 FSEIR in compliance with CEQA and the State CEQA Guidelines (Pub. Resources Code, § 21000 et seq. and Cal. Code Regs., tit. 14, § 15000 et seq., respectively) in response to Poseidon's current application to amend Lease No. PRC 1980.1 and because the 2010 FSEIR did not analyze environmental impacts of offshore construction (installing screens and a diffuser pursuant

[4] Discharged brine is diluted when discharged through diffusers by mixing with receiving water. During this process, receiving water and its contents including larvae are entrained by the discharge. Shear stress is the measure of friction or force from the discharge on an organism entrained during this process in the path of the discharge. At certain velocities, turbulent shear stress can be lethal to marine life.

to the 2015 Desalination Amendment). The Supplemental EIR examines the potentially significant impacts due to the proposed minor changes to the approved Huntington Beach Desalination Plant structures (pipelines) within the Commission's lease area and to operations (reduced intake water flow). A new review by the Commission of the entire Huntington Beach Desalination Plant Project approved in 2010 is not legally appropriate for multiple reasons.

- The Huntington Beach Desalination Plant Project received final CEQA review by the CEQA lead agency (City of Huntington Beach) in 2010.
- Poseidon's rights under Lease No. PRC 1980.1 have vested, precluding a re-evaluation of the earlier, final CEQA review.
- During application processing pursuant to the Permit Streamlining Act, CEQA scoping, and Supplemental EIR preparation, Commission staff treated Poseidon's application as a request to modify an existing lease and only as a new project for purposes of processing deadlines.
- When considering a subsequent project to an earlier approved project, CEQA limits the environmental analysis to the incremental effects caused by the subsequent project.

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).

On November 18, 2016, staff issued a NOP to agencies and interested parties. On December 14, 2016, staff held a scoping meeting in the city of Huntington Beach to obtain comments on the scope and content of the environmental analysis. More than 50 organizations and individuals provided written or oral comments during the 30-day public review period.

On May 26, 2017, staff filed a Notice of Availability/Public Hearing with the State Clearinghouse and circulated a Draft Supplemental EIR; after staff extended the public review period an additional 2 weeks, the total public review period was 60 days (May 26 through July 27). During a public hearing held on the Draft Supplemental EIR on June 12, 2017, in the city of Huntington Beach, 11 individual speakers submitted oral comments.

Staff received 75 written sets of comments by letter or email from elected officials (9); agencies (9); organizations (32) [several organizations submitted joint letters]; public (23); and the Applicant (2). In addition, approximately 1,400 comments from letter-writing campaigns were received in support of or opposed to the modification project or desalination in Huntington Beach and Orange County. The Final Supplemental EIR was released and made available on October 4, 2017 (see: www.slc.ca.gov/Info/CEQA/Seawater.html).

In preparing the Final Supplemental EIR, Commission staff obtained additional information as needed to respond to comments, responded to all comments, and revised the Draft Supplemental EIR. Major issues raised and addressed in the responses to comments include:

- The scope of the Commission's discretionary action and that of the modification project.
- The Commission's continuing role as CEQA responsible agency compared with acting as CEQA lead agency, its decision to prepare a Supplemental EIR instead of conducting a new Subsequent EIR for the entire Huntington Beach Desalination Plant Project, and alleged "piecemealing" (i.e., artificially dividing a single, integrated project [the Huntington Beach Desalination Plant] into segments [the modification project] so as not to reveal its full extent).
- Issues such as project need, consistency with the Desalination Amendment, diffuser entrainment mortality and species affected, Marine Protected Areas, cumulative impacts, the range and types of alternatives analyzed, and sea-level rise.

Summary of Environmental Impacts:
As analyzed in the Supplemental EIR, the proposed Project would generate less than significant impacts, potentially significant impacts, and significant and unavoidable impacts associated with the following environmental resource areas.

Environmental Resource Area	**Impact Class***		
	LTS	***LTSM***	***SU***
Ocean Water Quality and Marine Biological Resources	X	X	X
Aesthetics/Light and Glare	X	X	
Air Quality	X		X
Cultural Resources	X	X	
Cultural Resources – Tribal		X	
Greenhouse Gas Emissions	X		
Hazards and Hazardous Materials	X	X	

Noise and Vibration	X		
Recreation	X		
Transportation (Marine)		X	

* Acronyms: *LTS = Less than Significant Impact; LTSM = Less than Significant Impact with Mitigation; SU = Significant and Unavoidable Impact*
Note: As presented in Section 4 of the Supplemental EIR, each environmental resource area may have more than one potentially significant impact.

With the implementation of mitigation measures and Applicant Proposed Measures identified in the Final Supplemental EIR, most impacts would be reduced to *Less than Significant*, except the following impacts that would remain *Significant and Unavoidable* even after all appropriate and feasible mitigation measures are applied:

- Impacts to special status species populations and movement of marine mammal species as a result of underwater noise during construction (if impact pile driving is used to install pile foundations for the wedgewire screens)
- Air emissions from construction
- Cumulative air emissions from construction

Under CEQA, if implementation of a project would result in the occurrence of one or more significant effects, the agency can only approve the project if it prepares a written statement that the project's environmental benefits (economic, legal, social, technological, or other region- or statewide benefits) outweigh the unavoidable adverse environmental effects. Exhibit D includes the proposed CEQA Findings and Statement of Overriding Considerations for those impacts that remain *Significant and Unavoidable*.

For Poseidon to install wedgewire screens and a multiport diffuser: (1) the Commission must certify the Supplemental EIR and authorize the Proposed Lease Amendment, (2) the Regional Water Board, in consultation with the State Water Board, must find the identical proposal complies with Section 13142.5(b) and issue an NPDES permit, and (3) Poseidon must obtain approvals from other agencies, including the CCC and U.S. Army Corps of Engineers.

Environmentally Superior Alternative
The State CEQA Guidelines require the selection of an environmentally superior alternative. The determination of an environmentally superior alternative is based on the consideration of how the alternative fulfills the project objectives and how the alternative either reduces significant,

unavoidable impacts or substantially reduces the impacts to the surrounding environment.

The Supplemental EIR identifies the use of rotating brush-cleaned stainless screens instead of stationary (passive) screens, as proposed in Poseidon's lease amendment application, with the proposed diffuser as the environmentally superior alternative. This technology would reduce the number of maintenance trips needed to clean the screens of fouling organisms from six to four vessel trips per year to the offshore site, resulting in lower air emissions over the operational life of the project. As stated in Poseidon's application materials *(Appendix II – Wedgewire Screen Intake Maintenance Plan, Renewal of NPDES CA8000403 Huntington Beach Desalination Project):*

> *Some wedgewire screens, such as those manufactured by Intake Screen, Inc. (ISI), are designed to rotate the screening cylinders past fixed internal and external brushes to keep the screen clean (Figure 2 [Figure 5-1 in the Supplemental EIR]). The ISI screens can be rotated with hydraulic or electric motors or can be equipped with propellers to rotate the screen using the energy from the withdrawn flow in some cases. At their best, rotating screens would be automatically cleaned. At their worst, they would function as passive screens and would require manual cleaning by divers. If the HBDP specifies the use of rotating, brush-cleaned WWS, they would likely be driven by electric motors. The electric motors would rotate the screen either continuously, on a fixed schedule, or as needed based on certain monitoring thresholds.*

Staff believes this alternative accomplishes the project objectives. In commenting on the Draft Supplemental EIR, Poseidon submitted a new letter and suggested that this alternative was infeasible. However, staff was not provided with and has not been able to locate sufficient information to support the contention that this alternative is infeasible. Therefore, staff recommends that the Commission approve the environmentally superior alternative of rotating brush-cleaned stainless screens (Cal. Code Regs., tit. 14, § 15092).

Public Trust and State's Best Interests Analysis:

As general background, the State of California acquired sovereign ownership of all tidelands and submerged lands and beds of navigable lakes and waterways upon its admission to the United States in 1850. Pursuant to the common law Public Trust Doctrine the State holds these lands for the benefit of all people of the State for statewide Public Trust purposes and needs that include, but are not limited to, water-borne

commerce, navigation, fisheries, water-related recreation, habitat preservation, and open space. Uses that do not fit squarely into the traditional, judicially recognized Public Trust purposes, but that do not substantially interfere with the trusts upon which such lands and resources are held, and otherwise are in the best interests of the State, may be deemed consistent with the common law Public Trust Doctrine and the Commission's responsibilities, as trustee, under that doctrine. Further, the uses to which Public Trust lands are put are sufficiently flexible to encompass changing public needs and values.

The Supplemental EIR analyzed the significant impacts on many resources that are also pertinent for the Public Trust analysis. Therefore, the Supplemental EIR along with the entire CEQA record of proceedings for the Huntington Beach Desalination Plant Project and later analysis of environmental impacts of using seawater for desalination along the California coast (the City's 2010 FSEIR and State Water Board's 2015 SED), are hereby incorporated into this staff report by reference.

As Poseidon's rights under Lease No. PRC 1980.1 have vested, staff reviewed the lease modification project by comparing what was already authorized by the Commission in 2010 under Lease No. PRC 1980.1 with what is now proposed for Commission approval. The Proposed Lease Amendment authorizes two physical modifications to the proposed Huntington Beach Desalination Plant: (1) inclusion of 1-millimeter wedgewire screens on the offshore end of the seawater intake line; and (2) inclusion of a multiport diffuser on the offshore end of the outfall. The Commission must determine whether the Proposed Lease Amendment, including the Recommended Lease Modification Project, will substantially interfere with Public Trust needs and values, and whether the Proposed Lease Amendment is in the best interests of the state. These proposed physical modifications seek to comply with the 2015 Ocean Plan provisions, which require the Huntington Beach Desalination Plant Project's proposed technology to be the "best available technology feasible to minimize intake and mortality of all forms of marine life" and to include the following considerations (see Ocean Plan, Chapters III.M.2.d(1)(c)) and III.M.2.d(2)(a),(b)):

- If subsurface intakes are not feasible, surface water intakes must be screened.
- If brine cannot be diluted by wastewater (preferred technology) and there are no live organisms in the discharge, multiport diffusers are the second-best method for disposing of brine.

The Regional Water Board has the legislatively delegated authority to determine whether the physical modifications proposed by Poseidon comply with Section 13142.5(b). To date, the Regional Water Board has not determined whether Poseidon's proposal meets Desalination Amendment requirements (i.e., that the desalination plant includes the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life).

Protection and enhancement of fisheries are uses that are traditionally considered core to the common law Public Trust Doctrine. The modification project (addition of wedgewire screens and diffusers and reduction in average annual seawater intake volume) is intended primarily to preserve marine life through compliance with the Desalination Amendment requirements. In comparison to the original seawater intake and discharge contemplated in the City's 2010 FSEIR and the Commission's 2010 approval of the portion of the Huntington Beach Desalination Plant Project within the Commission's jurisdiction (pre-2015 Desalination Amendment), the modification project would benefit fisheries as follows:

- Reduction in average annual seawater intake volume (from a 2010 Project volume of 152 MGD to 106.7 MGD). As stated in the State Water Board's 2015 SED (Section 8.3.1.2.1, Reducing Intake Flow Volume), decreasing the volume of seawater required will reduce the volume of water withdrawn through a surface intake, and will consequently reduce impingement and entrainment of marine life.[5]
- Installation of wedgewire screens, with 1 mm spacing at the end of the intake pipeline. As stated in the State Water Board's 2015 SED (Section 8.3.1.2.3, Installing Intake Screens), studies have shown that wedgewire screens can be effective at reducing impingement and entrainment and can significantly reduce entrainment of fish eggs and larvae at intake pipes. Cylindrical wedgewire screens can reduce impingement and entrainment if the screen slot size is sufficiently small (0.5 to 1.0 mm) to physically block passage of an organism. The cylindrical shape of the screen, combined with a very low through-slot velocity, is also necessary to allow juvenile and adult fish to escape the flow field. In some cases, hydro-dynamic forces can prevent impingement entirely by sweeping organisms past the screen, thus preventing contact with the screen.

[5] Impingement occurs when marine organisms are trapped against screens or other OTC system components and die. Entrainment is the intake of smaller marine organisms through the OTC system where mechanical systems, temperature increases, or toxic stress destroy most or all the organisms (see Supplemental EIR, Section 1.2.1, *Project Context with Respect to Once-Through Cooling*).

- Maximum through-screen velocity. As stated in the State Water Board's 2015 SED (Section 8.3.1.2.2, Reducing Through-Screen Intake Flow Velocity), a maximum intake velocity of 0.5 feet per second has been shown to protect most small fish and is an appropriate value to preclude most impingement of fish large enough to be unable to pass through the screen.
- Installation of a multiport diffuser. Multiport diffusers can rapidly mix, dilute, and disperse brine in receiving water bodies to salinities near ambient background, often within only a few tens of meters of the outfall, thus resulting in a smaller area of the ocean and benthic environment that is exposed to elevated salinities when compared to other brine disposal methods. However, there is shearing stress associated with these types of discharges that may result in marine life mortality. In its 2015 SED, the State Water Board required a desalination plant owner or operator to first evaluate the availability and feasibility of diluting brine by commingling brine with wastewater. If wastewater is unavailable, then multiport diffusers are the next preferred method of brine disposal. The **regional water board** (emphasis added) would determine the best available methods of brine disposal feasible for a facility and consider it in combination with the best available site, other design elements, and technology feasible to use a combination of factors that results in the least amount of intake and mortality of all forms of marine life.

Poseidon can only construct and operate the Huntington Beach Desalination Plant if the modification project is approved by the Commission, and the Santa Ana Regional Water Board determines the modification project complies with Section 13142.5(b), and the CCC issues a CDP. However, the terms of Lease No. PRC 1980.1 would remain in place until the lease expires, and Poseidon would remain able to develop a different project description, submit a new application to the Commission for a lease amendment, submit a new application to the Regional Water Board for a Section 13142.5(b) determination and new NPDES permit, and submit a CDP application to the CCC.

The Proposed Lease Amendment also includes a condition requiring that Poseidon provide compensatory mitigation in the form of Area of Production Foregone (APF) acres for direct and indirect entrainment impacts to fisheries and other marine organisms resulting from operating the proposed brine diffuser. (See Final Supplemental EIR Mitigation Measure OWQ/MB-7, *Develop and Implement a Diffuser-Operation Marine Life Mitigation Plan*, in Exhibit C.) Such mitigation is calculated at

99 acres based upon a worst-case scenario assumption that the operation of the proposed three-port diffuser with capped 4.5-foot-diameter central port will cause larvae in 100 percent of the total entrained volume of diffuser dilution water to be killed by exposure to lethal turbulence (compared with, for example, 23 percent mortality). The Regional and State Water Boards are conducting a site-specific diffuser-shearing analysis as required by the 2015 Desalination Amendment. Pursuant to the Proposed Lease Amendment, if the Boards calculate less mitigation for diffuser operations, the Commission's Executive Officer will reduce the acreage of the compensatory mitigation required under the Lease Amendment to that determined by the Regional Water Board.

Additionally, the Proposed Lease Amendment will increase the annual compensation Poseidon will pay to the Commission for impacts to Public Trust resources from $115,500 to $300,000. These funds will be used to benefit the nearby Bolsa Chica Lowlands Restoration Project, which provides nearly 600 acres of marine and wetland habitat. Bolsa Chica Basin State Marine Conservation Area, the nearest Marine Protected Area, is approximately 4.3 miles northwest of the Lease Modification Project site. Supporting adaptive management and operation and maintenance of the Bolsa Chica Lowlands Restoration Project will bolster the protection and rehabilitation of Public Trust resources in the area, including commercially important fish species like California halibut and white seabass, migratory shorebirds, and other species. This compensation is separate and distinct from the base rent AES is responsible for under the Lease and the mitigation requirements Poseidon is responsible for under the Lease and Proposed Lease Amendment and any other mitigation requirements imposed, or that may be imposed, by local, state and federal regulatory agencies.

The proposed additions would not result in any substantial interference other Public Trust uses and values. As noted in the Supplemental EIR, offshore construction activities would be short-term and temporary, requiring use of moored barges and tugboats for 2- or 3-month periods. At the project site, vessel safety would be further increased with the publication of a U.S. Coast Guard (USCG) Local Notice to Mariners to inform other vessel operators in the area, and USCG and area harbor personnel, where vessels are moored, likely transit routes, and approximate dates, durations, and working hours.

Upon installation, the tops of the modified intake and discharge structures would be at approximately the same depth as the existing pipeline risers (towers at the pipeline ends) below the ocean surface (10.7- and 12.1-foot

water depths at low water conditions, respectively [see Supplemental EIR Figures 2-2 and 2-3]). The risers sit in waters sufficiently deep to boat traffic that normally operates in water depths of 33 feet mean lower low water, the approximate depth at the intake and discharge towers. Prior to installing the screens and diffuser, the tops of the risers would be lowered to accommodate the screens and diffuser. This would not result in a significant impact to marine vessel safety due to obstructions or interfere with navigation or waterborne commerce. The screens and diffusers would constitute a relatively small addition to the submerged ends of the intake and outfall pipelines. Therefore, they would not interfere with preservation of open space, habitat preservation, or water-related recreation.

The Proposed Lease Amendment also requires the Co-Lessees to increase the amount of their surety bond from $1,000,000 to $6,000,000. This increase assures that funding will be available to ensure compliance with the Lease as amended, including removal of the improvements to State-owned land in the future when the Lease expires, no new lease application is submitted, and the Commission determines that the improvements on State lands are no longer in the best interests of the State.

Climate Change and Sea Level Rise:
Climate change impacts, including sea-level rise, more frequent and intense storm events, and increased flooding and erosion, affect open coastal areas in California. Accelerating rates of sea-level rise are attributed to increasing global temperatures due to climate change. By 2030, the region could see up to 1 foot of sea-level rise (from year 2000 levels), 2 feet by 2050, and possibly over 5 feet by 2100 (National Research Council 2012). Rising sea levels can lead to increased flooding and larger tidal events, and can affect erosion and sedimentation rates.

The City'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 site of the proposed onshore desalination facility that is adjacent to the offshore modification project site. Industrial buildings in the planning area are at high risk of impact from sea-level rise due to their high sensitivity and low adaptive capacity. Along with higher sea levels, higher intensity and more frequent precipitation events due to climate change will further impact coastal areas (Tebaldi 2012). The combination of these conditions will likely result in increased wave run up, storm surge and flooding in coastal and near coastal areas. The preceding discussion of climate change and sea-level rise provides the local/regional overview and context

that the Commission staff considered pursuant to Governor Brown's Executive Order B-30-15.

The Lease area consists of sovereign tide and submerged lands in the Pacific Ocean. The seawater intake and discharge pipelines extend 1,650 and 1,500 feet offshore and are submerged until they come onshore below Huntington State Beach and connect to the AES HBGS and, potentially, the proposed Huntington Beach Desalination Plant.

As noted above, the Commission authorized the use of the existing submerged pipelines for desalination use in 2010 after the City approved the Huntington Beach Desalination Plant Project. Therefore, the Commission's current discretionary action under CEQA applies to the proposed offshore screens and diffuser, not to the onshore portion of the desalination facility. Because the proposed wedgewire screens and multiport diffuser would be supported above the seafloor by risers and submerged 10 to 12 feet below the water surface at low water conditions, the inundation/flooding risk presented by sea-level rise would not be a factor affecting the Recommended Lease Modification Project.

Greenhouse Gas (GHG)[6] Emissions:
California's landmark renewable energy portfolio standard requires investor-owned utility providers to increase procurement from eligible renewable energy resources to 33 percent by 2020. In 2015, Governor Brown signed into law Senate Bill 350, which requires retail seller and publicly-owned utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. California is on a path to achieve its 33 percent renewable energy portfolio standard for 2020, and is gearing up to meet the 50 percent goal in 2030.

Pursuant to the Proposed Lease Amendment, Poseidon shall, at all times during the lease term, minimize GHG-generating energy consumption. The Proposed Lease Amendment requires Poseidon to offset or avoid 100 percent of the direct and indirect GHG emissions from construction and

[6] GHGs are gases that absorb infrared radiation in the atmosphere, including but not limited to, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (NF_3). These GHGs lead to the trapping of built-up heat in the atmosphere near the earth's surface, commonly known as the greenhouse effect. There is overwhelming scientific consensus that human-related emissions of GHGs above natural levels have contributed significantly to global climate change by increasing concentrations of the gases responsible for the greenhouse effect, thus causing atmospheric warming above natural conditions.

operation of the Huntington Beach Desalination Plant and Lease Modification Projects[7] through the following commitments.

- Compliance with the Poseidon Resources Huntington Beach Desalination Plant *Energy Minimization and Greenhouse Gas Reduction Plan* (GHG Plan), as adopted by the City and Commission in 2010 and amended by Poseidon and submitted to the Commission on February 24, 2017. (See Appendix G of the Supplemental EIR at www.slc.ca.gov/Info/Reports/Seawater/G.pdf.)
- Prior to the start of construction of the modification project and on an annual basis, Poseidon shall provide the Executive Officer with a written report with recommendations on implementing measures in addition to the GHG Plan to minimize indirect GHG generating energy consumption consistent with the water reliability and water supply requirements of the public water agencies using the desalinated water. At a minimum, such measures shall include renewable energy purchase agreements, demand management, facility optimization, and shared energy efficiency savings, as provided in the GHG Plan.

Environmental Justice:
California law (see Gov. Code, § 65040.12) defines environmental justice as "the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." This definition is consistent with the Public Trust Doctrine principle that the management of trust lands and resources is for the benefit of all people. The Commission adopted an environmental justice policy in 2002 to ensure that environmental justice is an essential consideration in the Commission's processes, decisions, and programs. The Commission is in the process of updating its Environmental Justice Policy and developing an implementation plan. Through its existing policy and as a core pillar of the future update, the Commission reaffirms its commitment to an informed and open process in which all people are treated equitably and with dignity, and in which decisions are informed by environmental justice considerations.

As discussed in the Supplemental EIR, the physical modifications proposed in the Proposed Lease Amendment involve the short-term, temporary construction and longer-term operation of the offshore

[7] The Supplemental EIR found that both the direct and indirect GHG emissions from Lease Modification Project activities, analyzed independently from *Poseidon's Energy Minimization and Greenhouse Gas Reduction Plan*, would constitute a negligible increase in GHG emissions when compared to the approved 2010 Project and would not substantially contribute to any GHG emission impact.

modification project. As noted in the Supplemental EIR (see page 8-6), there are minority and low-income populations landward of the lease area. During review of the Draft Supplemental EIR, the Commission received comments from environmental justice advocates that both supported and opposed the proposed Huntington Beach Desalination Plant Project.

The short-term temporary construction and longer-term operation of the offshore modification project can have direct and indirect impacts on low-income minority communities in Huntington Beach and Orange County. Some groups comprised of mainly minorities support desalination in Huntington Beach for various reasons. For example, the National Latina Business Women's Association noted the nearly one million Latinos living in Orange County need a dependable, affordable, and sustainable water supply. Although there is a projected rate increase due to the high energy usage and long-term maintenance of desalination plants, they believe the rate increase is an insurance cost the Latino community will have to pay for sustainable drought-proof water. Similarly, the Orange County Hispanic Chamber of Commerce commented that the Huntington Beach Desalination Plant would expand the income potential of Hispanic businesses to enhance the quality of life of the Hispanic community, resulting in increased economic activity directly benefiting the local community through job creation and investment in goods and services. The Chamber noted that approximately 3,000 construction jobs would be created, many of which could be filled by Hispanics, stimulating the local economy and enhancing the quality of life.

Other advocates support the proposed Huntington Beach Desalination Plant Project, and consequently the smaller Lease Modification Project, in general because desalination would provide a reliable source of water to Orange County communities in an otherwise arid and earthquake-prone environment, and that it could potentially increase job opportunities for low-income minorities in the area.

Other groups oppose the proposed Huntington Beach Desalination Plant Project due to the increased water cost, lack of need for the desalination plant, and water quality, climate change, and human rights concerns. The projected cost and its associated impact on low-income communities and communities of color was noted as a significant concern, with opponents explaining that the projected increase would constitute a burden on these households. A coalition of environmental justice organizations[8] noted that

[8] Oak View ComUNIDAD, Orange County Earth Stewards, Azul, Mujeres de la Tierra, The Environmental Justice Coalition for Water, Alliance of River Communities

Huntington Beach residents are already suffering from poor air quality and climate impacts, such as heat islands, and expressed concern that the direct and indirect emissions that would come from operating the Huntington Beach Desalination Plant would contribute to climate change, leading to longer and more intense droughts with further impacts to disadvantaged communities.

Opposition groups also discuss the impact on water quality the Huntington Beach Desalination Plant may have[9]. Their concern is that the ocean water in the area of the modification project contains a higher percentage of boron that can lead to health risks, the desalinated water may further corrode existing infrastructure and pipes, and that blending the desalinated water with groundwater can lower the overall quality.

Other advocates joined in opposing the Huntington Beach Desalination Plant Project because they fear the costs of the facility in conjunction with the high energy cost of running the facility, once passed through to customers, will make water unaffordable for vulnerable populations in the area.

Conclusion:

The proposed Huntington Beach Desalination Plant Project is a significant and complex project. Given the Commission's existing lease as amended, the context for the discretionary action before the Commission and for all the reasons described in this staff report, staff believes authorization of the Proposed Lease Amendment does not substantially interfere with the Public Trust needs and values at this location, at this time, and for the remaining term of the Lease; is consistent with the common law Public Trust Doctrine; and is in the best interests of the State.

OTHER PERTINENT INFORMATION:

1. Authorization of the Proposed Lease Amendment is consistent with Strategy 1.1 of the Commission's Strategic Plan to deliver the highest levels of public health and safety in the protection, preservation, and responsible economic use of the lands and resources under the Commission's jurisdiction.
2. The Commission's discretionary action applies to the offshore modification project within the Commission's jurisdiction and to other proposed modifications to existing Lease No. PRC 1980.1 as amended. Such action does not require a new CEQA review of the Huntington Beach

[9] Environmental Justice Coalition for Water, Orange County Coastkeeper, Surfrider, Irvine Ranch Water District

Desalination Plant Project approved by the City of Huntington Beach and Commission in 2010, including the use of the desalinated water in Orange County Water District's operations and facilities, the distribution of the water to other agencies, or the need for the Huntington Beach Desalination Plant Project in light of recent water conservation and water availability through the Orange County Water District/Sanitation District's Groundwater Replenishment System or other potential non-desalination alternative water sources.

Poseidon's rights under the 2010 Lease amendment 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 modification project is approved at this time. Commission staff has reviewed the modification project in an appropriately limited way, by comparing the scope of what has already been approved with what is currently being proposed within the Commission's jurisdiction.

3. In October 2016, Poseidon withdrew its 2015 CDP application (No. 9-15-1731) before the CCC after Commission, Santa Ana Regional Water Board, and CCC staffs and Poseidon signed an Interagency Permit Sequencing Framework Agreement (2016 Agreement) for permit review that included a schedule for agency action. The primary terms of the 2016 Agreement included the following:

   - Commission staff will prepare a Supplemental EIR pursuant to CEQA to analyze the Lease Modification Project.
   - The Regional Water Board will make available for public review its tentative order amending and/or renewing the 2012 NPDES Permit and tentative Section 13142.5(b) compliance determination within 90 days of: (a) a Regional Water Board determination that complete applications have been submitted for the NPDES Permit and the compliance determination; (b) a final approval by the Commission on Poseidon's application to modify PRC 1980.1; and (c) approval and/or certification of any and all CEQA documents and related environmental information and analysis necessary for the Regional Water Board to act as a CEQA responsible agency in connection with Poseidon's Project.
   - The CCC staff will schedule a hearing on Poseidon's CDP application either (whichever is earlier): (a) 90 days from the Santa Ana Regional Water Board's public release of the Tentative Order amending and renewing Order No. R8-2012-0007/NPDES No.

CA8000403 and its Section 13142.5(b) compliance determination; or (b) the first Southern California CCC hearing following the Tentative Order public release (if there are at least 21 days between the date of the Regional Water Board's staff's action and the "first mailing" date for that CCC meeting).

4. Pursuant to a rent review, staff recommends the Commission authorize the increase of the AES Base Rent to $111,060, which shall continue to be adjusted annually for CPI as provided in the original lease. Authorization of the revision of rent is consistent with Strategy 2.2 of the Commission's Strategic Plan to ensure timely receipt of revenues and royalties from the use and development of State lands and minerals.

5. **CEQA and the proposed desalination facility modifications**: Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15025), staff has prepared a Supplemental EIR identified as CSLC EIR No. 794, State Clearinghouse No. 2001051092 for the proposed modifications. Such Supplemental EIR was prepared and circulated for public review pursuant to the provisions of CEQA. A Mitigation Monitoring Program has been prepared in conformance with the provisions of CEQA (Pub. Resources Code, § 21081.6), and is contained in Exhibit C, attached hereto.

   Findings made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15096 and 15091) are contained in Exhibit D, attached hereto.

   A Statement of Overriding Considerations made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15906 and 15093) is contained in Exhibit D, attached hereto.

   Commission staff recommends that the Recommended Lease Modification Project, the environmentally superior alternative of rotating brush-cleaned stainless screens and the proposed diffuser, be approved by the Commission. (Cal. Code Regs., tit. 14, § 15092.)

6. **CEQA and the proposed revision of rent**: Approving the revision of rent is not a project as defined by CEQA because it is an administrative action that will not result in direct or indirect physical changes in the environment. Authority: Public Resources Code section 21065 and California Code of Regulations, title 14, section 15378, subdivision (b)(5).

7. The proposed facility modifications activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq., but such activity will not affect those significant lands. Based upon staff's consultation with the persons nominating such lands and through the CEQA review process, it is staff's opinion that the Recommended Lease Modification Project, as proposed, is consistent with its use classification.

FURTHER APPROVALS REQUIRED:

Santa Ana Regional Water Quality Control Board
California Coastal Commission
U.S. Army Corps of Engineers

EXHIBITS:

A. Land Description
B. Site and Location Map
C. Mitigation Monitoring Program
D. CEQA Findings and Statement of Overriding Considerations
E. Draft Proposed Lease Amendment
F. 2006 Original Lease
G. 2010 Lease Amendment

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

2010 Final Subsequent EIR: Find that a Subsequent EIR, State Clearinghouse No. 2001051092, was prepared for this project by the City of Huntington Beach and certified on September 7, 2010, for the Huntington Beach Desalination Plant Project that included the use of the Huntington Beach Generating Station seawater Once-Through Cooling intake and discharge pipelines for desalination operations and that the Commission reviewed and considered the information contained therein. The Commission's Findings of Fact and Statement of Overriding Considerations for the portion of the Huntington Beach Desalination Plant Project within the Commission's jurisdiction (see Item 62, October 29, 2010) remain valid and are incorporated herein by this reference.

