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STAFF REPORT: MATERIAL AMENDMENT

Application No.:	9-20-0691-A1
Applicant:	South Coast Water District
Agent:	Kevin Thomas, Kimley-Horn Consultants
Location:	City of Dana Point and Doheny State Beach, Orange County
Project Description:	Modify permit to authorize slant well field and associated water conveyance and pump-infrastructure at the North Day Use Area of Doheny State Beach and other minor design modifications.
Staff Recommendation:	Approval with conditions

SUMMARY OF STAFF RECOMMENDATION

South Coast Water District (SCWD) requests an amendment to Coastal Development Permit (CDP) No. 9-20-0691 to modify the location of the yet-to-be constructed seawater intake system for its previously approved Doheny Ocean Desalination Project. CDP No. 9-20-0691 conditionally approved construction and operation of a desalination facility in the City of Dana Point and at Doheny State Beach in Orange County. The facility is still being developed and is designed to produce up to 5 million gallons per day (mgd) of potable water for use within SCWD's service area, which currently relies on imported water for roughly 90% of its supply despite extensive demand reduction and water conservation programs.

The Doheny Ocean Desalination Project was the first in the state to incorporate the preferred intake and discharge design features of the California Ocean Plan to minimize impacts to marine resources. To avoid entrainment and impingement of marine life, the facility would use slant wells, angled wells drilled beneath the seafloor into seawater-saturated sediments, to draw in naturally filtered seawater. To minimize

discharge-related impacts, the facility would also co-locate its brine discharge with an existing wastewater treatment outfall.

The approved project included below-grade slant-well pods and associated subsurface conveyance infrastructure located within the Doheny State Beach campground. SCWD now requests an amendment to relocate the Commission-approved, but not yet constructed, slant-well intake systems and subsurface conveyance pipelines to the North Day Use Area (NDUA) of Doheny State Beach. This change is necessitated by updated geotechnical data indicating that the approved location for the slant wells would not intersect sediments with the necessary depth, extent and permeability to reliably extract the volume of seawater needed for the desalination facility. Constructing the well field at the NDUA rather than the initially proposed and permitted location in the campground area of Doheny State Beach would allow the four slant wells to access more suitable alluvial sediments and reliably supply the approximately 10 mgd of seawater needed to meet the facility's 5 mgd potable water production target. The modified slant-well location would shift public access and recreation impacts from the Doheny State Beach campground (the permitted location for the wells in the original CDP) to the NDUA (under this proposed amendment). The amended project would require closing a portion of the NDUA parking lot and an adjacent picnic area for approximately two years. Once completed, all project components within the NDUA, except for the electrical building adjacent to the new bathroom, would be at or below grade. As a result, the project would not create permanent parking impacts and would remain relatively unobtrusive, causing no more than minimal disruption to the public's ongoing use of the NDUA.

To ensure the construction related impacts to public coastal access and recreation are mitigated, new [Special Condition 17](#) requires SCWD to work with State Parks to develop a plan identifying how and where equivalent parking and access opportunities will be provided during periods when demand would exceed the reduced capacity of the NDUA lot. Additionally, SCWD is continuing to collaborate with State Parks to provide long-term coastal access benefits by implementing improvements to the campground area.

The new proposed slant-well location would be exposed to similar hazards as the original location, including seismic events, tsunamis, and flooding from coastal storms. SCWD's amended construction schedule would begin work in Fall 2026 and overlap with the very strong El Niño conditions expected during the 2026–2027 winter season. To ensure construction activities and equipment are not threatened by storm conditions and do not create or contribute to geologic instability or coastal resource damage, new [Special Condition 18](#) requires preparation of a Coastal Storm Contingency Plan addressing stabilization of heavy equipment, protection of the construction site from flooding, and securing materials and equipment from wave overtopping and inundation. This condition supplements the Commission's original hazard-mitigation requirements, including designing the project to operate safely amid potential hazards, preparing disaster response plans, monitoring coastal erosion rates, and implementing a flood-minimization plan, contained in [Special Conditions 1 and 8 – 13](#) of the original CDP.

With the recommended special conditions incorporated into the CDP amendment, Commission staff recommends that the Commission find the amended project consistent with the Coastal Act. Staff therefore recommends that the Commission **APPROVE** CDP amendment application 9-20-0691-A1, as conditioned. The motion is on **Page 4**. The standard of review is Chapter 3 of the Coastal Act.

TABLE OF CONTENTS

I.	Motion and Resolution	4
II.	NEW and Modified Special Conditions.....	4
III.	Findings and Declarations.....	10
	A. Project Description and Background	10
	B. Other Agency Approvals.....	15
	C. Public Access and Recreation	17
	D. Seismic and Coastal Hazards	21
	E. California Environmental Quality Act	25
IV.	Substantive File Documents.....	25
	APPENDIX A.....	27

APPENDICES

Appendix A – Original Conditions from CDP No. 9-20-0691

EXHIBITS

Exhibit 1 – Project Location and Site Map

Exhibit 2 – Previously Approved Project Well Field within Doheny State Beach

Exhibit 3 – Slant Well Schematic Diagram

Exhibit 4 – Desalination Facility Site Plan

Exhibit 5 – Amended Project Well Field within Doheny State Beach

Exhibit 6 – Amended Construction Scheule Project Map

Exhibit 7 – North Day Use Area Construction Footprint: Nov 2026 – Nov 2028

Exhibit 8 – North Day Use Area Construction Footprint: Feb 2027 – Sep 2027

Exhibit 9 – North Day Use Area Construction Footprint: Jul 2027 – Sep 2027

Exhibit 10 – EIR Addendum No. 2, Mitigation Measures

I. MOTION AND RESOLUTION

Motion:

I move that the Commission **approve** Coastal Development Permit Amendment No. 9-20-0691-A1 pursuant to the staff recommendation.

Staff Recommendation:

Staff recommends a **YES** vote on the foregoing motion. Passage of this motion will result in approval of the permit amendment 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:

The Commission hereby approves Coastal Development Permit Amendment 9-20-0691-A1 on the grounds that the development, as amended and subject to the conditions, will be in conformity with the policies of Chapter 3 of the Coastal Act. Approval of the permit amendment 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 amended development on the environment, or 2) there are no feasible mitigation measures or alternatives that would substantially lessen any significant adverse impacts of the amended development on the environment.

II. NEW AND MODIFIED SPECIAL CONDITIONS

Except as modified by this amendment, all standard and special conditions in the original Coastal Development Permit 9-20-0691 (see [Appendix A](#)) remain in effect and are incorporated herein. This permit amendment is granted subject to the following amended and new conditions as shown below in ~~striketrough~~ and underlined text.

Modified Existing Special Conditions

Special Condition 4 is modified as follows:

- 4. Doheny State Beach Campground Improvements and Modifications.** PRIOR TO THE START OF CAMPGROUND CONSTRUCTION ACTIVITIES, the Applicant shall submit, for Executive Director review and approval, a Public Access and Recreation Enhancement Plan ("Enhancement Plan") developed in consultation with, and approval from, California State Parks that specifies access and recreation improvements to be constructed at Doheny State Beach Campground. Measures included in the Enhancement Plan shall include those described in the State Parks Conceptual Agreement letter dated September 8, 2022. The Enhancement Plan

shall include:

- a) Site map: a map showing the location of the proposed campground improvements.
- b) Campsite improvements: a description of the type and number of all new, improved, or replaced campsite amenities, including the number and type of utility hookups (water, sewer, and electrical services, including solar powered components), signage, kiosks, etc.
- c) Vehicular, pedestrian and bike access improvements: a description of all modifications to the campground's vehicular circulation and parking areas, and to pedestrian and bike paths, and opportunities for solar-powered electric vehicle charging stations.
- d) Interpretive areas modifications: a description of all modifications to the existing interpretive center and amphitheater and all new, replaced, or improved components to be replaced with a new interpretation and education area.
- e) Restroom facilities: the design, location, and layout of the improved restroom facilities, including a description of all energy and water conservation measures that will be incorporated.
- f) Landscape modifications: a description of the areas of landscaping to be restored and replanted, the number and types of species (e.g. native species to reduce watering needs) to be planted, and any other improvements needed to support or protect these areas (e.g., irrigation systems, fencing, etc.).

In addition to the enhancement elements identified in the Conceptual Agreement, the Plan shall include:

- g) Accommodating the California Coastal Trail: The Plan shall identify any feasible measures to facilitate the potential future location of a segment of the California Coastal Trail ("CCT") within the Park property. This may include creating or maintaining an ingress and egress connection to the current CCT at the bridge sidewalk adjacent to the Pacific Coast Highway and San Juan Creek.
- h) Day use enhancements at Doheny State Beach: The Plan may also identify any proposed improvements to other parts of Doheny State Beach that would benefit day-use visitors.
- i) Modifications to benefit underserved or lower-income communities: The Plan shall identify all measures that will be implemented to provide maximum feasible access to underserved or lower-income communities at the improved Doheny State Beach campground. These may include, but are not limited to:
 - i. Construction of low-cost camping cabins or shelters;
 - ii. Implementation of a modified fee schedule for lower-cost camping opportunities and an identification of the percentage of sites at the campground subject to the modified fee;

- iii. Provision of a shuttle service from an inland location to facilitate inland/underserved community access to Doheny State Beach; and
- iv. Outreach measures to be conducted to inform these communities of these opportunities, including a description of the types of media to be used, the languages to be included, and the frequency of communications.

Schedule: The Enhancement Plan shall include a proposed schedule that identifies expected timelines for environmental review, planning, funding, permitting, and construction needed to implement the proposed enhancement measures. All reasonable measures shall be taken to ensure swift implementation to minimize impacts to Park users.

Implementation: The Enhancement Plan shall also identify the entity or entities responsible for implementing each enhancement measure and shall provide documentation demonstrating agreement to implement those measures.

For any components of the Enhancement Plan determined by the Executive Director to require a coastal development permit, the Applicant, in coordination with State Parks, shall submit a complete application for a new or amended coastal development permit within 90 days of the Executive Director's approval of the Enhancement Plan. The Executive Director may extend this deadline for good cause.

If construction of the proposed enhancement measures included in the Enhancement Plan is delayed more than three months after the conclusion of construction activities for the proposed desalination wells and related development, the Applicant shall submit a revised Enhancement Plan explaining the delay and describing what measures will be implemented to assure construction on the campground improvements commences as soon as possible.

