CALIFORNIA COASTAL COMMISSION

ENERGY, OCEAN RESOURCES & FEDEAL CONSISTENCY 455 MARKET ST., SUITE 300 SAN FRANCISCO, CA 94105-2421 VOICE (415) 904-5200 FAX (415) 904-5400



Note: Only the staff report is attached. For all exhibits, correspondence, and other related report information, please see www.coastalca.gov/meetings/ageinda/#/2022/9 and click on the "Thursday" tab and then click on item "9a."

Th9a

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STAFF REPORT: REGULAR CALENDAR

Application No.: 9-22-0535

Applicant: Poseidon Resources (Channelside) LP

Project Location: City of Carlsbad, within and adjacent to Agua Hedionda

Lagoon, San Diego County.

Project Description: Install a modified intake and discharge system, including

new screens, channels, and associated infrastructure at Poseidon's seawater desalination facility, and modify the facility's Energy Minimization and Greenhouse Gas

Reduction Plan.

Staff Recommendation: Approval with conditions.

SUMMARY OF STAFF RECOMMENDATION

Poseidon Resources (Channelside) LP proposes to implement several modifications to its seawater desalination facility located along Agua Hedionda Lagoon in the City of Carlsbad, San Diego County. The modifications would allow Poseidon to transition to "stand-alone" operations from its previous "co-located" operations that relied on using seawater from the adjacent, but now retired, power plant's "once-through cooling" system. Poseidon would continue to use parts of the power plant's intake and discharge structures but would modify the screening system and other related infrastructure to allow conformity to the state's Ocean Plan requirements for seawater desalination facilities.

The key Coastal Act issues of concern are the project's potential during construction to adversely affect marine biological resources and water quality. Marine biological resources would be affected by in-water construction and placement and operation of heavy equipment over and near coastal waters. Project activities could adversely affect water quality due to accidental spills or discharges from project equipment and machinery. As part of its amendment application, Poseidon is also requesting the Commission amend its previously approved Energy Minimization and Greenhouse Gas ("GHG") Reduction Plan to delete references to emission offset credits that are included in the plan but are not available.

These recommended Findings propose that the Commission approve the project subject to several Special Conditions expected to eliminate or minimize potential effects on coastal resources, to the extent feasible. Special Condition 1 would delete the emission offset credits in the GHG Plan. Special Condition 5 would provide protection to marine life and water quality. Special Condition 6 would acknowledge the hazards and risks inherent in working in this marine environment. Special Condition 7 would ensure the project's impacts on public access to the shoreline are minimal and temporary.

Commission staff recommends the Commission find that with these Special Conditions, the project would be carried out consistent with the marine resource and water quality protection policies of the Coastal Act. Staff therefore recommends the Commission **APPROVE** coastal development permit application 9-22-0535, as conditioned. The motion is on page 4. The standard of review is Chapter 3 of the Coastal Act.

Violation: The applicant is currently in violation of a coastal development permit issued by the Commission for this proposed facility. The violation exists with respect to Poseidon's failure to comply with the terms and conditions of CDP No. 9-14-0731, which authorized the creation and restoration of wetlands as mitigation for Poseidon's desalination facility that the Commission approved in 2007. That permit required Poseidon to start restoration work by October of 2021, but Poseidon has not yet started the work (though it is now scheduled to start in September 2022). Staff notified Poseidon of the violation through a February 11, 2022 Notice of Violation letter and is pursuing enforcement of that violation as a separate matter. Approval of this proposed intake and discharge modification project will not resolve the outstanding violation. Although a violation of CDP No. 9-14-0731 exists, the Commission's consideration of this project is based solely upon the applicable provisions of Chapter 3 of the Coastal Act.

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EXHIBITS

Exhibit 1 - Project Location

Exhibit 2 – Project Layout

Exhibit 3 – Special Conditions of CDP No. E-06-013

I. MOTION AND RESOLUTION

Motion:

I move that the Commission approve Coastal Development Permit No. 9-22-0535 pursuant to the staff recommendation.

Staff Recommendation of Approval:

Staff recommends a **YES** vote. Passage of this motion will result in approval of the permit as conditioned and adoption of the following resolution and findings. The motion passes only by affirmative vote of a majority of the Commissioners present.

Resolution to Approve the Permit:

The Commission hereby approves a coastal development permit for the proposed development and adopts the findings set forth below on grounds that the development as conditioned will be in conformity with the policies of Chapter 3 of the Coastal Act and will not prejudice the ability of the local government having jurisdiction over the area to prepare a Local Coastal Program conforming to the provisions of Chapter 3. Approval of the permit complies with the California Environmental Quality Act because either 1) feasible mitigation measures and/or alternatives have been incorporated to substantially lessen any significant adverse effects of the development on the environment, or 2) there are no further feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the development on the environment.

II. STANDARD CONDITIONS

- 1. Notice of Receipt and Acknowledgment. The permit is not valid and development shall not commence until a copy of the permit, signed by the applicant or authorized agent, acknowledging receipt of the permit and acceptance of the terms and conditions, is returned to the Commission office.
- **Expiration**. If development has not commenced, the permit will expire two years from the date on which the Commission voted on the application. Development shall be pursued in a diligent manner and completed in a reasonable period of time. Application for extension of the permit must be made prior to the expiration date.
- **3. Interpretation**. Any questions of intent of interpretation of any condition will be resolved by the Executive Director or the Commission.
- **4. Assignment**. The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.

5. Terms and Conditions Run with the Land. These terms and conditions shall be perpetual, and it is the intention of the Commission and the applicant to bind all future owners and possessors of the subject property to the terms and conditions.

III. SPECIAL CONDITIONS

- 1. Amended Energy Minimization and Greenhouse Gas ("GHG") Reduction Plan. Poseidon's Energy Minimization and Greenhouse Gas ("GHG") Reduction Plan, approved by the Commission on December 10, 2008 pursuant to Special Condition 10 of CDP E-06-013, is amended to remove all references to "Avoided Emissions from Displaced Imported Water," including the Plan's Section II.F, its Table 4 reference to expected credits from "Reducing Water Importation" and its Table 7 reference to "Reduced Water Importation."
- 2. Other Agency Review and Approval. PRIOR TO THE START OF CONSTRUCTION, Poseidon shall submit to the Executive Director written evidence that all necessary permits, permissions, approvals, and/or authorizations for the project have been granted, including those from the City of Carlsbad and the U.S. Army Corps of Engineers. Any changes to the approved project required by these approvals shall be reported to the Executive Director. No changes to the project as approved by the Commission shall occur without an amendment to this permit unless the Executive Director determines that no amendment is legally necessary.
- 3. Marine Debris Removal and Management Plan. PRIOR TO THE START OF CONSTRUCTION, Poseidon shall provide, for Executive Director review and approval, a Marine Debris Removal and Management Plan that describes the measures that will be implemented to ensure marine debris collected by the floating boom and intake modifications during project construction and facility operations will be removed from coastal waters and disposed of properly. The plan shall describe:
 - The expected effectiveness of these systems in collecting and removing trash, garbage, and other debris from Agua Hedionda and the Pacific Ocean. This shall include a description of the types, sizes, and volumes of debris the systems are meant to accommodate.
 - The ongoing management measures Poseidon will implement to ensure the systems work effectively. This shall include descriptions of the maintenance required, the methods used to remove and dispose of the collected debris, and the disposal locations that will be used.
 - The data collection and reporting Poseidon will conduct to identify the types, sizes, and volumes of debris collected and disposed of.