2015 Substitute Environmental Document: Find that on May 6, 2015, the State Water Board adopted an amendment to the California Ocean Plan to address effects associated with the construction and operation of seawater desalination facilities (Desalination Amendment) following the adoption pursuant to CEQA of a Substitute Environmental Document that

addressed desalination facility intakes, brine discharges, and incorporated other non-substantive changes to the Ocean Plan and that the Commission reviewed and considered the information contained therein.

2017 Final Supplemental EIR: Certify that the Supplemental EIR, CSLC EIR No. 794, State Clearinghouse No. 2001051092, was prepared for this Project pursuant to the provisions of CEQA, that the Commission has reviewed and considered the information contained therein and in the comments received in response thereto and that the Supplemental EIR reflects the Commission's independent judgment and analysis.

Adopt the Mitigation Monitoring Program, as contained in Exhibit C, attached hereto.

Adopt the Findings, made in conformance with California Code of Regulations, title 14, sections 15096 and 15091, as contained in Exhibit D, attached hereto.

Adopt the Statement of Overriding Considerations made in conformance with California Code of Regulations, title 14, sections 15096 and 15093, as contained in Exhibit D, attached hereto.

Approve the Recommended Lease Modification Project, the environmentally superior alternative, of rotating brush-cleaned stainless screens and the proposed diffuser. (Cal. Code Regs., tit. 14, § 15092.)

PUBLIC TRUST FINDING:

Find that the Proposed Lease Amendment will not substantially interfere with the Public Trust needs and values at this location, at this time, for the term of the lease; is consistent with the common law Public Trust Doctrine; and is in the best interests of the State.

SIGNIFICANT LANDS INVENTORY FINDING:

Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370 et seq.

AUTHORIZATION:

1. Authorize the amendment of Lease No. PRC 1980.1, a General Lease – Industrial Use, effective October 19, 2017, in substantially the form as shown on Exhibit E: to (1) modify the existing seawater intake pipeline by installing at the end of the pipeline four wedgewire screen manifolds constructed of stainless steel with 1

millimeter spacing, along with foundations to support the screens, and rotating brushes to clean the screens of fouling organisms; modify the existing seawater discharge pipeline by installing at the end of the pipeline a multiport seawater diffuser to enhance brine mixing with seawater; reduce seawater intake volume to 106.7 MGD from the 152 MGD authorized in October 2010; extend the construction completion date to the expiration of the lease term; and other related amendment provisions; as described in Exhibit A and shown on Exhibit B (for reference purposes only) attached and by this reference made a part hereof; (2) revise the Base Rent for AES under Lease No. PRC 1980.1 from $82,000 per year to $111,060 per year, effective August 8, 2017; (3) increase the bond amount from $1,000,000, as Co-Lessees to $6,000,000; (4) require Poseidon to annually deposit $300,000 in Lessor's Kapiloff Land Bank Fund commencing on the date the facility becomes operational; and (5) replace the existing Exhibit A, Site and Location Map, and Exhibit B, Land Description, with the attached Exhibit A, Land Description, and Exhibit B, Site and Location Map (for reference purposes only); all other terms and conditions of the lease will remain in effect without amendment.

2. Authorize, as trustee for the Kapiloff Land Bank Fund, the annual deposition of $300,000 into the Kapiloff Land Bank Fund, as described in the Proposed Lease Amendment and pursuant to the Kapiloff Land Bank Act, Public Resources Code sections 8600 et seq.

EXHIBIT A

PRC 1980.1

LAND DESCRIPTION

A parcel of tide and submerged beach land lying along the Pacific Ocean, in the City of Huntington Beach, County of Orange, State of California, more particularly described as follows:

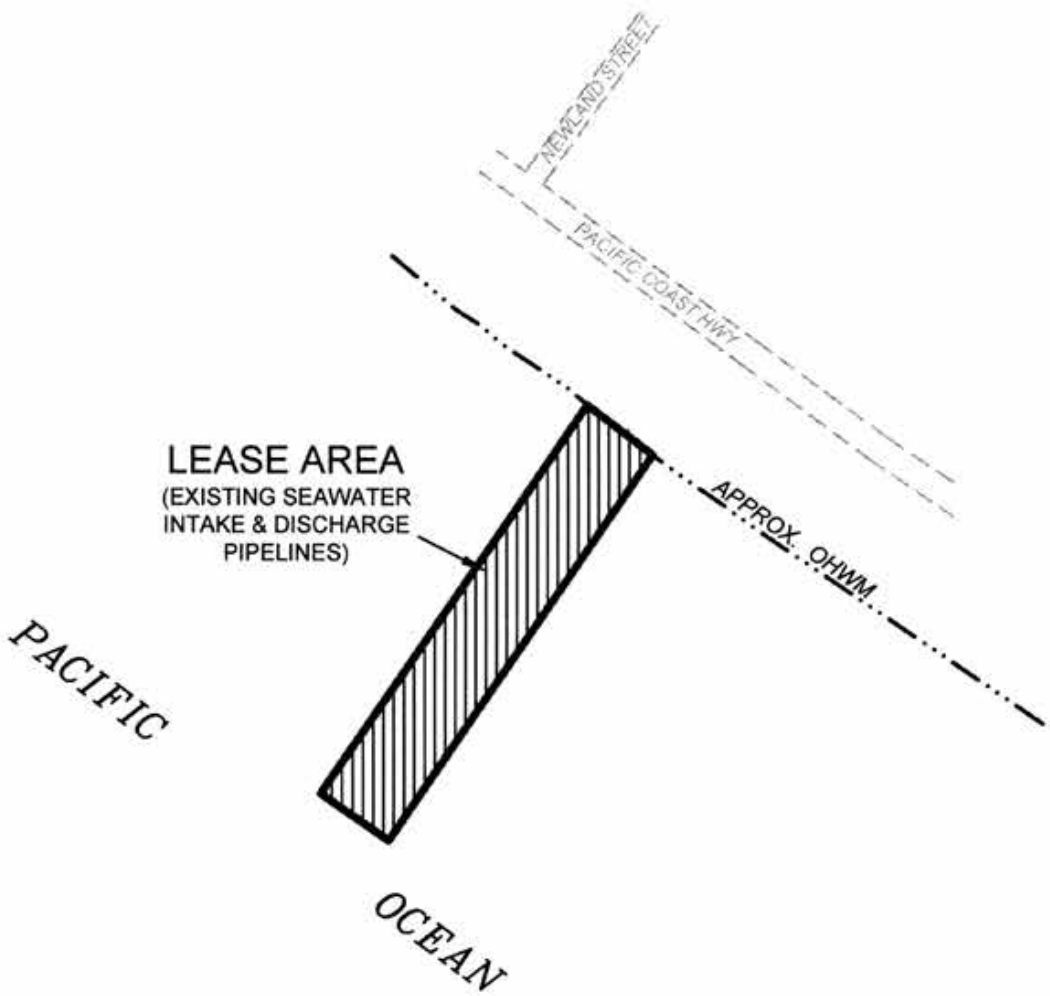
Beginning at the intersection of the North and South centerline of Section 13 in Township 6 South, Range 11 West, S.B.B.& M., in the Rancho Los Bolsas, with the Northeasterly line of the Pacific Coast (State) Highway, as same is shown 100.00 feet wide, on a Record of Survey Map filed in Book 29, Page 27, of Record of Surveys, in the office of the County of Orange; said intersection being South 00°40'50" East, 2507.07 feet, more or less, from the center of said Section 13; thence along said Northeasterly line, South 55°24'30" East, 37.07 feet; thence at right angles to said Northeasterly line, South 34°35'30" West, 580.00 feet, more or less, to a point on the line of the mean (ordinary) high tide of the Pacific Ocean, said last mentioned point being the TRUE POINT OF BEGINNING of this description; thence Southeasterly, along said line of the mean (ordinary) high tide, to a line that is parallel with and 180.00 feet Southeasterly, measure at right angles, from that certain course, and its Southwesterly prolongation, hereinabove described as having a bearing of South 34°35;30" West and a length of 580 feet, more or less; thence along said parallel line South 34°35'30" West 1702.50 feet, more or less, to a line that is parallel with and 2187.50 feet Southwesterly, measured at right angles, from the Southwesterly line of said Pacific Coast (State) Highway; thence along said parallel line, North 55°24'30" West, 300.00 feet; thence North 34°35;30" East, 1717.50 feet, more or less, to said line of the mean (ordinary) high tide; thence Southeasterly, along said last mentioned line, to said TRUE POINT OF BEGINNING.

END OF DESCRIPTION

Prepared 12/01/2006 by the California State Lands Commission Boundary Unit
Original lease description prepared by CSLC dated 12/20/1957.

NO SCALE

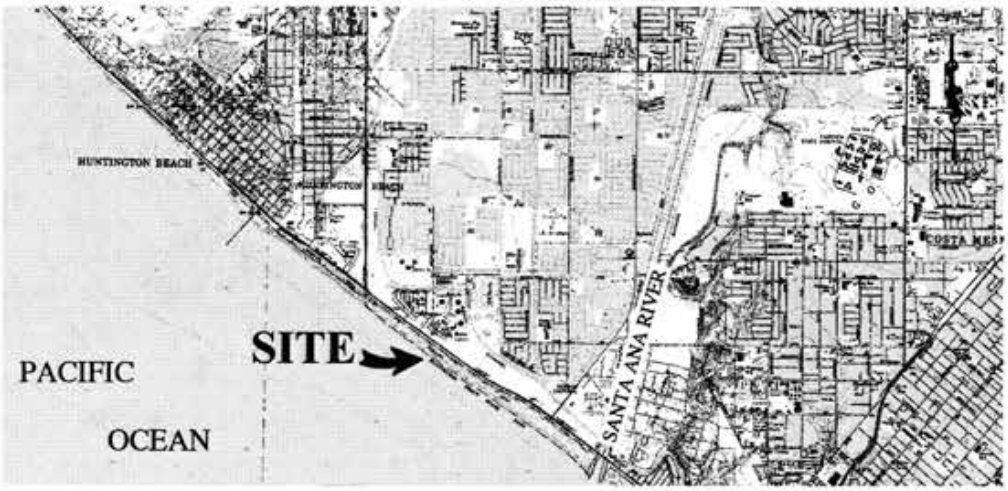
SITE



PACIFIC OCEAN, CITY OF HUNTINGTON BEACH

NO SCALE

LOCATION



MAP SOURCE: USGS QUAD

This Exhibit is solely for purposes of generally defining the lease premises, is based on unverified information provided by the Lessee or other parties and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

Exhibit B

PRC 1980.1
POSEIDON RESOURCES LLC
& AES HUNTINGTON
BEACH LLC
GENERAL LEASE -
INDUSTRIAL USE
ORANGE COUNTY

TS 02/01/17

EXHIBIT C

CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM

Seawater Desalination Project at Huntington Beach: Outfall/Intake Modifications
& General Lease–Industrial Use (PRC 1980.1) Amendment
(PRC 1980.1, State Clearinghouse No. 2001051092)

The California State Lands Commission (Commission or CSLC) is a responsible agency under the California Environmental Quality Act (CEQA) for the Seawater Desalination Project at Huntington Beach: Outfall/Intake Modifications & General Lease–Industrial Use (PRC 1980.1) Amendment, referred to in this exhibit to the Commission's staff report as the proposed Lease Modification Project. As described below, the Lease Modification Project would amend a prior Commission authorization to use the offshore components of the City of Huntington Beach (City)-approved Huntington Beach Desalination Plant Project for desalination operations. The offshore components on state sovereign land consist of existing intake and discharge pipelines used for seawater once-through cooling at the Huntington Beach Generating Station (HBGS).

The City is the CEQA lead agency for the Huntington Beach Desalination Plant Project. In September 2010, the City certified a Final Subsequent Environmental Impact Report (2010 FSEIR), State Clearinghouse (SCH) No. 2001051092, adopted Findings and a Statement of Overriding Considerations, and adopted a Mitigation Monitoring Program for the whole of the Huntington Beach Desalination Plant Project. The City is responsible for ensuring that implementation of the mitigation measures adopted in 2010 occur in accordance with its program. In October 2010, the Commission, as a CEQA responsible agency, authorized an amendment to General Lease–Industrial Use No. PRC 1980.1 to include Poseidon Resources (Surfside) LLC (Poseidon Resources or Poseidon) as a Co-Lessee and authorized the use of existing intake and discharge pipelines as part of the proposed Huntington Beach Desalination Plant (Item 62, October 29, 2010).

Poseidon has now applied to the Commission to amend its existing lease to: (1) modify the existing intake and discharge pipelines by installing within the lease footprint wedgewire screens and a multiport diffuser to the offshore ends of the pipelines; and (2) reduce seawater intake volume as a result of the above technology modifications. The Commission analyzed the environmental impacts associated with the Lease Modification Project in a Final Supplemental Environmental Impact Report (EIR), SCH No. 2001051092, released in October 2017 and has selected the environmentally superior alternative identified in the Supplemental EIR (rotating brush-cleaned stainless steel wedgewire screens and the proposed diffuser) as the approved project. Together, the changes proposed by Poseidon, as refined in the environmentally superior alternative description in the Supplemental EIR, are referred to in this exhibit to the Commission's staff report as the Recommended Lease Modification Project.

In conjunction with approval of the Recommended Lease Modification Project, the Commission adopts this Mitigation Monitoring Program including Attachment C-1 for the implementation of mitigation measures for the Recommended Lease Modification Project, which is entirely located on sovereign land under the jurisdiction of the Commission.

The purpose of a Mitigation Monitoring Program is to impose feasible measures to avoid or substantially reduce the significant environmental impacts from a project identified in an EIR or a Mitigated Negative Declaration. State CEQA Guidelines section 15097, subdivision (a), states in part:[1]

> *In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects. A public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity which accepts the delegation; however, until mitigation measures have been completed the lead agency remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with the program.*

The Commission's standard practice is to include all measures to avoid or reduce significant environmental impacts of a project, both recommended mitigation measures and any Applicant Proposed Measures (APMs), in the Mitigation Monitoring Program to facilitate the tracking of the implementation of all measures. In its application to the Commission for a lease amendment, Poseidon committed to implementing eight APMs and one Applicant Proposed Lease Condition (APLC). APM-8, *Composition and Maintenance of Wedgewire Screens*, differs from the environmentally superior alternative identified in the Commission's Final Supplemental EIR as discussed below.

- Pursuant to APM-8, Poseidon proposes to install stationary (passive) wedgewire screens.
- The Recommended Lease Modification Project would require the use of active, rotating brush-cleaned (self-cleaning) intake screens that sweep debris and fouling organisms off the screens. The self-cleaning screens would require fewer vessel trips to the offshore site to manually clean the screens. The Supplemental EIR identified rotating brush-cleaned screens as the environmentally superior alternative since the number of maintenance trips needed to clean the screens of debris and fouling organisms would be reduced from six to four vessel trips per year to the offshore site, resulting in lower air emissions over the operational life of the project.

Any mitigation measures adopted by the Commission and changes to APMs are shown as follows:

[1] The State CEQA Guidelines are found at California Code of Regulations, title 14, section 15000 et seq.

- Additions to the text of the mitigation measure or APM are underlined; and
- Deletions of the text of the mitigation measure or APM are shown as ~~strikeout~~ or as otherwise noted.

APM-8: **Composition and Maintenance of Wedgewire Screens.** Poseidon shall install ~~stationary~~ rotating brush-cleaned (self-cleaning) wedgewire screens with a slot width of 1 mm 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 Quality Objectives for Protection of Marine Life standards. Such demonstration must be based on data that have 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 Commission's action and authority as a responsible agency for the Recommended Lease Modification Project apply to the mitigation measures and APMs/APLCs listed in Table C1-1 in Attachment C-1 incorporated herein by reference.

ATTACHMENT C-1

Mitigation Monitoring Program

As Revised by Approval of the Recommended Lease Modification Project

MITIGATION MONITORING PROGRAM

Under the California Environmental Quality Act (CEQA), the California State Lands Commission (Commission or CSLC) is required to adopt a program for reporting or monitoring regarding the implementation of mitigation measures for the Recommended Lease Modification Project to ensure that the adopted mitigation measures are implemented. (Pub. Resources Code, § 21081.6, subd. (a); State CEQA Guidelines, §§ 15096, 15091, subd. (d), and 15097.)

MONITORING AUTHORITY

The purpose of a Mitigation Monitoring Program (MMP) is to ensure that measures adopted to mitigate or avoid significant impacts are implemented. A MMP can be a working guide to facilitate not only the implementation of mitigation measures by the project proponent, but also the monitoring, compliance and reporting activities of the Commission and any monitors it may designate.

The Commission may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as deemed necessary, and some monitoring responsibilities may be assumed by responsible agencies, such as affected jurisdictions and cities. The number of construction monitors assigned to a project will depend on the number of concurrent construction activities and their locations. The Commission or its designee(s), however, will ensure that each person delegated any duties or responsibilities is qualified to monitor compliance.

Any mitigation measure study or plan that requires the approval of the Commission must allow at least 60 days for adequate review time. For the Recommended Lease Modification Project, when an Applicant Proposed Measure (APM) or mitigation measure requires that a mitigation program be developed during the design phase of the Project, Poseidon Resources (Surfside) LLC (Poseidon or Applicant) must submit the final program to the Commission for review and approval at least 60 days before construction begins. Other agencies and jurisdictions may require additional review time. The environmental monitor assigned to project implementation or installation of a project component is responsible for ensuring that appropriate agency reviews and approvals are obtained.

The Commission or its designee will also ensure that any deviation from the procedures identified under the monitoring program is approved by the Commission. Any deviation and its correction shall be reported immediately to the Commission or its designee by the environmental monitor.

ENFORCEMENT RESPONSIBILITY

The Commission is responsible for enforcing the procedures adopted for monitoring through the environmental monitor. Any assigned environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the Commission or its designee.

MITIGATION COMPLIANCE RESPONSIBILITY

Poseidon is responsible for successfully implementing all the mitigation measures in the MMP, and shall ensure that these requirements are met by all its construction contractors and field personnel. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Other mitigation measures include detailed success criteria. Additional mitigation success thresholds may be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

GENERAL MONITORING PROCEDURES

Environmental Monitors

Many of the monitoring procedures will be conducted prior to or during the construction phase of the Recommended Lease Modification Project. The Commission and the environmental monitor(s) are responsible for integrating the mitigation monitoring procedures into the construction process in coordination with the Applicant. To oversee the monitoring procedures and to ensure success, the environmental monitor must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The environmental monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

General Reporting Procedures

Site visits and specified monitoring procedures performed by other individuals will be reported to the environmental monitor. A monitoring record form will be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the environmental monitor. A checklist will be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitor will note any problems that may occur and take appropriate action to rectify the problems.

Public Access to Records

The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports will be made available for public inspection by the Commission or its designee on request.

MITIGATION MONITORING TABLE

This section presents the mitigation monitoring table (Table C1-1) for each environmental discipline that requires mitigation measures. Table C1-1 includes those MMs and APMs that are required to avoid, minimize, or mitigate the potential impacts of the Recommended Lease Modification Project only. The Commission is responsible for

ensuring the implementation of these measures. For mitigation measures from the 2010 FSEIR that are unchanged and applicable to the Recommended Lease Modification Project, the Commission will coordinate with the City of Huntington Beach to ensure their implementation. Impacts that do not require mitigation are not included (Table D-2, Potential Impacts (Recommended Lease Modification Project), in Exhibit D, Findings and Statement of Overriding Considerations [see also Supplemental EIR Section 4] identifies all Project impacts). Each table lists the following information, by column:

- Impact (impact number, title, and impact class);
- Mitigation Measure (full text of the measure);
- Location (where the impact occurs and the mitigation measure should be applied);
- Monitoring/reporting action (the action to be taken by the monitor, Commission, or lead agency);
- Effectiveness criteria (how the agency can know if the measure is effective);
- Responsible agency; and
- Timing (before, during, or after construction; during operation, etc.).

The APMs as identified in Section 2.5 of the Project Description (in the Final Supplemental EIR) are presented as they correspond to the appropriate impact. Mitigation measures identified are either:

- A measure in the 2010 Final Subsequent Environmental Impact Report (FSEIR) that is also required to reduce impacts of the Recommended Lease Modification Project
- A measure in the 2010 FSEIR that was modified in the Supplemental EIR
- A new mitigation measure identified in the Supplemental EIR

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
4.1 OCEAN WATER QUALITY AND MARINE BIOLOGICAL RESOURCES						
Impact OWQ/MB-1: Impact to Ocean Water Quality of Lease Modification Project Construction Activities	**APM-1: Offshore Construction Best Management Practices (BMPs) to Protect Water Quality.** Poseidon's offshore construction contractor shall implement BMPs to protect water quality during offshore demolition and construction, including the control of releases of sediment, coarse particles, concrete, and other materials. The implementation of these BMPs shall be a required part of the contractor's contract for offshore construction work. The BMPs shall be submitted for review and approval by California State Lands Commission (CSLC) staff at least 30 days before the commencement of offshore construction. CSLC may also consult with the Regional Water Quality Control Board **staff** and the California Coastal Commission staff in considering the BMPs. The BMPs shall include, at a minimum, the following measures. • All metals used in construction shall be marine-grade fasteners and metals that will not corrode, releasing zinc or other toxic material into the water. • The contractor shall implement effective and practicable measures to limit offshore construction debris that could be discharged to the sea floor (e.g., use of mesh nets). After completion of offshore construction, the contractor shall perform a diver survey to identify if hazardous materials (e.g., sharp-edged scraps of metal, cables) have been left onsite. All such materials shall be removed within 72 hours after completion of offshore construction unless a longer timeframe is approved by CSLC staff.	HB Generating Station intake and discharge pipelines	Approval of BMPs by CSLC staff and project monitor to confirm that the offshore construction contractor implements the BMPs	Implementing the BMPs would reduce impacts to water quality during offshore demolition and construction	CSLC	During construction activities

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	APM-2: Turbidity Minimization and Monitoring Plan. At least 30 days before commencement of offshore construction, Poseidon shall submit a Turbidity Minimization and Monitoring Plan for review and approval by California State Lands Commission (CSLC) staff. CSLC may also consult with Santa Ana Regional Water Quality Control Board and California Coastal Commission staff in considering the Turbidity Minimization and Monitoring Plan. The Plan shall include, at a minimum, the following elements: • Maximum allowable turbidity levels associated with offshore construction as provided by the California Ocean Plan during offshore construction activities • All measures Poseidon will implement to remain within maximum allowable turbidity levels, including maintenance monitoring to ensure that the Desalination Amendment turbidity requirements are achieved • Types of equipment to be used to conduct offshore construction activities • Equipment and sediment disposal locations • Qualifications of the observers who will be present at the offshore project site to monitor for turbidity during offshore construction activities (names shall be submitted at the same time or within 1 week of project implementation) • A Monitoring Plan that (1) provides for measuring turbidity within 72 hours and immediately before offshore construction begins to provide baseline levels and monitoring during offshore construction to ensure the construction operator remains within those levels and (2) identifies the	HB Generating Station intake and discharge pipelines	Approval of a Turbidity Minimization and Monitoring Plan by CSLC staff	Implementing a Turbidity Minimization and Monitoring Plan would reduce impacts to water quality during offshore demolition and construction	CSLC	At least 30 days before offshore construction begins

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	location of a control or reference site so a high turbidity reading caused by a large-scale or regional event is not inappropriately attributed to offshore project construction					
	APM-3: Spill Prevention and Response Plan. At least 60 days before commencement of offshore construction, a Spill Prevention and Response Plan for all vessels to be used for project activities shall be prepared by Poseidon and submitted for review and approval by California State Lands Commission (CSLC) staff that includes at a minimum the following elements: • A list of all fuels and hazardous materials that will be used or might be used during offshore construction, along with Material Safety Data Sheets for each material • Specific protocols for monitoring and minimizing the use of fuel and hazardous materials during offshore construction project operations, including best management practices that will be implemented to ensure minimal impacts to the environment • An estimate of a reasonable worst-case release of fuel or other hazardous materials at the offshore construction project site or into coastal waters resulting from the offshore construction activities • A list of all spill prevention and response equipment that will be maintained on the vessels performing the offshore construction activities • The designation of the on-site person with responsibility for implementing the plan • A detailed response and clean-up plan in the event of a spill or accidental discharge or release of fuel or hazardous materials	HB Generating Station intake and discharge pipelines	Approval of a Spill Prevention and Response Plan by CSLC staff	Implementing a Spill Prevention and Response Plan would reduce impacts to water quality during offshore demolition and construction	CSLC	At least 60 days before offshore construction begins

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	• A telephone contact list of all regulatory and trustee agencies, including CSLC and California Coastal Commission staffs, having authority over the development and/or the project site and its resources to be notified in the event of a spill or material release.					
	APM-4: Workers Educational Training. A worker education training program shall be conducted for workers engaged in offshore construction. The contents of the training program shall be prepared by a qualified biologist approved by California State Lands Commission (CSLC) staff. The program shall include at a minimum the following elements. • Measures to prevent indirect impacts during construction and maintenance activities shall be covered, including delivery, storage, and use of materials and chemicals as they relate to the protection of aquatic habitat. • Training materials should include laws and regulations that protect federally-listed species and their habitats, the consequences of non-compliance with laws and regulations and a contact person (i.e., maintenance activity manager) in the event that protected biological resources are affected. • Training shall take place at the kick-off meeting and any subsequent meetings that may take place if additional contractors are employed during additional maintenance activities. A sign-in sheet will be circulated for signatures to all personnel that attend the workers' educational training to confirm that program materials were received and that they understand information presented.	HB Generating Station intake and discharge pipelines	Approval of a qualified biologist to prepare a worker education training program	Implementing a worker education program would reduce impacts to biological resources during construction and maintenance activities	CSLC	During construction activities

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
Impact OWQ/MB-2: Impact to Special Status Species Populations of Intake Screen and Diffuser Installation (Not Including Underwater Noise)	**APM-3:** see Impact OWQ/MB-1 above	HB Generating Station intake and discharge pipelines	Approval of BMPs by CSLC staff and project monitor to confirm that the offshore construction contractor implements the BMPs	Implementing the BMPs would reduce impacts to Special Status Species populations	CSLC	During construction activities
	APM-4: see above Impact OWQ/MB-1 above	HB Generating Station intake and discharge pipelines	Approval of a qualified biologist to prepare a worker education training program	Implementing a worker education program would reduce impacts to Special Status Species populations during construction and maintenance activities	CSLC	During construction activities
	APM-5: Sensitive Marine Species Monitoring and Best Management Practices (BMPs) to Protect Marine Biological Resources. At least 30 days before commencement of offshore construction, Poseidon shall submit a Sensitive Marine Species Monitoring and Mitigation and BMP Implementation Plan for review and approval by California State Lands Commission (CSLC). CSLC may also consult with California Department of Fish and Wildlife (CDFW) staff, California Coastal Commission staff, and other applicable agency staffs in considering the Sensitive Marine Species Monitoring and BMPs. The Plan shall include, at a minimum, the	HB Generating Station intake and discharge pipelines	Approval of a Sensitive Marine Species Monitoring and Mitigation and BMP Implementation Plan	Implementing a Sensitive Marine Species Monitoring and Mitigation and BMP Implementation Plan would reduce impacts to Special Status Species populations	CSLC	At least 30 days before offshore construction begins

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	elements below. Poseidon shall write into the contract of each applicable contractor hired to conduct offshore work, including any required in-water pile driving, that all BMPs identified in the Plan shall be implemented. In-water construction activities shall not commence until the Plan has been approved. • The Plan shall identify the Exclusion/Shutdown and Behavioral Harassment (Impact) Zone for the marine mammals, sea turtles, and special-status marine bird species that may occur in the offshore construction area • The Plan shall identify measures that will be taken if marine mammals, sea turtles or special-status bird species are within the Impact Zone. These measures may include temporarily halting construction activities until the animal or bird has departed the Impact Zone, as described below. • The Plan shall list the equipment that marine wildlife monitors (MWMs) will have or be provided with to effectively monitor marine species (e.g., binoculars, radios or cell phones, log books). • Poseidon shall provide for approval by CSLC staff the names, qualifications, and roles of three or more MWMs. Selected MWMs shall be able to identify the types and behavior of the marine mammals, sea turtles, and special-status marine bird species that may occur in the offshore construction area. • Prior to the start of in-water work, MWMs shall be located where they have a clear view of marine waters in the Impact Zone and beyond. MWMs shall be on site and in radio or phone contact with offshore construction personnel at all times					

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	in-water construction is conducted. MWMs shall monitor the Impact Zone for 30 minutes before, during, and for 30 minutes after in-water construction activities, including any pile-driving. • At a minimum, MWMs shall collect the following information daily: (1) general location(s) of MWMs and marine wildlife observations; (2) date/time monitoring begins/ends; (3) activities occurring during each observation period; (4) weather parameters (e.g., percent cover, visibility) and conditions (e.g., sea state); (5) species observed and number of individuals; (6) description of any marine wildlife behavior patterns, including bearing and direction of travel and distance from pile driving activities; (7) other human activity in the area. MWMs shall keep a log book of notes about sightings of marine mammals, special-status birds or sea turtles. Entries in the log shall be made at least hourly, even if the entry is “None observed.” Reports shall be emailed or faxed to CSLC staff daily. • Prior to the start of any pile-driving operations, if a marine mammal or sea turtle is sighted within or approaching the Impact Zone, MWMs shall notify the on-site construction lead (or other authorized individual) to delay pile driving until the animal has moved out of the Impact Zone or the animal has not been re-sighted within 15 minutes (for pinnipeds and small cetaceans) or 30 minutes (for large cetaceans). • If a marine mammal or sea turtle is sighted within or on a path toward the Impact Zone during any pile driving activities, pile driving shall cease until that animal has moved out of the Impact Zone or 15 minutes (pinnipeds and small cetaceans)/30					

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	minutes (for large cetaceans) has lapsed since the last sighting. • MWMs shall have authority to temporarily halt in-water project activities if those activities pose a threat to individuals of a special-status species, and to suspend project activities until the animals have left the area. MWMs have the authority to direct cessation (or continuation) of construction activities based on adequate visibility, observed abundance of marine mammals and sea turtles, and their ability to view the Impact Zone. Periodic reevaluation of weather conditions and reassessment of the continuation/cessation recommendation shall be completed by the MWMs. • Within 30 days of the last day of each offshore work period that requires a MWM on the construction vessel, Poseidon shall submit to CSLC staff a Final Marine Wildlife Monitoring Report and copies of log books prepared by the approved MWMs that include at a minimum: ○ an evaluation of the effectiveness of monitoring protocols/procedures ○ reporting of all marine mammal, sea turtle, and other wildlife sightings (including species and numbers) ○ any wildlife behavioral changes that may be attributed to project construction ○ all project changes (e.g., delays, work stoppages, etc.) due to the presence around marine wildlife species • Operators of vessels traveling to the construction site shall maintain a minimum distance of 1,000 feet from whales and sea turtles. Vessels shall not cross directly in front of whales or sea turtles.					