NEW Special Conditions

17. Mitigation for Temporary Loss of Coastal Parking and Coastal Access Opportunities Due to Desalination Facility Construction. PRIOR TO CONSTRUCTION, the Applicant shall submit, for Executive Director review and approval, a detailed Coastal Parking and Public Access Mitigation Plan (Plan), developed in consultation with, and with approval by, the California Department of Parks and Recreation (State Parks). As discussed below, the Plan shall identify measures designed to maintain coastal access to Doheny State Beach to the maximum extent feasible during construction of the Doheny Ocean Desalination Facility and shall demonstrate that reductions in public coastal parking capacity during project construction will be adequately mitigated through an integrated strategy combining alternative parking opportunities in close proximity to Doheny State Beach, shuttle and transit services, and non-automobile access improvements and enhanced alternative access measures. The Plan shall include, at a minimum, the following components:

- a) An evaluation of expected losses of coastal parking opportunities: The Plan shall identify the number and location of all public parking spaces, and the number of Americans with Disabilities Act (ADA) accessible spaces, within the North Day Use Area (NDUA), as well as any additional areas within Doheny State Beach where parking will be unavailable due to construction activities. The Plan shall demonstrate that the construction-related public parking losses will be minimized to the greatest extent feasible. For each affected area, the Plan shall specify the anticipated duration of closures and quantify construction-related parking losses using closure-days for both peak-season and off-season periods.

The Plan shall include current seasonal parking demand and available park use data sufficient to determine when public parking demand is expected to exceed the reduced lot capacity resulting from construction and related staging. Based on this information, the Plan shall analyze and estimate the number of visitors expected to be displaced by the construction-related public parking reductions.

- b) Minimization of impacts: The Plan shall include the following measures to minimize adverse impacts to public coastal access from the construction-related loss of on-site parking within Doheny State Beach:
- Provision of equivalent ADA accessible, on-site parking such that there is no net loss of ADA parking in the NDUA.
 - Establishment of a safe, no-cost, visitor and rideshare drop-off zone within or adjacent to the NDUA.
- c) Alternative Parking Strategy: The Plan shall identify and evaluate a range of alternative parking options and implement additional on- or off-site parking to offset the construction-related loss of public parking associated with slant well and water conveyance pipeline construction. Alternative parking options may include:
- Use of excess capacity in the South Day Use Area (SDUA) if the lot is not in use for staging for campground construction.
 - Coordinated use of parking at Dana Point Harbor.
 - Temporary use of legally permissible areas along Pacific Coast Highway.
 - Partnerships with inland or institutional lots (e.g., high school, malls, other State Parks units)
- d) If the alternative parking sites are not within close proximity to the NDUA, the alternative parking strategy shall include provisions for shuttle service linking alternative parking areas to the NDUA. If the alternative parking sites are within close proximity to the NDUA, the alternative parking strategy shall include establishment of clearly marked, safe walking routes from the alternative parking to the NDUA.

The alternative parking strategy shall make use of the parking loss evaluation required in (a) and shall account for anticipated parking demand during peak- and off-season periods, weekends, and special events.

- e) Alternative access from off-site: As feasible, and if needed to supplement any shortfall in the alternative parking strategy required in Subsection (c), the Plan shall identify, evaluate and implement a strategy for providing alternative visitor

access to Doheny State Beach from off-site locations during project construction, including from the alternative parking sites identified in Subsection (c). The alternative access should not incur expenses to visitors beyond what would have been paid for parking at the NDU. The alternative access strategy may include, but is not limited to, the following elements:

- Expanded City trolley/shuttle routes with in-park drop-off points.
 - Shuttle service to/from nearby rail stations to the NDU.
 - Transit passes or shuttle service for State Parks employees to reduce employee parking needs and allow for more public parking within unaffected portions of the NDU lot.
 - Funding for City free rideshare programs that transport people to NDU.
 - Gear trailers/racks on shuttles or City trolleys to help transport people and beach gear to the NDU.
- f) Other Access Enhancements: As feasible, the Plan shall identify, evaluate and implement a set of additional public access and coastal recreation enhancements at Doheny State Beach to further offset adverse impacts to coastal access associated with project construction, such as:
- Dedicated equipment/gear drop-off areas
 - Gear valet or supervised gear-watch options so visitors with gear can park off-site more easily
 - Bicycle and pedestrian access improvements
 - Discounted equipment rentals to reduce the need to transport large items
 - Fee waivers or reductions for entry and/or parking at Doheny State Beach
- g) Demonstration of mitigation adequacy: The Plan shall include an analysis demonstrating that it is sufficient to the maximum extent feasible to offset the construction-related reductions to coastal access resulting from the project. This analysis shall evaluate:
- The overall convenience and functionality of alternative access options;
 - Capacity of shuttles or alternative modes to accommodate displaced visitors;
 - Travel time and ease of use;
 - ADA accessibility; and
 - Whether the combined measures will maintain a comparable level of public access to Doheny State Beach via the NDU for the duration of closures that is comparable to the pre-project baseline.
- The Plan must demonstrate that the combined mitigation measures will facilitate access, to the maximum extent feasible, to an equivalent number of visitors that would be displaced by the construction in the NDU.
- h) Implementation measures: the Plan shall identify all staffing, funding, coordination, infrastructure, signage, and outreach needed to implement the proposed mitigation measures, including identification of any planning, permits, or approvals required for temporary or permanent facilities.

- i) Timing: the Plan shall include a schedule demonstrating that mitigation measures will be implemented so that alternative access opportunities are available concurrent with the closures of the NDUA resulting from desalination project construction.

The Applicant shall implement all coastal parking and public access mitigation in accordance with this condition and the approved Coastal Parking and Public Access Mitigation Plan.

18. Coastal Storm Contingency Plan. PRIOR TO ANY CONSTRUCTION in the North Day Use Area of Doheny State Beach, the Applicant shall submit a Coastal Storm Contingency Plan (Plan) for Executive Director review and approval. The Plan shall ensure protection of public safety and coastal resources during high surf, coastal flooding, heavy rainfall, stormwater ponding, and erosion specific to El Niño conditions at Doheny State Beach, and shall include the following:

- a) Stabilized Rig Platform: The Plan shall include measures demonstrating that the drill rig and all heavy machinery will be adequately stabilized or otherwise secured under coastal storm conditions, including but not limited to wave run up and overtopping, saturated soils, and tidal or riverine flooding.
- b) Operational Adjustments: The Plan shall include measures for protection from minor to moderate flooding events involving less than 1 foot of wave runup or other flooding or shallow stormwater ponding. Such operational adjustments could include use of a drill rig capable of elevating above grade or temporary protection measures (e.g., sandbags or K-rails).
- c) Major Storm Event Procedures: The Plan shall specify action steps for major coastal storm events (e.g., more than 2 ft of wave runup, National Weather Service high surf or coastal flood advisories, or heavy rainfall likely to cause significant ponding or creek outflow). The Plan shall identify thresholds requiring full demobilization of the rig and equipment to a safe, non-flood-prone location, and shall specify advance-warning requirements (typically 6-12 hours).
- d) Slant-Well Protection Measures: The Plan shall identify temporary damage-prevention measures for the slant-well drill hole, including surface casing sealing.
- e) Equipment Security and Hazardous Materials: The Plan shall identify procedures to supplement the spill prevention and response plan of [Special Condition 6](#) to secure all equipment and materials—including fuels, lubricants, drilling additives, and any potentially contaminating substances—against mobilization by wave overtopping, flooding, or intense rainfall. Such materials shall be stored outside flood-prone areas or elevated/anchored to prevent transport by stormwater, wave runup, or debris flows.

III. FINDINGS AND DECLARATIONS

A. PROJECT DESCRIPTION AND BACKGROUND

On October 13, 2022, the Commission approved a coastal development permit (CDP) allowing the South Coast Water District (SCWD) to construct and operate a desalination facility in the City of Dana Point (City) and within Doheny State Beach (DSB) (see [Exhibit 1](#)– Project Location and Site Map). The facility is designed to produce up to five million gallons per day (mgd) of potable water for use within SCWD’s service area, which currently relies on an estimated 90% of imported water to meet its demands despite numerous programs to reduce demand and conserve water. Dana Point and the surrounding communities are at the end of the regional water distribution system. That water distribution system includes several hundred miles of pipeline systems and reservoirs that are vulnerable to seismic hazards and other disruptions. After decades of study, public hearings and workshops, a desalination facility was determined to be a local reliable baseload water supply and an emergency supply should disruptions occur to imported water.

The Doheny Ocean Desalination Project was the first in the state to incorporate the preferred design features from the California Ocean Plan to reduce adverse impacts to marine resources. The facility will use slant wells, which are wells drilled at an angle below the seafloor into seawater-saturated sand, to draw in naturally filtered seawater from beneath the ocean floor. Such wells avoid the entrainment and impingement impacts on marine life associated with intake systems that withdraw seawater directly, as shown in [Exhibit 3](#). The facility will also “co-locate” its brine discharge with an existing wastewater treatment facility, which substantially reduces the overall effects that would occur with two separate discharges.

The project includes construction and operation of a subsurface slant well intake system, raw (sea) water conveyance to the desalination facility site, a seawater desalination facility, brine disposal through an existing wastewater ocean outfall, solids handling facilities, and potable water delivery to adjacent distribution infrastructure. Under the previously approved CDP, the well field included below-grade slant-well pods located within the DSB campground ([Exhibit 2](#)), each accommodating up to five slant wells capable of extracting approximately 10 million gallons per day (mgd) of seawater from alluvial deposits beneath the seafloor. The wells would extend up to 1,000 feet seaward and terminate roughly 75 to 130 feet below the seabed. All wellheads would be housed in cast-in-place concrete vaults set back from the shoreline to account for future sea-level rise and coastal hazards. Associated electrical equipment would be located in one or more small control buildings designed to minimize surface disturbance.

As originally approved, a new conveyance pipeline would transport seawater from the well field along existing roadways and beneath the adjacent rail line to the proposed desalination facility. The facility would occupy SCWD-owned property inland of Pacific Coast Highway ([Exhibit 4](#)) and include standard desalination process components—pretreatment, chemical handling, reverse osmosis systems, energy recovery, post-treatment conditioning, brine management, and administrative spaces. As a critical

facility expected to maintain operations during seismic and coastal hazard events, final construction plans will incorporate all required structural and resiliency standards. Energy demand is projected at approximately 3.8 megawatts, with on-site solar generation and other renewable energy options under consideration to reduce greenhouse-gas emissions. Treated brine would be conveyed to the South Orange County Wastewater Authority (SOCWA) owned existing ocean outfall for discharge.