No changes to the project as approved by the Commission shall occur without an amendment to this permit unless the Executive Director determines that no amendment is legally necessary

4. Construction Pollution Prevention Plan: PRIOR TO THE START OF CONSTRUCTION, Poseidon shall submit to the Executive Director for review and

approval a Construction Pollution Prevention Plan. The plan shall identify the type and location of erosion control/water quality best management practices Poseidon will implement during construction to protect coastal water quality, including the following components:

- Silt fences or other structural components shall be installed at the perimeter of the construction areas to prevent construction-related runoff and/or sediment from entering Agua Hedionda Lagoon.
- Grading and land alteration outside of the approved construction area is prohibited.
- Equipment washing, refueling, and/or servicing shall not take place in areas
 where fuel, sediment, or other materials deleterious to water quality could enter
 the Lagoon. All construction equipment shall be inspected and maintained so as
 to prevent leaks and spills of hazardous materials.
- Poseidon shall maintain good construction housekeeping controls and procedures, such as, for example, cleaning up all leaks, drips, and other spills immediately, keeping materials covered and out of the rain, including covering exposed piles of soils and waste materials, disposing of all waste properly, placing and managing trash receptacles on site, and removing construction debris promptly.
- All erosion and sediment controls shall be in place prior to the start of construction each day and at the end of each day's construction activities.
- Poseidon shall keep a copy of the approved Construction Plan at the job site at all times and all persons involved with the construction shall be briefed on its content and meaning prior to the start of their involvement in construction activities.

Poseidon shall notify the Executive Director at least three working days prior to the scheduled start of project construction and immediately upon completion of construction. Poseidon shall undertake construction in accordance with the approved plan.

5. Hazardous Materials Spill Prevention and Response Plan. PRIOR TO THE START OF PROJECT CONSTRUCTION, Poseidon shall submit for Executive Director review and written approval, a project-specific Spill Prevention and Response Plan (SPRP) for work vessels, barges, and gasoline powered machinery that will be used during project construction and operational activities. All project personnel shall be trained in, and adhere to, the emergency procedures and spill prevention and response measures specified in the SPRP during all project installation and operations. The SPRP shall provide for emergency response and spill control procedures to be taken to stop or control the source of the spill and to contain and clean up the spill. The SPRP shall include, at a minimum: (a) identification of potential spill sources and quantity estimates of a project specific reasonable worst case spill; (b) identification of prevention and response equipment and measures/procedures that will be taken to prevent potential spills and to protect marine and shoreline resources in the event of a spill. Spill prevention and

response equipment shall be kept onboard project vehicles and vessels at all times; (c) a prohibition on fueling/refueling activities outside of designated fueling stations, carried out with spill prevention and response protocols in place; and (d) emergency response and notification procedures, including a list of contacts to call in the event of a spill.

- **6. Assumption of Risk.** By acceptance of this coastal development permit, Poseidon acknowledges and agrees to the following:
 - a) The applicant acknowledges and agrees that the site may be subject to hazards from liquefaction, seismic activities, storm waves, surges, erosion, landslide, flooding, and sea level rise.
 - b) The applicant acknowledges and agrees to assume the risks to the applicant and the property that is the subject of this permit of injury and damage from such hazards in connection with this permitted development.
 - c) The applicant unconditionally waives any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards.
 - d) The applicant agrees to indemnify and hold harmless the Commission, its officers, agents, and employees with respect to the Commission's approval of the project against any and all liability, claims, demands, damages, costs (including costs and fees incurred in defense of such claims), expenses, and amounts paid in settlement arising from any injury or damage due to such hazards.
- 7. Public Access to the Shoreline. PRIOR TO THE START OF CONSTRUCTION, Poseidon shall provide to the Executive Director photographs and engineering drawings that show existing conditions at the proposed temporary accessways along Carlsbad Boulevard. Within 30 days of completing project construction, the applicant shall provide photographs to the Executive Director and drawings documenting that the temporary accessways have been removed and that the area has been restored to its currently existing access conditions.

IV. FINDINGS AND DECLARATIONS

A. Project Description and Background

Poseidon Resources (Channelside) LP ("Poseidon") operates a seawater desalination facility in the City of Carlsbad, San Diego County (see Exhibit 1 – Project Location). The facility was built adjacent to the Encina Power Station and was designed to operate using the "once-through cooling" system that the power plant used to pull in water from Agua Hedionda Lagoon for cooling its generators. With the power plant's recent retirement, Poseidon now proposes to modify the existing intake and discharge system to allow the desalination facility to operate on its own. This change from Poseidon's facility being "co-located" with the power plant to now being a "stand-alone" facility also results in Poseidon needing to implement these modifications so as to conform to relevant requirements of the state's Ocean Plan applicable to stand-alone seawater desalination facilities. The proposed project would result in about the same intake volumes and velocities as the Commission approved in the original CDP.

The modifications involve replacing the existing intake screen system with a new dual flow travelling screen system and support structures, installing a floating boom, debris return system, replacement boat ramp, and other structures within Agua Hedionda Lagoon, and installing a new electrical building and replacing a shed on land within the power plant and desalination facility site. Work would also include demolition and/or abandonment-in-place of structures associated with the existing screen system, including parts of the power plant intake channels and discharge channel (see Exhibit 2 – Project Layout). These project components are further detailed below.

Background

In 2007, Poseidon received its initial coastal development permit ("CDP") to construct and operate the desalination facility.¹ The facility started operating in 2016 in conjunction with the power plant, with Poseidon using the power plant's intake to pull in seawater for processing into drinking water and using the power plant's outfall to discharge the brine waste stream from the desalination facility. Poseidon used about 100 million gallons per day of the power plant's cooling water in its desalination process and used an additional approximately 200 million gallons of the cooling water per day to dilute and discharge its brine waste stream. This "co-located" operation – i.e., having the desalination facility obtain its seawater from that used in the power plant's once-through cooling system – was understood to be temporary, as the power plant for several years had been scheduled to shut down in 2018. The power plant has since retired and has been replaced with a new facility at the site that does not rely on seawater for cooling.