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	When paralleling whales, vessels shall operate at a constant speed that is not faster than the whales at a distance less than 1,000 feet. If the whale exhibits evasive, defensive or other adverse behaviors, the vessel shall decrease speed and change direction and increase distance from the whale until the distance is sufficient to reduce stress displayed by the whale. • Any collisions with marine wildlife shall be reported promptly to CSLC and wildlife agency (National Marine Fisheries Service, CDFW) staffs pursuant to each agency's reporting procedures. • All daily vessel trips used for construction and maintenance activities will originate from local ports. • Divers shall not attempt to interact with any marine mammals or sea turtles.					
	APM-6. Anchoring, Riprap Reconfiguration, and Dredging Plan and Preclusion Area Map. At least 30 days, but not more than 60 days, before the start of offshore construction, Poseidon shall submit an Anchoring, Riprap Reconfiguration, and Dredging Plan for review and approval by California State Lands Commission (CSLC) staff. CSLC staff may also consult with Coastal Commission staff, in considering the Anchoring, Riprap Reconfiguration and Dredging Plan. The Plan shall ensure that impacts on benthic environments are minimized during installation of the wedgewire screens and diffuser, as well as maintenance buoys if required, riprap reconfiguration, and dredging. This Plan shall identify and map Preclusion Areas—all areas of kelp, seagrasses, and hard substrate found within	HB Generating Station intake and discharge pipelines	Approval of an Anchoring, Riprap Reconfiguration, and Dredging Plan, an "as-built" map, and disturbance procedures by CSLC staff	Implementing the Anchoring, Riprap Reconfiguration, and Dredging Plan would minimize impacts to Special Status Species populations in benthic environments	CSLC	At least 30 days, but not more than 60 days prior to starting project construction activities for the Plan and within 30 days after completion of construction for the map and procedures

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	the work area—that shall not be impacted by placement of vessel and buoy anchors, by dragging anchor or buoy lines or cables, by riprap placement, or by dredging spoils during Lease Modification Project construction and maintenance activities. Any surveys subject to the CSLC's Low-Energy Offshore Geophysical Permit Program shall be conducted by CSLC-permitted operators. Within 30 days after completion of offshore construction, Poseidon shall submit to CSLC staff for approval: (1) an "as-built" map overlaying the Preclusion Area Map with Global Positioning System coordinates showing all areas of direct disturbance, anchor and buoy locations, and riprap boundaries, and (2) the procedures Poseidon shall implement to remedy any disturbance that may have occurred within the Preclusion Area due to Poseidon's construction activities.					
Impact OWQ/MB-3: Impact to Special Status Species Populations and Movement of Marine Mammal Species as a Result of Underwater Noise during Construction	**APM-5**: see Impact OWQ/MB-2 above	HB Generating Station intake and discharge pipelines	Approval of a Sensitive Marine Species Monitoring and Mitigation and BMP Implementation Plan	Implementing a Sensitive Marine Species Monitoring and Mitigation and BMP Implementation Plan would reduce impacts to Special Status Species and marine mammal species populations	CSLC	At least 30 days before offshore construction begins
	MM OWQ/MB-3a: Vibratory Pile Driving Installation of the 12-inch steel H-piles for the	HB Generating	Project monitor confirms that a	Implementing MM reduces	CSLC	During construction

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	wedgewire screens shall use a vibratory hammer to reduce the peak noise levels. If site-specific geotechnical studies show that vibratory pile driving cannot be used and impact pile driving is required, Poseidon shall obtain California State Lands Commission approval for the use of impact pile driving.	Station intake and discharge pipelines	vibratory hammer is used during installation of the H-piles or approval of impact pile driving use by CSLC staff	peak noise level impacts to Special Status Species populations		activities
	MM OWQ/MB-3b: Pile Driving Work Windows Pile driving shall only occur between June and November to avoid potential impacts to gray whale migrations in this region. The California State Lands Commission Executive Officer or designee, following consultation with California Coastal Commission and California Department of Fish and Wildlife staffs, may adjust the work window based on changes made during National Marine Fisheries Service (NMFS) consultation. In-water pile driving shall not occur between 30 minutes before sunset and 30 minutes after sunrise.	HB Generating Station intake and discharge pipelines	Project monitor confirms that pile driving occurs only between July and November	Implementing MM avoids impacts to gray whale migration	CSLC	Between June and November
	MM OWQ/MB-3c: Soft Start A soft start for pile driving requires contractors to initiate the driver at a reduced energy for 15 seconds followed by a 30-second waiting period; this procedure is then repeated two additional times. A soft start shall be implemented before pile driving begins each day and any time following the cessation of pile driving for 30 minutes or longer.	HB Generating Station intake and discharge pipelines	Project monitor confirms that a soft start for pile driving is implemented	Implementing MM avoids impacts to marine mammals	CSLC	During construction
Impact OWQ/MB-4: Spread of Invasive and Non-Native Marine Species in the	**MM OWQ/MB-4: Prevent Introduction of Invasive Non-Native Species.** All Lease Modification Project barges and tugs shall: (1) originate from the Ports of Long Beach/Los Angeles (POLB/POLA); (2) be continuously based out of POLB/POLA since last dry docking; or (3) have underwater surfaces	HB Generating Station intake and discharge pipelines	Project monitor confirms that barges and tugs originate from or continuously be based out of POLB or have	Implementing MM prevents introduction of invasive non-native species	CSLC	During construction activities

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
Ocean	cleaned before entering southern California at vessel origination point and immediately prior to transiting to the Lease Modification Project site. Additionally, and regardless of vessel size, ballast water for all Lease Modification Project vessels must be managed consistent with California State Lands Commission (CSLC) ballast management regulations, and Biofouling Removal and Hull Husbandry Reporting Forms shall be submitted to CSLC staff. Lease Modification Project vessels shall also be available for inspection by CSLC staff for compliance.		underwater surfaces cleaned and Biofouling Removal and Hull Husbandry Reporting Forms are submitted to CSLC staff			
Impact OWQ/MB-5: Impact to Ocean Water Quality from Wedgewire Screen and Diffuser Operation and Maintenance	**APM-1**: see above Impact OWQ/MB-1 above	HB Generating Station intake and discharge pipelines	Approval of BMPs by CSLC staff and project monitor to confirm that the offshore construction contractor implements the BMPs	Implementing the BMPs would reduce impacts to water quality from wedgewire screen and diffuser operation and maintenance	CSLC	During construction activities
	APM-2: see above Impact OWQ/MB-1 above	HB Generating Station intake and discharge pipelines	Approval of a Turbidity Minimization and Monitoring Plan by CSLC staff	Implementing a Turbidity Minimization and Monitoring Plan would reduce impacts to water quality from Wedgewire Screen and Diffuser Operation and Maintenance	CSLC	At least 30 days before offshore construction begins

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	APM-8: **Composition and Maintenance of Wedgewire Screens.** Poseidon shall install ~~stationary~~ rotating brush-cleaned (self-cleaning) wedgewire screens with a slot width of 1 mm 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 Quality Objectives for Protection of Marine Life standards. Such demonstration must be based on data that have 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.	HB Generating Station intake pipeline	CSLC staff/project monitor confirm stainless screen installation	Screens kept maintained through rotating brushes and boat-based air-burst wedgewire screen cleaning methods	CSLC	Prior to installation. Notification of cleaning intervals.
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	**APM-1**: see above Impact OWQ/MB-1 above	HB Generating Station intake and discharge pipelines	Approval of BMPs by CSLC staff and project monitor to confirm that the offshore construction contractor implements the BMPs	Implementing the BMPs would reduce impacts to Special Status Species populations	CSLC	During construction activities
	APM-2: see above Impact OWQ/MB-1 above	HB Generating Station intake and discharge	Approval of a Turbidity Minimization and Monitoring Plan by CSLC staff	Implementing a Turbidity Minimization and Monitoring Plan would	CSLC	At least 30 days before offshore construction begins

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
		pipelines		reduce impacts to Special Status Species populations		
	APM-4: see above Impact OWQ/MB-1 above	HB Generating Station intake and discharge pipelines	Approval of a qualified biologist to prepare a worker education training program	Implementing a worker education program would reduce impacts to Special Status Species populations during construc-tion and maintenance activities	CSLC	During construction activities
	APM-5: see above Impact OWQ/MB-2 above	HB Generating Station intake and discharge pipelines	Approval of a Sensitive Marine Species Monitoring and Mitigation and BMP Implementation Plan	Implementing a Sensitive Marine Species Monitoring and Mitigation and BMP Implementation Plan would reduce impacts to Special Status Species populations	CSLC	At least 30 days before offshore construction begins
	APM-6: see above Impact OWQ/MB-2 above	HB Generating Station intake and discharge pipelines	Approval of an Anchoring, Riprap Reconfiguration, and Dredging Plan, an “as-built” map, and	Implementing the Anchoring, Riprap Reconfiguration, and Dredging Plan would	CSLC	At least 30 days, but not more than 60 days prior to starting project construction

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
			disturbance procedures by CSLC staff	minimize impacts to Special Status Species populations		activities for the Plan and within 30 days after completion of construction for the map and procedures
Impact OWQ/MB-7: Impact to Special Status Species Populations of Diffuser Operation.	**MM OWQ/MB-7. Develop and Implement A Diffuser-Operation Marine Life Mitigation Plan**. At least 6 months prior to installation of the discharge diffuser for the proposed Huntington Beach Desalination Plant, Poseidon shall submit to the California State Lands Commission (CSLC) staff for approval a Diffuser-Operation Marine Life Mitigation Plan (DOMLMP), to be part of the Marine Life Mitigation Plan required under the Desalination Amendment, as compensatory mitigation in an amount that is roughly proportional to the marine life impacts associated with diffuser entrainment. Poseidon shall submit the DOMLMP concurrently to Santa Ana Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife (CDFW), and California Coastal Commission (CCC) staffs to facilitate interagency consultation and Plan development. Poseidon shall subsequently implement the DOMLMP upon approval by the CSLC staff, in consultation with the RWQCB, CDFW, and CCC staffs. The Plan shall cover at a minimum the following details. • The DOMLMP shall provide for the restoration of 99 acres, for co-located operations which is based on the replacement of the area of fish production lost (i.e., Area of Production	HB Generating Station intake and discharge pipelines	Approval of a DOMLMP by CSLC staff and Project monitor confirms implementation of the DOMLMP	Implementation of the DOMLMP would reduce impacts to Special Status Species populations from diffuser operation	CSLC	At least 6 months prior to installation of the discharge diffuser

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	Foregone [APF]) as a result of adding a diffuser to the discharge pipeline minus any benefits provided by reducing intake flow and adding wedgewire screens approved as part of the 2010 Project. • If no co-located operations occur (stand-alone operation only), the amount of restoration acreage may be reduced to 95.9 acres. • The DOMLMP shall define the site or project selection process and objectives. It shall define the commitment of long-term funding for restoration and ongoing operation, maintenance, monitoring, and management of an appropriate wetlands site in Orange County for the life of desalination operations. The site or sites selected must provide restored habitat that can operate at a similar level of productivity to comparable natural habitat for the life of desalination operations. Sites or projects to be considered may include Bolsa Chica Lowlands Restoration Project, Huntington Beach Wetlands, Big Canyon Creek, or other site in Orange County that is approved by the CSLC Executive Officer, in consultation with the RWQCB, CDFW, and CCC staffs.					
4.2 AESTHETICS/LIGHT & GLARE						
Impact ALG-2: Creation of New Sources of Substantial Light or Glare such as Nighttime Illumination	**MM ALG-2a: Lighting Plan (Offshore Waters).** The Applicant shall add an addendum to the Huntington Beach Desalination Plant lighting plan to specify that outdoor light intensity on construction barges anchored or moored overnight at the offshore Lease Modification Project site shall be limited to nautical lights necessary for vessel safety and that barge security lighting shall be shielded or directed downwards.	HB Generating Station intake and discharge pipelines	Approval of the Lighting Plan	Implementing MM would reduce light intensity and light spillage from new light sources offshore	CSLC	Prior to starting project construction activities

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
4.3 AIR QUALITY						
Impact AQ-1: Air Emissions from Construction	**MM CON-14a: Diesel Fuel Reduction Plan (Offshore Waters).** Poseidon shall add an addendum to the Huntington Beach Desalination Plant "Diesel Fuel Reduction Plan" (included as a condition in Lease PRC 1980.1) to identify the actions to be taken to reduce diesel fuel emissions during offshore construction activities. The addendum, which shall be submitted to California State Lands Commission staff for review and approval, shall include at a minimum the following measures related to use of diesel powered equipment: • Use diesel powered equipment meeting Tier 2 4 CARB/U.S. EPA or higher emissions standards to the maximum extent feasible; if not already supplied with a factory-equipped diesel particulate filter, all off-road diesel-powered construction equipment shall be outfitted with BACT devices certified by CARB • Use 2010 model year diesel haul trucks or newer for material delivery and soil import/export activities • Use marine vessel engines that are model year 2009 or newer, and thus compliant with Tier 3 marine compression-ignition standards • Use portable construction equipment registered with the State's portable equipment registration program • Use low sulfur diesel fuel and minimize idle time • Ensure all heavy-duty diesel-powered vehicles comply with state and federal standards applicable at time of purchase • Use diesel oxidation catalyst and catalyzed diesel particulate filters or other approved	HB Generating Station intake and discharge pipelines	Approval of the Diesel Fuel Reduction Plan by the City Engineer	Implementing a Diesel Fuel Reduction Plan measures would reduce emissions from construction activities	CSLC and City of Huntington Beach	Prior to starting project construction activities

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	emission reduction retrofit devices installed on applicable construction equipment used during individual projects • Consider other measures such as incentives and/or phase-in schedules for clean trucks during the construction period to ensure that equipment achieves the lowest emissions commercially available at the time of construction					
	MM CON-14b: Internal Combustion Engine Emissions Reduction Plan (Offshore Waters). At least 120 days before the start of construction, Poseidon shall submit to California State Lands Commission staff an Internal Combustion Engine Emissions Reduction Plan that contains, at a minimum the following measures: • Use equipment powered by sources that have lowest emissions commercially available at the time of construction, or equipment powered by electricity if such equipment is commercially available at the time of construction • Use equipment with smallest engine size commercially available and capable of completing project goals to reduce overall emissions • Minimize idling time and unnecessary operation of internal combustion engine powered equipment	HB Generating Station intake and discharge pipelines	Submittal of an Internal Combustion Engine Emissions Reduction Plan by CSLC staff	Implementing an Internal Combustion Engine Emissions Reduction Plan would reduce emissions from construction activities	CSLC	Prior to starting project construction activities
Impact CMLTV-AQ-1: Cumulative Air Emissions from Construction	**MM CON-14a**: see Impact AQ-1 above	HB Generating Station intake and discharge pipelines	Approval of the Diesel Fuel Reduction Plan by the City Engineer	Implementing a Diesel Fuel Reduction Plan measures would reduce cumulative emissions from	CSLC	Prior to starting project construction activities

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
				construction activities.		
	MM CON-14b: see Impact AQ-1 above	HB Generating Station intake and discharge pipelines	Submittal of an Internal Combustion Engine Emissions Reduction Plan by CSLC staff	Implementing an Internal Combustion Engine Emissions Reduction Plan would reduce emissions from construction activities	CSLC	Prior to starting project construction activities
4.4 CULTURAL RESOURCES						
Impact CUL-1: Change in Significance of Previously Recorded Historical or Unique Archaeological Resources	**APM-6**. see Impact OWQ/MB-2 above	HB Generating Station intake and discharge pipelines	Approval of an Anchoring, Riprap Reconfiguration, and Dredging Plan, an "as-built" map, and disturbance procedures by CSLC staff	Implementing the Anchoring, Riprap Reconfiguration, and Dredging Plan would minimize impacts to previously recorded historical or archaeological resources in benthic environments	CSLC	At least 30 days, but not more than 60 days prior to starting project construction activities for the Plan and within 30 days after completion of construction for the map and procedures
Impact CUL-2: Change in Significance of Previously Unidentified Historical or	**APM-6**. see Impact OWQ/MB-2 above	HB Generating Station intake and discharge pipelines	Approval of an Anchoring, Riprap Reconfiguration, and Dredging Plan, an "as-built" map, and	Implementing the Anchoring, Riprap Reconfiguration, and Dredging Plan would	CSLC	At least 30 days, but not more than 60 days prior to starting project construction

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
Unique Archaeological Resources			disturbance procedures by CSLC staff	minimize impacts to previously unidentified historical or archaeological resources in benthic environments		activities for the Plan and within 30 days after completion of construction for the map and procedures
	MM CUL/TCR-2a: Cultural Resource Identification during Geophysical Surveys. Poseidon shall ensure that a qualified maritime archaeologist (e.g., one who meets Secretary of the Interior Professional Qualifications Standards defined in Code of Federal Regulations, section 36, part 61), approved by California State Lands Commission (CSLC) staff, participates in the development and implementation of the geophysical surveys conducted to develop the Anchoring, Riprap Reconfiguration, and Dredging Plan and Preclusion Area Map. The archaeologist shall identify any cultural resources found during the surveys, and prepare a summary report to be submitted to CSLC staff.	HB Generating Station intake and discharge pipelines	Approval of a qualified maritime archaeologist by CSLC staff and submittal of a summary report or surveys to CSLC staff	Implementing MM would reduce impacts to previously unidentified historical or archaeological resources	CSLC	Prior to starting construction
	MM CUL/TCR-2b: Discovery of Previously Unidentified Cultural or Tribal Cultural Resources. If potentially significant archaeological or Tribal cultural resources are discovered any time during the Lease Modification Project geophysical surveys, construction, and operation activities, work within 250 feet of the find shall be temporarily suspended or redirected away from the discovery until the Applicant has notified California State Lands Commission (CSLC) staff and any local,	HB Generating Station intake and discharge pipelines	Project monitor confirms that work within 250 feet of the find is temporarily suspended or redirected away from the discovery and the Applicant retains a CSLC-approved	Implementing MM would reduce impacts to previously unidentified cultural or tribal cultural resources	CSLC	Immediately following discovery of an archaeological or tribal cultural resource during geophysical surveys or

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	State, or Federal agency with approval or permitting authority over the Lease Modification Project that has requested/required notification. Notification shall occur within 48 hours of discovery and be consistent with guidelines for Tribal involvement as stated in the CSLC Tribal Policy (www.slc.ca.gov/About/Tribal.html). The Applicant shall retain a CSLC-approved archaeologist and request a culturally affiliated Tribal representative to evaluate the nature and significance of the discovery. In addition, the following shall apply: • Impacts to previously unknown significant archaeological or Tribal cultural resources shall be avoided through preservation in place if feasible. • Damaging effects to Tribal cultural resources shall be avoided or minimized following the measures identified in Public Resources Code section 21084.3, subdivision (b), unless other measures are mutually agreed to by the lead archaeologist and culturally affiliated Tribal representative that would be as or more effective. • If Tribal cultural resources cannot be avoided, a Treatment Plan developed by the archaeologist and the culturally affiliated Tribal representative, shall be submitted to CSLC staff for review and approval prior to further disturbance of the area. The plan shall: ○ state requirements for professional qualifications of all cultural resources specialists and Tribal cultural resource workers ○ identify appropriate methods of resource		archaeologist and requests evaluation of the discovery from a culturally affiliated Tribal representative			construction or operation activities

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	recording, artifact cataloguing, and analyses ○ determine appropriate levels of recovery and/or stabilization of resources ○ provide documentation of a curatorial facility or museum that will be responsible for the permanent preservation of any unique or sensitive cultural materials resulting from site recovery and/or stabilization efforts • If the lead archaeologist and the culturally affiliated Tribal representative believe that damaging effects to archaeological or Tribal cultural resources will be avoided or minimized, then work in the area may resume.					
Impact CUL-3: Construction or operation of the Project could damage or destroy paleontological resources.	**APM-6**: see Impact OWQ/MB-2 above	HB Generating Station intake and discharge pipelines	Approval of an Anchoring, Riprap Reconfiguration, and Dredging Plan, an "as-built" map, and disturbance procedures by CSLC staff	Implementing the Anchoring, Riprap Reconfiguration, and Dredging Plan would minimize impacts to paleontological resources in benthic environments	CSLC	At least 30 days, but not more than 60 days prior to starting project construction activities for the Plan and within 30 days after completion of construction for the map and procedures
Impact CUL-4: Disturb Unidentified Human Remains	**MM CUL-4/TCR-4: Appropriate Treatment of Human Remains.** In accordance with Health and Safety Code section 7050.5 and Public Resources Code section 5097.98, if human remains are found, all ground disturbing activities shall halt within 165 feet (50 meters) of the discovery. The Applicant	HB Generating Station intake and discharge pipelines	Project monitor confirms that all ground disturbing activities ceases within 165 feet (50 meters) of discovery of	Implementing MM would reduce impacts to discovered human remains	CSLC	Immediately following discovery of human remains during construction

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	must contact the County Coroner and California State Lands Commission (CSLC) staff within 24 hours of the discovery. No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie potential remains shall occur until the County Coroner has determined whether the remains are subject to his or her authority. The County Coroner must make this determination within 2 working days of notification of the discovery pursuant to Health and Safety Code section 7050.5 subdivision (b). If the County Coroner determines that the remains do not require an assessment of cause of death and that the remains are, or are believed to be Native American, the Coroner must notify the Native American Heritage Commission (NAHC) by telephone within 24 hours. In accordance with Public Resources Code section 5097.98, the NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD shall complete their inspection and make recommendations within 48 hours of being granted access to the site. The MLD may recommend means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. CSLC staff will discuss and confer with the MLD regarding their recommendations pursuant to Public Resources Code section 5097.98 subdivision (b) and (c)		human remains and that the County coroner and CSLC are notified			activities and within 24 hours for notification
4.5 CULTURAL RESOURCES – TRIBAL						
Impact TCR-2: Change in Significance of Previously	**APM-6**: see Impact OWQ/MB-2 above	HB Generating Station intake and	Approval of an Anchoring, Riprap Reconfiguration, and Dredging	Implementing the Anchoring, Riprap Reconfiguration,	CSLC	At least 30 days, but not more than 60 days prior to

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
Unidentified Tribal Cultural Resources		discharge pipelines	Plan, an "as-built" map, and disturbance procedures by CSLC staff	and Dredging Plan would minimize impacts to previously unidentified tribal cultural resources in benthic environments		starting project construction activities for the Plan and within 30 days after completion of construction for the map and procedures
	MM CUL/TCR-2a: Cultural Resource Identification during Geophysical Surveys. Poseidon shall ensure that a qualified maritime archaeologist (e.g., one who meets Secretary of the Interior Professional Qualifications Standards defined in Code of Federal Regulations, section 36, part 61), approved by California State Lands Commission (CSLC) staff, participates in the development and implementation of the geophysical surveys conducted to develop the Anchoring, Riprap Reconfiguration, and Dredging Plan and Preclusion Area Map. The archaeologist shall identify any cultural resources found during the surveys, and prepare a summary report to be submitted to CSLC staff.	HB Generating Station intake and discharge pipelines	Approval of a qualified maritime archaeologist by CSLC staff and submittal of a summary report or surveys to CSLC staff	Implementing MM would reduce impacts to previously unidentified tribal cultural resources	CSLC	Prior to starting construction
	MM CUL/TCR-2b: Discovery of Previously Unidentified Cultural or Tribal Cultural Resources. If potentially significant archaeological or Tribal cultural resources are discovered any time during the Lease Modification Project geophysical surveys, construction, and operation activities, work within 250 feet of the find shall be temporarily suspended or redirected away from the discovery	HB Generating Station intake and discharge pipelines	Project monitor confirms that work within 250 feet of the find is temporarily suspended or redirected away from the discovery and the Applicant	Implementing MM would reduce impacts to previously unidentified tribal cultural resources	CSLC	Immediately following discovery of an archaeological or tribal cultural resource during

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	until the Applicant has notified California State Lands Commission (CSLC) staff and any local, State, or Federal agency with approval or permitting authority over the Lease Modification Project that has requested/required notification. Notification shall occur within 48 hours of discovery and be consistent with guidelines for Tribal involvement as stated in the CSLC Tribal Policy (www.slc.ca.gov/About/Tribal.html). The Applicant shall retain a CSLC-approved archaeologist and request a culturally affiliated Tribal representative to evaluate the nature and significance of the discovery. In addition, the following shall apply: • Impacts to previously unknown significant archaeological or Tribal cultural resources shall be avoided through preservation in place if feasible. • Damaging effects to Tribal cultural resources shall be avoided or minimized following the measures identified in Public Resources Code section 21084.3, subdivision (b), unless other measures are mutually agreed to by the lead archaeologist and culturally affiliated Tribal representative that would be as or more effective. • If Tribal cultural resources cannot be avoided, a Treatment Plan developed by the archaeologist and the culturally affiliated Tribal representative, shall be submitted to CSLC staff for review and approval prior to further disturbance of the area. The plan shall: ○ state requirements for professional qualifications of all cultural resources specialists and Tribal cultural resource		retains a CSLC-approved archaeologist and requests evaluation of the discovery from a culturally affiliated Tribal representative			geophysical surveys or construction or operation activities

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	workers ○ identify appropriate methods of resource recording, artifact cataloguing, and analyses ○ determine appropriate levels of recovery and/or stabilization of resources ○ provide documentation of a curatorial facility or museum that will be responsible for the permanent preservation of any unique or sensitive cultural materials resulting from site recovery and/or stabilization efforts • If the lead archaeologist and the culturally affiliated Tribal representative believe that damaging effects to archaeological or Tribal cultural resources will be avoided or minimized, then work in the area may resume.					
	MM CUL-4/TCR-4: Appropriate Treatment of Human Remains. In accordance with Health and Safety Code section 7050.5 and Public Resources Code section 5097.98, if human remains are found, all ground disturbing activities shall halt within 165 feet (50 meters) of the discovery. The Applicant must contact the County Coroner and California State Lands Commission (CSLC) staff within 24 hours of the discovery. No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie potential remains shall occur until the County Coroner has determined whether the remains are subject to his or her authority. The County Coroner must make this determination within 2 working days of notification of the discovery pursuant to Health and Safety Code section 7050.5 subdivision (b). If the County Coroner determines that the remains do not require an assessment of cause of death and	HB Generating Station intake and discharge pipelines	Project monitor confirms that all ground disturbing activities ceases within 165 feet (50 meters) of discovery of human remains and that the County coroner and CSLC are notified	Implementing MM would reduce impacts to discovered human remains	CSLC	Immediately following discovery of human remains during construction activities and within 24 hours for notification

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
	that the remains are, or are believed to be Native American, the Coroner must notify the Native American Heritage Commission (NAHC) by telephone within 24 hours. In accordance with Public Resources Code section 5097.98, the NAHC must immediately notify those persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD shall complete their inspection and make recommendations within 48 hours of being granted access to the site. The MLD may recommend means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. CSLC staff will discuss and confer with the MLD regarding their recommendations pursuant to Public Resources Code section 5097.98 subdivision (b) and (c)					
4.6 GREENHOUSE GAS EMISSIONS						
Impact GHG-1: GHG Emissions from Project Activities	**APM 7**. An *Energy Minimization and Greenhouse Gas Reduction Plan*, most recently updated February 27, 2017, shall be implemented to offset the total direct and indirect GHG emissions from construction and operations of the HB Desalination Plant	HB Desalination Plant	Project monitor confirms that an *Energy Minimization and Greenhouse Gas Reduction Plan* is implemented	Implementing an *Energy Minimization and Greenhouse Gas Reduction Plan* would offset GHG emissions from project construction and operation	CSLC	During construction and operation activities
4.7 HAZARDS AND HAZARDOUS MATERIALS						
Impact HAZ-2: Release of Hazardous	**APM-3**: see Impact OWQ/MB-1 above	HB Generating Station	Approval of a Spill Prevention and Response Plan by	Implementing a Spill Prevention and Response	CSLC	At least 60 days before offshore

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
Materials through Reasonably Foreseeable Upset and Accident Conditions		intake and discharge pipelines	CSLC staff	Plan would reduce impacts from any potential release of hazardous materials		construction begins
	MM HAZ-1: Prepare for Inclement Weather Condition. Poseidon shall tie-down or provide secondary containment for any deck equipment that may discharge contaminants to minimize the potential for unanticipated release of pollutants due to inclement weather or rough sea conditions. In addition, Poseidon shall monitor weather conditions and tsunami warnings, and cease work if determined that existing or forecast sea states or weather conditions would create unsafe working conditions for personnel or equipment.	HB Generating Station intake and discharge pipelines	Project monitor confirms that any deck equipment that may discharge contaminants are tied-down or have been provided secondary containment; Approval by the CSLC of a plan to monitor weather conditions and tsunami warnings	The potential for unanticipated release of pollutants due to inclement weather or rough sea conditions would be reduced	CSLC	Prior to and during project construction activities
4.8 NOISE AND VIBRATION						
Impact NOI-1: Construction and Operation Impacts in Excess of Applicable Community Noise Standards	**<u>From 2010 FSEIR:</u>** **MM CON-15: Construction and Noise Reduction.**	HB Generating Station intake and discharge pipelines	Review and approval of evidence of noise reduction by City of Huntington Beach Planning and Building Department and Public Works Department	Reduction in construction noise to appropriate levels as allowed in the City's Municipal Code	CSLC	Prior to starting project construction activities
	<u>From 2010 FSEIR:</u> **MM NOI-1: Outdoor Pump Noise Reduction.**	HB Generating	Project monitor confirms that all	Reduction in outdoor pump	CSLC	During construction

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
		Station intake and discharge pipelines	pumps located outdoors are located within enclosed structures with adequate setback and screening	noise to City's Noise Ordinance levels measured at nearby residence property lines		activities
Impact NOI-3: Construction Noise Impacts in Excess of Ambient Noise Levels	**From 2010 FSEIR:** **MM CON-15: Construction and Noise Reduction.**	HB Generating Station intake and discharge pipelines	Review and approval of evidence of noise reduction by City of Huntington Beach Planning and Building Department and Public Works Department	Reduction in construction noise to appropriate levels as allowed in the City's Municipal Code	CSLC	Prior to starting project construction activities
4.9 RECREATION						
Impact TRM-1: Marine Vessel Safety	**MM TRM-1**: see Impact TRM-1 below	Transit to and from Port of Long Beach and on station at HB Generating Station intake and discharge pipelines	Project monitor confirms that Local Notice to Mariners is published	Avoidance of collisions of vessels during transit and while on station	CSLC	Prior to and during construction activities

Table C1-1. Mitigation Monitoring Program (Recommended Lease Modification Project)

Impact (Class)	Mitigation Measure (MMs) / Applicant Proposed Measures (APMs)	Location	Monitoring/ Reporting Action	Effectiveness Criteria	Responsible Entity	Timing
4.10 TRANSPORTATION (MARINE)						
Impact TRM-1: Marine Vessel Safety	**MM TRM-1: Publication of U.S. Coast Guard (USCG) Local Notice to Mariners.** The Applicant shall ensure that its contractor submits to the USCG District 11 (as stated at www.uscg.mil/D11/DP/LnmRequest.asp), a request to publish a Local Notice to Mariners, 14 days prior to operation, that includes the following information: • Type of operation (i.e., dredging, diving operations, construction) • Location of operation including Latitude and Longitude and geographical position if applicable • Duration of operation including start and completion dates (if these dates change, the Coast Guard needs to be notified) • Vessels involved in the operation • VHF-FM Radio Frequencies monitored by vessels on scene • Point of Contact and 24-hour phone number • Chart Number for the area of the operation	Transit to and from Port of Long Beach and on station at HB Generating Station intake and discharge pipelines	Project monitor confirms that Local Notice to Mariners is published	Avoidance of collisions of vessels during transit and while on station	CSLC	Prior to and during construction activities

EXHIBIT D

CALIFORNIA STATE LANDS COMMISSION
STATEMENT OF FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS

Seawater Desalination Project at Huntington Beach: Outfall/Intake Modifications
& General Lease–Industrial Use (PRC 1980.1) Amendment
(PRC 1980.1, State Clearinghouse No. 2001051092)

1.0 INTRODUCTION

The California State Lands Commission (Commission or CSLC) makes these findings and this Statement of Overriding Considerations to comply with the California Environmental Quality Act (CEQA) and State CEQA Guidelines[1] as part of its discretionary approval to authorize an amendment to General Lease – Industrial Use No. PRC 1980.1. The Commission is acting as a responsible agency under CEQA[2] in its review of an application by Poseidon Resources (Surfside) LLC (Poseidon) for use of sovereign land offshore the city of Huntington Beach, Orange County, for the Seawater Desalination Project at Huntington Beach: Outfall/Intake Modifications & General Lease–Industrial Use (PRC No. 1980.1) Amendment, referred to in this exhibit of the Commission's staff report as the proposed Lease Modification Project.