Project construction would span roughly two years at Doheny State Beach, with the inland desalination facility site construction taking roughly three years. Under the approved CDP, installation of the well field would have required closure of the DSB campground for approximately 18 to 24 months. SCWD has been coordinating with California Department of Parks and Recreation (State Parks) to combine this work with a planned campground revitalization project, thereby consolidating closures and expediting long-term public access improvements. As described below, this coordinated construction is expected to continue despite a proposed change in the location of the slant wells to the North Day Use Area (NDUA).

Proposed Amendment

Before it begins construction of the previously-approved desalination facility described above, SCWD is requesting a coastal development permit amendment to modify the location of the approved slant-well intake system and associated conveyance pipelines, and to incorporate minor refinements to the desalination facility design. The changed slant well location is based on updated sediment and geotechnical investigations completed after the CDP was issued. New geotechnical borings and geophysical investigations conducted to more precisely map the depth and extent of San Juan Creek's alluvial sediments revealed that the sandy, high permeability paleochannel sediments targeted for the slant well intakes are more narrowly distributed, and located farther to the west, than previously assumed. This meant that the previously approved slant well configuration at the DSB campground would have to pass through relatively wide intervals of impermeable clays and would encounter bedrock at a shallower depth than expected from SCWD's preliminary data. Thus, the slant wells would not penetrate a sufficient amount of permeable sediments to provide a reliable source of seawater for the desalination facility.

SCWD considered several alternatives that would have kept the wellheads within the campground, including extending the lengths and changing the angles of the slant wells, but determined these to be infeasible. In part, maintaining the slant well heads in the campground would require longer wells to be drilled under the existing SOCWA outfall, running the risk of undermining the structural integrity of the outfall. As a result, SCWD determined that the wellhead locations needed to be shifted to the NDUA, where the slant wells could more feasibly access subsurface sediments that are capable of supporting the intake capacity necessary to supply the facility's 10 mgd seawater demand. The proposed adjustments to the desalination facility reflect the continued advancement of pre-construction project engineering and the incorporation of more detailed design information.

Slant wells and seawater conveyance pipelines

The primary modification to the project being requested through this amendment application is the relocation of four slant wells from the DSB campground area to the North Day Use Area (NDUA). [Exhibit 5](#) shows the proposed location of the slant wells and pipelines. [Exhibit 6](#) shows a more detailed project plan with anticipated construction dates. Each wellhead would be placed within a below-grade concrete vault located in the eastern portion of the NDUA picnic area. As in the original design, the slant wells would extend approximately 1,000 feet seaward and terminate 75 to 130 feet below the seafloor, with an expected combined production capacity of up to roughly 12.5 mgd. As previously approved, the vault structures would be set back from the shoreline and elevated above the beach to avoid or minimize potential impacts associated with sea-level rise and coastal hazards. The well field would also include an electrical control building, approximately 12 feet wide, 25 feet long, and 10 feet high, that would be adjacent to a new restroom to serve beach visitors.

In order to accommodate the new location of the slant wells on the north side of San Juan Creek, SCWD also proposes to modify the configuration of the raw seawater conveyance pipelines needed to transport seawater from the slant wells to the desalination facility. As shown in [Exhibit 6](#), these pipelines would be installed using trenchless construction along a route extending diagonally from the NDUA parking lot beneath Pacific Coast Highway (PCH) and beneath San Juan Creek to the SCWD desalination facility.

The only portion of the project that would remain within the footprint of the campground is a short section of raw water conveyance pipe (see purple pipeline in [Exhibit 6](#)). This pipe would be capped at both ends and preserved for potential future development of an additional slant well, should the four NDUA wells not meet facility seawater supply needs. Installation of this capped pipe would occur during State Parks' planned campground revitalization project to avoid future disruptions to the public use of DSB. Any future slant well installation or activation of this pipeline would require separate environmental review and a new or amended CDP.

Although SCWD's proposed relocation of the slant wells would avoid construction-related impacts to the campground from the desalination facility, SCWD has committed to coordinating closely with State Parks and continuing to support the campground revitalization project. A CDP application for the campground project has been submitted by State Parks and is currently under review by the Commission's South Coast District staff. SCWD and State Parks intend to overlap construction periods for the two projects to maximize efficiencies associated with mobilization and minimize the overall duration of disruption to the public use of DSB.

[Special Condition 4](#) has been modified to reflect the proposed relocation of the slant wells to the NDUA, and the physical separation between the slant well installation and the campground revitalization work. As modified, [Special Condition 4](#) would now require that SCWD, in consultation with State Parks, submit the Public Access and Recreation Enhancement Plan, which identifies access and recreation improvements to

be constructed at the DSB campground, prior to the start of campground construction activities, but not prior to beginning construction for the slant wells in the NDUA.

Once construction is complete, each slant well would undergo a development phase involving high-rate pumping to remove sand and other materials from the well casing. Development would continue to purge the initial groundwater pulse—which is anticipated to contain higher concentrations of iron and manganese—until replaced by seawater infiltrating from the offshore capture zone. Development water would be routed to the desalination facility via the new raw water pipeline and discharged through the San Juan Creek Ocean Outfall, or alternatively through the existing beach diffuser. All discharges would comply with applicable NPDES permit requirements.

Project construction is currently anticipated to last for approximately two years within DSB, from November 2026 through November 2028. Desalination facility site work would continue roughly to December 2029.¹ A construction and staging area would be established on the eastern side of the NDUA, near San Juan Creek ([Exhibit 7](#)). This area would limit access to the grassy picnic space adjacent to the main lifeguard tower and temporarily reduce available NDUA parking by approximately 17—30%. The staging footprint would vary over time based on construction needs, expanding during microtunnel construction between approximately February and September 2027, and again during conveyance line installation from approximately July through September 2027.

Upgraded facilities in NDUA

In coordination with State Parks, SCWD proposes to provide upgrades to the grass picnic area during construction for the desalination project. SCWD would construct a new restroom building adjacent to an electrical control building for the slant wells. After slant well construction, SCWD would restore the grassy picnic area, including new landscaping and replacement of all pavilion areas that were removed for construction with new picnic tables and barbecue areas.

Desalination Facility Minor Modifications

The previously approved desalination facility ([Exhibit 4](#)) will treat the seawater to meet drinking water standards and connect to the South Orange County Wastewater Authority (SOCWA) wastewater treatment plant for disposal of the higher salinity water (brine) that remains after the drinking water has been extracted from seawater. SCWD's CDP amendment application also proposes minor changes to the pre-treatment system and would alter the size of certain pipeline segments to allow for potential future expansion. The administration building height would be reduced from 75 feet to approximately 40 feet. Additionally, SCWD would make minor improvements to the access road within the existing right-of-way from Stonehill Drive to the desalination facility.

¹ Note that these construction dates are targets, subject to change depending on a variety of factors including obtaining all needed regulatory permits, project financing and partner agreements.

Existing Special Conditions

The proposed amendment would relocate the proposed slant wells, conveyance pipelines and associated construction activities from the DSB campground to the NDUA but would not modify the proposed capacity of the desalination plant nor the volume of seawater used in the facility, the discharge of brine via the combined outfall, or the plant's use of energy and emission of greenhouse gases. Thus, the Commission's previous finding on potential project impacts to marine resources and water quality, energy minimization and greenhouse gas reduction, environmental justice, and cultural resources, as assessed in the Adopted Findings for CDP No. 9-20-0691, remain valid and the existing Special Conditions remain in effect, except as modified herein. These existing Special Conditions are provided in full in [Appendix A](#) and summarized below.

To address the potential for marine resource impacts, [Special Condition 5](#) requires SCWD to mitigate for its marine life and water quality impacts by creating or restoring estuarine and/or marine habitats near its project site. In addition, [Special Condition 6](#) requires development of Spill Prevention and Response Plans for project construction and operation, and [Special Condition 7](#) requires similar plans outlining Construction Best Management Practices to protect water quality. To address environmental justice concerns, [Special Condition 15](#) requires SCWD to prepare a study of the effects of the project's water rates on its low-income ratepayers and identify feasible measures it can implement to reduce those adverse effects. [Special Condition 16](#) provides Tribal cultural resource monitoring measures to be implemented during construction and includes reporting requirements that apply should any Tribal cultural resources be found during project construction. These Special Conditions continue to ensure the project as amended would be consistent with Chapter 3 policies of the Coastal Act.

Review of Progress on Special Condition Compliance

In the time since the Commission approved the original CDP, SCWD has made progress on several the Special Conditions required to be satisfied prior to construction. The most significant efforts have focused on campground planning and mitigation for brine discharge impacts.

SCWD has been working closely with State Parks to develop a Public Access and Recreation Enhancement Plan (Enhancement Plan), as required by [Special Condition 4](#), which identifies access and recreation improvements to be constructed at the DSB campground. The Enhancement Plan is subject to Executive Director (ED) review and approval prior to the start of construction. A final version of this plan has yet to be submitted for review. In addition, the CDP application for the campground revitalization project has been submitted and is currently under review by South Coast District staff.

SCWD has fulfilled [Special Condition 3](#), receiving ED approval in July 2025 for its Public Access Mitigation Plan identifying alternative camping opportunities to mitigate the temporary loss of sites during construction of the DSB campground revitalization project. An updated plan reflecting revised construction timelines was provided to Commission staff in September 2026 and is currently under review.

The Marine Life Mitigation Plan (MLMP), required under [Special Condition 5](#), was submitted to address mitigation for 7.45 acres of estuarine or marine habitat impacted by the brine discharge. SCWD is revising its impact estimates following results from a larval study and recalculations of the area of production foregone due to turbulence and shear from discharge at the outfall. These revisions are under review by the Regional Water Quality Control Board and will likely require updates to the MLMP.

SCWD has also submitted several other plans that require ED review and approval. These plans are still undergoing review and include:

- Disaster Response Plan ([Special Condition 10](#)), describing measures to maintain operations during extreme hazards;
- Coastal Hazards Monitoring and Response Plan ([Special Condition 11](#)), to evaluate conditions and hazards near the wellheads and inform future adaptation needs;
- Energy Minimization and Greenhouse Gas Reduction Plan ([Special Condition 14](#)), outlining measures to reduce indirect greenhouse gas emissions from the desalination facility; and Revisions to the Low-Income Ratepayer Impact Assessment ([Special Condition 15](#)), identifying feasible programming to reduce cost burdens on low-income customers.