¹ See CDP No. E-06-013.

The Commission's original CDP approval had anticipated Poseidon's eventual "stand-alone" operations and evaluated the desalination facility's impacts and mitigation requirements as a "stand-alone" facility. The power plant's retirement did, however, result in Poseidon needing to obtain additional authorization from the San Diego Regional Water Quality Control Board to allow the new "stand-alone" operations (which, as discussed below, the Regional Board approved). Under previous Regional Board approvals, Poseidon was able to operate only when the power plant was pulling in cooling water. As a "stand-alone" facility, Poseidon was subject to additional review by the Regional Board to determine what feasible measures Poseidon could implement to "minimize the intake and mortality of marine life," pursuant to requirements of the state's Ocean Plan. The currently proposed project is meant to allow Poseidon to conform to those Regional Board requirements.

Project components

The primary project components include:

Intake screens and structure: The new system would use dual flow travelling screens having a one-millimeter mesh size and a through-slot intake water velocity of no more than 0.5 feet per second, both of which are design criteria required by the Ocean Plan. The screens operate on a roller that allows them to continually rotate through and above the water column. The system includes a high-pressure spray used to clear the screens of debris, which is emptied into a trough/pipeline and routed to a sorting area where trash would be removed before the water is routed to Poseidon's discharge basin. The screens would be housed within a structure extending about 160 feet along the width of the intake area. The structure would be about 40 feet high, with about 25 feet above the water surface and 15 feet below (at mean sea level). The structure would hold 11 dual flow screen units, with 10 intended to be active and one available for standby. The structure would also house a Large Organism Exclusion Device ("LOED"), which is a type of bar rack meant to prevent marine mammals from getting close to the intake screens. Poseidon would also install a deck along the intake structure to allow pedestrian and vehicle access for maintenance. The deck would be about 200 feet long and 30 feet wide.

Poseidon would anchor the intake structure to the lagoon floor using about 56 pilings, each about 14- to 24-inches square. The deck would be anchored with about 58 similar piles. Overall, the intake structure and deck would result in approximately 0.1 acres of permanent loss of benthic habitat.

• Floating boom: Poseidon would install a floating debris boom/curtain in front of the intake screens to block floating debris from entering the intake screens. This boom/curtain would extend from the water surface to about three to five feet below and would be anchored to the lagoon floor. It would be connected to the anchors using a riser system to allow the boom to rise and fall with tidal fluctuations. The boom would direct collected debris to either end of the boom where the debris would be collected from a workboat on an as-needed basis.

- Debris collection system: Debris collected in the screening system would be routed to a trough/pipeline system that would transport water and debris to a site near the facility's existing discharge pond. Poseidon would remove the debris and route the water into the pond for return to the ocean.
- Electrical building: Poseidon would install a prefabricated electrical building to house the electrical components needed to operate the intake screens. The building would be about 500 square feet and about 14 feet above grade.
- Boat ramp: Poseidon would remove the facility's existing boat ramp and install a new ramp at one of two locations to the northeast or northwest of the floating boom. The ramp would consist of an eight-foot square platform, a three-foot by 10-foot ramp, and a three-foot by 20-foot set of concrete stairs and platform.
- Research shed: Poseidon would remove an existing shed previously used for laboratory sampling and testing and replace it with a portable container to be sited northwest of the existing shed.
- Temporary fish farm access: During construction, Poseidon's activities will
 restrict access to the nearby Carlsbad Aquafarm operations in Agua Hedionda.
 As part of the project, Poseidon will install two temporary driveways and ramps to
 allow access for Aquafarm vehicles to and from Carlsbad Boulevard. At the end
 of construction, Poseidon will remove the ramps and restore the area and its
 curbs, gutters, and sidewalks to their currently existing conditions.
- Demolition and abandonment-in-place of Intake/discharge channels: Poseidon has relied on using the existing power plant intake and discharge channels since it started operations in 2016. With the power plant's recent shutdown, Poseidon would modify those channels to accommodate its "stand-alone" flow volumes. Poseidon will remove the existing screens and portions of the screen support structures and associated riprap within Agua Hedionda. Additionally, with rerouting of the intake flows from the new screens, Poseidon will demolish several hundred feet of the channels closest to the Lagoon. Subgrade portions of the channels further inland will be abandoned in place and filled with concrete.

During construction, other development activities would include Poseidon installing a turbidity curtain to reduce water quality effects outside of the immediate construction area, dredging and excavating about 2,200 cubic yards of the lagoon substrate to allow for installation of the intake screen structure (followed by backfill of that material), installation of a temporary work trestle to allow for pile driving activities and removal of the trestle at the end of construction.

During project operations, Poseidon would conduct several types of routine maintenance of the intake screen system, including ongoing inspections, lubricating components, replacing worn parts, etc. Poseidon expects the new dual flow screen

systems to have a service life of about 30 years, though it expects to replace the rotary chain mechanisms up to every three years or so.

Poseidon's facility operations will largely remain the same under the stand-alone configuration as they were under the previous co-located configuration. The desalination facility will continue to pull in about the same amount of seawater from Agua Hedionda, will continue to discharge about the same amount of diluted brine through the existing ocean outfall, and will continue to result in approximately the same type and amount of marine life impacts that were the basis of the Commission's previously required marine life mitigation plan approved as part of CDP E-06-013 (the original CDP). However, as part of Poseidon's preparation for the power plant retirement and the desalination facility's stand-alone operations, Poseidon recently installed more efficient seawater pumps than had been used during the power plant operations. These variable-speed pumps operate at a lower speed than the previous pumps and reduce the facility's overall electrical demand and the indirect greenhouse gas emissions generated by the facility's electricity use.

As part of this permit amendment, Poseidon has requested a modification to its Energy Minimization and Greenhouse Gas ("GHG") Reduction Plan, which the Commission required Poseidon to prepare pursuant to Special Condition 10 of the original CDP. Poseidon included in that plan (which the Commission approved in December 2008) a provision that would have allowed Poseidon to obtain GHG "offset" credits based on the concept that the water being produced at the desalination facility would result in less water being imported from Northern California or the Colorado River, thereby reducing the electrical demand for, and GHG emissions from, the systems transporting that imported water to Southern California. Subsequently, however, the Commission determined that this concept did not apply in the case of Poseidon's facility and would not contribute to Poseidon reaching the required "net zero" standard for GHG emissions, as required by the GHG reduction plan.² Additionally, the approved GHG Plan referenced a program that Poseidon intended to use to manage and account for emission offsets; however, that program no longer exists. With those changed circumstances. Poseidon has requested that the Commission modify its GHG Plan to delete the plan's references to these offset credits for imported water. **Special Condition 1** implements this requested modification by specifying that the relevant references to these import offsets be deleted from the approved plan.