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

In September 2010, the City of Huntington Beach (City), as CEQA lead agency, certified a Final Subsequent Environmental Impact Report (2010 FSEIR), State Clearinghouse (SCH) No. 2001051092, that analyzed the significant environmental impacts associated with the construction and operation of the proposed Huntington Beach Desalination Plant Project. In October 2010, the Commission, as a CEQA responsible agency, authorized a lease amendment for the offshore components of the Huntington Beach Desalination Plant Project within its jurisdiction (Item 62, October 29, 2010). The offshore components on state sovereign land consist of an existing seawater intake pipeline and an existing discharge pipeline (outfall) used for seawater once-through cooling (OTC) at the adjacent AES Huntington Beach Generating Station (HBGS).

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[1] CEQA is codified in Public Resources Code section 21000 et seq. The State CEQA Guidelines are found in California Code of Regulations, title 14, section 15000 et seq.

[2] See generally Public Resources Code section 21069; State CEQA Guidelines sections 15096 and 15381.

Pursuant to that authorization, the Commission granted Poseidon a vested right under Lease No. PRC 1980.1, which has a 20-year term (through August 7, 2026), to use the existing seawater intake and discharge pipelines for desalination operations at the Huntington Beach Desalination Plant. The pipelines extend offshore approximately 1,650 feet and 1,500 feet, respectively, onto 11.78 acres of tide and submerged lands. While the City continues to have principal responsibility over the construction and operation of the Huntington Beach Desalination Plant, the Commission is again acting as a responsible agency under CEQA because the proposed offshore project requires an amendment to Lease No. PRC 1980.1 to go forward.

Poseidon has now applied to the Commission to amend its existing lease to: (1) modify the existing intake and discharge pipelines by installing within the lease footprint wedgewire screens and a multiport diffuser to the offshore ends of the pipelines; and (2) reduce seawater intake volume due to the above technology modifications. The Commission analyzed the environmental impacts associated with the proposed Lease Modification Project in a Final Supplemental Environmental Impact Report (EIR), SCH No. 2001051092, released in October 2017 and has selected the environmentally superior alternative identified in the Supplemental EIR as the approved project. These Findings and Statement of Overriding Considerations are made for the environmentally superior alternative identified in the Supplemental EIR, which in this document shall be referred to as the "Recommended Lease Modification Project." The Recommended Lease Modification Project involves the following activities:

- Installation of four rotating brush-cleaned (self-cleaning), stainless steel wedgewire screen manifolds with 1-millimeter (mm) spacing at the end of the existing seawater intake pipeline
- Installation of a multiport seawater diffuser on the offshore end of the existing seawater outfall to enhance brine mixing with seawater
- Reduction of the average annual seawater intake volume to 106.7 million gallons per day (MGD) (from a 2010 Project volume of 152 MGD) with a through-screen velocity at the surface water intake not to exceed 0.5 feet per second
- Other proposed changes offshore such as riprap reconfiguration (moving existing riprap around the subsea HBGS intake and discharge pipeline towers), installation of pile foundations to support the wedgewire screens, and placement of two gravity anchor blocks where boats could moor while conducting maintenance on the screens.
- Implementation of an Applicant Proposed Lease Condition (APLC) and eight Applicant Proposed Measures (APMs) listed below.
    - **APLC-1** – Pipeline Integrity Assessment Inspection and Report
    - **APM-1** – Offshore Construction Best Management Practices (BMPs) to Protect Water Quality
    - **APM-2** – Turbidity Minimization and Monitoring Plan
    - **APM-3** – Spill Prevention and Response Plan

- **APM-4** – Workers Educational Training
- **APM-5** – Sensitive Marine Species Monitoring Plan and Offshore Construction Best Management Practices (BMPs) to Protect Marine Biological Resources
- **APM-6** – Anchoring, Riprap Reconfiguration, and Dredging Plan and Preclusion Area Map
- **APM-7** – Energy Minimization and Greenhouse Gas (GHG) Reduction Plan
- **APM-8** – Composition and Maintenance of Wedgewire Screens (as modified consistent with the environmentally superior alternative to require rotating brush-cleaned [self-cleaning], stainless steel wedgewire screens)

2.0 ADMINISTRATIVE RECORD OF PROCEEDINGS

These Findings are based on the information contained in the Supplemental EIR and the documents referenced therein as well as the following sources of information which are contained in the administrative record, including but not necessarily limted to:

- Information provided by the Applicant
- The City's 2010 FSEIR and Findings of Fact and Statement of Overriding Considerations for the Huntington Beach Desalination Plant Project
- The Commission's Findings of Fact and Statement of Overriding Considerations for the portion of the Huntington Beach Desalination Plant Project within the Commission's jurisdiction (see Item 62, October 29, 2010), which remain valid and are incorporated herein by this reference
- The Final Staff Report Including the Final Substitute Environmental Documentation, adopted May 6, 2015 (2015 SED), for the *Amendment to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Non-substantive Changes (Desalination Amendment)* (https://www.waterboards.ca.gov/water_issues/programs/ocean/desalination/)
- Information gathered through the public involvement process
- Staff Report 97 and Exhibits, for the October 19, 2017 Commission meeting

References cited in these Findings can be found in the Final Supplemental EIR, Section 9.3, *References Cited*. The administrative record is located in the Sacramento office of the California State Lands Commission, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825.

3.0 FINDINGS

Findings are required by each "public agency" that approves a project for which an EIR has been certified that identifies one or more significant environmental impacts on the

environment. (Pub. Resources Code, § 21081; State CEQA Guidelines, § 15091.) The Commission's role as a responsible agency may affect the scope of, but not the obligation to adopt, findings required by CEQA.

The Commission reviewed and considered the information contained in the Supplemental EIR and, as noted above, selected the environmentally superior alternative identified in the Supplemental EIR as the approved project. All significant adverse impacts of the Recommended Lease Modification Project identified in the Supplemental EIR relating to the Commission's approval of an amendment to Lease No. PRC 1980.1 are included herein and organized according to the environmental resource affected. These Findings, which reflect the independent judgment of the Commission, are intended to comply with the mandate that for each significant effect identified in the Supplemental EIR, the Commission adopt one or more of the following, as appropriate.

(1) Changes or alterations have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the Final Supplemental EIR.

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the Commission. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(3) Specific economic, legal, social, technological or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final Supplemental EIR.

These Findings are also intended to comply with the requirement that each finding by the Commission be supported by substantial evidence in the administrative record of proceedings, and accompanied by a brief explanation of the rationale for each finding. (State CEQA Guidelines, § 15091, subds. (a), (b).) To that end, these Findings provide the written, specific reasons supporting the Commission's decision under CEQA to approve the Recommended Lease Modification Project. A discussion of supporting facts follows each Finding.

- Whenever Finding (1) occurs, the mitigation measures that lessen the significant environmental impact are identified in the facts supporting the Finding.
- Whenever Finding (2) occurs, the agencies with jurisdiction are specified. These agencies, within their respective spheres of influence, have the responsibility to adopt, implement, and enforce the mitigation discussed.
- Wherever Finding (3) is made, the Commission has determined that, even after implementation of all feasible mitigation measures and consideration of feasible alternatives, the identified impact will exceed the significance criteria set forth in the Supplemental EIR. Furthermore, to the extent that potentially feasible measures have been alleged or proposed, the Findings explain why certain economic, legal, social, technological or other considerations render such possibilities infeasible. The significant and unavoidable impacts requiring Finding

(3) are identified in the Final Supplemental EIR, discussed in the Responses to Comments, and explained below. Having done everything it can to avoid and substantially lessen these effects consistent with its legal authority and CEQA, the Commission finds in these instances that overriding economic, legal, social, and other benefits of the approved Project outweigh the resulting significant and unavoidable impacts. The Statement of Overriding Considerations adopted as part of this exhibit applies to all such unavoidable impacts as required by CEQA. (Pub. Resources Code, § 21081, subd. (b); State CEQA Guidelines, §§ 15092 and 15093.)

Table D-1 defines possible impact classifications, identifies the range of environmental impacts of the Recommended Lease Modification Project, and states where Findings are required.

The Final Supplemental EIR identifies various mitigation measures (MMs) for Project-related significant effects on the environment, in addition to the eight APMs and one lease condition proposed by Poseidon; with implementation of these measures Project-related impacts would be substantially lessened such that many of the impacts would be less-than-significant. However, even with the implementation of all feasible mitigation, some of the identified impacts would remain significant; as a result, the Commission must adopt a Statement of Overriding Considerations, set forth in this exhibit, to support its approval of the Recommended Lease Modification Project despite the significant and unavoidable impacts. To ensure the identified MMs and Project revisions and APMs are implemented, the Commission adopts the Mitigation Monitoring Program as set forth in Exhibit C as part of its Project approval.

Table D-1. Impact Classifications

Class	Definition	In Supple-mental EIR	Findings Required
Significant and Unavoidable	A substantial or potentially substantial adverse change from the environmental baseline that meets or exceeds significance criteria, where either no feasible mitigation can be implemented or the impact remains significant after implementation of MMs	Yes	Yes
Less than Significant with Mitigation	A substantial or potentially substantial adverse change from the environmental baseline that can be avoided or reduced to below applicable significance thresholds	Yes	Yes
Less than Significant	An adverse impact that does not meet or exceed the significance criteria of a particular resource area and, therefore, does not require mitigation	Yes	No
No Impact	A change associated with the project that would not result in an impact to the physical environment relative to baseline conditions	Yes	No
Beneficial	An impact that would result an improvement to the physical environment relative to baseline conditions	No	No

These Findings are supported by substantial evidence contained in the Supplemental EIR and other relevant information provided to the Commission or existing in its files, all of which is contained in the administrative record. The mitigation measures are briefly described in these Findings and are outlined in the Mitigation Monitoring Program; more detail on the mitigation measures is included in the Final Supplemental EIR.

The Commission is the custodian of the record of proceedings upon which its decision is based. The location of the Commission's record of proceedings is in the Sacramento office of the Commission, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825.

A. SUMMARY OF FINDINGS

As discussed in the Supplemental EIR, the offshore Recommended Lease Modification Project will have No Impact (NI) on the following environmental resource areas:

- Agriculture and Forestry Resources
- Biological Resources (Terrestrial)
- Hydrology, Drainage, and Storm Water Runoff
- Transportation/Traffic (Onshore)
- Geology and Soils
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services,
- Utilities and Service Systems, and Product Water Quality

For the remaining potentially significant effects, the Findings are organized by significant impacts within the Supplemental EIR resource areas as presented below.

B. POTENTIALLY SIGNIFICANT IMPACTS

1. POTENTIALLY SIGNIFCANT IMPACTS IDENTIFIED IN FINAL SUPPLEMENTAL EIR

Table D-2 identifies the potential effects of the Recommended Lease Modification Project for various environmental resource areas as analyzed in the Supplemental EIR. Potential effects are: no impact (NI), less-than-significant impact (LTS), potentially significant impact that can be reduced to less-than-significant with mitigation (LTSM), or significant and unavoidable impact (SU) even with the implementation of all feasible mitigation (SI). See Exhibit C for the full text of each MM identified to avoid or reduce significant impacts. For those impacts identified as significant and unavoidable, the Commission adopts the Statement of Overriding Considerations set forth as part of this Exhibit (Section D) to support its approval of the Recommended Lease Modification Project despite the significant and unavoidable impacts.

Table D-2. Potential Impacts (Recommended Lease Modification Project)

Environmental Resource Area	Impact Number and Classification		
	LTS	**LTSM[1]**	**SU[1]**
Ocean Water Quality and Marine Biological Resources (OWQ/MB)	**OWQ/MB-1, OWQ/MB-2, OWQ/MB-5, OWQ/MB-6**	**OWQ/MB-3** (vibratory pile driver), **OWQ/MB-4, OWQ/MB-7**	**OWQ/MB-3** (impact pile driver)
Aesthetics/Light and Glare (ALG)	**ALG-1**	**ALG-2**	
Air Quality (AQ)	**AQ-2, AQ-3**		**AQ-1, CMLTV-AQ-1**
Cultural Resources (CUL)[2]	**CUL-3**	**CUL-2, CUL-4**	
Cultural Resources – Tribal (TCR)[2]		**TCR-2**	
Greenhouse Gas Emissions (GHG)	**GHG-1, GHG-2**		
Hazards and Hazardous Materials (HAZ)	**HAZ-1**	**HAZ-2**	
Noise and Vibration (NOI)	**NOI-1, NOI-2, NOI-3**		
Recreation (REC)	**REC-1**		
Transportation (Marine) (TRM)		**TRM-1**	

Acronyms: LTS = Less than Significant Impact; LTSM = Less than Significant Impact with Mitigation; SU = Significant and Unavoidable Impact

[1] As noted in Table D-1, Findings are provided for LTSM and SU.

[2] Impacts CUL-1 and TCR-1 are No Impact.

2. RECIRCULATION NOT REQUIRED

The requirements for recirculating the Final Supplemental EIR have not been met.

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 was 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. While the Applicant modified the proposed screen composition from copper-alloy as described in the Draft Supplemental EIR to stainless steel, rotating-brush cleaned stainless steel screens were fully analyzed in the Draft Supplemental EIR as an alternative. In addition, the Final Supplemental EIR was revised to identify that "Area of Production Foregone" mitigation constitutes full mitigation for potential impacts associated with entrainment mortality. Further, the mitigation required for this impact was proportionally increased to address the increased mortality assumption. As discussed in Section I.6 of the Supplemental EIR, the changes to the Draft Supplement EIR do not meet the threshold for significant new information. Section III of the Final Supplemental EIR contains the revisions to the document.

C. IMPACTS REDUCED TO LESS THAN SIGNIFICANT WITH MITIGATION (LTSM)

The impacts identified below were determined in the Final Supplemental EIR to be potentially significant absent mitigation; after application of mitigation, however, the impacts were determined to be less-than-significant.

1. OCEAN WATER QUALITY/MARINE BIOLOGY

CEQA FINDING NO. OWQ/MB-1 (VIBRATORY PILE DRIVING)

Impact: **Impact OWQ/MB--3: Impact to Special Status Species Populations and Movement of Marine Mammal Species as a Result of Underwater Noise during Construction.**

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the Commission. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

FACTS SUPPORTING THE FINDING(S)

Underwater noise would be produced by marine vessels and in-water construction activities, resulting in short-term elevated noise levels near the pipeline ends that may affect marine mammals, sea turtles, sea diving birds, and fishes. Potential impacts to marine species are dependent on sound source levels and frequencies, animal hearing sensitivity, proximity to the sound source (as sound spreads through water from the point of origin, it loses intensity [transmission loss]), noise duration, and time of operation. Hearing sensitivities of marine species vary depending upon their anatomy and physiology. For example, some species, such as marine mammals, seem to be

more sensitive to the sound pressure component of sound, while some fish appear to be more sensitive to the particle motion component of sound. Additionally, a species' hearing sensitivity to sound also varies depending upon the frequency of the sound, since not all marine species hear equally well at all frequencies.

The following sources of underwater noise would be generated offshore.

- Noise from tugboat and crew boat engines would be similar to that from other vessels that routinely transit the ocean surface, and noise from ship traffic would be comparable to other routine noise-generating activities in the area.
- Demolition of the intake tower, would be performed by divers using rivet guns and concrete core saws to cut and break up the concrete into manageable-sized pieces (1-week duration). Dredging would remove about 1,000 to 3,300 cubic yards of sediments (1-week duration), while other dredging-like methods would move and replace riprap (10-day duration). Typical dredging levels are lower than or comparable to those from large vessels.
- The greatest construction-related noise is expected to occur during the installation of pile foundations at the intake pipeline for the wedgewire screens. Primary factors determining the magnitude of underwater noise levels include:
    - Pile driver type: vibratory or impact
    - Pile type: Poseidon proposes to install eight to 10 steel H-piles
    - Pile size: 12 inches
    - Water depth: 33 feet mean lower low water (location of intake pipeline end)

At this time, Poseidon has not selected a pile driving method (vibratory or impact) since the method depends on the geotechnical nature of the sea floor. While vibratory pile driving is Poseidon's preferred method, impact pile driving methods would need be used to install piles if vibratory pile driving is infeasible. As a result, the Supplemental EIR analyzed both pile driving methods. Differences between impact and vibratory pile drivers are summarized below.

Vibratory pile driving (non-impulsive, continuous sound source)	A vibrator case is attached to a pile and vibrations are then transferred from the case to the pile using hydraulic, electric, or pneumatic power packs that cause liquefaction and allow the pile to sink downward into the sediment. For this reason, vibratory pile driving is suitable only where soft substrates are present. Vibratory pile driving produces sound energy that is generally 10 to 20 decibels lower than impact driving for a particular pile type.
Impact pile driving (impulsive sound source)	A piston system with weights is raised (e.g., by an ignition, hydraulic, or steam power source) then dropped onto the pile to drive it into the substrate. Impact pile drivers usually produce higher sound levels than vibratory pile drivers.

The total energy imparted by vibratory pile driving can be comparable to impact pile driving as the vibratory hammer operates continuously and pile installation requires

more time. Since vibratory pile drivers generally produce less sound than impact pile drivers, they are often employed as a mitigation measure to reduce the potential for adverse effects on marine species that can result from impact pile driving. Pile driving (and generation of underwater pile driving noise) would not be a continuous activity. On days when piles are installed, pile driving would occur for up to 4 hours per day—four piles per day, with driving time taking approximately 15 to 60 minutes for each 12-inch steel H-pile, plus time between to set up the next pile—and would therefore generate up to 10 hours of underwater noise (for 10 piles) over a 3-day period.

Underwater noise from vessel traffic, underwater demolition, and dredging would temporarily disturb sensitive marine species, including the movement of native resident or migratory marine mammal species, if individuals are present, but short-term disruption would have negligible effects on affected populations. In contrast, underwater noise from vibratory pile driving during certain migration times and impact pile driving would interfere substantially with the movement of native resident or migratory marine mammal species or with established native resident or migratory wildlife corridors. In addition, marine mammals in the vicinity of impact pile driving (depending upon the type of pile) could be adversely impacted and experience non-auditory physiological effects or injuries such as stress, neurological effects, and different types of organ or tissue damage, which would be considered a significant impact.

If pile driving may result in the incidental take of marine species, the Applicant will be required to obtain an Incidental Take Permit (ITP) pursuant to section 2081 of the California Fish and Game Code to carry out the Lease Modification Project in compliance with the California Endangered Species Act. The California Department of Fish and Wildlife (CDFW) issues ITPs if certain criteria for issuance are met, including finding that the impacts of the taking are minimized and fully mitigated through required permit measures; that the Applicant has ensured funding adequate to carry out the required measures; and that implementation of the project would not jeopardize the continued existence of the species. National Marine Fisheries Service (NMFS) consultation would likely also be required to determine compliance with the Federal Endangered Species Act.

Poseidon will implement **APM-5**, **Sensitive Marine Species Monitoring and Best Management Practices (BMPs) to Protect Marine Biological Resources** (see Exhibit C), which would provide some protection to marine mammals and other species likely to be affected by underwater noise, through procedures that include monitoring and the ability to halt construction activities if negative behavioral changes to marine mammals, sea turtles, or other special status species are observed during construction. Any marine mammals near the construction work areas during noise-generating activities would likely avoid or move away from the construction work areas. Individuals may temporarily avoid the area, but adverse effects to populations would not be discernable.

To reduce this impact to a less-than-significant level, however, implementation of the following MM(s) has been incorporated into the Recommended Lease Modification Project.

MM OWQ/MB-3a: Vibratory Pile Driving

MM OWQ/MB-3b: Pile Driving Work Windows

MM OWQ/MB-3c: Soft Start

MM OWQ/MB-3a requires use of a vibratory hammer to install the 12-inch steel H-piles for the wedgewire screens to reduce peak noise levels. If site-specific geotechnical studies show that vibratory pile driving cannot be used and impact pile driving is required, Poseidon must obtain Commission approval for the use of impact pile driving.

In addition, pile driving shall only occur between June and November to avoid potential impacts to gray whale migrations in this region. The Commission Executive Officer or designee, following consultation with CDFW and California Coastal Commission staffs, may adjust the work window based on changes made during NMFS consultation. In-water pile driving shall not occur between 30 minutes before sunset and 30 minutes after sunrise.

Finally, a soft start for pile driving would require contractors to initiate the driver at a reduced energy for 15 seconds followed by a 30-second waiting period; this procedure is then repeated two additional times. A soft start shall be implemented before pile driving begins each day and any time following the cessation of pile driving for 30 minutes or longer.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less-than-significant level.

CEQA FINDING NO. OWQ/MB-2

Impact: **Impact OWQ/MB-4. Spread of Invasive and Non-Native Marine Species in the Ocean.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

Installation of the intake screens and diffuser would require the use of a derrick barge, tugboat, utility vessel, and crew and monitoring boats, which have the potential introduce invasive, non-native species either as encrusting organisms on the vessel hulls (biofouling), or if vessel ballast water is discharged. Vessels used for the Recommended Lease Modification Project are assumed to travel between the construction site and the Port of Long Beach (POLB) or closer port (e.g., Newport Beach or Los Alamitos).

The introduction of such species can cause permanent changes in the community composition or ecosystem relationships among species that are recognized for scientific, recreational, ecological, or commercial importance, and permanent alteration of habitat that precludes reestablishment of native biological populations. Ports and harbors and adjacent areas are typically most vulnerable to invasive species, as the

bulk of marine traffic is concentrated at these sites. The POLB is proposed as a location for construction vessel traffic and for transporting any excess soil or riprap. If invasive species are resident within these harbor facilities, these species may be transported to the project site during transit. Construction vessels would be the primary and most likely vector for introducing invasive and non-native marine species.

Although transfer is unlikely as (1) the daily vessels are not expected to remain within the harbor for a sufficient length of time for invasive species to establish on the hulls and (2) ballast water discharge and recharge are strictly controlled within major harbors for large vessels, implementation of the following MM(s) has been incorporated into the Project to reduce this impact to a less-than-significant level.

MM OWQ/MB-4: Prevent Introduction of Invasive Non-Native Species

This MM requires all barges and tugs used for the Recommended Lease Modification Project to originate from the POLB or Port of Los Angeles (POLA), to be continuously based out of POLB/POLA since last dry docking, or to have underwater surfaces cleaned before entering southern California at vessel origination and immediately prior to transiting to the project site. Regardless of vessel size, (1) all ballast water must also be managed consistent with the Commission's ballast management regulations, (2) Biofouling Removal and Hull Husbandry Reporting Forms shall be submitted to Commission staff, and (3) vessels shall also be available for inspection by Commission staff for compliance if requested.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less-than-significant level.

CEQA FINDING NO. OWQ/MB-3

Impact: **Impact OWQ/MB-7. Impact to Special Status Species Populations of Diffuser Operation.**

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the Commission. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

FACTS SUPPORTING THE FINDING(S)

Mortality of marine life can result from exposure to toxic salinity levels and from discharge of desalination waste (concentrated brine, filter backwash and subsequent rinse wastewater, and occasional stormwater). Exposure to the brine and other components of effluent discharged from the proposed Huntington Beach Desalination Plant could have adverse effects on bottom-dwelling marine life. Effects could include osmotic stress or shock, the potential formation of hypoxic or anoxic zones, endocrine

disruption, compromised immune function, acute or chronic toxicity, and in extreme conditions, death. Some organisms may move away from areas with high salinity or hypoxia (low oxygen), which could change the structure of the local marine life community, but less mobile organisms would be less able to move away and may experience more severe effects.

The Recommended Lease Modification Project incorporates the use of a multiport diffuser to mix the effluent with receiving water, thereby reducing the desalination plant's discharges below 2015 Desalination Amendment[3] and National Pollutant Discharge Elimination System (NPDES) permit receiving water limits for salinity, which requires that brine discharge salinity declines to within 2 parts per thousand (ppt) over natural background salinity (for a target of 35.5 ppt) within 328 feet (100 meters) from the point of discharge. The 2010 FSEIR found that elevated salinity levels anticipated for the "stand-alone" (discharge without AES OTC flows) operation scenario would be 40 ppt or less at 100 feet from the point of discharge, and would have complied with California Ocean Plan standards in effect at the time. Those standards have now been superseded by the Desalination Amendment.

In comparison to the 2010 Project, increased discharge velocity from the multiport diffuser included in the Recommended Lease Modification Project would result in a smaller brine mixing zone (BMZ) with reduced (diluted) salinity. The 2010 FSEIR concluded that areas exposed to high salinity within the BMZ would result in a less-than-significant impact due to the following factors.

- The benthic areas around the discharge structure do not contain natural hard bottom habitats that support sensitive species.
- Fishes, plankton, and other pelagic animals[4] that encounter elevated salinity in the discharge region will have low exposure times (on the order of several hours).
- Foraging areas affected by elevated salinity are limited in size, and would not represent a substantial displacement in foraging areas, or otherwise substantially affect foraging behavior.
- No threatened or endangered species or kelp beds exist within the vicinity of the HBGS outfall.
- No significant effects on Essential Fish Habitat (EFH)[5] functions would occur.

The rationale for determining impact significance as presented in the 2010 FSEIR also applies to the Recommended Lease Modification Project because the discharge location (along a fairly homogeneous stretch of coastline dominated by sandy habitat)

[3] The *Amendment to the Water Quality Control Plan for Ocean Waters of California (Ocean Plan) Addressing Desalination Facility Intakes, Brine Discharges, and the Incorporation of Other Non-substantive Changes* (Desalination Amendment) was adopted by the State Water Resources Control Board in May 2015 (https://www.waterboards.ca.gov/water_issues/programs/ocean/desalination/).

[4] Pelagic marine life include fish living in the upper layers of the ocean (not in seafloor sediments).

[5] EFH is defined as the waters and substrate necessary for spawning, breeding, feeding, or growth to maturity for fish species.

and sensitive marine resources (or lack thereof) within the BMZ are the same. The 2010 FSEIR determined impacts to special-status species from areas exposed to high salinity within the BMZ would result in a less-than-significant impact. As described above, discharge from the Recommended Lease Modification Project would have lower salinity levels. Therefore, greater impacts than analyzed in 2010 FSEIR would not occur. This impact would be less-than-significant. However, the larvae of special-status species, including, potentially, those associated with Marine Protected Areas (MPAs), may be present near the discharge, and, accordingly, within the BMZ.

A multiport discharge diffuser was not proposed in 2010; therefore, entrainment from shear stress is a new impact of the Recommended Lease Modification Project. Mixing of discharged brine with receiving water occurs when the brine is discharged through the diffuser. During this process receiving water and its contents including larvae are entrained by the discharge. Shear stress is the measure of friction or force from the discharge on an organism entrained during this process. At certain velocities, turbulent shear stress can be lethal to marine life.