Prior to construction, SCWD must also still submit all final project plans ([Special Condition 1](#)); evidence of all necessary permits and authorizations from the State Lands Commission and California Department of Parks and Recreation ([Special Condition 2](#)); the campground Enhancement Plan ([Special Condition 4](#)); Spill Prevention and Response Plan ([Special Condition 6](#)); Construction Plan ([Special Condition 7](#)); geotechnical study and seismic hazard assessment ([Special Condition 9](#)); flood hazard minimization plan ([Special Condition 13](#)); and retain a Cultural Resource Specialist and Native Monitors representing the Juaneño Band of Mission Indians, Acjachemen Nation – Belardes/Lucero.

As applicable, the plans and other documents required by these Special Conditions would reflect the project changes proposed under this amendment.

B. OTHER AGENCY APPROVALS

State Permits and Approvals

- **California Environmental Quality Act (CEQA):** SCWD served as the CEQA lead agency for reviewing the project and certified a Final Environmental Impact Report (FEIR) on June 27, 2019. On December 9, 2022, the California State Lands Commission (SLC), acting as a responsible agency under the California Environmental Quality Act (CEQA), prepared and approved the first addendum to the EIR to reflect the project approved under CDP 9-20-0691. Addendum No. 2 to the EIR includes the modifications discussed in this CDP amendment. Addendum No. 2 was approved by SCWD on May 14, 2026. A revised Addendum No. 2 was created in September 2026 and is scheduled for approval by the SCWD Board on September 24, 2026. The revised Addendum No. 2 incorporated updated and

ongoing analysis including an updated construction schedule and associated parking and staging plan, an updated marine life mitigation plan (which is under review with the Regional Water Quality Control Board),

- **San Diego Regional Water Quality Control Board (Regional Board):** The project will be subject to relevant requirements of two Orders approved by the Regional Board on March 9, 2022. The Board issued the Orders – No. R9-2022- 0005 (NPDES Permit No. CA0107417) and No. R9-2022-0006 (NPDES Permit No. CA0107611) to the South Orange County Wastewater Authority (“SOCWA”) to allow discharge of effluent from the proposed desalination facility through the SOCWA’s San Juan Creek and Aliso Creek Ocean Outfalls. The Board’s approvals include a Conditional 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.
- **California Department of Parks and Recreation (State Parks):** SCWD is in discussion with State Parks on a construction lease agreement and a long-term easement access agreement. State Parks has provided a letter of support for the amended project.
- **California State Lands Commission (CSLC):** SCWD secured leases on December 9, 2022, for the slant wells and discharge within State tidelands. On April 23, 2026, SCWD submitted a lease amendment application to CSLC to reflect the changed location of the slant wells within the existing lease. The proposed lease amendment is scheduled to be considered by the CSLC at its October 21, 2026, meeting.

Federal Permits and Approvals

- **U.S. Bureau of Reclamation (USBR):** The USBR approved NEPA finding of no significant impacts (FONSI) on August 16, 2023, and completed federal consultation with the U.S. Army Corps of Engineers (a Nationwide Permit No. 58 was issued on February 28, 2024), U.S. Fish and Wildlife Service (“No Effect” determination concurrence received on February 9, 2023), NOAA National Marine Fisheries Service (“Not Likely to Adversely Affect” determination concurrence received on April 5, 2022) and the State Historic Preservation Officer (“No Effect” concurrence received on April 13, 2021).

Tribal Consultation

SCWD stated that it has maintained ongoing communication with Tribes potentially affected by the project since the Commission’s October 2022 CDP approval, including regular email updates, phone calls, and meetings. SCWD reported that this communication has not resulted in any changes to the project but that it will continue consulting with and updating Tribes as the project progresses.

As part of this amendment review, Commission staff contacted Native American Tribes identified by the Native American Heritage Commission (NAHC) as having current and/or historic connections to the project area. These Tribes included:

- Cahuilla Band of Indians
- Juaneño Band of Mission Indians
- Juaneño Band of Mission Indians Acjachemen Nation – Belardes
- Juaneño Band of Mission Indians Acjachemen Nation 84A
- La Jolla Band of Luiseno Indians
- Morongo Band of Mission Indians
- Pala Band of Mission Indians
- Pauma Band of Luiseno Indians
- Santa Rosa Band of Cahuilla Indians
- Soboba Band of Luiseno Indians

Staff also contacted the Gabrielino-Tongva Tribe of the San Gabriel Band of Mission Indians, which was not included on the NAHC list but participated in consultation for the original CDP. On July 9, 2026, staff notified all Tribes of the proposed project changes and offered consultation.

Staff received a response from the Pala Band of Mission Indians indicating that the project is outside their Tribal boundaries but requesting to remain informed. No other responses, questions or concerns were received during staff's review. Any concerns submitted after publication of this staff report will be provided to the Commission through an addendum to this report and recommendation.

C. PUBLIC ACCESS AND RECREATION

Section 30210 of the Coastal Act 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.

Section 30220 of the Coastal Act states:

Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.

The originally approved project included the closure of the Doheny State Beach (DSB) campground for 18 – 24 months to accommodate construction of the slant wells. The Commission found that the project would be carried out in a manner that protected coastal access and recreational opportunities with the implementation of [Special Condition 3 and 4](#). These conditions provided for equivalent camping opportunities at nearby State Parks and required SCWD to create a Public Access and Recreation Enhancement Plan for improvements to the campground.

The proposed amendment would shift the slant well location from the DSB campground area to the NDU (Exhibit 6). To construct the slant wells and associated water conveyance lines, public access would be restricted to a portion of the NDU parking lot and one of the grassy picnic areas, for up to two years. The proposed closure and restriction of public access in the NDU was not analyzed in the original permit because it was not part of the original project.

Site Characteristics

DSB provides year-round coastal access and recreation in a densely populated region, offering sandy beach areas, surfing, volleyball, swimming, picnicking, biking, fishing, and visitor facilities. The 2022/2023 Park data indicate DSB received approximately 580,000 visitors for the fiscal year, including 367,825 paid day users, 139,185 free day users, and 76,517 campers.²

Three visitor areas combine to form DSB. In the northwest, the North Day Use Area (NDUA) provides ocean, sandy beach and park access. Across San Juan Creek, to the southeast is the campground with 120 spaces for tents or RVs. Further to the southeast, the South Day Use Area (SDUA) has additional parking, beach access, restrooms, and seasonal lifeguard towers. The Doheny State Beach General Plan from 2003 noted that on most holidays and summer weekends, all available parking spaces are filled.³

The NDUA is the most heavily used visitor area, containing a 694-space parking lot, turf and picnic areas, restrooms, showers, visitor center, aquarium, beach access, and the main lifeguard tower. Surfers are the most frequent visitors to the NDUA.

Most visitors access DSB by driving and parking either in the DSB parking lots for a daily fee or at the nearby Dana Point Harbor and paying an hourly parking fee. Local residents or visitors staying in the area can also walk or bike to the park. The nearest Metrolink and train stations are a few miles away in San Juan Capistrano (3.5 miles away) and San Clemente (4 miles away). Orange County Transportation Authority (OCTA) provides bus service to the DSB, with the nearest bus stop at the edge of the NDUA on Dana Point Harbor Drive and Pacific Coast Highway. The City of Dana Point provides a free trolley service with a stop at the edge of the NDUA during the summer (Memorial to Labor Day), weekends in September, and during special events including

² [Statistical Report 2023 Web Application](#) (accessed September 2026)

³ Doheny State Beach General Plan and Environmental Impact Report (2003), [Doheny Final General Plan.doc](#)

the Maritime Festival and the Ohana Festival at DSB. A series of bicycle paths and pedestrian walkways, including a pedestrian bridge over Coast Highway, provide access to the NDUA and beach area. Bike and pedestrian paths running through the NDUA connect to the San Juan Creek Trail and, via the Park Lantern-Coast Highway bridge over San Juan Creek, the SDUA and Capistrano Beach Park to the south.

During the review of the original CDP, the project was modified from an initial proposal that would have sited slant wells in both the campground and the NDUA to a configuration consolidating all slant wells within the campground area of DSB. This modification avoided coastal recreation and access impacts to the highly visited and heavily used NDUA. However, as discussed above, subsequent geotechnical investigations revealed that the more permeable alluvial sediments targeted for the subsurface intakes were in fact located farther to the west than previously considered, and that the approved slant well configuration would not provide a reliable source of seawater for the desalination facility. SCWD explored several alternative configurations of the slant wells that kept the wellheads within the campground, but found them to be infeasible because they could not be implemented without crossing beneath and risking the structural integrity of the existing SOCWA outfall. As a result, SCWD determined that the wellhead locations needed to be shifted to the NDUA, where the slant wells could more feasibly access subsurface sediments that are capable of supporting the intake capacity necessary to supply the facility's 10 mgd seawater demand.

Amended Project Impacts

Relocating slant wells to the NDUA would result in the loss of between 121 and 225 parking spaces of the 694 available as well as one of the grassy picnic areas during the approximately two-year construction period. The number of parking spaces restricted by construction activities would vary depending on the construction activity. At a minimum, 121 parking spaces, including seven Americans with Disabilities Act (ADA) accessible spaces, shown in [Exhibit 6](#), would be unavailable for the entirety of construction. During microtunneling of water conveyance pipelines (February–September 2027), 208 spaces, seven of which are ADA accessible, would be restricted ([Exhibit 7](#)), and during peak pipeline work (July–September 2027), 225 spaces would be unavailable, seven of which are ADA accessible ([Exhibit 8](#)).

These reductions in parking capacity would limit public use of DSB or require visitors, particularly during the peak summer season when the NDUA parking lot routinely reaches capacity, to find alternative parking or other modes of accessing DSB. State Parks estimates that the NDUA is 50 – 80% occupied during the off-peak period from October to May, with higher occupancy during holiday weekends and special events. State Parks estimates that the NDUA lot would reach capacity approximately twice as often during peak periods as a result of the proposed construction closures.