Project timing

Project construction would occur over an approximately 12-month period starting in early 2023, with the new system expected to be operational by the end of December 2023.

² See R2-E-06-013 - Final Adopted Findings for Revocation, February 10, 2010.

B. Standard of Review

The project would be located in the coastal zone within the City of Carlsbad. Carlsbad has a certified Local Coastal Program (LCP), with the Agua Hedionda area being one of six designated segments of that LCP. Although most of the city's coastal zone is fully certified, the Agua Hedionda segment has only a certified Land Use Program (LUP), not a certified implementation program. Therefore, review and permitting authority within this segment remain with the Commission, with the standard of review being Chapter 3 of the Coastal Act. The Commission may also use provisions of the certified LUP as guidance.

C. Other Agency Approvals

Local permits and approvals:

- San Diego County Water Authority ("SCDWA"): SDCWA served as the CEQA Lead Agency for the proposed project and prepared and certified the Supplement to the Precise Development Plan and Desalination Plant Project Final Environmental Impact Report (EIR 03-05) (SCH #2004041081 and #2015091060).
- City of Carlsbad Precise Development Plan: Poseidon's facility is subject to the City's Precise Development Plan for the project site, which modified the previously allowable uses on the site to include the proposed desalination facility.

State permits and approvals:3

• San Diego Regional Water Quality Control Board ("Regional Board"): The project is subject to the Regional Board's Order R9-2019-0003. The Regional Board's approval includes a Determination of Compliance with Water Code Section 13142.5(b), which provides that any new or expanded industrial facility processing seawater must use the best available site, design, technology, and mitigation measures feasible to minimize the intake and mortality of all forms of marine life. The project will also be subject to requirements of the NPDES General Permit for Stormwater Discharges Associated with Construction Activity, Order 99-08-DWQ.

³ Poseidon owns the tidelands of Agua Hedionda where the proposed project would take place; therefore, the proposed development is not subject to a lease from the State Lands Commission.

⁴ The Regional Board's review included an update by Poseidon of the new intake's expected entrainment impacts, which showed that the new intake would result in approximately the same types and amounts of lost estuarine productivity as the Commission determined would occur in its original project review and approval. This resulted in the need for Poseidon to mitigate by creating about 66 acres of estuarine habitat in South San Diego Bay (see CDP No 9-14-0731). As a result, this intake modification project does not change those currently required Poseidon mitigation measures and Poseidon has not proposed any changes to those requirements.

Federal permits and approvals:

- U.S. Army Corps of Engineers ("Corps"): The project will be subject to the Corps' approval of permits under Section 404 of the federal Clean Water Act and Section 10 of the federal Rivers and Harbors Appropriation Act to allow for the discharge of dredged or fill material or structures into navigable waters of the U.S.
- U.S. Fish and Wildlife Service ("USFWS"): As part of the Corps' project review, USFWS will conduct consultation under Section 7 of the federal Endangered Species Act, the Migratory Bird Treaty Act, and the Fish and Wildlife Coordination Act to evaluate the project's potential effects on federally protected species.
- National Marine Fisheries Service ("NMFS"): As part of the Corps' project review, NMFS will conduct consultation under Section 7 of the federal Endangered Species Act, Section 104 of the Marine Mammal Protection Act, and Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act to ensure protection of marine life and of Essential Fish Habitat.

<u>Special Condition 2</u> requires Poseidon to submit, prior to construction, documentation that it has received all the above necessary permits and approvals or that the permits and approvals are not necessary.

D. Marine Resources and Water Quality

Section 30230 of the Coastal Act states:

Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.

Section 30231 of the Coastal Act states:

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.

The proposed project includes construction within and along the shoreline of Agua Hedionda Lagoon, an estuary that provides significant habitat values while also supporting extensive use for various types of development. Along with providing source water for Poseidon's desalination facility, the Lagoon supports aquaculture, recreational activities, transportation corridors, and other forms of development. Even with this extensive development, the Lagoon includes areas dedicated to habitat protection and supports numerous marine species. About 186 acres of the Lagoon's Inner Basin and shoreline are protected as part of the California Department of Wildlife's Agua Hedionda Ecological Reserve, which was established in 2002 to protect several habitat types, including salt marsh, riparian forest, and others. Agua Hedionda is also one of 19 estuary systems along the California coast that require enhanced protection pursuant to Coastal Act Section 30233(c) in recognition of its value to marine life (see additional information in Section IV.E of these Findings). The Lagoon supports numerous species, including at least 70 known fish species and an abundance of marine invertebrates, and provides habitat to many resident and migratory waterfowl. Entrainment data collected as part of Poseidon's initial construction and ongoing operations have not shown that the facility causes adverse effects to any known sensitive species.

Effects on marine life and water quality

As noted in the project description above, project construction would involve dredging and excavation, placement of structures within and above the Lagoon, use of heavy equipment above and near coastal waters, and other related activities, any of which have the potential to cause adverse effects to the estuary's marine life and water quality. The operation of the new screening and discharge modifications would result in impacts similar to those of the co-located facility and which the Commission previously reviewed in approving the original CDP. For example, the co-located and the modified stand-alone facility are designed and operated to take in and discharge about the same volume of seawater and result in about the same level of adverse effects on marine life. These volumes and their expected effects served as the basis for the Commission's previous requirements for Poseidon to conduct the type and amount of compensatory mitigation Poseidon will soon be implementing. One improvement that the modified screen and discharge system will provide over the current system is that Poseidon will be able to collect debris more effectively that might otherwise remain in coastal waters. This and the project's construction-related impacts are described below.

Regarding construction, Poseidon has included in its project several measures that will avoid and reduce some potential impacts, though the Commission must require several Special Conditions to ensure the project can fully conform to relevant Coastal Act provisions. Poseidon has selected a site for the new in-water structures in a part of Agua Hedionda that has long been subject to disturbance due to the ongoing dredging needed to support power plant and desalination operations. The benthic substrate in this part of the Lagoon consists largely of sandy/muddy areas that are fairly ubiquitous to the Lagoon and do not provide sensitive habitat. The project would therefore avoid direct effects to sensitive species such as eelgrass that might be affected at other nearby Lagoon locations. Poseidon has also minimized the footprint of fill to be placed

within the Lagoon, and with its project including removal of some areas of riprap and other nearby structures, it will result in less fill in the Lagoon than is currently present.