Implementation of the following MM(s) has been incorporated into the Project to reduce this impact to a less-than-significant level.

MM OWQ/MB-7. Develop and Implement a Diffuser-Operation Marine Life Mitigation Plan (DOMLMP)

This MM requires compensatory mitigation, in an acreage determined by Area of Projection Foregone (APF) calculations, for the production foregone due to diffuser entrainment mortality of marine organisms, including special-status species. Production foregone is the biological productivity lost when marine life is killed by an industrial activity. The APF is the amount of area needed to be created (i.e., added to the system) for full compensation of the ecosystem resources provided by that species, including both the species itself and its contribution to the ecological community. In this way, it considers and compensates for all direct and indirect entrainment impacts to all organisms in the affected source water body. This includes species that were not directly measured in sampling and evaluated in modeling, such as special-status species for the proposed Lease Amendment Project as described in the Supplemental EIR. Mitigation for impacts to special-status species from diffuser-related entrainment (MM OWQ/MB-7) would also compensate for the loss of any special-status species exposed to elevated salinity.

APF is calculated by measuring the productivity foregone for a subset of species, then averaging those measurements together. The calculation of APF assumes that production foregone for a subset of species is a representative sample of all species present at that location, even those that are not directly measured. If the habitat calculated using APF is created or restored, the habitat will support the species assessed in the analysis as well as other species in the ecosystem that were not assessed. This means that the average APF for a small subset of species (e.g., 15 to 20 species) is characteristic of the much larger community, even a community comprised of thousands of different types of organisms.

The Santa Ana Regional Water Quality Control Board (Regional Water Board) has the legislatively delegated authority to determine whether the physical modifications proposed by Poseidon comply with Water Code section 13142.5, subdivision (b) (Section 13142.5(b)). To date, the Regional Water Board has not determined whether Poseidon's proposal meets Desalination Amendment requirements (i.e., that the Huntington Beach Desalination Plant includes the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life).

In the absence of Regional Water Board calculations of an APF for all desalination operations pursuant to its authority under Section 13142.5(b), an APF for diffuser shear impacts was calculated for the Supplemental EIR analysis based on a worst-case assumption that 100 percent of those organisms contained in the proportion of diffuser dilution flow that is exposed to lethal levels of shear would be killed. The corresponding APF was calculated to be 99 acres for co-located operations and 95.9 acres for stand-alone operation. The site or sites selected must provide restored habitat that can operate at a similar level of productivity to comparable natural habitat for the life of desalination operations. Sites or projects to be considered may include Bolsa Chica Lowlands Restoration Project, Huntington Beach Wetlands, Big Canyon Creek, or other site in Orange County.

Commission staff notes that as part of their separate regulatory processes, the Regional Water Board pursuant to Section 13142.5(b), or other agencies, may impose other measures to compensate for impacts to special-status species. MM OWQ/MB-7 requires that the DOMLMP be developed and implemented in consultation with the public agencies with jurisdiction and responsibilities for minimizing and compensating for mortality to marine life. (*Neighbors for Smart Rail v. Exposition Metro Line Constr. Auth.* (2013) 57 Cal.4th 439.)

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less–than-significant level.

2. AESTHETICS/LIGHT AND GLARE

CEQA FINDING NO. ALG-1

Impact: **Impact ALG-2. Creation of New Sources of Substantial Light or Glare such as Nighttime Illumination.**

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

The Recommended Lease Modification Project would have a temporary, short-term (2- to 5-month) construction period. Project installation would require using vessels, which are features of the existing visual environment, only during daylight hours. For the

duration of construction, one or more barge(s) would be moored overnight at the offshore construction site and will have nighttime nautical safety and security lights as required by the U.S. Coast Guard. Lease No. PRC 1980.1 already includes a lease condition related to onshore lighting, and a similar measure for offshore lights is feasible. Because the wedgewire screens and diffuser would be submerged, there would be no permanent light sources or potential to create any new source of glare.

Implementation of the following MM(s) has been incorporated into the Project to reduce this impact to a less-than-significant level.

MM ALG-2a: Lighting Plan (Offshore Waters)

This MM would require the Applicant to add an addendum to the Huntington Beach Desalination Plant lighting plan to specify that outdoor light intensity on construction barges anchored or moored overnight at the offshore project site shall be limited to nautical lights necessary for vessel safety and that barge security lighting shall be shielded where feasible or directed downwards.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less-than-significant level.

3. CULTURAL RESOURCES AND CULTURAL RESOURCES–TRIBAL

CEQA FINDING NO. CUL-1/TCR-1

Impact: **Impact CUL-2. Change in Significance of Previously Unidentified Historical or Unique Archaeological Resources.**

Impact TCR-2. Change in Significance of Previously Unidentified Tribal Cultural Resources.

Impact CUL-4. Disturb Unidentified Human Remains.

Finding(s): (1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

FACTS SUPPORTING THE FINDING(S)

A review of previous cultural resources surveys, archaeological surveys, and site reports did not identify any reports of historical or archaeological resources, Tribal cultural resources (e.g., areas of spiritual significance, plant collection areas), or human remains in the offshore project area or its immediate surroundings. The Commission's Shipwreck Database (consulted in February 2017) revealed one shipwreck about 2.6 miles offshore of the HBGS, well beyond the area that could be affected by construction of the Recommended Lease Modification Project.[6] While anchoring, dredging, riprap

[6] This shipwreck, the barge NSK #2, was built in 1918 and later damaged by fire and sunk in 1934. (See the Shipwreck Database at www.slc.ca.gov/Info/Shipwrecks.html.)

reconfiguration, pile driving, and wedgewire screen and diffuser installation would disturb seafloor sediments in the construction area, most of these sediments were likely previously disturbed when the intake and discharge structures were initially installed.

Construction activities involving offshore soil disturbance 3 feet or more below the ground surface would have the potential to directly or indirectly affect presently unidentified cultural resources, including Tribal cultural resources, through partial or complete destruction of the resource, altering the significance of the resource and affecting its eligibility to the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR), or indirectly altering the setting, context, feeling, or integrity of the resource. In addition, previously unidentified human remains could be found. In contrast, Lease Modification operations and maintenance are unlikely to result in significant ground disturbance.

Poseidon has committed to implement **APM-6. Anchoring, Riprap Reconfiguration, and Dredging Plan and Preclusion Area Map** (see Exhibit C) to help minimize impacts of ground disturbance during construction to cultural resources. Pursuant to APM-6, anchor locations would be carefully selected, after geophysical surveys, so that they are placed on unobstructed soft substrate. Reconfiguration of the existing ripap around the intake and discharge pipeline towers would also result in side-casting of riprap in locations identified on a Preclusion Map.

Implementation of the following MM(s) has been incorporated into the Project to reduce this impact to a less-than-significant level.

MM CUL/TCR-2a: Cultural Resource Identification during Geophysical Surveys

MM CUL/TCR-2b: Discovery of Previously Unidentified Cultural or Tribal Cultural Resources

MM CUL-4/TCR-4: Appropriate Treatment of Human Remains

These MMs establish a process to identify, treat and evaluate newly discovered resources. Impacts to previously unknown significant archaeological or Tribal cultural resources shall be avoided through preservation in place if feasible, and a qualified maritime archaeologist (e.g., one who meets Secretary of the Interior Professional Qualifications Standards defined in Code of Federal Regulations [CFR], section 36, part 61), approved by Commission staff, would participate in the development and implementation of the geophysical surveys conducted to develop the Anchoring, Riprap Reconfiguration, and Dredging Plan and Preclusion Area Map (APM-6). The archaeologist shall identify any cultural resources found during the surveys, and prepare a summary report to be submitted to Commission staff.

In addition, specific protocols would be implemented if potentially significant archaeological or Tribal cultural resources are discovered any time during geophysical surveys, construction, and operation activities associated with the Recommended Lease Modification Project, including temporarily suspending work within 250 feet of the find, notifying applicable agencies, and providing for a Commission-approved

archaeologist and culturally affiliated Tribal representative, if applicable, to evaluate the nature and significance of the discovery and develop a Treatment Plan.

If human remains are discovered, such resources shall be treated in accordance with State and local law, regulations and guidelines that govern the disclosure, recovery, relocation, and preservation of human remains (State CEQA Guidelines, § 15064.5, subd. (e)). Implementation of MM CUL-4/TCR-4 would initiate a process to ensure that adverse effects resulting from the inadvertent discovery of human remains would be less-than-significant, to include the following steps.

- All ground disturbing activities shall halt within 165 feet (50 meters) of the discovery and the Applicant must contact the County Coroner and Commission staff within 24 hours of the discovery.
- No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie potential remains shall occur until the County Coroner has determined whether the remains are subject to his or her authority.
- If the County Coroner determines that the remains do not require an assessment of cause of death and that the remains are, or are believed to be Native American, the Coroner must notify the Native American Heritage Commission.
- The Native American Heritage Commission must immediately notify those persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may recommend means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. Commission staff will discuss and confer with the MLD regarding their recommendations (pursuant to Pub. Resources Code, § 5097.98, subds (b)-(c)).

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less-than-significant level.

4. HAZARDS AND HAZARDOUS MATERIALS

CEQA FINDING NO. HAZ-1

Impact: **Impact HAZ-2: Release of Hazardous Materials through Reasonably Foreseeable Upset and Accident Conditions.**

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the Commission. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

FACTS SUPPORTING THE FINDING(S)

The support barge and other support vessels may accidentally discharge oils, fuel, lubricants, or other contaminants into the ocean. Other potential sources of marine spillage would include deck equipment such as compressors, generators, pumps, and welding machines. Poseidon would be required to transport, handle, and dispose of hazardous materials or chemicals in accordance with all federal, State, and local laws regulating the management and use of hazardous materials. However, accidental spillage can still happen, and accidents can pose a risk to the public and environment. A spill from a construction vessel could occur during refueling, if the hull of a vessel is breached around the tank, or if a vessel sinks. However, the collision of a Project-related vessel with other vessels in the area is unlikely since all work would be conducted during daylight hours.

Poseidon has committed to implement **APM-3, Spill Prevention and Response Plan** (see Exhibit C), for vessels used for the Recommended Lease Modification Project. The Plan identifies minimum elements to enhance spill prevention and cleanup, including but not limited to: minimization and monitoring of the use of fuel and hazardous materials; requirements for spill prevention and response equipment to be maintained on vessels performing the offshore construction activities; designation of an on-site person with responsibility for implementing the plan; and a detailed response and clean-up plan in the event of a spill or accidental discharge or release of fuel or hazardous materials. However, this impact would still be significant in the event of poor weather conditions that would increase the risk of offshore spills.

Implementation of the following MM(s) has also been incorporated into the Project to reduce this impact to a less-than-significant level in the event of poor weather conditions or potential tsunami that would increase the risk of offshore spills.

MM HAZ-1. Prepare for Inclement Weather Condition

This measure requires Poseidon or its contractor to monitor weather conditions and tsunami warnings, and to halt construction and tie down deck equipment if existing or forecasted sea conditions or weather would create unsafe working conditions for personnel or equipment. The crew would also be trained and prepared to prevent hazardous materials from spilling into the ocean.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, and implementation of the Applicant prepared Hazardous Material Spill Prevention and Response Plan, this impact is reduced to a less-than-significant level.

5. TRANSPORTATION (MARINE)

CEQA FINDING NO. TRM-1

Impact: **TRM-1: Marine Vessel Safety.**

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.
(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the Commission. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

FACTS SUPPORTING THE FINDING(S)

As described above, installation of the diffuser and wedgewire screens would generate marine vessel traffic between the POLB and the work site offshore of Huntington Beach. Construction would require one tugboat trip to deliver a crane barge to the site and one to remove it. The 180-ton derrick barge would be the largest vessel required for construction. Project activities would not require any change in port areas, the regional Vessel Traffic System (VTS), other established marine traffic systems in the area, or existing aids to navigation. An additional two or three vessels per day would shuttle crews to the site, deliver equipment and supplies, and conduct water quality and biological monitoring. Vessel traffic offshore would be confined to the area directly surrounding the intake and discharge towers and to and from the site. These trips would have minimal effect on existing boat traffic during the short-term construction period, an estimated 2 and 3 months to install the diffuser and screens, respectively; if the installation occurs concurrently, similar vessels and crews would work at each site. Vessels transiting to and from the POLB and used onsite must meet U.S. Coast Guard requirements for navigation safety (e.g., navigation systems, minimum crew, and COLREGS [International Regulations for Preventing Collisions at Sea] day shapes and night lights) and vessel operators would communicate with the U.S. Coast Guard and VTS where applicable.

However, the absence of advanced planning and failure to provide adequate notification to affected mariners or the U.S. Coast Guard could cause a significant impact. Notification of vessel and in-water construction activity would reduce this impact to a less-than-significant level. Therefore, implementation of the following MM(s) has been incorporated into the Recommended Lease Modification Project.

MM TRM-1. Publication of U.S. Coast Guard (USCG) Local Notice to Mariners

Publication of a Local Notice to Mariners would ensure that other vessels in the area, as well as U.S. Coast Guard and area harbor personnel, would be advised of the location of moored vessels, likely transit routes, and approximate dates, durations, and working hours. Noticing would provide for advanced planning and would ensure coordination with any other activities that are ongoing or planned, thus increasing vessel safety.

Upon installation, the tops of the modified intake and discharge structures would be at about the same depth as the existing pipeline risers (towers at the pipeline ends) below the ocean surface (10.7- and 12.1-foot water depths at low water conditions, respectively [see Supplemental EIR Figures 2-2 and 2-3]). The risers sit in waters sufficiently deep to boats that normally operate in water depths of 33 feet mean lower low water, the approximate depth at the intake and discharge towers. Prior to installing the screens and diffuser, the tops of the risers would be lowered to accommodate the screens and diffuser. This would not result in a significant impact to marine vessel safety due to obstructions or interfere with navigation or waterborne commerce.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. With the mitigation described above, this impact is reduced to a less-than-significant level.

D. SIGNIFICANT AND UNAVOIDABLE IMPACTS

The following impacts were determined in the Final Supplemental EIR to be significant and unavoidable (see Table D-2). The Statement of Overriding Considerations adopted as part of this exhibit applies to all such unavoidable impacts as required by CEQA. (Pub. Resources Code, § 21081, subd. (b); State CEQA Guidelines, §§ 15092 and 15093.)

Ocean Water Quality and Marine Biological Resources (OWQ/MB)	**OWQ/MB-3**
Air Quality (AQ)	**AQ-1, CMLTV-AQ-1**

1. OCEAN WATER QUALITY/MARINE BIOLOGY

CEQA FINDING NO. OWQ/MB-4 (IMPACT PILE DRIVING)

Impact: **Impact OWQ/MB--3: Impact to Special Status Species Populations and Movement of Marine Mammal Species as a Result of Underwater Noise during Construction.**

Finding(s):

(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the EIR.

(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the Commission. Such changes have been adopted by such other agency or can and should be adopted by such other agency.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the SEIR.

FACTS SUPPORTING THE FINDING(S)

Marine mammals in the vicinity of impact pile driving (depending upon the type of pile) could be adversely impacted and experience non-auditory physiological effects or injuries such as stress, neurological effects, and different types of organ or tissue damage, which would be considered a significant impact. If pile driving may result in the incidental take of marine species, the Poseidon will be required to obtain an ITP pursuant to California Fish and Game Code section 2081 to carry out the Recommended Lease Modification Project in compliance with the California Endangered Species Act. The CDFW issue ITPs if certain criteria for issuance are met, including finding that the impacts of the taking are minimized and fully mitigated through required permit measures; that the Applicant has ensured funding adequate to carry out the required measures; and that implementation of the project would not jeopardize the continued existence of the species. NMFS consultation would likely also be required to determine compliance with the Federal Endangered Species Act.

As noted in Section C.1 above, now, Poseidon has not selected a pile driving method (impact or vibratory) since the method depends on the geotechnical nature of the sea floor. While vibratory pile driving is Poseidon's preferred method, impact pile driving methods would need to be used to install piles if vibratory pile driving, as required by MM OWQ/MB-3a, Vibratory Pile Driving, is infeasible.

Poseidon will implement **APM-5**, **Sensitive Marine Species Monitoring and Best Management Practices (BMPs) to Protect Marine Biological Resources** (see Exhibit C), which would provide some protection to marine mammals and other species likely to be affected by underwater noise. Implementation of the following MM(s) has been also incorporated into the Recommended Lease Modification Project.

MM OWQ/MB-3b: Pile Driving Work Windows

MM OWQ/MB-3c: Soft Start

LEVEL OF SIGNIFICANCE AFTER MITIGATION. In the absence of an ITP from the CDFW, the residual level of the effects of impact pile driving is considered significant and unavoidable.

2. AIR QUALITY

CEQA FINDING NO. AIR-1

Impact: **Impact AQ-1: Air Emissions from Construction**.

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the SEIR.
(2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the Commission. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the SEIR.

FACTS SUPPORTING THE FINDING(S)

In 2010, the City, as CEQA lead agency, certified a FSEIR that identified a significant and unavoidable impact to regional air quality during construction of the Huntington Beach Desalination Plant Project because construction emissions would exceed the daily threshold for nitrogen oxides (NO_x). The 2010 FSEIR reported that construction-phase emissions for the desalination plant would be reduced onshore, as required by 2010 FSEIR mitigation measures for: Dust Suppression (2010 MM CON-10); Hauling Activities (2010 MM CON-11); Construction Equipment Maintenance (2010 MM CON-12); Architectural Coating ROG Emission Reduction (2010 MM CON-13); and Diesel Fuel Reduction (2010 MM CON-14). Both the City and Commission subsequently found that after implementing the 2010 adopted mitigation measures, impacts associated with overall NO_x emissions during construction would remain significant and unavoidable. In approving the Huntington Beach Desalination Plant Project, the City adopted a Statement of Overriding Considerations, as did the Commission, as a CEQA responsible agency, in approving the portion of the Huntington Beach Desalination Plant Project on sovereign land.

Construction activities associated with the Recommended Lease Modification Project would occur in state waters offshore the city of Huntington Beach and along offshore vessel routes between the POLB and the site. These open waters are within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), which requires standard conditions and feasible measures. Construction would temporarily add NO_x and other pollutants to the South Coast Air Basin from marine vessels and barge-based construction equipment, with emissions varying from day to day, depending on the level of activity and the phase of work, which would include demolition, dredging, riprap reconfiguration, and physically installing the screen intake and diffuser systems. The Supplemental EIR disclosed the following information.

- Project-related NO_x emissions would be up to 73.85 pounds per day (lb./day).
- These emissions would combine with Huntington Beach Desalination Plant Project construction emissions, which on their own would exceed the NO_x daily threshold. Construction emissions for the Huntington Beach Desalination Plant Project would occur at a daily rate ranging from approximately 39 to 182 lb./day of NO_x, depending on various phases of activity over a 3-year period.
- Under a worst-case scenario, Recommended Lease Modification Project construction activities represent approximately a 40 percent increase over the total onshore construction emissions during the short-term construction periods.

Implementation of the following MMs would reduce NO_x emissions associated with the Recommended Lease Modification Project.

MM CON-14a: Diesel Fuel Reduction Plan (Offshore Waters).

MM CON-14b: Internal Combustion Engine Emissions Reduction Plan (Offshore Waters).

While emissions from the Recommended Lease Modification Project would not be significant on their own, they would contribute to and worsen the significant and unavoidable impact of NO_x emissions during construction of the Huntington Beach Desalination Plant Project even with implementation in offshore waters of MMs CON-14a and CON-14b.

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

CEQA FINDING NO. AIR-2

Impact: **Impact CMLTV-AQ-1: Cumulative Air Emissions from Construction.**

Finding(s):
(1) Changes or alterations have been required in, or incorporated into, the project that mitigate or avoid the significant environmental effect as identified in the SEIR.

(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the SEIR.

FACTS SUPPORTING THE FINDING(S)

In 2010 the Commission, as a responsible agency under CEQA, found that there would be significant and unavoidable cumulative short-term impacts to air quality from NO_x emissions associated with the Huntington Beach Desalination Plant and other cumulative projects even with incorporation of mitigation. This Finding was based on the City's 2010 FSEIR conclusion that the maximum overlapping daily construction emissions for the Huntington Beach Desalination Plant Project and other projects with overlapping construction schedules would exceed the SCAQMD CEQA thresholds for

NO_x. The analysis for this Supplemental EIR has been updated to consider current projects and the offshore location of the Recommended Lease Modification Project.

Because construction air quality impacts tend to have a noticeable localized effect in addition to their contribution to the overall regional air basin, projects close to the offshore ends of the HBGS pipelines, where Recommended Lease Modification Project site would occur, were evaluated for short-term, construction-related impacts. Recommended Lease Modification Project-related emissions and emissions from other area projects (listed in Table 3-1, *Relevant Cumulative Projects in HB Desalination Plant Area*, in Section 3, *Cumulative Projects*, of the Commission's Supplemental EIR) would also create temporary air quality impacts from construction, including vehicle emissions of nonattainment pollutants and precursors. Pollutants generated from construction of these projects could result in an impact on ambient air quality that would overlap with those of the Recommended Lease Modification Project if the construction work occurs in close proximity and at the same time. Therefore, short-term, construction-related air quality impacts, including the Recommended Lease Modification Project's contribution to those impacts, are considered significant and unavoidable.

Implementation of the following MMs would reduce cumulative NO_x emissions from the Recommended Lease Modification Project, but not to a less-than-significant level.

MM CON-14a: Diesel Fuel Reduction Plan (Offshore Waters).

MM CON-14b: Internal Combustion Engine Emissions Reduction Plan (Offshore Waters).

LEVEL OF SIGNIFICANCE AFTER MITIGATION. This impact is considered significant and unavoidable.

4.0 STATEMENT OF OVERRIDING CONSIDERATIONS

A. INTRODUCTION

The Final Supplemental EIR prepared by the Commission as a responsible agency under CEQA for the Recommended Lease Modification Project identifies significant impacts of the proposed Project that cannot feasibly be mitigated to below a level of significance. Pursuant to Public Resources Code section 21081 and section 15043 of the State CEQA Guidelines, the Commission may approve a project even though it will cause a significant effect on the environment, if the Commission makes a fully informed and publicly disclosed decision that there is no feasible way to lessen or avoid the significant effect, and specifically identified expected benefits from the project outweigh the policy of reducing or avoiding significant environmental impacts of the project.

Pursuant to State CEQA Guidelines section 15093, subdivision (a), the decision-making agency must balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other

benefits, including region-wide or statewide environmental benefits, of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable." In addition, because the Final Supplemental EIR identified the occurrence of significant effects associated with the Recommended Lease Modification Project which cannot be avoided or substantially lessened, the Commission must state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. (State CEQA Guidelines, § 15093, subd. (b).) This statement of overriding considerations shall be supported by substantial evidence in the record.

This Statement of Overriding Considerations presents (1) the specific significant effects on the environment attributable to the approved Recommended Lease Modification Project that cannot feasibly be mitigated to below a level of significance, (2) the benefits derived from the approved Recommended Lease Modification Project, and (3) the specific reasons for approving the Recommended Lease Modification Project.

Although the Commission has imposed mitigation measures to reduce significant impacts, impacts remain that are considered significant after application of all feasible mitigation. Significant impacts of the approved Project fall under two environmental resource areas (see Table D-3 below):

(1) Ocean Water Quality/Marine Biological Resources if site-specific geotechnical considerations make vibratory pile driving infeasible and an impact pile driver must be used to install pile support foundations for the wedgewire screens

(2) Air Quality, both construction-related and cumulative construction-related

Table D-3. Significant and Unavoidable Impacts Identified for the Approved Recommended Lease Modification Project

Impact	Impact Description
Ocean Water Quality/Marine Biological Resources	
Impact OWQ/MB--3: Impact to Special Status Species Populations and Movement of Marine Mammal Species as a Result of Underwater Noise during Construction	If an impact pile driver is used to drive piles to support the proposed wedgewire screens, the Recommended Lease Modification Project could result in significant unavoidable construction-related impacts to marine mammals in the vicinity of the impact pile driving. Adherence to MM OWQ/MB-3a, which requires vibratory pile driving would reduce this impact to less-than-significant; however, this method depends on the geotechnical nature of the sea floor and may not be feasible. The effect of impact pile driving would remain significant even with the implementation of measures dictating the season work would be conducted in, requiring soft starts before pile driving begins, implementing Best Management Practices and conducting monitoring proposed by the Applicant. There are no other feasible mitigation measures available to offset this impact to less-than-significant. In the absence of an Incidental Take Permit issued by the California Department of Fish and Wildlife, the residual level of the effects of impact pile driving is considered significant and unavoidable.

Table D-3. Significant and Unavoidable Impacts Identified for the Approved Recommended Lease Modification Project

Air Quality	
Impact AQ-1: Air Emissions from Construction	The regional air quality impact of the Recommended Lease Modification Project would occur during the limited duration of combined construction-phase emissions with construction of the Huntington Beach Desalination Plant Project. The combined emissions would result in significant unavoidable construction-related adverse air quality impacts of nitrogen oxides (NO_X), which are a precursor to ozone (O_3) emissions, even after the implementation of feasible standard conditions and mitigation measures. While the adherence to South Coast Air Quality Mangement District (SCAQMD) rules and regulations and identified mitigation measures would reduce this impact, it would remain significant and adverse. There are no other feasible mitigation measures that are available to offset this significant impact.
Impact CMLTV-AQ-1: Cumulative Air Emissions from Construction	Construction activities for the Recommended Lease Modification Project would contribute to construction-related adverse cumulative air quality impacts because the SCAQMD is in nonattainment for O_3, and the Recommended Lease Modification Project, in conjunction with other planned Projects, would contribute to the existing nonattainment status for O_3. Therefore, the cumulative construction air quality impacts of the proposed Project would remain significant.

These impacts are specifically identified and discussed in more detail in the Commission's CEQA Findings and Final Supplemental EIR. (A summary of all impacts and mitigation measures is provided in the Mitigation Monitoring Program, adopted as part of the approval of the Recommended Lease Modification Project [see Exhibit C]). While the Commission has imposed all feasible mitigation measures, these impacts remain significant for purposes of adopting this Statement of Overriding Considerations.

B. ALTERNATIVES

As explained in *California Native Plant Society* v. *City of Santa Cruz* (2009) 177 Cal. App. 4th 957, 1000:

> *When it comes time to decide on project approval, the public agency's decisionmaking body evaluates whether the alternatives are actually feasible…. At this final stage of project approval, the agency considers whether '[s]pecific economic, legal, social, technological, or other considerations…make infeasible the mitigation measures or alternatives identified in the environmental impact report.' Broader considerations of policy thus come into play when the decisionmaking body is considering actual feasibility than when the EIR preparer is assessing potential feasibility of the alternatives [citations omitted].*

The three alternatives analyzed in the Supplemental EIR represent a reasonable range of potentially feasible alternatives that could reduce one or more significant impacts of the proposed Lease Modification Project. These alternatives include:

- No Project Alternative
- Rotating Brush-Cleaned, Stainless Steel Wedgewire Screens Alternative
- Copper-Nickel Alloy Wedgewire Screens Alternative
- Six-port Diffuser Alternative

The Supplemental EIR also summarized previously considered alternatives and evaluated the comparative merits of previously considered alternatives; however, analyses of alternatives to the overall Huntington Beach Desalination Plant Project approved in 2010 were beyond the scope of the Supplemental EIR. As presented in the Supplemental EIR, the alternatives carried forward for analysis were described and compared with each other and with the proposed Lease Modification Project.

Under State CEQA Guidelines section 15126.6, subdivision (e)(2), if the No Project Alternative is identified as the environmentally superior alternative, an environmentally superior alternative among the other alternatives must be identified. The environmentally superior alternative identified in the Supplemental EIR is the Rotating Brush-Cleaned, Stainless Steel Wedgewire Screens Alternative with the proposed multiport diffuser. Compared to the stationary (passive) screens proposed in Poseidon's amended lease amendment application (and analyzed in the Final Supplemental EIR as part of the proposed project), this self-cleaning screen technology would reduce the number of maintenance trips needed to clean the screens of fouling organisms from six to four vessel trips per year to the offshore site, resulting in lower air emissions over the operational life of the project.

As stated in Poseidon's application materials, some wedgewire screens are designed to rotate the screening cylinders past fixed internal and external brushes to keep the screen clean. Such screens can be rotated with hydraulic or electric motors or can be equipped with propellers to rotate the screen using the energy from the withdrawn flow in some cases. At their best, rotating screens would be automatically cleaned. At their worst, they would function as passive screens and would require manual cleaning by divers. If driven by electric motors, the screens would rotate either continuously, on a fixed schedule, or as needed based on certain monitoring thresholds. The Final Supplemental EIR identified air emissions from electric motors to be insignificant.

The other CEQA alternatives proposed and evaluated in the Final Supplemental EIR were not selected for the following reasons.

- **No Project Alternative**. The Commission recognizes that the Santa Ana Regional Water Board has authority under Water Code section 13142.5, subdivision (b), to determine if the proposed Huntington Beach Desalination Plant includes the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life. Under the No Project Alternative, Poseidon would continue to have a vested right under Lease No. PRC 1980.1 to use the existing HBGS pipelines for desalination operations should the Santa Ana Regional Water Board determine pursuant to Section 13142.5, subdivision (b), that subsurface intakes are not feasible, that brine cannot be diluted by wastewater, that there are no live organisms in the

discharge, and that the physical modifications proposed by Poseidon comply with the Desalination Amendment. Under this scenario, Poseidon would be unable to operate without a lease amendment approving the installation of wedgewire screens and a multiport diffuser. Seawater intake volume would also not be reduced compared to the Huntington Beach Desalination Plant Project intake volume approved in 2010. In the absence of a Section 13142.5, subdivision (b) determination by the Santa Ana Regional Water Board, the Commission finds that the No Project Alternative would not meet any of the Applicant's proposed objectives. (Poseidon could 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 or is terminated.)