SCWD has planned the construction footprint and project phasing to minimize access impacts while ensuring safety and efficient construction staging. The majority of the NDUA and its parking lot would remain open and accessible to the public throughout the construction period, and SCWD has designed the staging layout to retain pedestrian,

bicycle, and vehicular circulation outside the fenced construction zones, including designated and signed pedestrian and bicycle routes separated from equipment lanes. The use of trenchless pipeline installation techniques would significantly reduce the area of disturbance compared to open-cut construction. No beach areas would be directly affected, and the bike path will be restored after construction. Although the slant wells would no longer be located within the DSB campground, SCWD would continue to support the campground revitalization project and coordinate with State Parks to reduce public access disruptions associated with these parallel construction projects.

Proposed construction-related access impacts would be partially offset by mitigation measures adopted in the project's Final EIR, including TRF-1 ([Exhibit 10](#)), which requires SCWD to coordinate with State Parks to provide alternative parking and shuttle service during DSB's special events. Approximately 12 of 20 planned events during 2026–2027 overlap with the proposed construction period. During such events, SCWD must coordinate in advance to reschedule events or, where not feasible, provide sufficient off-site parking and shuttle service to fully offset displaced parking. SCWD also proposes to construct several permanent public access improvements, including a new bathroom, and to restore and enhance the NDUA picnic and recreation area, following construction.

In addition, SCWD would continue contributing to long-term access improvements through its participation in State Parks' campground revitalization project. The revitalized campground is expected to include modifications that improve coastal hazard resilience and visitor experience, including modernized campsites (some with full RV hookups), dedicated tent sites, new restroom facilities, improved pedestrian and bicycle safety through separation of non-vehicular circulation, and flood-protection measures such as setbacks from the beach to accommodate sea-level rise and ongoing erosion. Over time, these improvements would help offset the temporary reduction in parking and coastal access in the NDUA during slant-well construction. Additionally, during the campground construction period, SCWD and State Parks will provide alternative camping opportunities in the region by extending the length of the operating season at the San Mateo and San Onofre Bluffs Campgrounds as required by [Special Condition 3](#).

Nonetheless, even with the avoidance, minimization and offsetting measures SCWD has planned, construction of the project would still restrict public access to one of the most popular beaches and surf breaks in Orange County for a period of approximately two years. In recognition of these impacts, SCWD is cooperating with State Parks to develop a strategy for the project-related parking reductions and alternative access options and recreational enhancements in the NDUA. To provide assurance that this strategy will contain the necessary elements and measures to fully mitigate the unavoidable adverse impacts to public access and recreation during project construction, the Commission is including [Special Condition 17](#). This condition requires SCWD to prepare and implement a detailed Coastal Access Parking and Public Access Mitigation Plan (Plan), maintaining the total number of ADA accessible parking spots, integrating alternative parking opportunities, shuttle, transit, and non-

automobile access improvements and enhanced alternative access measures, to offset parking-related access impacts.

SCWD and State Parks have prepared a preliminary draft plan. State Parks is using proprietary software to produce a detailed visitation assessment for the NDUA, including visit volume, dwell time, and temporal trends. This information will inform identification of peak periods when demand is expected to exceed the temporarily reduced capacity of the NDUA parking lot. The final Plan will quantify expected shortfalls and identify alternative parking. The Plan will include the designation of seven ADA-accessible parking spaces in the NDUA to accommodate those seven existing ADA-accessible parking spaces displaced during construction. The Plan must also identify alternative access measures from off-site through, for example, shuttle services from off-site parking, expanded City trolley service, and drop-off zones within the NDUA. The Plan may include additional public access enhancements such as discounted equipment rentals to reduce the need to transport beach gear by car. These strategies must be integrated to ensure a comparable level of coastal access during the construction-related loss of on-site parking. The Plan must be reviewed and approved by the Executive Director prior to CDP issuance.

Conclusion

As described above, and with implementation of [Special Condition 17](#), the amended project would be carried out in a manner that would protect coastal access and recreation opportunities under the Coastal Act. The Commission therefore finds that the proposed project, as conditioned, is consistent with the coastal access and recreation sections (Sections 30210, 30211, and 30220) of the Coastal Act.

D. SEISMIC AND COASTAL HAZARDS

Coastal Act Section 30250 states, in relevant part:

New residential, commercial, or industrial development, except as otherwise provided in this division, shall be located within, contiguous with, or in close proximity to, existing developed areas able to accommodate it or, where such areas are not able to accommodate it, in other areas with adequate public services and where it will not have significant adverse effects, either individually or cumulatively, on coastal resources.

Coastal Act Section 30253 states, in relevant part:

New development shall do all of the following: (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard. (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.

In its Adopted Findings for the original CDP, the Commission found the project site is subject to several natural hazards, including seismic activity; tsunamis; coastal flooding and erosion; flooding along San Juan Creek; and climate-related changes. The amended project proposes to relocate the slant wells to a site within the North Day Use Area (NDUA) of Doheny State Beach, on the opposite side of San Juan Creek from the previously proposed wellhead location within the DSB campground. Due to its low-lying, coastal location within the historic San Juan Creek delta and floodplain, the new proposed slant well location is subject to a similar suite of geologic and coastal hazards as were evaluated under the original permit.

Seismic Hazards

The modified slant well site in the NDUA would be subject to strong ground shaking during a major earthquake occurring on one of several significant active faults in the project area, and occurs within a mapped liquefaction zone due to the susceptible alluvial sediments underlying the site. As part of the original CDP, the Commission included [Special Condition 9](#), which requires SCWD to submit, for the Executive Director's review and approval, a site-specific, design-level Geotechnical Study and Seismic Hazards Assessment demonstrating that all significant project structures, including the slant wells, would be designed, constructed and maintained to withstand expected levels of ground shaking, liquefaction and ground settlement, and lateral spreading, as determined in the geotechnical analysis, and commensurate with the proposed project's status as a critical facility (Risk Category IV) for the local and regional water supply. The requirements of [Special Condition 9](#), including the requirements for site-specific, design level geotechnical and engineering analyses, remain in effect and must reflect the modified slant well location.

Coastal and Flooding Hazards

Like the original project, the amended project includes several major components located on or near Doheny State Beach, a low-lying area historically shaped by the dynamic mouth of San Juan Creek but which is now constrained by channelization and surrounding development. As described in the shoreline hazards analysis submitted for the original CDP, project components within or adjacent to this shoreline zone remain susceptible to coastal flooding, erosion, and creek-related inundation during extreme storm events, including strong El Niño winters, as well as tsunamis. These coastal and flooding hazards are expected to worsen in the future with sea level rise.

Studies conducted for SCWD to support the previously approved project indicate that the modified wellhead site, at an elevation of approximately 17 feet NAVD88,⁴ could experience inundation due to wave runup during large coastal storm events, both at present and with increasing frequency in the future with rising sea level.⁵ The 2019 coastal hazards study by MBI estimated total water levels (which include wave runup)

⁴ The North American Vertical Datum of 1988 (NAVD 88) is the vertical control datum established in 1991, it held fixed the height of the primary tidal bench mark.

⁵ [Coastal Hazards Analysis for the Doheny Desalination Project](#), 2017. Scott A. Jenkins, Ph.D. Michael Baker International. Environmental Impact Report Appendix 10.7.1.

during a 100-year coastal storm event in the range of 13.1-14.8 feet NAVD88 for present sea level conditions, 16.7-18.4 feet NAVD88 for +3.6 feet of sea level rise, and 20.2-21.9 feet NAVD88 for +7.1 feet of sea level rise. For comparison, the mapped FEMA VE Zone, which represents an estimate of the (current) 100-year TWL, is 20 feet NAVD88 within the NDUA. The proposed slant well site, construction and staging areas are also at some risk of fluvial flooding from San Juan Creek⁶ and inundation from a large tsunami event.⁷

Depending on future sand input from San Juan Creek, future storm magnitudes and frequencies, future sea level rise, and other factors, the modified wellhead site could potentially be vulnerable to coastal erosion and undermining during the project's expected 50-year operating life, particularly under the more extreme sea level rise scenarios in the latter half of the century. SCWD's prior coastal erosion analysis for the DSB campground estimated that sea level rise of +3.6 feet could result in over 100 feet of shoreline recession, while 6.6 feet of sea level rise could cause approximately 250 feet of shoreline recession. Nonetheless, the NDUA site is likely to be less vulnerable to coastal erosion than the previously approved campground location, in part due to the consistently greater beach widths on the north side of San Juan Creek. For example, shoreline recession projections from the USGS CoSMoS-COAST model suggest that the NDUA well sites would remain landward of the shoreline even with 2 meters (6.6 feet) of sea level rise.⁸

SCWD proposes to minimize flooding hazards to the slant well by designing and constructing the wellheads to accommodate periodic wave overtopping, largely through the use of concrete and steel vaults. While access to the wellheads may be limited during extreme wave conditions, access could be quickly restored during low tide conditions. [Special Condition 13](#), included in the original CDP and applicable to this amendment, further requires the final project design to include flood proofing measures that account for extreme flooding.

Due to the relatively high degree of uncertainty about projected shoreline change and coastal flooding hazards in this area and the potential for the wellheads to be affected during their expected design life, a future reevaluation of coastal hazards and adaptation plan is warranted to ensure ongoing consistency with the Coastal Act's hazards and armoring policies. Existing [Special Condition 11](#) requires SCWD to develop a coastal hazards response and monitoring program. This program would include the identification of beach width or other threshold triggers that will provide adequate notice to allow the SCWD to implement adaptation strategies for the well

⁶ Federal Emergency Management Agency (FEMA) National Flood Hazard Layer FIRMette, centered on Doheny State Beach North Day Use Area (117°41'27"W 33°28'N). <https://msc.fema.gov/portal/home>, accessed September 21, 2026.

⁷ State of California, 2021. Tsunami Hazard Area Map, Orange County; produced by the California Geological Survey and the California Governor's Office of Emergency Services; <https://www.conservation.ca.gov/cgs/tsunami/maps/orange>, accessed September 18, 2026.

⁸ Our Coast, Our Future Shoreline Position projection for 200 cm of sea level rise, <https://ourcoastourfuture.org/hazard-map/>, accessed September 18, 2026.

heads – including through modification, relocation, or removal – to avoid their damage and to ensure the project would not need future installation of shoreline protective devices. Further, the program includes development of a monitoring protocol to better understand beach change at the project site and to ensure that identified threshold triggers will be recognized. Additionally, [Special Condition 12](#) prohibits the future use of shoreline protective devices consistent with Section 30253 of the Coastal Act to ensure that the project, and any future modifications necessary to reduce coastal hazard risks, will not result in negative impacts to the beach.