The project is also subject to provisions of the Order the Regional Board issued to Poseidon that require the facility to implement a number of Best Management Practices consistent with U.S. Environmental Protection Agency ("EPA") standards, which are meant to address proper handling of materials, prevent spills and leaks, disposal of waste, and other aspects of facility operations.⁵

A key part of Poseidon's project is its inclusion of a floating boom and a debris collection system, both of which are primarily meant to protect the new screens and the facility, but that would also act to remove debris that would otherwise remain in the waters of Agua Hedionda or deposited into the Pacific Ocean The boom is designed so that trapped debris is transported to one side where it is collected for disposal, while the collection system allows Poseidon to remove and collect debris trapped by the screens before it might otherwise either enter the facility or be discharged into the ocean. To ensure these project components are constructed and operated so as to effectively remove debris, Special Condition 3 requires Poseidon to submit, for Executive Director review and approval, a Marine Debris Removal and Management Plan that describes how these systems will operate, their effectiveness in removing debris from coastal waters, and the measures Poseidon will implement to manage these systems.

Additionally, and as noted above, this is an amendment to Poseidon's original CDP, which included several Special Conditions applicable to the original facility construction and meant to protect marine life and water quality (see Exhibit 3 — Special Conditions of CDP E-06-013). For purposes of this amendment, two of the conditions that applied to the initial construction of Poseidon's facility are restated herein and modified to apply to the currently proposed project. Special Condition 4 of this permit restates the relevant requirements of the original permit's Special Condition 15, which required Poseidon to submit a Construction Plan describing a number of Best Management Practices ("BMPs") meant to avoid and minimize potential construction-related impacts to marine life and water quality. Special Condition 4 of this permit also restates Special Condition 16 of the original permit, which required that Poseidon implement several additional BMPs to ensure construction-related stormwater impacts were avoided and minimized.

In addition, and to address potential spills of fuel or other hazardous materials, Special Condition 5 requires Poseidon to submit, for Executive Director review and approval, a Hazardous Materials Management and Contingency Plan. This plan is to identify the maximum potential spills of any hazardous materials being used during project construction and to identify all measures implemented to prevent their uncontrolled release. The plan would also require Poseidon to identify all equipment and personnel that will be available on site if needed to respond to potential spills or releases of those

⁵ See U.S. EPA Guidance Manual for Developing Best Management Practices (EPA 833-B-93-004, cited in Regional Board Order No R9-2019-0003.

materials, daily inspection measures to ensure all equipment is available and in working order, and the communication protocol to relevant agencies (e.g., U.S. Coast Guard, California Office of Spill Prevention, etc.) that Poseidon would implement in the event of a spill.

Further, and in recognition of the hazards and risks that accompany projects such as this that involve construction and operation in coastal waters and that are subject to various coastal hazards, such as flooding, tsunami, sea level rise, and others, Special Condition 6 requires Poseidon to acknowledge that such hazards exist and to indemnify the Commission for any damage that may occur due to such hazards through the Commission's approval of this project.

Conclusion

Although the Commission finds that the proposed project has the potential to adversely impact marine resources, water quality, and the biological productivity of coastal waters, with implementation of Special Conditions 2, 3, 4, and 5, the project would be carried out in a manner in which marine resources and water quality are maintained, species of special biological significance are ensured special protection, the biological productivity of coastal waters is sustained, and healthy populations of all species of marine organisms will be maintained. In addition, the proposed project, as conditioned, would maintain the biological productivity of coastal waters appropriate to maintain optimum populations of marine organisms. The Commission therefore finds the proposed project, as conditioned, is consistent with the marine resource sections (Sections 30230 and 30231) of the Coastal Act.

E. Fill in Coastal Waters

Coastal Act Section 30233(a) states, in relevant part:

The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects, and shall be limited to the following:

(1) New or expanded port, energy, and coastal-dependent industrial facilities, including commercial fishing facilities...

Coastal Act Section 30233(b) states:

Dredging and spoils disposal shall be planned and carried out to avoid significant disruption to marine and wildlife habitats and water circulation. Dredge spoils suitable for beach replenishment should be transported for these purposes to appropriate beaches or into suitable longshore current systems.

Coastal Act Section 30233(c) states, in relevant part:

In addition to the other provisions of this section, diking, filling, or dredging in existing estuaries and wetlands shall maintain or enhance the functional capacity of the wetland or estuary. Any alteration of coastal wetlands identified by the Department of Fish and Game, including, but not limited to, the 19 coastal wetlands identified in its report entitled, "Acquisition Priorities for the Coastal Wetlands of California", shall be limited to very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay, if otherwise in accordance with this division...

Coastal Act Section 30233 generally requires that fill and dredging in coastal wetlands and estuaries be limited to certain types of uses, that those activities be allowed only where there are no feasible less environmentally harmful alternatives, and that they be mitigated to the extent feasible. It also requires that dredging be implemented in a manner that avoids significant disruption to marine and wildlife habitats and to water circulation. Section 30233(c) further imposes a more limited set of allowable uses in some wetlands, including Agua Hedionda Lagoon. Because Agua Hedionda Lagoon is one of the 19 coastal wetlands subject to the use limitations of Coastal Act Section 30233(c), that subsection serves for this proposed project as an additional standard of review for allowable uses.

The analysis in this Section E applies only to the dredging and fill proposed as part of this permit amendment and as needed to implement this intake modification project – i.e., excavating and removing approximately 1300 cubic yards of material, including some existing riprap around the existing structures, placing structures associated with the modified intake system, and backfilling part of the excavated material. The ongoing dredging Poseidon conducts to maintain the Lagoon so it can operate the desalination facility is subject to review and approval under separate CDPs, pursuant to the requirements of Poseidon's CDP E-06-13.6

Analysis of conformity to Coastal Act Section 30233

The proposed project is subject to all three of the subsections of Section 30233. As described below, it would conform to the first two subsections, but would not conform to the third. However, pursuant to Coastal Act Section 30260, because the project involves a coastal-dependent industrial facility, the Commission may consider approving the project despite its nonconformity, as addressed in Section IV.G of these Findings.

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⁶ Special Condition 12 of CDP E-06-013 states: "This permit does not authorize dredging that may be needed to maintain flows to the desalination facility's intake structure. The Permittee shall submit separate coastal development permit applications for proposed dredging operations."

Section 30233(a): The project is subject to the three-part test of Section 30233(a) to determine 1) whether the proposed dredging and filling is for an acceptable use, 2) whether there are feasible and less damaging alternatives, and 3) whether feasible mitigation measures are included to minimize adverse environmental effects. For the first test – as noted previously, the Commission previously determined under the findings for CDP X-X-XX that this Poseidon facility is a coastal-dependent industrial facility. The proposed project would involve a minor increase in the facility's overall footprint, so is therefore considered an expansion of a coastal-dependent industrial facility, which is an allowable use under Section 30233(a).