- **Copper-Nickel Alloy Wedgewire Screens Alternative**. Wedgewire screens with a mesh constructed of copper-nickel alloy have been shown to be very resistant to biofouling thus requiring less frequent manual cleaning than stainless steel screens, lowering associated maintenance vessel emissions and seafloor disturbance. However, copper-nickel screens placed in high-saline ocean waters could leach copper into the water column, resulting in degraded water quality. High copper levels in the ocean have been found to reduce the abundance of plankton, acidians, and echinoderms. The release of copper is a complex process influenced by diffusion from the solid surface, dissociation of the copper oxide, leaching into seawater, dispersion by currents, flocculation, and burial in sediments. Installation of copper-nickel alloy screens would trigger Ocean Plan requirements related to copper leaching, including toxicity testing requirements and compulsory sampling and analyses to determine compliance with effluent limitations. In the absence of an available suitable standard to assess copper releases from copper-nickel screens, the impact to ocean water quality from wedgewire screen leaching cannot be quantified or assessed, and could be potentially significant. If wedgewire screens with copper-nickel alloy mesh were placed into the ocean, no mitigation measures are currently available to reduce potentially significant impacts of copper leaching to ocean water quality. If chemical leaching exceeds Ocean Plan Water Quality Objectives, this impact would be potentially significant and unavoidable. Consequently, this Alternative was eliminated from further consideration in the Final Supplemental EIR.
- **Six-port Diffuser Alternative**. Diffuser-related entrainment for this Alternative was calculated to be less under both co-located and stand-alone operations than the multiport diffuser proposed by Poseidon in its amended application. However, the salinity of the discharge was calculated to achieve regulatory compliance within approximately 98 meters under stand-alone operation (with a shorter distance anticipated for co-located operation). Although this calculation falls within the 100 meters allowed pursuant to the Desalination Amendment, the margin for error was considered too close to this limit, and this Alternative was eliminated from further consideration in the Final Supplemental EIR.

The Commission finds that the environmentally superior alternative referred to herein as the Recommended Lease Modification Project should be approved, subject to the

detailed mitigation measures imposed upon the project (Exhibit C, Mitigation Monitoring Program) and based upon the objectives identified in the Final Supplemental EIR, and that any remaining unmitigated environmental impacts attributable to the Recommended Lease Modification Project are outweighed by the specific economic, legal, social, environmental, technological, and other overriding considerations identified in Section 4.C below.

C. BALANCING OF BENEFITS AND RISKS ASSOCIATED WITH THE RECOMMENDED LEASE MODIFICATION PROJECT

Public Resources Code section 21081 and State CEQA Guidelines section 15093, subdivision (a) require the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project.

As discussed in Supplemental EIR Section 1.4, *Purpose and Scope of Supplemental EIR*, the appropriately limited scope of the Recommended Lease Modification Project encompasses the proposed installation on subsea pipelines (pipelines that were approved for desalination use in 2010) of wedgewire screens and a multiport diffuser and the proposed reduction in seawater intake volume compared to the operations approved under the existing lease. As a result, the Commission has considered the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, and unavoidable environmental risks, of the Recommended Lease Modification Project, not the potential benefits or risks associated with the previously approved Huntington Beach Desalination Plant Project, when making its decision to approve the Recommended Lease Modification Project.

In balancing benefits against risks, the Commission first looked at the significant and unavoidable risks associated with the Recommended Lease Modification Project. With respect to the effect of impact pile driving, the Commission has imposed a mitigation measure requiring Poseidon use vibratory pile driving to install pile foundations to support the wedgewire screen manifolds. If Poseidon determines, based on geotechnical studies, that vibratory pile driving is infeasible, this mitigation measure requires Poseidon to return to the Commission to obtain approval should it seek to use impact pile driving. Approvals would also need to be obtained from the CDFW and NMFS pursuant to the California and Federal Endangered Species Acts.

With respect to NO_x emissions, the regional air quality impact of the Recommended Lease Modification Project would occur only during the limited duration of <u>combined</u> construction-phase emissions with construction of the Huntington Beach Desalination Plant Project. As noted in the Supplemental EIR, offshore construction activities would be short-term and temporary requiring use of moored barges and tugboats for 2- or 3-month periods. Emissions from the Recommended Lease Modification Project would not exceed significance thresholds during construction, would cease after the intake screens and discharge diffuser are installed, and would generate minimal emissions during maintenance. With approval of the environmentally superior alternative,

compared to the stationary (passive) screens proposed in Poseidon's amended lease amendment application (and analyzed in the Final Supplemental EIR as part of the proposed project), rotating brush-cleaned (self-cleaning), wedgewire screen would reduce the number of maintenance trips needed to clean the screens of fouling organisms from six to four vessel trips per year to the offshore site, resulting in lower air emissions over the operational life of the project. Additionally, the Recommended Lease Modification Project would not induce population and/or employment growth that could conflict with or obstruct either attainment or maintenance of the ambient air quality standards or implementation of the applicable air quality plan. Therefore, the construction and operation of the Lease Modification Project alone would not contribute to a cumulatively considerable long-term or regional air quality impact.

With respect to potential benefits of the Commission's approval of the Recommended Lease Modification Project, the installation of wedgewire screens and a diffuser and the reduction in average annual seawater intake volume are intended primarily to preserve marine life through compliance with the Desalination Amendment requirements. In comparison to the original seawater intake and discharge contemplated in the City's 2010 FSEIR and the Commission's 2010 approval of the portion of the Huntington Beach Desalination Plant Project within the Commission's jurisdiction (pre-2015 Desalination Amendment), the modification project would benefit fisheries as follows:

- Reduction in average annual seawater intake volume (from a 2010 Project volume of 152 MGD to 106.7 MGD). Decreasing the volume of seawater required will reduce the volume of water withdrawn through a surface intake, and will consequently reduce impingement and entrainment of marine life.
- Installation of wedgewire screens, with 1 mm spacing at the end of the intake pipeline. Compared to an open intake, cylindrical wedgewire screens with a 0.5 mm slot size have been shown to be effective at reducing impingement and entrainment and can significantly reduce entrainment of fish eggs and larvae at intake pipes. The cylindrical shape of the screen, combined with a very low through-slot velocity, allows juvenile and adult fish to escape the flow field. In some cases, hydrodynamic forces can prevent impingement entirely by sweeping organisms past the screen, thus preventing contact with the screen.
- Maximum through-screen velocity. A maximum intake velocity of 0.5 feet per second has been shown to protect most small fish and preclude most impingement of fish large enough to be unable to pass through the screen.
- Installation of a multiport diffuser. Multiport diffusers can rapidly mix, dilute, and disperse brine in receiving water bodies to salinities near ambient background, resulting in a smaller area of the ocean and benthic environment that is exposed to elevated salinities when compared to other brine disposal methods. Mitigation is also provided that requires Poseidon to provide compensatory mitigation in the form of Area Production Forgone acreage for direct and indirect entrainment impacts to fisheries and other marine organisms resulting from operating the proposed brine diffuser.

In summary, in the absence of a Santa Ana Regional Water Board determination pursuant to the Desalination Amendment that the Huntington Beach Desalination Plant Project includes the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life, and compared to desalination operations with open intake and discharge pipelines, the Commission finds that the Recommended Lease Modification Project (reduction in average annual seawater intake volume and addition of rotating brush stainless steel wedgewire screens and multiport diffuser) is intended primarily toward the preservation of marine life consistent with Desalination Amendment requirements.

Region-wide environmental benefits to fisheries will be realized through a Proposed Lease Amendment condition that increases the annual compensation Poseidon will pay to the Commission for impacts to Public Trust resources from $115,500 to $300,000. These funds will be used to benefit the nearby Bolsa Chica Lowlands Restoration Project, which provides nearly 600 acres of marine and wetland habitat. Bolsa Chica Basin State Marine Conservation Area, the nearest Marine Protected Area, is approximately 4.3 miles northwest of the Lease Modification Project site. Supporting adaptive management and operation and maintenance of the Bolsa Chica Lowlands Restoration Project will bolster the protection and rehabilitation of Public Trust resources in the area, including commercially important fish species like California halibut and white seabass, migratory shorebirds, and other important species. This compensation is separate and distinct from the base rent under the Lease and the mitigation requirements Poseidon is responsible for under the Lease and Proposed Lease Amendment and any other mitigation requirements imposed, or that may be imposed, by local, state and federal regulatory agencies.

D. COMMISSION ADOPTION OF STATEMENT OF OVERRIDING CONSIDERATIONS

As noted above, under Public Resources Code section 21081, subdivisions (a)(3) and (b) and State CEQA Guidelines sections 15096 and 15093, subdivision (a), the decision-making agency is required to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve a project.

For purposes of CEQA, if the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable significant environmental effects, the decision-making agency may approve the underlying project. CEQA, in this respect, does not prohibit the Commission from approving the proposed lease amendment even if the Recommended Lease Modification Project activities as authorized under the amended lease may cause significant and unavoidable environmental effects.

This balancing is particularly difficult given the significant and unavoidable impacts on the resources discussed in the Supplemental EIR and these Findings. Nevertheless, the

Commission finds, as set forth below, that the benefits anticipated by implementing the Project outweigh and override the expected significant effects.

The Commission has balanced the benefits of the Recommended Lease Modification Project against the significant and unavoidable impacts that will remain after selection of the approved project and with implementation of all feasible mitigation in the Supplemental EIR that is adopted as enforceable conditions of the Commission's approval of the lease amendment. Based on all available information, the Commission finds that the benefits of the approved Recommended Lease Modification Project outweigh the significant and unavoidable adverse environmental effects, and considers such effects acceptable. The Commission adopts and makes this Statement of Overriding Considerations with respect to the impacts identified in the Supplemental EIR and these Findings that cannot be reduced to a less-than-significant level. Each benefit set forth above or described below constitutes an overriding consideration warranting approval of the project, independent of the other benefits, despite each and every significant unavoidable impact.

E. CONCLUSION

The Commission has considered the Final Supplemental EIR and all environmental impacts described therein including those that cannot be mitigated to a less-than-significant level and those that may affect Public Trust uses of State sovereign land. The Commission has considered the, economic, legal, social, environmental, and technological benefits of the Recommended Lease Modification Project and has balanced them against the project's significant and unavoidable adverse environmental impacts and, based upon substantial evidence in the record, has determined that the project's benefits outweigh the adverse environmental effects. Based on the foregoing and pursuant to Public Resources Code section 21081 and State CEQA Guidelines section 15093, the Commission finds that the remaining significant and unavoidable impacts of the Recommended Lease Modification Project are acceptable considering the project's economic, legal, social, environmental, and technological benefits. Such benefits outweigh such significant and unavoidable impacts of the Recommended Lease Modification Project and provide the substantive and legal basis for this Statement of Overriding Considerations.

The Commission finds that to the extent that any impacts identified in the Final Supplemental EIR remain unmitigated, mitigation measures have been required to the extent feasible, although the impacts could not be reduced to a less-than-significant level.

Based on the above discussion, the Commission finds that the benefits of the Recommended Lease Modification Project outweigh the significant and unavoidable impacts that could remain even after mitigation is applied and considers such impacts acceptable.

EXHIBIT E

RECORDED AT THE REQUEST OF
AND WHEN RECORDED MAIL TO:
STATE OF CALIFORNIA
State Lands Commission
Attn: Title Unit
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

STATE OF CALIFORNIA
OFFICIAL BUSINESS
Document entitled to free recordation
pursuant to Government Code Section 27383

SPACE ABOVE THIS LINE FOR RECORDER'S USE

A.P.N.

County: Orange

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STATE OF CALIFORNIA
STATE LANDS COMMISSION

AMENDMENT #2 OF LEASE NO. PRC 1980.1

WHEREAS, the State of California, acting through the State Lands Commission, hereinafter called Lessor, and AES Huntington Beach LLC, hereinafter called AES, have heretofore entered into an agreement designated as Lease No. PRC 1980.1 (Lease), authorized by the State Lands Commission on February 5, 2007, whereby Lessor granted to AES a General Lease – Industrial Use covering certain State lands situated in Orange County for a term of 20 years beginning on August 8, 2006; and

WHEREAS, Lessor and AES and have amended the Lease (Amendment #1) to add Poseidon Resources (Surfside) LLC, hereinafter Poseidon Resources, as a Co-Lessee, as of October 29, 2010; and

WHEREAS, the Amendment #1 allows both AES and Poseidon Resources as Co-Lessees to use the Lease Premises for existing seawater intake and outfall pipelines, in anticipation of the construction and operation of the Seawater Desalination Plant at Huntington Beach (HB Desalination Plant); and

WHEREAS, AES shall be responsible for the obligations under the Lease pertaining to its power plant facility and Poseidon Resources shall be responsible for the obligations under the Lease pertaining to its desalination facility as described in Amendment #1; and

WHEREAS, Section 4, Paragraph 15(e) provides that the Lease may be terminated and its terms, covenants and conditions amended, revised or supplemented only by mutual written agreement of the Lessor and the Co-Lessees (hereinafter referred to as the Parties); and

WHEREAS, Poseidon Resources has applied to the Lessor to further amend the Lease to modify the existing seawater intake and outfall pipelines for desalination plant purposes ("Lease Modification Project"); and

WHEREAS, at its regularly scheduled public meeting on_____, Lessor certified a

Supplemental Environmental Impact Report for the Lease Modification Project and authorized execution of this Amendment #2 to include the Lease Modification Project ("2017 FSEIR") as part of the authorized uses under the Lease; and

WHEREAS, Lessor also authorized a revision of AES' rent for this Lease, modified the bond requirement, and authorize other modifications to the Lease as reflected in this Amendment #2 at the same regularly scheduled public meeting on_____; and

WHEREAS, by reason of the foregoing, it is now the desire of the Parties to amend the Lease.

NOW THEREFORE, the Parties hereto agree to amend the Lease (Amendment #2) as follows:

SECTION 1 – BASIC PROVISIONS is amended as follows:

THE STATE OF CALIFORNIA, hereinafter referred to as "Lessor" acting by and through the **CALIFORNIA STATE LANDS COMMISSION,** whose address is 100 Howe Avenue, Suite 100-South, Sacramento, California 95825-8202, pursuant to Division 6 of the Public Resources Code and Title 2, Division 3 of the California Code of Regulations, and for consideration specified in this Lease, does hereby lease, demise and let to AES Huntington Beach, hereinafter "AES", whose address is 21730 Newland Street, Huntington Beach, California 92646 and Poseidon Resources (Surfside) LLC, hereinafter "Poseidon Resources", whose address is 5780 Fleet Street, Suite 140, Carlsbad, CA 92008 as Co-Lessees those certain lands described in Section 3 (hereinafter "Lease Premises") subject to the reservations, terms, covenants and conditions of this Lease. AES and Poseidon Resources shall be referred to collectively herein as either "Co-Lessees" or "Lessee".

SECTION 1 – LAND USE AND PURPOSE is amended to add the following:

1. Modify the existing seawater intake pipeline, by installing four active (self-cleaning) stainless steel wedgewire screen manifolds, with 1 millimeter (mm) spacing at the end of the pipeline, along with foundations to support the screens, which shall conform with the design features analyzed for the proposed project in the Seawater Desalination Project at Huntington Beach: Outfall/Intake Modifications Project & General Lease—Industrial Use (PRC 1980.1) Amendment (SCH #2001051092), which is incorporated by this reference.

2. Modify the existing seawater discharge pipeline, by installing a multiport seawater diffuser on the offshore end of the discharge pipeline to enhance brine mixing with seawater, which shall conform with the design features analyzed for the proposed project in the Seawater Desalination Project at Huntington Beach: Outfall/Intake Modifications Project & General Lease—Industrial Use (PRC 1980.1) Amendment (SCH #2001051092), which is incorporated by this reference.

3. Reduce average annual seawater intake volume to 106.7 MGD (from a 2010 Project volume of 152 MGD).

4 Replace the existing Exhibit A, Site and Location Map, and Exhibit B, Land Description, with the attached Exhibit A, Land Description, and Exhibit B, Site and Location Map (for reference purposed only).

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SECTION 1 – CONSIDERATION is replaced with the following:
AES shall provide consideration annually as provided in Section 2, paragraph 4 of the Lease, as amended and subject to modification by Lessor as specified in Section 2, paragraph 3 of this Lease. Poseidon Resources shall provide consideration annually, commencing on the first day of the operation of the HB Desalination Plant, as provided in Section 2, paragraph 39 of this Lease.

SECTION 1 – AUTHORIZED IMPROVEMENTS: is replaced with the following:
One 14-foot diameter seawater intake pipeline extending offshore approximately 1,650 feet and one 14-foot diameter discharge pipeline extending approximately 1,500 feet offshore (Lease Facilities). The pipelines are currently utilized as components of the "once-through cooling" (OTC) system associated with the upland AES Huntington Beach Generation Station. Poseidon Resources is authorized to modify the intake pipeline by adding four active (self-cleaning) stainless steel wedgewire screen manifolds with 1 mm spacing at the end of the pipeline along with foundations to support screens and install a a multiport seawater diffuser on the offshore end of the discharge pipeline to enhance brine mixing with seawater, in conformity with the design features analyzed for the proposed project in the Seawater Desalination Project at Huntington Beach: Outfall/Intake Modifications Project & General Lease—Industrial Use (PRC 1980.1) Amendment (SCH #2001051092), which is incorporated by this reference.

SECTION 2 – SPECIAL PROVISIONS shall be amended as follows:

Paragraph 4, subsection (a)(1) shall be amended to:

-Replace the existing Base Rent with $111,060 per annum, pursuant to the revision of rent approved by Lessor at its October 19, 2017 meeting; and

-Replace all references to "Lessee" with references to "AES" to clarify that the obligations set forth in paragraph 4 "Rent" only apply to AES.

Paragraphs 5, 9, 10, 12, 14, 18, 19 and 21 are repealed and replaced as follows:

5. **Authorized Uses:**
It is the intent of the parties to this Lease that the improvements and activities authorized herein are for the exclusive use by the Co-Lessees in conjunction with AES' power plant cooling water system involving the seawater intake and the discharge of brine water and other water from Poseidon Resources' desalination facility.

9. Poseidon shall, at all times during the term of the lease, minimize greenhouse gas generating energy consumption and offset or avoid 100% of the direct and indirect greenhouse gas emissions from construction and operation of the facility through the following:

(i) Compliance with the Energy Minimization and Greenhouse Gas Reduction Plan (the GHG Plan), as adopted by the City of Huntington Beach on September 20, 2010 and amended by Poseidon and submitted to the State Lands Commission on February 24, 2017. In the event Poseidon intends to modify the GHG Plan, Poseidon shall submit a request to modify to Lessor's Executive Officer. The Executive Officer shall deny the request if he/she determines that the effect of the modification constitutes a substantive weakening of the GHG Plan, and compliance with the GHG Plan shall remain a term of this Lease. Poseidon may request review of the Executive Officer's determination by the State Lands

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Commission at a properly noticed public meeting. The GHG Plan shall remain in effect subject to any new terms lawfully imposed on the GHG Plan by any and all applicable regulatory authorities, including but not limited to, the California Coastal Commission and the South Coast Air Quality Management District. In the event the GHG Plan is modified by an applicable regulatory agency, governing law, or court of applicable jurisdiction, Poseidon shall notify Lessor of such modification in writing, no more than thirty (30) days after such modification is imposed;

(ii) Within sixty (60) days prior to the start of construction of the improvements for the HB Desalination Plant, and on an annual basis thereafter, Poseidon shall provide the Lessor's Executive Officer with a written report with recommendations on implementing measures in addition to the GHG Plan to minimize indirect greenhouse gas generating energy consumption consistent with the water reliability and water supply requirements of the public water agencies using the desalinated water which will include, among others:

a. Renewable Energy Power Purchase Agreement - Maximize the use of renewable energy by way of a long-term renewable energy power purchase agreement, through programs offered by Southern California Edison (SCE) or otherwise available.

b. Demand Management Program - Using all reasonable efforts to engage with SCE to implement a demand side management program that materially reduces the impact of the Lease Modification Project on carbon energy production, including time of day tariffs that recognize the true cost of carbon based power production, and to enter into an interruptible power supply program to minimize power use to the maximum extent possible during system emergencies.

c. Facility Optimization – Optimize operations utilizing the onsite product water storage tank and other operational methods to maximize the shift of energy use away from time periods of high greenhouse gas generating energy production.

d. Shared Energy Efficiency Savings – Poseidon will continue to research and implement energy saving technology changes within the facility and throughout the term of the facility share economic savings from those changes with water purchase customers.

(iii) Following consultation with the Lessor's Executive Officer, Poseidon will implement the feasible and commercially reasonable measures available to minimize greenhouse gas generating energy consumption described above in Paragraph 9(ii).

10. This paragraph is deleted in its entirety and is intentionally left blank.

12. AES shall notify Lessor in writing prior to discontinuing its use of the Lease Premises. Upon receipt of notification by Lessor, AES shall apply to Lessor for approval of an assignment of its obligations under the Lease to Poseidon Resources.

14. Co-Lessees shall provide Lessor with a surety bond or other security device acceptable to Lessor, in the amount of $6,000,000. Lessor may require an increase in the amount of the surety to reflect economic inflation or to cover any additionally authorized improvements, alterations, or of

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modification of rental. Additionally, should AES' interest in this Lease be assigned to Poseidon Resources, then Poseidon Resources shall furnish the entire bond amount. Lessee(s) shall name the State of California as the assured, to guarantee to Lessor the faithful observance and performance by Co-Lessees of all of the terms, convenants, and conditions subject to the provision in Section 4, paragraph 9 under the Lease.

18. In the event that Poseidon Resources fails to comply in any material respect with any and all of its separate obligations under this Lease, Lessor may terminate Poseidon Resources' rights under this Lease without affecting any or all of AES's rights or obligations under this Lease subject to the notice provision in Section 4, paragraph 11(b) of this Lease. In the event that AES fails to comply in any material respect with any and all of its separate obligations under this Lease, Lessor may terminate AES's rights under this Lease without affecting any or all of Poseidon Resources' rights or obligation under this Lease subject to the notice provision in Section 4, paragraph 11(b) of this Lease.

19 Poseidon Resources shall make no changes in use or operation of the intake and outfall pipelines without prior authorization by Lessor.

21. Poseidon Resources shall complete construction of the desalination facility by August 7, 2026.

SECTION 2 – SPECIAL PROVISIONS shall be amended to add paragraphs 22 through 39 as separate obligations of Poseidon Resources as follows:

22. Poseidon Resources shall comply with all mitigation measures and reporting obligations presented in the City of Huntington Beach's 2010 Final Subsequent Environmental Impact Report for the HB Desalination Plant, along with the mitigation measures and reporting obligations presented in the 2017 SEIR for the Modification Project as contained in Exhibit C, adopted by Lessor and by reference made a part of this Amendment #2, except as modified by specific provision of this Amendment #2 or as modified by Lessor as permitted by law.

23. The mitigation measures attached as Exhibit C require that Poseidon provide compensatory mitigation in the form of Area of Foregone Production or "APF" acres for direct and indirect entrainment impacts to marine organisms resulting from brine diffuser operation. Such mitigation is calculated at 99 acres based upon a theoretical worst-case scenario assumption that the operation of the diffuser will result in 100 percent mortality within all 782 million gallons per day of entrained water associated with brine diffuser operation. If the Santa Ana Regional Water Quality Control Board (Regional Board) determines a lower mitigation calculation for diffuser operations as part of its analysis required by the California Ocean Plan, Lessor's Executive Officer shall reduce the acreage of the compensatory mitigation required by this Amendment #2 to such amount.

    Lessor's Executive Officer shall issue a letter authorizing such modification after receiving: (i) a written request for such modification from Poseidon; and (ii) written verification of the amount of mitigation determined by the Regional Board for the operation of the diffuser.

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24. At least 90 days prior to start of the construction authorized by Amendment #2, Poseidon Resources shall provide the following information for Lessor review and approval:

(i) A preconstruction seafloor survey covering the Project area and any temporary construction corridor including construction vessels anchoring areas, and depicting seafloor contours, all significant bottom features, hard bottom areas, sensitive habitats, and the presence of other existing man made facilities in the area.

(ii) A geotechnical report certified (stamped, signed, and dated) by a California registered Geotechnical Engineer, including boring logs, and any geotechnical recommendations for safe installation of the proposed intake and discharge system, including any pile installation, etc.

(iii) Engineering design drawings as issued for construction, certified (stamped, signed, and dated) by a California registered Civil/Structural engineer, showing the Project's horizontal alignment with all key control points referenced to the California Coordinate System 1983 revision (CCS83), vertical profile data with elevations referenced to Mean Lower Low Water (MLLW) datum and cross-section details. The drawings are to provide details of the Project for both intake and discharge system, tie-in details, cathodic protection (if any), depths of cover, water depths, elevations, etc.

(iv) Engineering calculations, certified (stamped, signed, and dated) by a California registered Civil/Structural engineer, to verify the competence of the new intake and discharge system with their anchoring system for on-bottom stability against bottom currents and 100-year storm events.

(v) An internal inspection of the existing intake and discharge facilities. In addition, an integrity assessment, certified by a California registered Civil/Structural Engineer, confirming the fitness for purpose for continued safe operation.

(vi) A set of construction contract specifications.

(vii) Details of all proposed inspection tests and procedures to be employed during construction within the Lease Premises for Project quality assurance and control, including weld procedure specifications and welder qualification testing, etc.

(viii) A construction contractor's work execution plan providing details of manpower, equipment, work vessels, constructions methods and procedures to be employed for each significant work activity, safety procedures, etc., to include detailed stepwise procedures (such as mobilization, installation, demobilization, etc.).

(ix) A project-specific hazardous spill contingency plan, to include but not be limited to procedures to be implemented, specific designation of the on-site person who will have responsibility for implementing the plan, on-site spill response materials/tools/equipment, and spill notification protocol and procedures. The plan shall include a complete list of the agencies (with telephone numbers) to be notified, including but not limited to the California State Lands Commission's 24-hour emergency notification number (562) 590-

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5201, California Governor's Office of Emergency Services (Cal OES) contact number (800) 852-7550, etc.

The primary work vessel will be required to carry on board a minimum 400 feet of sorbent boom, 5 bales of sorbent pads at least 18-inch by 18-inch square, and a small powered boat for rapid deployment to contain and clean up any small spill or sheen on the water surface.

The plan shall provide for the immediate call out of additional spill containment and cleanup resources in the event of an incident that exceeds the rapid clean up capability of the on-site work force.

(x) A critical operations and curtailment plan (COCP). The COCP will define the limiting conditions of sea state, wind, or any other weather conditions that exceed the safe operation of offshore vessels and equipment or divers in the water, that hinder potential spill cleanup or in any way pose a threat to personnel or the safety of the environment. The plan shall provide for a minimum ongoing five days advance favorable weather forecast during offshore operations. The plan shall also identify the onsite person with authority to determine critical conditions and suspend work operations when needed, and shall include diver safety plan for any diving operations.

(xi) An Anchoring, Riprap Reconfiguration and Dredging Plan for review and approval by Lessor staff, in consultation with Coastal Commission staff, to ensure that impacts on benthic environments are minimized during installation of the wedgewire screens and diffuser, as well as maintenance buoys if required, riprap reconfiguration, and dredging. The plan shall provide a map of the proposed anchor spread and anchor locations or offshore temporary mooring location for each work vessel, and a narrative description of the anchor setting and retrieval procedures (no anchor dragging will be permitted) to be employed. The map shall also include existing utitilies and sensitive habitat areas. This Plan shall identify and map Preclusion Areas—all areas of kelp, seagrasses, and hard substrate found within the work area—that shall not be impacted by placement of vessel and buoy anchors, by dragging anchor or buoy lines or cables, by riprap placement, or by dredging spoils during Lease Modification Project construction and maintenance activities. All surveys employing low-energy geophysical equipment must be conducted by an entity holding a valid geophysical survey permit under the Commission's Low-Energy Offshore Geophysical Permit Program (see www.slc.ca.gov/Programs/OGPP.html). Within 90 days after project completion of offshore construction, Poseidon shall submit to Commission staff for approval: (1) an "as-built" map overlaying the Preclusion Area Map with Global Positioning System coordinates showing all areas of direct disturbance, anchor and buoy locations, and riprap boundaries, and (2) the procedures Poseidon shall implement to remedy any disturbance that may have occurred within the Preclusion Area due to Poseidon's construction activities.

(xii) A construction schedule time line chart showing all significant work activities associated with work occurring within the Lease Premises, including marine vessels, during the course of the Project.

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25. At least two weeks prior to start of construction within the Lease Premises, a timely advisory of pending offshore construction operations shall be filed with the local U.S. Coast Guard District office for publication in the Local Notice to Mariners. A copy of the published Notice is to be filed by Poseidon Resources with the State Lands Commission office.

26. All construction activities within the Lease Premises shall be carried out in accordance with all applicable safety regulations, permits, and conditions of other involved agencies.

27. All vehicles, equipment, machinery, tools or other property taken onto or placed within the Lease Premises or lands subject to Lessor's jurisdiction shall remain the property of Poseidon Resources and/or its authorized contractors. Such property shall be promptly and properly removed by Poseidon Resources, at its sole risk and expense.

28. Lessor shall have the right, at any time, and from time to time, upon reasonable prior notice to the Lessee, to examine all records and data associated with the facilities within the Lease Premises.

29. Lessee shall obtain all approvals necessary for construction prior to the beginning of any construction and necessary for operation prior to the beginning of commercial operations within the Lease Premises from all agencies having jurisdiction over this project. Upon Lessor's request, Lessee shall submit to Lessor copies of all such approvals and/or permits.

30. Lessee acknowledges and agrees that Lessor shall not be responsible for any damages to any property, including but not limited to, any vehicles, equipment, machinery, or tools within the Lease Premises or lands subject to Lessor's jurisdiction.

31. If a remedial measure is necessary for the existing discharge system (such as installing new pipeline inside existing discharge pipeline), Lessee shall obtain Lessor approval. Lessee shall submit the following additional information.,

    (i) A general description of the proposed remediation.

    (ii) Engineering design drawings as issued for construction, certified (stamped, signed, and dated) by a California registered Civil/Structural engineer, showing details of the proposed remediation including but not limited to tie-in details, new pipeline grade and material specifications, hydrotest information, etc.

    (iii) A supplemental contractor's work execution plan providing details of step-by-step procedures for the remediation, manpower, equipment, work vessels, safety procedures, site restoration, etc.

    (iv) Details of design and drawings for shoring (if any) with supporting calculations, certified (stamped, signed, and dated) by a California registered Civil/Structural engineer.

    (v) A vessel anchoring plan.

    (vi) Confirmation that the inside of the existing discharge conduit is free or clear of any obstruction or debris prior to installing the new pipeline.