Given the potential for seismic and coastal hazards to affect the facility, [Special Condition 10](#) requires SCWD to prepare a Disaster Response Plan that identifies measures it will implement to assure the facility can continue to operate and that project personnel can access the facility and appropriately respond to any coastal resource impacts that may occur.

2026-2027 El Niño

SCWD proposes to begin construction in Fall 2026, during a period when very strong El Niño conditions are forecast to persist through the 2026–2027 winter. Although construction-phase hazards differ from those affecting long-term operations, temporary exposure to extreme El Niño storm conditions could result in localized flooding, erosion, equipment destabilization and debris or hazardous material release if not properly managed. These conditions introduce additional hazards which were not explicitly analyzed in the original CDP, as that review focused on hazard exposure to the completed desalination facility and associated infrastructure.

Strong El Niño winters have historically caused extensive damage and rapid geomorphic change along the California shoreline. Past events have involved prolonged high-intensity rainfall, frequent severe storm activity, elevated water levels, increased wave energy, and west-to-southwesterly wave directions that exacerbate erosion. Temporary increases in local sea level of six to twelve inches are common during strong El Niño events, with impacts greatest when storms coincide with high tides. The 1968–69 El Niño winter, for example, produced flooding along San Juan Creek that damaged facilities at NDUA; flooding of San Juan Creek was a hazard acknowledged in the original CDP findings regarding fluvial flooding.

Many of the Special Conditions originally imposed by the Commission directly address hazards associated with such extreme events and would continue to apply to the amended project. [Special Condition 10](#) requires wellheads to be designed to minimize risk from tsunami and coastal flooding. [Special Condition 11](#) requires the South Coast Water District to maintain plans for sustaining and restoring facility operations during and after hazardous events. [Special Condition 13](#) requires final project design to incorporate flood-proofing measures for extreme flooding scenarios. As noted in the original findings, these conditions ensure the completed project avoids contributing to erosion, instability, or the need for shoreline protective devices.

To ensure that construction activities themselves do not create or contribute to geologic instability or coastal resource damage, new [Special Condition 18](#) requires preparation

of a Coastal Storm Contingency Plan. This plan must identify measures for stabilizing heavy equipment under storm conditions, protecting the construction site from flooding, and securing materials and equipment from wave overtopping and inundation. This additional condition supplements the Commission's original hazard mitigation framework by addressing risks unique to the amended construction schedule and forecasted El Niño conditions.

Conclusion

With implementation of [Special Conditions 1, 8–13, and 18](#), the Commission finds that the amended project is consistent with Coastal Act Sections 30250 and 30253.

E. 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 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 Commission's regulatory program for reviewing and approving CDPs has been certified by the Resources Secretary to be the functional equivalent of environmental review under CEQA. (14 CCR § 15251(c).)

The Commission incorporates its findings on Coastal Act consistency as if set forth in full herein. As discussed in the findings, the project as conditioned herein incorporates measures necessary to avoid any significant environmental effects under the Coastal Act, and there are no feasible alternatives or additional feasible mitigation measures that would substantially lessen any significant adverse impact which the proposed project may have on the environment. Therefore, the Commission finds that the proposed project, as conditioned, complies with the applicable requirements of the Coastal Act to conform with CEQA.

IV. SUBSTANTIVE FILE DOCUMENTS

California Coastal Commission Adopted Findings and Exhibits for Coastal Development Permit Application No. 9-20-0691

Coastal Development Permit Application No. 9-20-0691-A1

South Coast Water District, Final Environmental Impact Report – Doheny Desalination Project (SCH #2016031038), June 2019.

South Coast Water District, Updated Model Refinement Using Results from Onshore and Offshore Geophysical Surveys and Exploratory Borehole Data, by Brian Villalobos and David Barnes, Geoscience. November 2025.

South Coast Water District, Revised Addendum No. 2 to the Final Environmental Impact Report – Doheny Desalination Project (SCH #2016031038), September 2026.

South Coast Water District, Memo: Doheny Ocean Desalination Project - Responses to Coastal Staff Questions [addressing geologic constraints on location of slant wellfield], by Brian Villalobos, Geoscience. September 22, 2026.

APPENDIX A

Original Special Conditions from CDP No. 9-20-0691

1. **Final Project Plans.** PRIOR TO THE START OF CONSTRUCTION ACTIVITIES FOR EACH MAJOR PROJECT COMPONENT, the Applicant shall provide, for Executive Director review and approval, final Design-Build level plans approved by a licensed civil or structural engineer for each major project component showing the locations and external dimensions of all relevant project components and illustrating that all project components will be built, to the extent feasible, to meet Structural Risk Category standards adequate to withstand the expected degree of seismic, flooding, and other hazards the project may be subject to. No changes to the approved project shall occur without an amendment to this permit unless the Executive Director determines that no amendment is legally necessary.
2. **Other Permits and Approvals.** PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, the Applicant shall provide to the Executive Director written evidence that all necessary permits, permissions, approvals, and/or authorizations for the project have been granted by the State Lands Commission and the California Department of Parks and Recreation. Any changes to the approved project required by these agencies shall be reported to the Executive Director. No changes to the approved project shall occur without an amendment to this permit unless the Executive Director determines that no amendment is legally necessary.
3. **Mitigation for Temporary Loss of Coastal Camping Opportunities.** PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall submit, for Executive Director review and approval, a detailed Public Access Mitigation Plan ("Plan") developed in consultation with, and with approval by, the California Department of Parks and Recreation that describes the increased coastal camping opportunities to be made available consistent with the measures included in the State Parks Conceptual Agreement letter dated September 8, 2022. This Plan shall identify:
 - a) Expected losses of camping opportunities: Based on the final desalination facility construction schedule, the Plan shall identify the expected closure period for the Doheny State Beach campground and the resulting loss of overnight camping opportunities. The expected loss of camping opportunities shall be calculated by multiplying the total number of campsites to be closed during construction times the seasonal occupancy rates times the total number of days of closure. This calculation shall be done separately for off-season and peak season periods based on the different occupancy rates for those seasons and then calculating the total expected loss across the entire expected closure period.
 - b) Location and timing of expanded overnight camping opportunities at nearby coastal campgrounds: The Plan shall quantify the number of increased camping opportunities that will be made available by opening other nearby coastal campgrounds (e.g., San Mateo, San Onofre Bluffs, etc.) during periods in which

- they would otherwise be subject to seasonal closures. The expected increase shall be calculated in the same manner as described in subsection (a), above.
- c) Comparison of expanded recreational opportunities to impacts: The Plan shall include a comparison of the expanded camping and other recreational opportunities to the lost opportunities for camping due to construction of the proposed project. The comparison shall confirm that the number of lost camping opportunities is mitigated by an equal or greater number of additional camping and recreational opportunities in the vicinity of the project site and for the duration of the impact.
 - d) Other recreational opportunities: The Plan may also describe any additional recreational opportunities that may be implemented to mitigate for the loss of camping opportunities at Doheny State Beach campground – e.g., extended openings of day use areas, increased coastal access amenities such as additional parking areas being opened, etc.
 - e) Implementation measures: The Plan shall describe all measures that will be implemented to ensure successful extended openings at these other coastal campgrounds, including:
 - i. Staffing and funding commitments to be made for the duration of the extended openings.
 - ii. Outreach measures to inform the public of the Doheny State Beach Campground closure and of the increased camping opportunities that will be made available elsewhere.
 - iii. Any new or modified infrastructure, such as buildings, kiosks, gates, etc., that would be needed to implement these extended camping opportunities and any planning, permits, or approvals needed to construct or install the needed infrastructure.
 - f) Timing: The Plan shall include a schedule for these implementation measures and Plan components, with all measures to be implemented as close in time as feasible to coincide with the expected temporary closure of Doheny State Beach.

For any components of the Plan determined by the Executive Director to require a coastal development permit, the Applicant, in coordination with State Parks, shall submit a complete application for a new or amended coastal development permit within 90 days of the Executive Director's approval of the Plan. The Plan shall identify any proposed changes to this project as currently proposed. No such changes shall occur without an amendment to this permit unless the Executive Director determines that no amendment is legally necessary.

- 4. **Doheny State Beach Campground Improvements and Modifications.** PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, the Applicant shall submit, for Executive Director review and approval, a Public Access and Recreation Enhancement Plan ("Enhancement Plan") developed in consultation with, and approval from, California State Parks that specifies access and recreation improvements to be constructed at Doheny State Beach Campground. Measures included in the Enhancement Plan shall include those described in the State Parks Conceptual Agreement letter dated September 8, 2022. The Enhancement Plan shall include:

- a) Site map: a map showing the location of the proposed campground improvements.
- b) Campsite improvements: a description of the type and number of all new, improved, or replaced campsite amenities, including the number and type of utility hookups (water, sewer, and electrical services, including solar powered components), signage, kiosks, etc.
- c) Vehicular, pedestrian and bike access improvements: a description of all modifications to the campground's vehicular circulation and parking areas, and to pedestrian and bike paths, and opportunities for solar-powered electric vehicle charging stations.
- d) Interpretive areas modifications: a description of all modifications to the existing interpretive center and amphitheater and all new, replaced, or improved components to be replaced with a new interpretation and education area.
- e) Restroom facilities: the design, location, and layout of the improved restroom facilities, including a description of all energy and water conservation measures that will be incorporated.
- f) Landscape modifications: a description of the areas of landscaping to be restored and replanted, the number and types of species (e.g. native species to reduce watering needs) to be planted, and any other improvements needed to support or protect these areas (e.g., irrigation systems, fencing, etc.).

In addition to the enhancement elements identified in the Conceptual Agreement, the Plan shall include:

- g) Accommodating the California Coastal Trail: The Plan shall identify any feasible measures to facilitate the potential future location of a segment of the California Coastal Trail ("CCT") within the Park property. This may include creating or maintaining an ingress and egress connection to the current CCT at the bridge sidewalk adjacent to the Pacific Coast Highway and San Juan Creek.
- h) Day use enhancements at Doheny State Beach: The Plan may also identify any proposed improvements to other parts of Doheny State Beach that would benefit day-use visitors.
- i) Modifications to benefit underserved or lower-income communities: The Plan shall identify all measures that will be implemented to provide maximum feasible access to underserved or lower-income communities at the improved Doheny State Beach campground. These may include, but are not limited to:
 - i. Construction of low-cost camping cabins or shelters;
 - ii. Implementation of a modified fee schedule for lower-cost camping opportunities and an identification of the percentage of sites at the campground subject to the modified fee;
 - iii. Provision of a shuttle service from an inland location to facilitate inland/underserved community access to Doheny State Beach; and
 - iv. Outreach measures to be conducted to inform these communities of these opportunities, including a description of the types of media to be used, the languages to be included, and the frequency of communications.