Regarding the second test for alternatives – the currently proposed project is the result of a comprehensive alternatives analysis conducted by Poseidon and the Regional Board to determine which of more than 20 alternative intake designs could be considered the "best available alternative feasible for minimizing the intake and mortality of marine life," as required by the state's Ocean Plan. The Regional Board reviewed variations of several main designs, including intakes that would be located outside of Agua Hedionda in the nearshore waters of the ocean, intakes that would be sited at alternative locations within the Lagoon, and intakes that would have used several different screen or conveyance methods to transport water to Poseidon's facility. The Regional Board had initially determined that a different system than that currently proposed would have conformed to the Ocean Plan requirements. This previously approved system would have required Poseidon to install new pipelines along several hundred feet of the Lagoon bottom with screens installed at the end of those pipelines near the middle of the Lagoon's Outer Basin. Under that previously approved design, Poseidon would have conveyed its source water through the new screens and pipelines to a location near the existing power plant intake and into the desalination facility. Based on that previously approved system, Poseidon first constructed and operated a pilot facility to test the feasibility of this system and to compare two different screening options. Results from operating this pilot facility showed that the selected screens and pipes experienced serious marine biofouling that required the facility to shut down while the system was cleaned. Poseidon extrapolated results from the pilot facility showing that installing a full-scale version of this intake system at the desalination facility could have resulted in the facility needing to shut down for up to several months per year so that the ongoing biofouling could be removed. This would have resulted in Poseidon producing far less potable water from the facility than anticipated by local water districts.7

In response to the pilot test results, Poseidon then proposed the current design, which Regional Board staff determined would also meet Ocean Plan requirements. This current proposal would also result in less fill in coastal waters – the structures would cover about 0.1 acres compared to the previous design's approximately 0.2 acres and would result overall in removal of about 1329 cubic yards of material with backfill and

⁷ See December 22, 2021 letter from Poseidon to San Diego Regional Water Quality Control Board.

placement of about 928 cubic yards. This design would also have fewer potential water quality impacts from ongoing maintenance and repair needs, as most of that work would be land-based rather than requiring boat- and barge-mounted heavy equipment that had a higher potential for spills of fuel or other hazardous materials into the Lagoon. The currently proposed project would also have fewer effects on existing water circulation patterns within the Lagoon, as it would be sited at the same location as the existing intake, rather than several hundred feet away in the middle of the Lagoon's Outer Basin. With the Regional Board's review of multiple potential alternatives, and with the currently proposed project's further reduction in impacts compared to the previous version, the proposed project meets the second test of Section 30233(a).

Regarding the third test for mitigation to the extent feasible – as described in Section IV.D of these Findings, Poseidon's project incorporates several elements meant to avoid or minimize impacts to the Lagoon's water quality and marine life. These include its location away from sensitive habitat areas, its minimization of the amount of fill the project would place within coastal waters, among other elements. Additionally, Special Conditions 2, 3, 4, and 5, would further reduce those potential impacts and allow conformity to relevant Coastal Act provisions. The project would therefore conform to all three provisions of Section 30233(a)

Section 30233(b): This section requires that dredging and spoils disposal be done in a manner that avoids significant disruption to habitat and water circulation. As noted elsewhere in these Findings, the proposed intake modifications are located adjacent to the existing intake, which continuously draws in about 300 million gallons per day of water from the Lagoon. The proposed intake would maintain that same intake volume. Additionally, the intake is located at the furthest point in the Outer Basin from the Lagoon inlet, which results in the water circulation in the intake area being driven primarily by the intake flows rather than the natural tidal flows. The proposed project will therefore result in little, if any, disruption to this existing circulation pattern and will cause no more than minimal changes to the habitat characteristics in this part of the Lagoon. The project would therefore conform to the provisions of Section 30233(b).

Section 30233(c): This section establishes that alterations to certain wetlands included in the California Department of Fish and Game report, "Acquisition Priorities for the Coastal Wetlands of California," must be limited to "...very minor incidental public facilities, restorative measures, nature study, commercial fishing facilities in Bodega Bay, and development in already developed parts of south San Diego Bay...". The report lists 19 of California's most productive coastal wetlands, which include Agua Hedionda Lagoon, and identifies high priority wetlands for acquisition, based primarily on their values for fish and wildlife habitat and threats to their continued existence as a natural resource. Section 30233(c) also requires that any dredging in these wetlands maintain or enhance their functional capacity.

Agua Hedionda Lagoon as it currently exists is a highly engineered coastal lagoon, with a history of parts of it being fully or partially filled for rail and highway crossings and more than a half-century of power plant operations that included ongoing intake of

cooling water and regular dredging activities for the power plant's intake system. The Lagoon is on the state's list of impaired waterbodies due in part to high rates of sedimentation resulting from urban runoff being discharged into the Lagoon. The high sedimentation rates also result from the ongoing imbalance between tidal inflow and outflow caused by the power plant's and desalination facility's intake of large volumes of water from the Lagoon. Normally, the tidal inflow and outflow each day would be about the same; however, the withdrawal of about 300 million gallons per day of Lagoon water through the intake system removes a substantial volume of water that would otherwise be tidal outflow that would flush out some portion of the sediment build-up.

Despite this history of ongoing adverse impacts, the Lagoon continues to provide valuable habitat. It includes extensive areas of open water habitat, eelgrass beds, and various types of wetlands, and it provides significant habitat benefits to a number of species. Areas of the Lagoon where plant and animal life is especially valuable due to its special nature in the ecosystem include the Agua Hedionda Lagoon State Marine Reserve and Ecological Reserve, which covers about 180 acres extending along about a half-mile of the Lagoon's Inner Basin.⁸

Regarding the provision of Section 30233(c) that dredging maintain or enhance the functional capacity of the Lagoon, the dredging required for this project would cover a relatively small area of the Lagoon – about one-tenth of an acre of the Lagoon's more than 300 acres – and would be adjacent to Poseidon's intake, which both provides water circulation within this area of the Lagoon and removes much of the biological productivity that occurs at and near this part of the Lagoon. As noted above under 30233(b), the proposed project would not modify Poseidon's currently approved intake volumes or velocities and therefore the dredging associated with this project would maintain the existing conditions and functional capacity of the Lagoon, thereby conforming to this provision of Section 30233(c).