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32. Within ninety (90) days of the project completion, Poseidon Resources shall provide post construction project verification including:

(i) A set of "as built" construction plans, certified (stamped, signed, and dated) by a California registered Civil/Structural Engineer, showing all design changes or other amendments to the construction within the Lease Premises as originally approved.

(ii) A post-construction written narrative report confirming Project completion a discussion of any significant field changes or other modifications to the approved design or execution plan, and details of any extraordinary occurrences such as spill incidents, critical operations curtailment, accidents involving serious injury or loss of life etc.

(iii) A written confirmation of site clean-up verification with videography/photography records.

(iv) Certified copies of weld inspection reports and results of all weld procedure specification laboratory verification testing per the submitted contract specifications and welding certification requirements.

33. Poseidon Resources shall conduct an external inspection of the Lease Facilities using diver/ROV video or high resolution side-scan sonar at least once every two years. The inspection shall include a visual inspection of the entire length of the Lease Facilities. Additionally, Poseidon Resources shall conduct externalinspections when warranted by extraordinary circumstances such as an accident or significant seismic event. The inspection schedule may be modified by mutual agreement among the parties hereto based on the results of the first three biennial inspections. At no cost to Lessor, Poseidon Resources shall promptly submit copies to Lessor of the results of all external inspections, including reports, analyses, and recommendations.

34. Poseidon Resources shall conduct an integrity assessment of the Lease Facilities by a California registered Civil/Structural Engineer at least once every five years. Additionally, Poseidon Resources shall conduct such an integrity assessment when warranted by extraordinary circumstances such as an accident or a significant seismic event. The assessment schedule may be modified by mutual agreement among the parties hereto. At no cost to Lessor, Poseidon Resources shall promptly submit copies to Lessor of the results of all integrity assessments, including reports, analyses, and recommendations.

35. Poseidon Resources, without interference with, or interruption of, power plant scheduled operations and at its sole cost and expense shall comply with California Water Code Section 13142.5(b) during all times that this Lease is in effect and the desalination facility is operating, as determined by the Santa Ana Regional Water Quality Control Board or any other federal, state, regional, or local government entity having applicable jurisdiction.

36. Lessee agrees to submit no later than two (2) years prior to the expiration of this Lease either:

a. An application and minimum expense deposit for a new lease for the continued use of the Lease Premises; or

b. A plan for the restoration of the Lease Premises for Lessor's review and approval, to be

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completed prior to the expiration of the lease term together with a timeline for obtaining all necessary permits and conducting the work prior to the expiration of this Lease. Failure to submit the application and minimum expense deposit or the restoration plan shall be deemed a Default of the Lease.

37. Preservation of Property and Environmental Impact:

    a. Poseidon Resources shall comply with all conditions and restrictions established by other agencies having jurisdiction over the HB Desalination Plant's construction activities and operations including, but not limited to, the Regional Board, California Coastal Commission, State Water Resources Control Board, U.S. Army Corps of Engineers, and Orange County Water District.

    b. Poseidon Resources shall comply with all governing local, state, or federal laws applicable to the activities authorized by this Lease.

38. Section 4, General Provisions, paragraph 7 is amended to add subsection (c), which shall read as follows:

    c. The Parties agree that the indemnity obligation provided herein includes all liability associated with Lessor's environmental review, preparation of documents, or certification of documents under the California Environmental Quality Act for activities or uses proposed by Lessee. The indemnity obligation provided in this Section requires Lessee to promptly reimburse Lessor for any court costs, attorneys fees, or other reasonable litigation expenses incurred by Lessor defending against any claim or action brought against Lessor in connection with this Lease or any approvals or environmental review associated with it. Such reimbursable expenses may include, but are not limited to, expenses incurred by Lessor's in-house staff in preparation for litigation and expenses incurred by the California Office of the Attorney General.

    d. Nothing in this Section obligates Lessor to defend itself against all or any aspect of any challenge to this Lease or to any associated environmental review. However, Lessee may take whatever legal action is available to it to defend this Lease or any associated environmental review again any challenge by a third party, whether or not Lessor chooses to raise a defense against such a challenge.

39. Separate and distinct from the AES rent required pursuant to the Lease and Poseidon Resources' mitigation requirements pursuant to CEQA and other regulatory approvals, Poseidon Resources shall make an annual (starting within six months after the commencement of commercial operations) deposit of $300,000 in the Lessor's Kapiloff Land Bank Fund for Lessor's use in the adaptive management, maintenance and operations of the Bolsa Chica Lowlands Restoration Project to compensate for impacts to Public Trust resources associated with the activities authorized by Lease.

The effective date of this Amendment #2 to the Lease shall be October 19, 2017.

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This Amendment #2, containing 11 pages, is a portion of Lease No. PRC 1980.1, with a beginning date of August 8, 2006, consisting of four (4) sections with a total of 12 pages and includes Amendment #1 containing 8 pages.

All other terms and conditions of the Lease shall remain in full force and effect.

This Amendment #2 will become binding on the Lessor only when duly executed on behalf of the State Lands Commission of the State of California.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment #2.

CO-LESSEE:
POSEIDON RESOURCES (SURFSIDE) LLC

By: _____

Title: _____

Date: _____

STATE OF CALIFORNIA
STATE LANDS COMMISSION

By: _____

Title: _____

Date: _____

CO-LESSEE:
AES

By: _____

Title: _____

Date: _____

ATTACH ACKNOWLEDGMENT

Execution of this document was authorized by the California State Lands Commission on

_____
(Month Day Year)

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EXHIBIT F

RECORDED AT THE REQUEST OF
AND WHEN RECORDED MAIL TO:
STATE OF CALIFORNIA
California State Lands Commission
Attn: Title Unit
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

STATE OF CALIFORNIA
OFFICIAL BUSINESS
Document entitled to free recordation
pursuant to Government Code Section 27383

SPACE ABOVE THIS LINE FOR RECORDER'S USE

A.P.N.
County: Orange

LEASE PRC 1980.1

This Lease consists of this summary and the following attached and incorporated parts:

Section 1	Basic Provisions
Section 2	Special Provisions Amending or Supplementing Section 1 or 4
Section 3	Description of Lease Premises
Section 4	General Provisions

SECTION 1

BASIC PROVISIONS

THE STATE OF CALIFORNIA, hereinafter referred to as Lessor acting by and through the **CALIFORNIA STATE LANDS COMMISSION** (100 Howe Avenue, Suite 100-South, Sacramento, California 95825-8202), pursuant to Division 6 of the Public Resources Code and Title 2, Division 3 of the California Code of Regulations, and for consideration specified in this Lease, does hereby lease, demise and let to **AES Huntington Beach L.L.C.**, hereinafter referred to as Lessee, those certain lands described in Section 3 subject to the reservations, terms, covenants and conditions of this Lease.

ADDRESS: 21730 Newland Street
Huntington Beach, CA 92646

LEASE TYPE: General Lease-Industrial Use

LAND TYPE: Sovereign Tide and Submerged

LOCATION: 11.78 acres, more or less, of tide and submerged lands in the Pacific Ocean, offshore of Huntington Beach State Park, city of Huntington Beach, Orange County

LAND USE OR PURPOSE: Continued use and maintenance of existing sea water intake and outfall pipelines to be used exclusively in conjunction with once through cooling systems for an existing electric power generating plant located on lands adjacent to the Lease Premises, including replacement power generating units that have received all other necessary approvals and that do not increase the capacity of the cooling water intake system. Other uses of the existing intake or outfall pipelines, including but not limited to the intake and the commingling of any water discharges from a desalination facility, without the express written consent of Lessor are prohibited.

TERM: 20 years; beginning August 8, 2006; ending August 7, 2026, unless sooner terminated as provided under this Lease.

CONSIDERATION: See Section 2. Subject to modification by Lessor as specified in Paragraph 3 of Section 2, hereof.

AUTHORIZED IMPROVEMENTS: One 14 foot diameter seawater intake pipeline extending offshore approximately 1,650 feet and one 14 foot diameter discharge pipeline extending approximately 1,500 feet offshore. The pipelines are utilized as components of the "once-through cooling" system associated with upland AES Huntington Beach Generation Station. No other improvements or uses are authorized without the express written consent of Lessor.

X **EXISTING:**

N/A **TO BE CONSTRUCTED; CONSTRUCTION MUST BEGIN BY:** N/A

AND BE COMPLETED BY: N/A

LIABILITY INSURANCE: $2,000,000 combined single limit

SURETY BOND OR OTHER SECURITY: $500,000

SECTION 2
SPECIAL PROVISIONS

BEFORE THE EXECUTION OF THIS LEASE, ITS PROVISIONS ARE AMENDED, REVISED OR SUPPLEMENTED AS FOLLOWS:

1. Lessee shall provide evidence that it is in full compliance or is engaged in an agency-directed process to achieve full compliance with any and all requirements imposed upon them by duly authorized agencies, pursuant to both Federal and State laws, specifically including, but not limited to, the federal Clean Water Act, section 316(b) and California's Porter-Cologne Water Quality Control Act. Annually, on or before the anniversary of this Lease, Lessee shall provide to the staff of the Lessor a detailed written report identifying conditions imposed upon it by other agencies pursuant to the above and the status of Lessee's efforts to comply with such conditions. Failure to provide to the Lessor satisfactory evidence of compliance or of Lessee's continuing efforts to achieve compliance shall be a breach of the Lease and Lessee will be subject to the provisions of Section 4, Paragraph 11(b) and (c). Lessor will make the annual reports available to the public through the Lessor's website.

2. Lessee acknowledges that the Lessor will conduct a public hearing five years after the effective date of the lease in order to publicly review and evaluate Lessee's compliance the terms of the lease, including, but not limited to, compliance with the federal Clean Water Act, section 316(b) and California's Porter-Cologne Water Quality Control Act, as provided for in Section 4, Paragraph 6.

3. Lessee acknowledges that Lessor reserves the right to modify this lease to require the implementation of an alternative, environmentally superior technology such as an alternative cooling system should such system be required of this facility by another permitting Federal or State agency.

4. **Rent**:

(a) Base and Annual Rent

(1) For the first 12-month period of this Lease, Lessee shall pay to Lessor the sum of $82,000. This amount shall be referenced as the "Base Rent." After the first 12-month period of this Lease, Lessee shall pay to Lessor an amount per annum, called the "Annual Rent," which is determined in accordance with Sub. (b) entitled "ANNUAL RENT ADJUSTMENTS," of this section.

(2) Lessee shall pay the Base Rent as stated in this Lease to Lessor without deduction, delay or offset, on or before the beginning date of this Lease and shall pay the Annual Rental on or before each anniversary of its beginning date during each year of the Lease term.

(3) In the event of the termination of this Lease prior to its expiration date from any cause whatsoever, the annual rental paid in advance shall be prorated between Lessor and Lessee.

(4) Rental payments shall be paid by Lessee, on or before the date due, by check to Lessor at its office, 100 Howe Avenue, Suite 100 South, Sacramento, CA 95825-8202 or by wire transfer to an account designated by Lessor, or at such other place or by such other

means as Lessor shall specify in writing prior to the scheduled date when such payment shall be due.

(b) Annual Rent Adjustments:

(1) The following formula, hereafter called the "Adjustment Formula," shall be used to determine the adjusted Annual Rental:

$$\left(\frac{Current\ _____\ CPI - Prior\ _____\ CPI}{Prior\ _____\ CPI} + 1\right) x\ Previous\ Year's\ Rent = Adjusted\ Annual\ Rent$$

(2) For purposes of this agreement, "CPI" means the value indicated for each specified month in the U.S. Department of Labor, Bureau of Labor Statistics "CPI Detailed Report" published regularly, with reference to the numeric reported indexes for a specified month of such year, Consumer Price Index for All Urban Consumers, Los Angeles-Riverside-Orange County, CA, (1982-84 = 100), or its successor index, or a reasonably equivalent index acceptable to Lessor and Lessee. The ~~June~~ April CPI value for All Urban Consumers, Los Angeles-Riverside-Orange County, CA, will be used in the Adjustment Formula

CSLC AES

(3) Except as otherwise provided in this Subsection (b), the rent shall be adjusted annually as of August 8th of each year regardless of whether application of the Adjustment Formula results in an Adjusted Annual Rent that is greater or lesser than the Previous Year's Rent, but the Adjusted Annual Rent will never be lower than the Base Rent.

(4) On or before the first of August of each year, the Lessor's staff shall notify Lessee as to next Annual Rent payment due, as well as how the Annual Rent was calculated.

(5) (A) Lessor may, at its option, elect to establish a new reasonable Base Rent effective on the ten-year anniversary of this Lease. The new Base Rent shall be determined by an appraisal of the Property. Upon notification to Lessee by Lessor's staff of this election, Lessor's staff and Lessee shall, in good faith, meet, negotiate and agree upon the terms and conditions for such appraisal, including the standards and methodology of the appraisal. The appraisal shall be prepared in accordance with generally accepted appraisal standards as they are adopted from time to time by the Appraisal Standards Board of the Appraisal Foundation. Upon approval by Lessor, the new Base Rent shall thereafter be used to establish the Annual Rent for subsequent years, through application of the provisions of Subparagraph (b)(1), (2) and (3) of this Section.

(B) Should Lessor's staff fail to notify Lessee of the proposal to exercise the right to establish a new Base at the time of the first ten-year anniversary of this Lease under provisions Subparagraph (b)(5)(A) of this section, it may do so at the time of any one (1) of the next nine (9) anniversaries following such tenth anniversary, without prejudice to its right to elect to establish a new reasonable Base Rent on the next or succeeding tenth anniversary. No Base Rent modification shall become effective unless Lessee is given notice at least 90 days before the modification would take effect.

(c) **Penalty and Interest for Late Rental Payments:**
Any rental or other sum that remains due and unpaid under the terms of this Lease ten days after notice from Lessor that it is due and unpaid shall be subject to a penalty for violation of this Lease and for damages equal to five percent of said rental payment or other sum and shall bear interest as specified in California Public Resources Code Section 6224, as it may be amended, or under a successor statute, until said rental and said other sums have been received by Lessor. Lessor shall apply any monies received from Lessee first to any accrued penalty and interest charges and then to any other rental or other sums then due. The penalty and interest charges provided by this subsection are in addition to all other remedies that Lessor may have that are provided by this Lease or otherwise by law to enforce payment of any rental or other sum that has become due and has not been paid.

5. **Authorized Uses:**
It is the intent of the parties to this lease that the improvements and activities authorized herein are for the exclusive use of the Lessee in conjunction with Lessee's existing power plant cooling water system and no other parties are authorized use of the improvements for whatever purpose, including, but not limited to, the intake of water utilized for a desalination plant and the commingling for the brine discharge water from a future desalination facility, without the express written approval and consent of the Lessor.

6. **This provision replaces Paragraph 12 Restoration of Lease Premises, subparagraph (c) of Section 4, General Provisions**:
All plans for and subsequent removal and restoration shall be to the satisfaction of Lessor and shall be completed within 180 days after the expiration or sooner termination of this Lease or after compliance with paragraph 12(d), whichever is the lesser.

Paragraph 12, Restoration of Lease Premises, subparagraphs (a), (b), (d) and (e) of Section 4, General Provisions, remain in effect.

7. **Conflicts**:
In the event of any conflict between the provisions of Section 2 and Section 4 of this Lease, the provisions of Section 2 shall prevail.

SECTION 3

PRC 1980.1

LAND DESCRIPTION

A parcel of tide and submerged beach land lying along the Pacific Ocean, in the City of Huntington Beach, County of Orange, State of California, more particularly described as follows:

Beginning at the intersection of the North and South centerline of Section 13 in Township 6 South, Range 11 West, S.B.B.& M., in the Rancho Los Bolsas, with the Northeasterly line of the Pacific Coast (State) Highway, as same is shown 100.00 feet wide, on a Record of Survey Map filed in Book 29, Page 27, of Record of Surveys, in the office of the County of Orange; said intersection being South 00°40'50" East, 2507.07 feet, more or less, from the center of said Section 13; thence along said Northeasterly line, South 55°24'30" East, 37.07 feet; thence at right angles to said Northeasterly line, South 34°35'30" West, 580.00 feet, more or less, to a point on the line of the mean (ordinary) high tide of the Pacific Ocean, said last mentioned point being the TRUE POINT OF BEGINNING of this description; thence Southeasterly, along said line of the mean (ordinary) high tide, to a line that is parallel with and 180.00 feet Southeasterly, measure at right angles, from that certain course, and its Southwesterly prolongation, hereinabove described as having a bearing of South 34°35;30" West and a length of 580 feet, more or less; thence along said parallel line South 34°35'30" West 1702.50 feet, more or less, to a line that is parallel with and 2187.50 feet Southwesterly, measured at right angles, from the Southwesterly line of said Pacific Coast (State) Highway; thence along said parallel line, North 55°24'30" West, 300.00 feet; thence North 34°35;30" East, 1717.50 feet, more or less, to said line of the mean (ordinary) high tide; thence Southeasterly, along said last mentioned line, to said TRUE POINT OF BEGINNING.

END OF DESCRIPTION

Prepared 12/01/2006 by the California State Lands Commission Boundary Unit
Original lease description prepared by CSLC dated 12/20/1957.

LICENSED LAND SURVEYOR
STEVE C. LEAMAN
Exp. 12/31/07
No. 7377
STATE OF CALIFORNIA

SECTION 4

GENERAL PROVISIONS

1. **GENERAL**
These provisions are applicable to all leases, permits, rights-of-way, easements, or licenses or other interests in real property conveyed by the State Lands Commission.

2. **CONSIDERATION**
(a) **Categories**
(1) **Rental**
Lessee shall pay the annual rental as stated in this Lease to Lessor without deduction, delay, or offset, on or before the beginning date of this Lease and on or before each anniversary of its beginning date during each year of the Lease term.

(2) **Non-Monetary Consideration**
If the consideration to Lessor for this Lease is the public use, benefit, health, or safety, Lessor shall have the right to review such consideration at any time and set a monetary rental if the State Lands Commission, at its sole discretion, determines that such action is in the best interest of the State.

(b) **Modification**
Lessor may modify the method, amount, or rate of consideration effective on each fifth anniversary of the beginning date of this Lease. Should Lessor fail to exercise such right effective on any fifth anniversary it may do so effective on any one (1) of the next four (4) anniversaries following such fifth anniversary, without prejudice to its right to effect such modification on the next or any succeeding fifth anniversary. No such modification shall become effective unless Lessee is given at least thirty (30) days notice prior to the effective date.

(c) **Penalty and Interest**
Any installments of rental accruing under this Lease not paid when due shall be subject to a penalty and shall bear interest as specified in Public Resources Code Section 6224 and the Lessor's then existing administrative regulations governing penalty and interest

3. **BOUNDARIES**
This Lease is not intended to establish the State's boundaries and is made without prejudice to either party regarding any boundary claims which may be asserted presently or in the future.

4. **LAND USE**
(a) **General**
Lessee shall use the Lease Premises only for the purpose or purposes stated in this Lease and only for the operation and maintenance of the improvements expressly authorized in this Lease. Lessee shall commence use of the Lease Premises within ninety (90) days of the beginning date of this Lease or within ninety (90) days of the date set for construction to commence as set forth in this Lease, whichever is later. Lessee shall notify Lessor within ten (10) days after commencing the construction of authorized improvements and within sixty (60) days after completing them. Lessee's discontinuance of such use for a period of ninety (90) days shall be conclusively presumed to be an abandonment.

(b) **Continuous Use**
Lessee's use of the Lease Premises shall be continuous from commencement of the Lease until its expiration.

(c) **Repairs and Maintenance**
Lessee shall, at its own expense, keep and maintain the Lease Premises and all improvements in good order and repair and in safe condition. Lessor shall have no obligation for such repair and maintenance.

(d) **Additions, Alterations, and Removal**
(1) Additions - No improvements other than those expressly authorized in this Lease shall be constructed by the Lessee on the Lease Premises without the prior written consent of Lessor.

(2) Alteration or Removal - Except as provided under this Lease, no alteration or removal of improvements on or natural features of the Lease Premises shall be undertaken without the prior written consent of Lessor.

(e) **Conservation**
Lessee shall practice conservation of water, energy, and other natural resources and shall prevent pollution and harm to the environment. Lessee shall not violate any law or regulation whose purpose is to conserve resources or to protect the environment. Violation of this section shall constitute grounds for termination of the Lease. Lessor, by its executive officer, shall notify Lessee, when in his or her opinion, Lessee has violated the provisions of this section and Lessee shall respond and discontinue the conduct or remedy the condition within 30 days.

(f) **Toxics**
Lessee shall not manufacture or generate hazardous wastes on the Lease Premises unless specifically authorized under other terms of this Lease. Lessee shall be fully responsible for any hazardous wastes, substances or materials as defined under federal, state or local law, regulation, or ordinance that are manufactured, generated, used, placed, disposed, stored, or transported on the Lease Premises during the Lease term and shall comply with and be bound by all applicable provisions of such federal, state or local law, regulation or ordinance dealing with such wastes, substances or materials. Lessee shall notify Lessor and the appropriate governmental emergency response agency(ies) immediately in the event of any release or threatened release of any such wastes, substances, or materials.

(g) **Enjoyment**
Subject to the provisions of paragraph 5 (a) (2) below, nothing in this Lease shall preclude Lessee from excluding persons from the Lease Premises when their presence or activity constitutes a material interference with Lessee's use

and enjoyment of the Lease Premises as provided under this Lease.

(h) **Discrimination**

Lessee in its use of the Lease Premises shall not discriminate against any person or class of persons on the basis of race, color, creed, religion, national origin, sex, age, or handicap.

(i) **Residential Use**

No portion of the Lease Premises shall be used as a location for a residence or for the purpose of mooring a structure which is used as a residence. For purposes of this Lease, a residence or floating residence includes but is not limited to boats, barges, houseboats, trailers, cabins, or combinations of such facilities or other such structures which provide overnight accommodations to the Lessee or others.

5. **RESERVATIONS, ENCUMBRANCES, AND RIGHTS-OF-WAY**

(a) **Reservations**

(1) Lessor expressly reserves all natural resources in or on the Lease Premises, including but not limited to timber and minerals as defined under Public Resources Code Sections 6401 and 6407, as well as the right to grant leases in and over the Lease Premises for the extraction of such natural resources; however, such leasing shall be neither inconsistent nor incompatible with the rights or privileges of Lessee under this Lease.

(2) Lessor expressly reserves a right to go on the Lease Premises and all improvements for any purpose associated with this Lease or for carrying out any function required by law, or the rules, regulations or management policies of the State Lands Commission. Lessor shall have a right of reasonable access to the Lease Premises across Lessee owned or occupied lands adjacent to the Lease Premises for any purpose associated with this Lease.

(3) Lessor expressly reserves to the public an easement for convenient access across the Lease Premises to other State-owned lands located near or adjacent to the Lease Premises and a right of reasonable passage across and along any right-of-way granted by this Lease; however, such easement or right- of-way shall be neither inconsistent nor incompatible with the rights or privileges of Lessee under this Lease.

(4) Lessor expressly reserves the right to lease, convey, or encumber the Lease Premises, in whole or in part, during the Lease term for any purpose not inconsistent or incompatible with the rights or privileges of Lessee under this Lease.

(b) **Encumbrances**

This Lease may be subject to pre-existing contracts, leases, licenses, easements, encumbrances, and claims and is made without warranty by Lessor of title, condition, or fitness of the land for the stated or intended purpose.

6. **RULES, REGULATIONS, AND TAXES**

(a) Lessee shall comply with and be bound by all presently existing or subsequently enacted rules, regulations, statutes or ordinances of the State Lands Commission or any other governmental agency or entity having lawful authority and jurisdiction.

(b) Lessee understands and agrees that a necessary condition for the granting and continued existence of this Lease is that Lessee obtains and maintains all permits or other entitlements.

(c) Lessee accepts responsibility for and agrees to pay any and all possessory interest taxes, assessments, user fees or service charges imposed on or associated with the leasehold interest, improvements or the Lease Premises, and such payment shall not reduce rental due Lessor under this Lease and Lessor shall have no liability for such payment.

7. **INDEMNITY**

(a) Lessor shall not be liable and Lessee shall indemnify, hold harmless and, at the option of Lessor, defend Lessor, its officers, agents, and employees against and for any and all liability, claims, damages or injuries of any kind and from any cause, arising out of or connected in any way with the issuance, enjoyment or breach of this Lease or Lessee's use of the Lease Premises except for any such liability, claims, damage or injury solely caused by the negligence of Lessor, its officers, agents and employees.

(b) Lessee shall notify Lessor immediately in case of any accident, injury, or casualty on the Lease Premises.

8. **INSURANCE**

(a) Lessee shall obtain and maintain in full force and effect during the term of this Lease comprehensive general liability insurance and property damage insurance, with such coverage and limits as may be reasonably requested by Lessor from time to time, but in no event for less than the sum(s) specified, insuring Lessee and Lessor against any and all claims or liability arising out of the ownership, use, occupancy, condition or maintenance of the Lease Premises and all improvements.

(b) The insurance policy or policies shall name the State of California, its officers, employees and volunteers as insureds as to the Lease Premises and shall identify the Lease by its assigned number. Lessee shall provide Lessor with a certificate of such insurance and shall keep such certificate current. The policy (or endorsement) must provide that the insurer will not cancel the insured's coverage without thirty (30) days prior written notice to Lessor. Lessor will not be responsible for any premiums or other assessments on the

policy. The coverage provided by the insured (Lessee) shall be primary and non-contributing.

(c) The insurance coverage specified in this Lease shall be in effect at all times during the Lease term and subsequently until all of the Lease Premises have been either accepted as improved, by Lessor, or restored by Lessee as provided elsewhere in this Lease.

9. **SURETY BOND**

(a) Lessee shall provide a surety bond or other security device acceptable to Lessor, for the specified amount, and naming the State of California as the assured, to guarantee to Lessor the faithful observance and performance by Lessee of all of the terms, covenants, and conditions of this Lease.

(b) Lessor may require an increase in the amount of the surety bond or other security device to cover any additionally authorized improvements, alterations or purposes and any modification of consideration.

(c) The surety bond or other security device shall be maintained in full force and effect at all times during the Lease term and subsequently until all of the Lease Premises have been either accepted as improved, by Lessor, or restored by Lessee as provided elsewhere in this Lease.

10. **ASSIGNMENT, ENCUMBRANCING OR SUBLETTING**

(a) Lessee shall not either voluntarily or by operation of law, assign, transfer, mortgage, pledge, hypothecate or encumber this Lease and shall not sublet the Lease Premises, in whole or in part, or allow any person other than the Lessee's employees, agents, servants and invitees to occupy or use all or any portion of the Lease Premises without the prior written consent of Lessor, which consent shall not be unreasonably withheld.

(b) The following shall be deemed to be an assignment or transfer within the meaning of this Lease:

(1) If Lessee is a corporation, any dissolution, merger, consolidation or other reorganization of Lessee or sale or other transfer of a percentage of capital stock of Lessee which results in a change of controlling persons, or the sale or other transfer of substantially all the assets of Lessee;

(2) If Lessee is a partnership, a transfer of any interest of a general partner, a withdrawal of any general partner from the partnership, or the dissolution of the partnership.

(c) If this Lease is for sovereign lands, it shall be appurtenant to adjoining littoral or riparian land and Lessee shall not transfer or assign its ownership interest or use rights in such adjoining lands separately from the leasehold rights granted herein without the prior written consent of Lessor.

(d) If Lessee desires to assign, sublet, encumber or otherwise transfer all or any portion of the Lease Premises, Lessee shall do all of the following:

(1) Give prior written notice to Lessor;

(2) Provide the name and complete business organization and operational structure of the proposed assignee, sublessee, secured third party, or other transferee; and the nature of the use of and interest in the Lease Premises proposed by the assignee, sublessee, secured third party or other transferee. If the proposed assignee, sublessee, or secured third party is a general or limited partnership, or a joint venture, provide a copy of the partnership agreement or joint venture agreement, as applicable;

(3) Provide the terms and conditions of the proposed assignment, sublease, or encumbrance or other transfer;

(4) Provide audited financial statements for the two most recently completed fiscal years of the proposed assignee, sublessee, secured party or other transferee; and provide pro forma financial statements showing the projected income, expense and financial condition resulting from use of the Lease Premises; and

(5) Provide such additional or supplemental information as Lessor may reasonably request concerning the proposed assignee, sublessee, secured party or other transferee.

Lessor will evaluate proposed assignees, sublessees, secured third parties and other transferees and grant approval or disapproval according to standards of commercial reasonableness considering the following factors within the context of the proposed use: the proposed party's financial strength and reliability, their business experience and expertise, their personal and business reputation, their managerial and operational skills, their proposed use and projected rental, as well as other relevant factors.

(e) Lessor shall have a reasonable period of time from the receipt of all documents and other information required under this provision to grant or deny its approval of the proposed party.

(f) Lessee's mortgage or hypothecation of this Lease, if approved by Lessor, shall be subject to terms and conditions found in a separately drafted standard form (Agreement and Consent to Encumbrancing of Lease) available from Lessor upon request.

(g) Upon the express written assumption of all obligations and duties under this Lease by an assignee approved by Lessor, the Lessee may be released from all liability under this Lease arising after the effective date of assignment and not associated with Lessee's use, possession or occupation of

or activities on the Lease Premises; except as to any hazardous wastes, substances or materials as defined under federal, state or local law, regulation or ordinance manufactured, generated, used, placed, disposed, stored or transported on the Lease Premises.

(h) If the Lessee files a petition or an order for relief is entered against Lessee, under Chapters 7,9,11 or 13 of the Bankruptcy Code (11 USC Sect. 101, et seq.) then the trustee or debtor-in-possession must elect to assume or reject this Lease within sixty (60) days after filing of the petition or appointment of the trustee, or the Lease shall be deemed to have been rejected, and Lessor shall be entitled to immediate possession of the Lease Premises. No assumption or assignment of this Lease shall be effective unless it is in writing and unless the trustee or debtor-in-possession has cured all defaults under this Lease (monetary and non-monetary) or has provided Lessor with adequate assurances (1) that within ten (10) days from the date of such assumption or assignment, all monetary defaults under this Lease will be cured; and (2) that within thirty (30) days from the date of such assumption, all non-monetary defaults under this Lease will be cured; and (3) that all provisions of this Lease will be satisfactorily performed in the future.