Schedule: The Enhancement Plan shall include a proposed schedule that identifies expected timelines for environmental review, planning, funding, permitting, and construction needed to implement the proposed enhancement measures. All reasonable measures shall be taken to ensure swift implementation to minimize impacts to Park users.

Implementation: The Enhancement Plan shall also identify the entity or entities responsible for implementing each enhancement measure and shall provide documentation demonstrating agreement to implement those measures.

For any components of the Enhancement Plan determined by the Executive Director to require a coastal development permit, the Applicant, in coordination with State Parks, shall submit a complete application for a new or amended coastal development permit within 90 days of the Executive Director's approval of the Enhancement Plan. The Executive Director may extend this deadline for good cause.

If construction of the proposed enhancement measures included in the Enhancement Plan is delayed more than three months after the conclusion of construction activities for the proposed desalination wells and related development, the Applicant shall submit a revised Enhancement Plan explaining the delay and describing what measures will be implemented to assure construction on the campground improvements commences as soon as possible.

5. **Mitigation for Marine Life and Water Quality Impacts.** PRIOR TO PERMIT ISSUANCE, the Applicant shall provide, for Executive Director review and approval, a Marine Life Mitigation Plan developed in consultation with and approval by the Regional Water Quality Control Board, that includes the following:
- a) **Mitigation site(s):** the Plan shall identify a site or sites that are available to the Applicant and that will provide creation or restoration of approximately 7.45 acres of estuarine and/or marine habitat and provide suitable buffers or other site controls to ensure the site(s) can fully support the expected estuarine and/or marine habitat functions and values. The site(s) shall be located as close as is feasible to the Applicant's desalination outfall and no more than 50 miles upcoast or downcoast from that outfall.
 - b) **Site characteristics and baseline assessment:** the Plan shall describe the size, existing uses and habitat types, surrounding uses, locations and elevations relative to other estuarine and/or marine resources, and the presence of any listed or sensitive species on the site(s). The Plan shall also include a baseline assessment of the current physical and ecological condition of the proposed mitigation site.
 - c) **Restoration goals:** the Plan shall include a description of the restoration goals that may include, as appropriate, changes to habitat types, hydrology, vegetation types, presence or abundance of sensitive species and wildlife, and any anticipated measures for adaptive management in response to sea level rise or other climatic changes. If the mitigation site is part of a larger restoration site, these goals shall align with the goals of the overall project.

- d) Creation/restoration design: the Plan shall describe the proposed mitigation design, including proposed habitat types to be created or restored, site grading needed to ensure the mitigation functions as proposed, planting palette and design (if appropriate) and buffers to be provided to protect those mitigation functions. The design shall accommodate any existing estuarine, marine, or sensitive habitat at the site(s) to ensure there is no net loss of habitat due to the mitigation project. The Plan shall also include an analysis of coastal hazards at the site(s), including those resulting from projected sea level rise, and the Plan shall describe those hazards and the measures incorporated into the creation/restoration design to avoid, minimize, or respond to these hazards in a manner that will allow the type and amount of required habitat functions and values to be maintained.
- e) Site management and long-term maintenance: the Plan shall describe all management and maintenance measures necessary to implement and maintain the mitigation area.
- f) Performance Criteria: the plan shall identify performance criteria for evaluation of success of the restoration project. The criteria shall be quantitative and shall address, as appropriate, hydrology, habitat areas, vegetation and wildlife.
- g) Monitoring and Reporting: the Plan shall identify proposed monitoring measures to assess whether the restoration project is meeting the performance criteria. Monitoring shall be conducted for a minimum of five years. Individual year and cumulative monitoring results and assessment of performance criteria shall be included in an annual report submitted to the Executive Director.
- h) Schedule: the Plan shall identify reasonably expected timelines for conducting planning, environmental review, permitting, and construction of the creation/restoration site(s). The schedule is to provide that mitigation be constructed before marine life impacts commence, to the maximum extent feasible. If it is not feasible to achieve this timeline, the Plan shall provide an explanation demonstrating good cause for the delay and a proposed strategy to provide appropriate remedial action for any delay in providing mitigation before facility impacts occur.
- i) Legal terms: the Plan shall identify legal instruments – e.g., purchase, deed restrictions, conservation easements, etc. – that will be developed to ensure protection of the mitigation site(s) in perpetuity.
- j) If the Regional Board makes minor changes to the mitigation requirement based on required confirmatory studies of marine life impacts, those changes shall be reflected in the final Marine Life Mitigation Plan.

6. Spill Prevention and Response Plan. PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, the Applicant shall submit, for Executive Director review and approval, Project-specific Spill Prevention and Response Plans that address potential spills or releases of hazardous materials during both project construction and project operations. The Plans shall identify worst-case spill scenarios and demonstrate that adequate spill response equipment will be available. The Plans also shall include preventative measures that will be implemented to avoid spills and measures that will be implemented should spills occur. The Plans shall specify responsibilities of contractors and project personnel.

The Plans shall identify the location of all on- and off-site spill response equipment (including sorbent materials, booms, etc.) that will be available in the event of a spill, and the protocols and expected response times for deployment. The Plans are to clearly identify responsibilities of project personnel and contractors in the event of a spill and shall include necessary contact information for responsible personnel and involved emergency response agencies (e.g., Fire Department, U.S. Coast Guard, etc.).

- 7. Construction Plans.** PRIOR TO STARTING CONSTRUCTION ACTIVITIES, the Applicant shall provide, for Executive Director review and approval, Construction Plans that address construction methods and Best Management Practices (“BMPs”) of all project components and that include the following:
- a) Construction areas: site plans showing the location of all construction areas, staging areas, fueling areas, and construction access corridors. The areas within which construction activities and/or staging are to take place are to be minimized to the extent feasible to reduce potential impacts to coastal resources.
 - b) Construction BMPs: the Plans shall identify the type and location of all erosion control and water quality BMPs that will be implemented during construction to protect coastal water quality. Silt fences, straw wattles, filtration equipment, and other similar materials are to be installed and maintained around the perimeter of all construction areas to prevent construction-related runoff and sediment from discharging directly into storm drains or coastal waters. The Plans shall identify all measures that will be used to keep the construction areas physically separate from public recreational use areas, such as using signage, temporary fencing, or other measures to delineate construction areas. The Plans are to also describe all measures that will be implemented to reduce the effects of construction noise and lighting of areas outside the delineated construction areas.
 - c) Equipment BMPs. Equipment fueling, washing, and maintenance shall take place at a designated hard-surfaced area where any leaks or spills can be contained and collected. All equipment shall be inspected at least daily to identify any leaks or potential leaks promptly. Any fueling and maintenance of mobile equipment conducted on site shall take place at designated areas located at least 50 feet from coastal waters, drainage courses, and storm drain inlets, if feasible (unless those inlets are blocked to protect against fuel spills). Fueling and maintenance areas shall be designed to fully contain any spills of fuel, oil, or other contaminants. Equipment that cannot be feasibly relocated to a designated fueling and maintenance area may be fueled and maintained in other areas of the site, provided that procedures are implemented to fully contain any potential spills.
 - d) Good Housekeeping BMPs. The Plans shall describe good construction housekeeping controls and procedures that will be implemented, including cleaning up all leaks, drips, and other spills immediately, keeping materials covered and out of the rain, covering exposed piles of soil and wastes, disposing of all wastes properly, placing trash receptacles on site and

- covering open trash receptacles during wet weather, and removing all construction debris from the site at least daily.
- e) Construction timing: The Plans are to provide a construction schedule identifying the expected duration of construction and the hours and days construction is expected to occur.
 - f) Construction Coordinators. The Plans shall identify one or more designated construction coordinators at each construction site as the point of contact during construction should questions arise regarding the construction (in case of both regular inquiries and emergencies). The Plan shall provide coordinators contact information, including, at minimum, an email address and a telephone number that will be made available 24 hours a day for the duration of construction and that shall be conspicuously posted at the job site where such contact information is readily visible from areas accessible to the public. The Plan shall require that the coordinators record all complaints received regarding construction activities, including the nature of the complaints, contact information where available (e.g., name, phone number, and email address) and shall require the coordinator to investigate complaints and take remedial action, if necessary, within 24 hours of receipt of the complaint or inquiry. All complaints and all actions taken in response shall be summarized and provided to the Executive Director upon request.

Copies of the approved Plans and of the signed CDP shall be maintained at the appropriate construction site(s) and be available to project personnel and the interested public upon request. All project personnel shall be briefed on the content and meaning of the CDP and the approved Plans prior to their start on project activities.

The Applicant shall implement development in accordance with this condition and the approved Construction Plans. Minor adjustments to the above requirements, as well as to the Executive Director approved Plan, which do not require a CDP amendment or a new CDP (as determined by the Executive Director), may be allowed by the Executive Director if such adjustments: (1) are deemed reasonable and necessary; and (2) do not adversely impact coastal resources.

- 8. Assumption of Risk, Waiver of Liability, and Indemnity.** By acceptance of this permit, the Applicant acknowledges and agrees (i) that the site may be subject to hazards from tsunamis, storm waves, surges, and erosion; (ii) 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; (iii) to unconditionally waive any claim of damage or liability against the Commission, its officers, agents, and employees for injury or damage from such hazards; and (iv) 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.