However, the proposed project is not one of the uses allowed in Agua Hedionda under Section 30233(c), which are limited to "very minor incidental public facilities, restorative measures, [and] nature study...". ⁹ The project's proposed dredging, placement of

⁸ Pursuant to Section 1580 of the state Fish and Game Code, the Reserve is to be managed to:

[&]quot;...protect threatened or endangered native plants, wildlife, or aquatic organisms or specialized habitat types, both terrestrial and nonmarine aquatic, or large heterogeneous natural gene pools for the future use of mankind through the establishment of ecological reserves."

⁹ Past Commission decisions have interpreted "minor" and "incidental" activities as those that are temporary in nature and for which no alternatives exist. For example, in a decision approving the placement of pilings within Agua Hedionda Lagoon to support an existing rail line (Consistency Certification #CC-52-05), the Commission found that determining whether to allow an "incidental" public use under Section 30233(c) should also consider whether there are feasible alternatives to the proposed wetland use. The Commission approved the project in part because there were no alternatives, because the project would not affect the functional capacity of the lagoon, and because it did not increase the capacity of the rail line.

structures, and backfilling within the Lagoon is not for a "very minor incidental public facility," and is not a restorative measure or nature study. Therefore, the project's proposed use of the Lagoon does not conform to this provision of Section 30233(c).

Conclusion

As described above, the Commission finds that the project is consistent with most applicable provisions of Section 30233 but is inconsistent with the "allowable use" provision of Section 30233(c). The proposed project would involve an alteration of Agua Hedionda Lagoon not permitted by Coastal Act Section 30233(c). Nonetheless, because the proposed project is part of a "coastal dependent" industrial facility, the Commission may therefore evaluate it under Coastal Act Section 30260, which allows such projects to be approved in some instances even when they are found to be inconsistent with other Coastal Act provisions. The analysis and findings related to Section 30260 are in Section IV.G of these Findings.

F. Coastal Access and Recreation

Coastal Act Section 30210 states:

In carrying out the requirement of Section 4 of Article X of the California Constitution, maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all the people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.

Section 30211 of the Coastal Act states:

Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.

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In another example, the Court of Appeals recognized the Commission's approach as a permissible interpretation of the Coastal Act and supported the Commission's interpretation of "incidental" public service. In the case of Bolsa Chica Land Trust et al., v. The Superior Court of San Diego County (1999) 71 Cal.App.4th 493, 517, the court found that: "... we accept Commission's interpretation of sections 30233 and 30240... In particular we note that under Commission's interpretation, incidental public services are limited to temporary disruptions and do not usually include permanent roadway expansions. Roadway expansions are permitted only when no other alternative exists and the expansion is necessary to maintain existing traffic capacity."

¹⁰ This approach is similar to the Commission's Findings for Poseidon's original CDP, which also identified this nonconformity with allowable uses within Agua Hedionda Lagoon and then applied the Section 30260 "override" to approve Poseidon's proposed facility.

Coastal Act Section 30212(a) states:

Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or (3) agriculture would be adversely affected. Dedicated accessway shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.

The proposed project activities would primarily occur within the portion of Agua Hedionda and its shoreline owned by Poseidon. This area of the Lagoon has long been, and is currently, used for industrial purposes and aquaculture activities and provides no public access or recreational opportunities; instead, other areas of Agua Hedionda are readily accessible to the public and are used extensively for recreation, boating, fishing, and other forms of recreation. Due to safety concerns regarding these existing industrial and aquacultural uses, it is not feasible to provide public access at or near the project area. The proposed project activities in this area of Agua Hedionda would be consistent with these existing access limitations and are therefore not expected to adversely affect existing public access to these coastal waters or this shoreline.

Part of the project, however, involves modifying part of Carlsbad Boulevard, which is a main public accessway within the City that provides public access to the shoreline. During project construction, Poseidon's activities would block or limit access to the adjacent Carlsbad Aquafarm, which leases part of Agua Hedionda from Poseidon. To allow for continued access, Poseidon has included in its project installation of a temporary driveway along Carlsbad Boulevard to allow access for Aquafarm personnel and equipment. Installing the driveway would require Poseidon to remove a few dozen linear feet of curbing and gutters along Carlsbad Boulevard and modify the adjacent sidewalk.

The project activities would result in two main types of temporary and relatively minor effects on public access to the shoreline. The slight increase in traffic resulting from project construction vehicles would create no more than a de minimis effect on access. The structural changes to the curbing, gutter, and sidewalk, by comparison, would cause slightly more significant adverse effects by temporarily disrupting the existing access provided by the road and sidewalk. To address these impacts, Poseidon has proposed as part of its project to return these components to their currently existing conditions at the end of project construction. To ensure that existing public access is not diminished, Special Condition 7 requires Poseidon to submit documentation prior to the start of construction showing the existing access conditions along this area of Carlsbad Boulevard and to submit additional documentation at the end of the project showing that the area has been restored to those existing conditions.

Conclusion

With the safety concerns expressed above, and with the presence of adequate public access areas nearby, the Commission finds that the proposed project does not need to provide additional public access or recreational opportunities. With inclusion of Special Condition 7, the Commission finds that the project would maintain existing public access and recreational opportunities, and therefore is consistent with relevant provisions of the Coastal Act.

G. Cultural Resources and Tribal Consultation

Section 30244 of the Coastal Act states:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Agua Hedionda was within the territory of several Tribal groups and served as an important source of Tribal resources for millennia. Its rich estuarine habitats and its location adjacent to the ocean and to nearby upland areas provided an important and diverse array of food sources and other materials used as part of Tribal life. With recent development of the area, many of those resources have been diminished and the disturbance that accompanied the last several hundred years of development has resulted in the loss of many of the Tribal artifacts and remains that once were present. The project site has been substantially altered over the past half-century or more due to the construction and excavation required to build the power plant and due to ongoing dredging within this part of Agua Hedionda. Nonetheless, the Lagoon retains much of its cultural significance and includes areas where these resources remain.

Tribal consultation for this project initially occurred through the San Diego County Water Authority ("SDCWA"), which served as the CEQA Lead Agency for the proposed project. SDCWA's consultation included review with the Native American Heritage Commission, which identified no Tribal cultural resources within the areas the project would affect, in part due to the site being subject to ongoing dredging disturbance since the 1950s. SDCWA also consulted with the San Luis Rey Band of Mission Indians, the Pala Band of Mission Indians, and the Rincon Band of Luiseno Indians. As noted in the project's Supplemental Environmental Impact Report ("SEIR"), the Tribes requested, and have been provided, the ability to monitor the site and project activities during ground-disturbing activities.