11. **DEFAULT AND REMEDIES**

(a) **Default**

The occurrence of any one or more of the following events shall immediately and without further notice constitute a default or breach of the Lease by Lessee:

(1) Lessee's failure to make any payment of rental, royalty, or other consideration as required under this Lease;

(2) Lessee's failure to obtain or maintain liability insurance or a surety bond or other security device as required under this Lease;

(3) Lessee's vacation or abandonment of the Lease Premises (including the covenant for continuous use as provided for in paragraph 4) during the Lease term;

(4) Lessee's failure to obtain and maintain all necessary governmental permits or other entitlements;

(5) Lessee's failure to comply with all applicable provisions of federal, state or local law, regulation or ordinance dealing with hazardous waste, substances or materials as defined under such law;

(6) Lessee's Failure to commence to construct and to complete construction of the improvements authorized by this Lease within the time limits specified in this Lease; and/or

(7) Lessee's failure to comply with applicable provisions of federal, state or local laws or ordinances relating to issues of Health and Safety, or whose purpose is to conserve resources or to protect the environment.

(b) Lessee's failure to observe or perform any other term, covenant or condition of this Lease to be observed or performed by the Lessee when such failure shall continue for a period of thirty (30) days after Lessor's giving written notice; however, if the nature of Lessee's default or breach under this paragraph is such that more than thirty (30) days are reasonably required for its cure, then Lessee shall not be deemed to be in default or breach if Lessee commences such cure within such thirty (30) day period and diligently proceeds with such cure to completion.

(c) **Remedies**

In the event of a default or breach by Lessee and Lessee's failure to cure such default or breach, Lessor may at any time and with or without notice do any one or more of the following:

(1) Re-enter the Lease Premises, remove all persons and property, and repossess and enjoy such premises;

(2) Terminate this Lease and Lessee's right of possession of the Lease Premises. Such termination shall be effective upon Lessor's giving written notice and upon receipt of such notice, Lessee shall immediately surrender possession of the Lease Premises to Lessor;

(3) Maintain this Lease in full force and effect and recover any rental, royalty, or other consideration as it becomes due without terminating Lessee's right of possession regardless of whether Lessee shall have abandoned the Lease Premises; and/or

(4) Exercise any other right or remedy which Lessor may have at law or equity.

12. **RESTORATION OF LEASE PREMISES**

(a) Upon expiration or sooner termination of this Lease, Lessor upon written notice may take title to any or all improvements, including fills, or Lessor may require Lessee to remove all or any such improvements at its sole expense and risk; or Lessor may itself remove or have removed all or any portion of such improvements at Lessee's sole expense. Lessee shall deliver to Lessor such documentation as may be necessary to convey title to such improvements to Lessor free and clear of any liens, mortgages, loans or any other encumbrances.

(b) In removing any such improvements Lessee shall restore the Lease Premises as nearly as possible to the conditions existing prior to their installation or construction.

(c) All plans for and subsequent removal and restoration shall be to the satisfaction of Lessor and shall be completed within ninety (90) days after the expiration or sooner termination of this Lease or after compliance with paragraph 12(d), whichever is the lesser.

(d) In removing any or all the improvements Lessee shall be required to obtain any permits or other governmental approvals as may then be required by lawful authority.

(e) Lessor may at any time during the Lease term require Lessee to conduct at its own expense and by a contractor approved by Lessor an independent environmental site assessment or inspection for the presence or suspected presence of hazardous wastes, substances or materials as defined under federal, state or local law, regulation or ordinance manufactured, generated, used, placed, disposed, stored or transported on the Lease Premises during the term of the Lease. Lessee shall provide the results of the assessment or inspection to Lessor and the appropriate governmental response agency(ies) and shall further be responsible for removing or taking other appropriate remedial action regarding such wastes, substances or materials in accordance with applicable federal, state or local law regulation or ordinance.

13. **QUITCLAIM**
Lessee shall, within ninety (90) days of the expiration or sooner termination of this Lease, execute and deliver to Lessor in a form provided by Lessor a good and sufficient release of all rights under this Lease. Should Lessee fail or refuse to deliver such a release, a written notice by Lessor reciting such failure or refusal shall, from the date of its recordation, be conclusive evidence against Lessee of the termination of this Lease and all other claimants.

14. **HOLDING-OVER**
Any holding-over by Lessee after the expiration of the Lease term, with or without the express or implied consent of Lessor, shall constitute a tenancy from month to month and not an extension of the Lease term and shall be on the terms, covenants, and conditions of this Lease, except that the annual rental then in effect shall be increased by twenty-five percent (25%).

15. **ADDITIONAL PROVISIONS**

(a) **Waiver**

(1) No term, covenant, or condition of this Lease and no default or breach of any such term, covenant or condition shall be deemed to have been waived, by Lessor's acceptance of a late or nonconforming performance or otherwise, unless such a waiver is expressly acknowledged by Lessor in writing.

(2) Any such waiver shall not be deemed to be a waiver of any other term, covenant or condition of any other default or breach of any term, covenant or condition of this Lease.

(b) **Time**
Time is of the essence of this Lease and each and all of its terms, covenants or conditions in which performance is a factor.

(c) **Notice**
All notices required to be given under this Lease shall be given in writing, sent by U.S. Mail with postage prepaid, to Lessor at the offices of the State Lands Commission and the Lessee at the address specified in this Lease. Lessee shall give Lessor notice of any change in its name or address.

(d) **Consent**
Where Lessor's consent is required under this Lease its consent for one transaction or event shall not be deemed to be a consent to any subsequent occurrence of the same or any other transaction or event.

(e) **Changes**
This Lease may be terminated and its term, covenants and conditions amended, revised or supplemented only by mutual written agreement of the parties.

(f) **Successors**
The terms, covenants and conditions of this Lease shall extend to and be binding upon and inure to the benefit of the heirs, successors, and assigns of the respective parties.

(g) **Joint and Several Obligation**
If more than one Lessee is a party to this Lease, the obligations of the Lessees shall be joint and several.

(h) **Captions**
The captions of this Lease are not controlling and shall have no effect upon its construction or interpretation.

(i) **Severability**
If any term, covenant or condition of this Lease is determined by a court of competent jurisdiction to be invalid, it shall be considered deleted and shall not invalidate any of the remaining terms, covenants and conditions.

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STATE OF CALIFORNIA - STATE LANDS COMMISSION

LEASE P.R.C. NO. 1980.1

This lease shall become effective only when approved by and executed on behalf of the State Lands Commission of the State of California and a duly executed copy has been delivered to Lessee. The submission of this Lease by Lessor, its agent or representative for examination by Lessee does not constitute an option or offer to lease the Lease Premises upon the terms and conditions contained herein, or a reservation of the Lease Premises in favor of Lessee. Lessee's submission of an executed copy of this Lease to Lessor shall constitute an offer to Lessor to lease the Lease Premises on the terms and conditions set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Lease as of the date hereafter affixed.

LESSEE
AES HUNTINGTON BEACH L.L.C.

By: _____

Title: President

Date: 6/21/07

LESSOR
STATE OF CALIFORNIA
STATE LANDS COMMISSION

By: _____

Title: Chief, Division of Land Management

Date: AUG 3 1 2007

This Lease was authorized by the California State Lands Commission on

February 5, 2007
(Month Day Year)

ACKNOWLEDGEMENT

Form 51.15 (Rev. 11/91)

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California
County of Los Angeles } ss.

On June 21, 2007 (Date), before me, Carolyn Ellis, Notary Public (Name and Title of Officer (e.g., "Jane Doe, Notary Public")),
personally appeared Eric Pendergraft (Name(s) of Signer(s)),

CAROLYN ELLIS
Commission # 1689052
Notary Public - California
Los Angeles County
My Comm. Expires Sep 18, 2010

☒ personally known to me
☐ proved to me on the basis of satisfactory evidence

to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

WITNESS my hand and official seal.

Carolyn Ellis
Signature of Notary Public

Place Notary Seal Above

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: State Lands Commission, Lease PRC 1980.1

Document Date: 6/21/07 Number of Pages: 12

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer

Signer's Name: _____

☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney in Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

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EXHIBIT G

RECORDED AT THE REQUEST OF
AND WHEN RECORDED MAIL TO:
STATE OF CALIFORNIA
State Lands Commission
Attn: Title Unit
100 Howe Avenue, Suite 100-South
Sacramento, CA 95825-8202

STATE OF CALIFORNIA
OFFICIAL BUSINESS
Document entitled to free recordation
pursuant to Government Code Section 27383

SPACE ABOVE THIS LINE FOR RECORDER'S USE

A.P.N.
County: Orange

STATE OF CALIFORNIA
STATE LANDS COMMISSION

AMENDMENT OF LEASE PRC 1980.1

WHEREAS, the State of California, acting through the State Lands Commission, hereinafter called Lessor, and, AES Huntington Beach LLC, hereinafter called AES, have heretofore entered into an agreement designated as Lease PRC 1980.1, authorized by the State Lands Commission on February 5, 2007 and executed August 31, 2007, whereby the Lessor granted to AES a General Lease – Industrial Use covering certain State Land situated in Orange County; and

WHEREAS, Section 4, Paragraph 15(e) provides that the Lease may be terminated and its terms, covenants and conditions amended, revised or supplemented only by mutual written agreement of the parties; and

WHEREAS, AES and Poseidon Resources (Surfside) LLC, hereafter referred to as Poseidon Resources, have entered into an Agreement dated September of 2005; and

WHEREAS, the Agreement between AES and Poseidon Resources provide for a use of the Lease Premises that is not allowed under current provisions contained in the Lease; and

WHEREAS, Poseidon Resources has applied to the Commission to use, for desalination purposes, the Lease Premises; and

WHEREAS, the City of Huntington Beach, acting as Lead Agency for this project, has certified a Subsequent Environmental Impact Report for Poseidon Resources' development of a desalination facility involving the Lease Premises, and that, in doing so, the City of Huntington Beach determined that the co-located and stand-alone operation of desalination facility will not cause a significant impact to water quality or marine life; and

WHEREAS, by reason of the foregoing, it is now the desire of the parties to amend the foregoing Agreement.

NOW THEREFORE, the parties hereto agree as follows:

SECTION 1 – BASIC PROVISIONS is amended to include Poseidon Resources (Surfside) LLC as a Co-Lessee, whose mailing address is: 501 West Broadway, Suite 2020, San Diego, CA 92101. The location of the Lease Premises is amended to include sovereign lands affected by increases in salinity from the desalination facility's concentrated seawater discharge.

SECTION 1 – LAND USE OR PURPOSE is amended to include desalination use of the existing improvements by Poseidon Resources.

SECTION 1 – CONSIDERATION is amended to require Poseidon Resources, as a separate obligation, to provide annual rent in the amount of $115,500 beginning on the first day of the operation of the desalination facility, to compensate for use of Public Trust resources on sovereign lands affected by increases in salinity from the desalination facility's concentrated seawater discharge. This annual rent is subject to review and modification by Lessor subject to the terms of Section 2, paragraph 10, and Section 4, paragraph 2 of this Lease.

SECTION 2 – SPECIAL PROVISIONS – shall be amended to include the following amendment to paragraph 5, which replaces the prior paragraph 5, and to add paragraphs 8 through 20 as separate obligations of Poseidon Resources:

5. Authorized Uses:
   It is the intent of the parties to this Lease that the improvements and activities authorized herein are for the exclusive use of the Co-Lessees, AES and Poseidon Resources, in conjunction with AES' existing power plant cooling water system involving the intake of sea water and the commingling of brine water discharge from Poseidon Resources' desalination facility.

8. Any new obligations associated with this Lease Amendment are the sole responsibility of Poseidon Resources, unless such obligations specifically reference an action on the part of AES. AES and Poseidon Resources, as Co-Lessees, or individuals, shall be required jointly and severally to comply with, and obtain the benefits of, all of the reservations, terms, covenants and conditions of the Lease; provided however that, consistent with this Lease Amendment creating new obligations associated with the existence of a desalination facility: (i) AES shall be responsible for obligations under the Lease pertaining to its power plant facility; (ii) Poseidon Resources shall be solely responsible for obligations under the Lease pertaining to its desalination facility; and, (iii) if there is a disagreement between AES and Poseidon Resources as to their respective responsibilities under the Lease, that dispute shall be resolved by the Lessor.

9. Poseidon Resources shall, at all times during the term of the Lease, comply at a minimum with the Energy Minimization and Green House Gas Reduction Plan (the GHG Plan), as adopted by the City of Huntington Beach on September 20, 2010. In the

event that the GHG Plan adopted by the City of Huntington Beach on September 20, 2010, is modified in any way or is terminated, invalidated or suspended, Poseidon Resources shall, within 30 days after the effective date of modification, invalidation or suspension, notify Lessor's Executive Officer of the modification, termination, invalidation or suspension. If the Executive Officer determines that the effect of the modification, termination, invalidation or suspension constitutes a substantive weakening of the GHG Plan, then compliance with the GHG Plan as adopted by the City of Huntington Beach on September 20, 2010 shall remain a term of this Lease. The Executive Officer may allow the Lease to remain in effect subject to any new terms lawfully imposed on the GHG Plan by any and all applicable regulatory authorities, including but not limited to, the California Coastal Commission and the South Coast Air Quality Management District, or require that Poseidon Resources continue to comply with the GHG Plan as adopted by the City of Huntington Beach on September 20, 2010.

10. Poseidon Resources, as a separate obligation, shall implement the following Salinity Monitoring and Reporting Program (SMRP), which supplements the effluent and receiving water monitoring performed by Poseidon Resources under requirements established by the California Regional Water Quality Control Board (CRWQCB) Order No. R8-2006-0034, National Pollutant Discharge Elimination System (NPDES) Permit No. CA 8000403.

a) Six months prior to the commencement of pre-discharge monitoring under the SMRP, Poseidon Resources shall submit for review and approval by Lessor's Executive Officer a protocol that will contain sufficient detail to ensure implementation of monitoring and reporting consistent with this Paragraph 10.

b) In addition to the receiving water salinity monitoring stations designated by the CRWQCB under Order No. R8-2006-0034, NPDES Permit No. CA 8000403, Poseidon Resources shall establish three additional monitoring stations offshore, at locations reasonably acceptable to Lessor's Executive Officer, in an array adequate to characterize the salinity plume and to sample the biota. All sampling and monitoring to be conducted at these three supplemental stations pursuant to this Paragraph 10 shall be conducted at the same time if feasible.

c) Poseidon Resources shall provide for random quarterly sampling, during low-flow conditions if feasible, of salinity, temperature, and pH at the three supplemental stations established pursuant to Paragraph 10(b) for the following durations:
   - for one year under pre-discharge conditions;
   - for two years under post-discharge conditions; and
   - for two years after commencement of stand-alone operations.

d) Poseidon Resources shall provide for quarterly benthic monitoring, at the three supplemental stations established pursuant to Paragraph 10(b), for the following durations:
   - for one year under pre-discharge conditions;
   - for two years under post-discharge conditions; and
   - for two years after commencement of stand-alone operations.

e) Benthic samples shall be collected using a 0.1 square meter grab sampler. Three size classes to be monitored include meiofauna (invertebrates passing through a 1.0 millimeter (mm) mesh sieve and retained in a 40-42 μm mesh sieve), macrofauna (invertebrates retained on a sieve or 0.25-0.30 mm mesh sieve with the exception of meiofauna taxa such as Nematoda, Copepoda, Ostracoda, and Foraminifera), and megafauna (epibenthic vertebrates and invertebrates visible to the naked eye). Benthic infaunal organisms retained on the sieve shall be counted and identified to the lowest taxon possible. Analysis of benthic community structure at each sampling station shall include determination of the:
   - Number of species per 0.1 square meter (species richness),
   - Number of individuals per species per station,
   - Total numerical abundance,
   - Shannon's diversity index (H'), and
   - Biomass.

f) Salinity, temperature, pH and benthic sampling identified above shall be conducted by a third-party contractor approved by Lessor's Executive Officer and reasonably acceptable to Poseidon Resources. The third-party contractor may be the same contractor taking sampling under the CRWQCB Order and NPDES permit identified above.

g) Poseidon Resources shall also provide all NPDES permit monitoring data and results to the Lessor's Executive Officer in accordance with the timeframes established by the CRWQCB Order and NPDES permit identified above.

h) At the conclusion of two years of post-discharge monitoring under the SMRP, Poseidon Resources shall prepare and submit a report (the "SMRP Report") to Lessor's Executive Officer that:
   - Summarizes all collected monitoring data (including receiving monitoring data collected per requirements of the Regional Water Quality Control Board),
   - Presents a comparison of pre-discharge and post-discharge data and characterizes statistical trends in benthic species richness, abundance, population, or diversity, and
   - Evaluates receiving water salinity data to assess the characteristics (i.e., size and density) of the plume.

   Poseidon Resources shall prepare a similar report at the conclusion of two years of stand-alone post-discharge monitoring under the SMRP.

i) If after two years of post-discharge monitoring or two years of stand-alone post-discharge monitoring, as applicable, the Commission reasonably determines that the results in the SMRP Report are sufficient to assess the extent of use of Public Trust resources due to increases in salinity levels, then the SMRP shall be discontinued and Poseidon Resources may submit to the Commission a request regarding the modification or elimination of the consideration established in SECTION 1 for the use of the Public Trust resources related to increases in salinity levels.

11. Poseidon Resources, as a separate obligation, shall provide notice and sufficient details to Lessor 60 days prior to any changes in ownership or assignment of interest as defined in Section 4, Paragraph 10 of the Lease.

12. AES shall notify Lessor in writing prior to discontinuing its use of the Lease Premises in connection with the production of electricity using Once-Through-Cooling (OTC). Upon receipt of notification by Lessor, AES may apply to Lessor for approval of an assignment of its obligations under the Lease to Poseidon Resources. In considering AES application for approval of an assignment, Lessor will take into account Poseidon Resources' past performance and the likelihood that Poseidon Resources could and would carry out all obligations under the Lease as sole lessee. In the event that Lessor finds that there is a substantial probability that Poseidon Resources would not or could not carry out all such obligations, then Lessor may disapprove the assignment, in which case, at AES' option, the Lease would terminate or AES would remain as Co-Lessee. If Lessor agrees to the assignment, then as compensation for the use of Public Trust resources on sovereign lands affected by the stand-alone entrainment and impingement impacts, Poseidon Resources shall assume the maintenance obligations for the existing entrainment and impingement mitigation program that is being maintained by AES as of the date of this Lease Amendment.

13 Poseidon Resources, as a separate obligation, shall provide copies of all regulatory monitoring and compliance reports pertaining to the operation of its desalination facility to Lessor at the time of submitting such reports with any regulatory agency.

14. Poseidon Resources, as a separate obligation, shall provide Lessor with a performance deposit in the amount of $500,000 prior to commencement of project construction. At any time during the term of the Lease, Lessor may require an increase in the amount of the performance deposit to reflect economic inflation or to cover any additionally authorized improvements, alterations, or of modification of rental. Additionally, should AES' interest in this Lease be assigned to Poseidon Resources, then Lessor may require an increase in the amount of the performance deposit. Such increase may not initially exceed an additional $500,000, but shall otherwise be subject to Paragraph 9 of Section 4, General Provisions, of the Lease.

a) The performance deposit may take one of the forms set out below or some other form acceptable to Lessor, and shall guarantee Poseidon Resources' full and faithful performance of all the terms, covenants, and conditions of this Lease;

(i) Cash;

(ii) A renewable Time Certificate of Deposit from a financial institution authorized to do business in the State of California, wherein the principal sum is made payable to the State or order and both the financial institution and the form of the certificate are approved by the Lessor's Staff;

(iii) A Non-Cancelable Bond issued by a responsible surety company authorized to do business in California, as approved by the Lessor's Staff, provided:

(A) The Bond is automatically renewable and any alteration of the bond shall first require 30 days' prior written notice to Lessor, and

(B) The Bond shall guarantee payment in cash to Lessor of the performance deposit amount upon receipt of written demand from Lessor.

(iv) An irrevocable Standby Letter of Credit in a form acceptable to the Lessor's staff.

b) Regardless of the form in which Poseidon Resources elects to make the performance deposit, all or any portion of the principal sum shall be available unconditionally to Lessor for correcting any default or breach of this Lease by Poseidon Resources, its successors or assigns or for payment of reasonable and actual expenses incurred by Lessor as a result of the failure of Poseidon Resources, its successors or assigns, to perform faithfully any and all of the terms, covenants, and conditions of this Lease.

c) Should Poseidon Resources elect to assign or provide a Time Certificate of Deposit to fulfill the performance deposit requirements of this Lease, the agreement entered into by Poseidon Resources with a financial institution to establish a deposit necessary to permit assignment or issuance of a certificate may allow the payment to Poseidon Resources or order of interest accruing on account of said deposit.

d) Should the entire performance deposit or any portion thereof be appropriated and applied by Lessor for the payment of overdue rent or any such other sum due and payable to Lessor by Poseidon Resources, then Poseidon Resources shall, within 30 days after written demand by Lessor, restore said performance deposit to the required amount.

e) Poseidon Resources shall maintain the required performance deposit throughout the Lease term. Failure to do so shall be deemed a default and shall be grounds for immediate termination of this Lease Amendment as the same relates to the additional use approved by this Lease Amendment.

f) The performance deposit shall be rebated, reassigned, released, or endorsed to Poseidon Resources or otherwise as Poseidon Resources may direct at such time as Poseidon Resources has vacated the premises and is not in default and has no further obligation under the Lease. Interest on the performance deposit required hereunder shall accrue for the benefit of Poseidon Resources and shall be made available to Poseidon Resources from time to time except as the same is required to remedy or cure any default by Poseidon Resources; provided, however, that if

the performance deposit is given in the form of cash then Poseidon Resources shall not be entitled to any interest thereon.

15. Poseidon Resources, as a separate obligation, shall provide to Lessor, in a form approved by Lessor's staff, an unconditional guarantee by parent company Poseidon Water LLC for full performance by Poseidon Resources of all the obligations under the Lease.

16. Poseidon Resources, as a separate obligation, shall provide to Lessor any and all permits and authorizations issued by any and all other State, local or federal agencies as a result of this project. This includes, but is not limited to, a detailed report of compliance with Order No. R8-2006-0034, NPDES Permit No. CA 8000403, and any subsequent NPDES permit. Copies of all permits and authorizations issued prior to operation of the desalination facility on the Lease Premises shall be provided to Lessor prior to operation, and copies of each and every permit or authorization issued after operations begin shall be provided within 30 days after Poseidon Resources receives the permit or authorization.

17. Poseidon Resources acknowledges that Lessor may conduct a public hearing five years after the effective date of commencement of the desalination facility's operations in order to publicly review and evaluate Poseidon Resources' compliance with the terms of the Lease as provided for in Section 4, Paragraph 6, including, but not limited to, compliance with the federal Clean Water Act, and California's Porter-Cologne Water Quality Control Act.

18. In the event that Poseidon Resources fails to comply in any material respect with any and all of its separate obligations under this Lease, Lessor may terminate Poseidon Resources rights under this Lease without affecting any or all of AES's rights or obligations under this Lease subject to the notice provisions in Section 4, paragraph 11(b) of this Lease.

19. Poseidon Resources shall not make any changes in use or operation of the intake and outfall pipelines without prior authorization by Lessor.

20. Poseidon Resources shall be responsible for reimbursing all of Lessor's reasonable staff expenses incurred by Lessor and its staff to monitor compliance by Poseidon Resources of all of its reservations, terms, covenants and conditions of the Lease for the term of the Lease. Upon execution of the Lease Amendment, Poseidon Resources shall execute a Reimbursement Agreement with the Lessor specifying the mechanism by which all actual costs by Lessor shall be reimbursed. An expense deposit of $150,000 shall be paid to and held by the Lessor as a cash surety to ensure performance of this paragraph.

21. Poseidon Resources shall complete construction of the desalination facility within eight years of the authorization of this amendment.

SECTION 4 – GENERAL PROVISIONS is amended as follows:

Paragraph 11, Default and Remedies, (a) Default, Paragraph (4) is hereby deleted in its entirety and is replaced with the following:

(4) Co-Lessee's failure to obtain, maintain and comply with all necessary governmental permits or other entitlements;

All other terms and conditions of the Lease shall remain in effect without amendment.

The effective date of this amendment to the aforesaid Agreement shall be October 29, 2010. This Amendment, consisting of eight (8) pages, is a portion of Lease No. PRC 1980.1, with a beginning date of August 8, 2006, consisting of four sections with a total of 12 pages. All other terms and conditions of the Lease shall remain in full force and effect. This Agreement will become binding on the Lessor only when duly executed on behalf of the State Lands Commission of the State of California.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date hereafter affixed.

CO-LESSEE:
AES HUNTINGTON BEACH LLC

By: _____

Title: Manager

Date: 12/3/2010

LESSOR:
STATE OF CALIFORNIA
STATE LANDS COMMISSION

By: _____

Title: Chief, Division of Land Management

Date: JUL 26 2011

CO-LESSEE:
POSEIDON RESOURCES (Surfside) LLC

By: _____

Title: _____

Date: _____

Execution of this document was authorized
by the State Lands Commission on October 29, 2010

CALIFORNIA ALL-PURPOSE CERTIFICATE OF ACKNOWLEDGMENT

State of California

County of Los Angeles

On 03 Dec 2010 before me, Felise Garcia, Notary Public,
(Here insert name and title of the officer)

personally appeared Eric Michael Pendergraft,

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Felise Garcia
Signature of Notary Public

FELISE GARCIA
COMM. #1911023
Notary Public California
Los Angeles County
My Comm. Expires Nov. 26, 2014
NRO1 NRO1
(Notary Seal)

ADDITIONAL OPTIONAL INFORMATION

DESCRIPTION OF THE ATTACHED DOCUMENT

State of CA State Lands
(Title or description of attached document)
Commission Amendment of Lease PRC 1980.1
(Title or description of attached document continued)

Number of Pages 8 Document Date _____

(Additional information)

CAPACITY CLAIMED BY THE SIGNER

- ☐ Individual (s)
- ☒ Corporate Officer
  Co-Lessee - Manger
  (Title)
- ☐ Partner(s)
- ☐ Attorney-in-Fact
- ☐ Trustee(s)
- ☐ Other _____

INSTRUCTIONS FOR COMPLETING THIS FORM

Any acknowledgment completed in California must contain verbiage exactly as appears above in the notary section or a separate acknowledgment form must be properly completed and attached to that document. The only exception is if a document is to be recorded outside of California. In such instances, any alternative acknowledgment verbiage as may be printed on such a document so long as the verbiage does not require the notary to do something that is illegal for a notary in California (i.e. certifying the authorized capacity of the signer). Please check the document carefully for proper notarial wording and attach this form if required.

- State and County information must be the State and County where the document signer(s) personally appeared before the notary public for acknowledgment.
- Date of notarization must be the date that the signer(s) personally appeared which must also be the same date the acknowledgment is completed.
- The notary public must print his or her name as it appears within his or her commission followed by a comma and then your title (notary public).
- Print the name(s) of document signer(s) who personally appear at the time of notarization.
- Indicate the correct singular or plural forms by crossing off incorrect forms (i.e. ~~he~~/she/~~they,~~ is /~~are~~) or circling the correct forms. Failure to correctly indicate this information may lead to rejection of document recording.
- The notary seal impression must be clear and photographically reproducible. Impression must not cover text or lines. If seal impression smudges, re-seal if a sufficient area permits, otherwise complete a different acknowledgment form.
- Signature of the notary public must match the signature on file with the office of the county clerk.
  - Additional information is not required but could help to ensure this acknowledgment is not misused or attached to a different document.
  - Indicate title or type of attached document, number of pages and date.
  - Indicate the capacity claimed by the signer. If the claimed capacity is a corporate officer, indicate the title (i.e. CEO, CFO, Secretary).
- Securely attach this document to the signed document

SECTION 4 – GENERAL PROVISIONS is amended as follows:

Paragraph 11, Default and Remedies, (a) Default, Paragraph (4) is hereby deleted in its entirety and is replaced with the following:

(4) Co-Lessee's failure to obtain, maintain and comply with all necessary governmental permits or other entitlements;

All other terms and conditions of the Lease shall remain in effect without amendment.

The effective date of this amendment to the aforesaid Agreement shall be October 29, 2010. This Amendment, consisting of eight (8) pages, is a portion of Lease No. PRC 1980.1, with a beginning date of August 8, 2006, consisting of four sections with a total of 12 pages. All other terms and conditions of the Lease shall remain in full force and effect. This Agreement will become binding on the Lessor only when duly executed on behalf of the State Lands Commission of the State of California.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date hereafter affixed.

CO-LESSEE:
AES HUNTINGTON BEACH LLC

By: _____

Title: _____

Date: _____

LESSOR:
STATE OF CALIFORNIA
STATE LANDS COMMISSION

By: _____

Title: Chief, Division of Land Management

Date: JUL 26 2011

CO-LESSEE:
POSEIDON RESOURCES (Surfside) LLC

By: _____

Title: Officer

Date: 2/23/11

Execution of this document was authorized by the State Lands Commission on October 29, 2010

CALIFORNIA ALL-PURPOSE ACKNOWLEDGMENT

State of California
County of San Diego } ss.

On 02.23.2011 (Date) before me, Rita Tabiu, Notary Public (Name and Title of Officer (e.g., "Jane Doe, Notary Public"))

personally appeared Andrew P. Kingman (Name(s) of Signer(s)),

☐ personally known to me
☒ proved to me on the basis of satisfactory evidence

RITA TABIU
Commission # 1727084
Notary Public - California
San Diego County
My Comm. Expires Feb 25, 2011

to be the person(~~s~~) whose name(~~s~~) is/~~are~~ subscribed to the within instrument and acknowledged to me that he/~~she/they~~ executed the same in his/~~her/their~~ authorized capacity(i~~es~~), and that by his/~~her/their~~ signature(~~s~~) on the instrument the person(~~s~~), or the entity upon behalf of which the person(~~s~~) acted, executed the instrument.

WITNESS my hand and official seal.

Signature of Notary Public

OPTIONAL

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Claimed by Signer

Signer's Name: _____

☐ Individual
☐ Corporate Officer — Title(s): _____
☐ Partner — ☐ Limited ☐ General
☐ Attorney-in-Fact
☐ Trustee
☐ Guardian or Conservator
☐ Other: _____

Signer Is Representing: _____

RIGHT THUMBPRINT OF SIGNER
Top of thumb here

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