- 9. Geotechnical Study and Seismic Hazards Assessment.** PRIOR TO CONSTRUCTION, the Applicant shall submit, for Executive Director review and approval, a site-specific, design-level Geotechnical Study and Seismic Hazards Assessment. The Plan shall include the following:
- a) Detailed design plans for all project components, including the desalination plant, new water and discharge brine conveyance pipelines, slant wells and wellhead structures.
 - b) A site-specific geotechnical and seismic hazards analysis, considering each project location, at a minimum evaluating i) Fault rupture, ground shaking, and liquefaction-related hazards based on current building codes (e.g., CBC 2016), ASCE guidelines (e.g., ASCE 7-16) and other relevant laws and regulation (e.g., Alquist-Priolo Act, Seismic Hazard Mapping Act) and the most current, best available science; and ii) Other potential geologic and geotechnical hazards and concerns.
 - c) An engineering analysis, specific to project site/major component, demonstrating that project structures would be designed and constructed to withstand expected levels of ground shaking, liquefaction and ground settlement, lateral spreading, and/or other geologic hazards as determined in the geotechnical analysis, and describing the specific design elements and mitigation measures that would be used to assure the integrity of each structure.
 - d) Specific design recommendations and mitigation measures to address the hazards described in (b) and (c) above.
 - e) An Inspection and Maintenance Plan describing in detail the types and frequency of inspections and the procedures that will be followed to maintain the flood control elements and structures in good working condition.

For purposes of the geotechnical, hazards, and engineering analyses described in (a) – (d), above, the proposed project shall be considered a “critical facility” with its components subject to standards of “Structural Risk Category IV where applicable, and evaluated accordingly.

The Permittee shall undertake development in conformance with the approved final plans unless the Commission amends this permit or the Executive Director provides a written determination that no amendment is legally required.

- 10. Disaster Response Plan.** PRIOR TO ISSUANCE OF THIS PERMIT, the Applicant shall provide, for Executive Director review and approval, a Disaster Response Plan that describes all structural and operational measures to be implemented as part of the proposed development that will ensure the facility can maintain operations and be accessible during and immediately after any projected hazardous events that may occur at the project locations (e.g., an extreme tsunami, coastal storm, or earthquake). This Plan shall include:
- a) A description of how the Final Project Plans required pursuant to Special Condition 1 minimize the risks of extreme hazards to the project.
 - b) A description of all structural and operational disaster response measures/activities that will be implemented to ensure the project can operate and will not result in negative impacts to coastal resources during or quickly

following extreme hazard events including how access to the site will be maintained or quickly restored following a disaster.

- 11. Coastal Hazards Monitoring and Response Plan.** PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, the Applicant shall provide, for Executive Director review and approval, a Coastal Hazards Monitoring and Response Plan, the purpose of which is to gather information on erosion and other coastal hazards conditions near the wellhead site to better understand future adaptation needs.

The coastal hazards response and monitoring plan shall include development of a monitoring program that will be implemented to measure beach width and coastal erosion rates (and/or other relevant hazard conditions) at and near the wellhead sites to provide sufficient notice of when necessary adaptation threshold triggers are nearing or met. Monitoring reports shall be submitted to the Executive Director no less than every five years during the operating life of the project's wells. Reports shall describe monitoring results over the previous five-year period and any measures to be implemented if the risk of exposure or damage is expected within any upcoming five-year period.

Additionally, the first monitoring report (to be submitted within five years of Coastal Commission action on this permit) shall include:

- A description of conditions under which the wellheads, subsurface well components, and any related infrastructure could be exposed or damaged due to current and future erosion, wave runup, and flooding, accounting for storm scenarios and sea level rise (including high and extreme SLR projections)
- A description of adaptation strategies that would be implemented if necessary to address future anticipated coastal hazards risks. Identified strategies shall include removal, relocation, or other modifications that will not require the use of shoreline protective devices, and which will ensure protection of coastal resources consistent with the Coastal Act. The discussion shall also describe the amount of time various adaptation strategies would need to be implemented, including associated funding, permitting, and construction. Any future modification to project components would require submittal of an application to amend to this permit.
- Identification of beach width or other threshold triggers that will be used by SCWD to determine when any future modifications will need to be implemented to prevent damage or other impacts to project components. Identified triggers shall provide enough time to implement any necessary project modifications, including a minimum five years' notice of erosion rates (or other hazards conditions) that would require such changes.

In addition to monitoring results, subsequent monitoring reports shall describe any necessary updates to identified threshold triggers based on evolving site conditions or best available science, including in particular to address accelerating SLR rates (such as may result from extreme/H++ scenarios).

- 12. No Future Shoreline Protective Device.**

- a) By acceptance of this permit, the Applicant agrees, on behalf of itself and all other successors and assigns, that no shoreline protective device(s) shall be

- constructed to protect the wellheads and related desalination project-related development approved pursuant to Coastal Development Permit No. 9-20-0691 along Doheny State Beach in the event that the development is threatened with damage or destruction from flooding, waves, erosion, storm conditions, sea level rise, or other natural hazards in the future. By acceptance of this permit, the Applicant acknowledges that the project is new construction for which there is no right to construct shoreline protective devices, and hereby waives, on behalf of itself and all successors and assigns, any rights to construct such devices that may exist under applicable law. This subsection, and subsections (b) and (c), shall not be read as presumptively prohibiting changes to the flood walls along San Juan Creek in the vicinity of the plant site.
- b) By acceptance of this permit, the Applicant further agrees, on behalf of itself and all successors and assigns, that the landowner(s) shall remove the development authorized by this permit if: (a) the City or any government agency with jurisdiction has issued a final order, not overturned through any appeal or writ proceedings, determining that the structures are currently and permanently unsafe for occupancy or use due to damage or destruction from waves, flooding, erosion, bluff retreat, landslides, or other hazards related to coastal processes, and that there are no feasible measures that could make the structures suitable for habitations or use without the use of bluff or shoreline protective devices; (b) essential services to the site can no longer feasibly be maintained (e.g., utilities, roads); (c) the development is no longer located on private property due to the migration of the public trust boundary; (d) removal is required pursuant to LCP policies for sea level rise adaptation planning; or (e) the development would require a shoreline protective device to prevent a-d above.
 - c) In the event that portions of the development fall to the beach before they are removed, the landowner(s) shall remove all recoverable debris associated with the development from the beach and/or ocean and lawfully dispose of the material in an approved disposal site. Such removal shall require a coastal development permit. Prior to removal, the Applicant shall submit two copies of a Removal Plan to the Executive Director for review and written approval. The Removal Plan shall clearly describe the manner in which such development is to be removed and the affected area restored so as to best protect coastal resources, including the beach and Pacific Ocean.

- 13. Flood Hazard Minimization Plan.** PRIOR TO PERMIT ISSUANCE, the Applicant shall provide, for Executive Director review and approval, a Flood Hazard Minimization Plan for the plant site located along San Juan Creek that includes the following:
- A description of how the Final Project Plans required pursuant to **Special Condition 1** minimize the flood risks to the project and avoid any increase in flood hazards elsewhere in the floodplain.
 - A description of all structural and operational floodproofing measures that will be implemented to ensure the project can operate and will not result in negative

impacts to coastal resources in up to a 500-year flood, focusing in particular on any electrical components and hazardous materials that could be affected by such a flood.

- Documentation showing that the Applicant has coordinated with, and received concurrence from, relevant regional flood agencies that the project does not constrain anticipated future flood risk projects in the San Juan Creek watershed.

- 14. Energy Minimization and Greenhouse Gas Reduction.** PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, the Applicant shall submit, for Executive Director review and approval, an Energy Minimization and Greenhouse Gas Reduction Plan that provides the following:
- a) Identifies the expected annual amount of indirect greenhouse gas (“GHG”) emissions resulting from the desalination facility’s electricity use during its initial year of operations, with provisions to update these expected emissions during each subsequent year of operations. These amounts shall be based each year on the electricity supplier’s most recent emission factor for delivered electricity as reported to the California Air Resources Board (“CARB”) and/or Climate Action Registry (“CAR”) that identifies the tonnes of GHG emissions per megawatt of electricity generated.
 - b) For all remaining indirect GHG emissions resulting from facility operations, the Plan shall provide for the Applicant to submit an annual report for each year of facility operations that will identify all measures the Applicant will implement to ensure that the facility operates as “net carbon neutral” on an annual basis. These measures may include carbon offsets or Renewable Energy Credits purchased through CARB or CAR or approved by a California Air Pollution Control District, with reductions achieved using these measures documented by these entities as being “real, permanent, quantifiable, verifiable, and enforceable,” pursuant to CARB regulations, and with a preference for offsets or credits the provide benefits to local communities. Each year’s annual report shall be submitted for Executive Director review and approval within 90 days of the electricity supplier’s annual documentation to CARB or CAR of its most recent emission factor for delivered electricity. The Applicant may purchase more than one year’s worth of offsets or credits, if deemed prudent, to use in subsequent years, but at no time shall the facility be operating with its annual amount of indirect GHG emissions greater than its purchased offsets or credits for a given year.
 - c) The Plan may also identify any on-site and project-related measures the Applicant implements to avoid or reduce the facility’s indirect GHG emissions – for example, installation of a roof-mounted solar photovoltaic system, use of a fuel cell system, etc. - and describe the amount of emissions avoided through these measures.
- 15. Low-Income Ratepayer Impacts Assessment.** Prior to construction, SCWD shall in one year submit, for review and approval of the Executive Director, a report that includes 1) a low-income customer study that identifies low-income customers in the district (using income guidelines of 200% federal poverty level as well as California Assembly Bill 1550 (2016)) and limited English proficiency customers in

its service area; 2) recommendations on feasible programming to alleviate cost burdens to low-income customers; , and finally 3) how SCWD will implement feasible programs into its operations. The report will also include a description of the methodology used in its development. The methods must include outreach and engagement with customers and organizations with culturally appropriate outreach methods that may include digital, paper, and in- person options, and a language access protocol that outlines how materials will be developed such as translation into non-English languages, particularly Spanish, and written in language likely to be understood by a ordinary individual.

- 16. Cultural Resource Monitoring During Construction.** Prior to construction, SCWD (or its designee) shall retain a Cultural Resource Specialist (“CRS”) that meets the minimum qualifications of the U.S. Secretary of Interior Guidelines (NPS 1983). Prior to construction, SCWD (or its designee) shall additionally retain a Native Monitor representing the Juaneño Band of Mission Indians, Acjachemen Nation- Belardes/Lucero. The CRS and Native Monitor shall be present during initial deep excavations for pipeline trenches, vaults and desalination facility structures that penetrate below native ground surface. The CRS, Native Monitor, and the Project Construction Manager shall have the authority to halt construction if previously unknown cultural resource sites or materials are encountered. In the event of unexpected cultural resource discovery, the Native Monitor and CRS shall have the authority to redirect ground disturbance under consultation with the Construction Manager.