To provide follow-up Consultation as part of the Commission's 2018 Tribal Consultation Policy, Commission staff recently contacted the Rincon Band of Luiseno Indians to determine whether there were additional concerns or requests for additional measures regarding Tribal resources. The Tribe's representative indicated they would review several documents provided by staff, including these recommended Findings. Staff will continue to consult and will identify any new concerns or recommendations as part of an addendum to this report.

H. Coastal-dependent Industrial Facility "Override"

Coastal Act Section 30101 states:

"Coastal-dependent development or use" means any development or use which requires a site on, or adjacent to, the sea to be able to function at all.

Coastal Act Section 30260 states:

Coastal-dependent industrial facilities shall be encouraged to locate or expand within existing sites and shall be permitted reasonable long-term growth where consistent with this division. However, where new or expanded coastal-dependent industrial facilities cannot feasibly be accommodated consistent with other policies of this division, they may nonetheless be permitted in accordance with this section and Sections 30261 and 30262 if (1) alternative locations are infeasible or more environmentally damaging; (2) to do otherwise would adversely affect the public welfare; and (3) adverse environmental effects are mitigated to the maximum extent feasible.

Coastal Act Section 30260 allows special consideration for coastal-dependent industrial facilities that may otherwise be found inconsistent with the Coastal Act's Chapter 3 policies. Such coastal-dependent proposals must first be evaluated for consistency to all other applicable policies and standards contained in Chapter 3. If the Commission finds that a proposal is inconsistent with any Chapter 3 policy, Section 30260 provides that the Commission may nonetheless approve these types of proposals, notwithstanding their inconsistencies with those other policies, but only upon application of a three-part test: (1) that alternative locations are infeasible or more environmentally damaging; (2) that adverse environmental effects are mitigated to the maximum extent feasible; and (3) that to do otherwise (i.e., to deny the project) would adversely affect the public welfare.

Poseidon's proposed intake modifications would be an expansion of an existing desalination facility that the Commission previously determined was a coastal-dependent industrial facility that needed to be sited on or adjacent to the sea in order to function at all. As determined previously in these findings, the Commission concurs that this proposed project, as conditioned, would conform to all relevant applicable Coastal Act policies except Section 30233(c). Therefore, should the Commission wish to approve the project, it must apply the three-part test of the Section 30260 "override." As shown in the discussion below, the Commission concludes that the project, as conditioned, meets the three tests of Section 30260 and thereby conforms to this Coastal Act policy. Each of the three tests is applied below.

Test 1 – Alternative locations are infeasible or more environmentally damaging: As noted above in Section IV.E, the location and design of the proposed intake and discharge modifications are the product of an extensive alternatives analysis conducted by the Regional Board and Poseidon. There were more than 20 alternative locations and methods considered for the proposed intake modification, and the Regional Board concurred that the proposed project is the best available alternative feasible for minimizing the intake and mortality of marine life, as required by the state's Ocean Plan. With the refinements recently added by Poseidon to reduce the previously proposed alternative's footprint, the currently proposed modifications would further reduce the area of affected coastal waters covered by the project to about one-tenth of an acre within Agua Hedionda Lagoon. The current proposal would also eliminate much of the need for in-water maintenance that the previous proposal would have required, as the layout now allows for most cleaning, repair, and other activities to be land-based. This further reduces the amount of potential environmental harm that could result from the proposed project. With the extensive alternatives analysis noted above, and with these further refinements, the Commission finds that there are no feasible, less environmentally damaging alternatives to the proposal.

Test 2 – To not permit the development would adversely affect public welfare: Section 30260's second test provides that coastal-dependent industrial development may be permitted if to do otherwise would adversely affect the public welfare. This test requires more than a finding that, on balance, a project as proposed is in the interest of the public. It requires that the Commission find that there would be a detriment to the public welfare were the Commission to deny the project.

The Commission previously determined for Poseidon's initial coastal development permit that constructing and operating the facility would meet this test. The Commission now recognizes that it is clearly in the interest of the state to have seawater desalination facilities such as the Carlsbad facility fully comply with applicable provisions of the state's Ocean Plan, whose requirements are meant to protect the public's marine resources and water quality. With the retirement of the power plant at this site, Poseidon's now stand-alone desalination facility, in order to continue providing part of the San Diego region's water supply, must include the Regional Board-approved modifications to allow conformity to those protective Ocean Plan requirements. The Commission therefore finds that it would not be in the public interest to deny the project, which is meant to allow the continued operation of a facility providing water to the public and meant to allow the facility to meet state requirements for water quality and marine life protection. he proposal therefore meets the second test of Section 30260.

Test 3 – Adverse environmental effects are minimized to the maximum extent feasible: Section 30260's third test requires that a proposed project include maximum feasible mitigation measures. Poseidon's proposal meets this test of Section 30260 through imposition of **Special Conditions 1 through 7**, all of which require that Poseidon implement mitigation measures to minimize potential adverse environmental effects to the maximum extent feasible.

I. Violation

As noted above in the Summary, a violation of the Coastal Act exists with respect to Poseidon's failure to comply with the terms and conditions of CDP No. 9-14-0731, which the Commission approved in 2019 to authorize Poseidon to conduct wetland mitigation needed to address the marine life and water quality effects of Poseidon's desalination facility that the Commission approved in 2007 under CDP No. E-06-013. The wetland mitigation CDP required Poseidon to start the mitigation work by October 30, 2021, but this has not yet occurred and is now scheduled to commence in Fall of 2022. Staff notified Poseidon of the violation through a Notice of Violation letter sent on February 11, 2022, and is pursuing enforcement of that violation as a separate matter. Approval of this proposed intake and discharge modification project will not resolve the outstanding violation. Although a violation of CDP No. 9-14-0731 exists, consideration of this proposed project by the Commission has been based solely upon the relevant provisions of Chapter 3 of the Coastal Act.

J. California Environmental Quality Act

Section 13096 of the Commission's administrative regulations requires Commission approval of coastal development permit applications to be supported by a finding showing the application, as modified by any conditions of approval, to be consistent with any applicable requirements of the California Environmental Quality Act ("CEQA"). Section 21080.5(d)(2)(A) of CEQA prohibits approval of a proposed development if there are feasible alternatives or feasible mitigation measures available that would substantially lessen any significant impacts that the activity may have on the environment. The project as conditioned herein incorporates measures necessary to avoid any significant environmental effects under the Coastal Act, and there are no less environmentally damaging feasible alternatives or mitigation measures. Therefore, the proposed project is consistent with CEQA.

APPENDIX A – SUBSTANTIVE FILE DOCUMENTS

Coastal Development Permit Application No. 9-22-0535 and associated file documents.

Supplement to the Precise Development Plan and Desalination Plant Project Final Environmental Impact Report (EIR 03-05) (SCH #2004041081 and #2015091060).