

Staff Report 71

APPLICANT:

South Coast Water District

PROPOSED ACTION:

Issuance of a General Lease – Public Agency Use

AREA, LAND TYPE, AND LOCATION:

Sovereign land in the Pacific Ocean, adjacent to Doheny State Beach, Orange County

AUTHORIZED USE:

Construction, operation, and maintenance of up to five subsurface slant wells and the operation and maintenance of one acoustic doppler current profiler.

TERM:

20 years, beginning December 9, 2022.

CONSIDERATION:

The public use and benefit, with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interests.

SPECIFIC LEASE PROVISIONS:

- Lessee shall conduct Tribal consultation and outreach efforts with culturally affiliated Tribes within the Doheny Ocean Desalination Project area at least 1 year prior to the start of project construction. At least ninety (90) days prior to start of construction, Lessee shall submit to Lessor's staff, a Tribal consultation report describing Lessee's consultation and outreach efforts over the preceding year, including correspondence to and from Tribes.

- Concurrent with its submission to the California Coastal Commission, Lessee shall provide to Commission staff a copy of the Low-Income Ratepayer Impacts Assessment Report as described in Special Condition 15 of Coastal Development Permit 9-20-0691.
- Lessee shall submit for Lessor's staff review a copy of the annual GHG verification report ("True-up" Report) described in and required by Mitigation Measure GHG-2 of the Mitigation and Monitoring Program contained in Exhibit C to this Lease. Lessee will provide the Report beginning within one year after project commencement, and by June 1 every year thereafter for the term of the Lease.
- Based on the "True-up" Report and other information available to Lessee as part of the cost evaluation for Tier 1, 2, and 3 GHG offset credits pursuant to Mitigation Measure GHG-1, Lessee shall submit for Lessor's staff review a report summarizing and comparing Lessee's actual expenditures and associated resulting ratepayer costs for the three Tiers of greenhouse gas offsets (Offset Costs Report). Lessee shall provide the Offset Costs Report beginning ~~June 1,~~ within one year after project commencement-2025, and by June 1 every three years thereafter for the term of the Lease or until all GHG emissions have been mitigated, whichever occurs first.
- Based on the information in the Offset Costs Report, and consistent with Section 2, Paragraph 18 of this Lease, Lessor reserves the right to reassess and revise Mitigation Measure GHG-1 in coordination with Lessee following each 10-year anniversary of the Lease.

BACKGROUND:

In 2003, the Municipal Water District of Orange County (MWDOC) began studying the feasibility of using seawater desalination in south coastal Orange County's water supply portfolio. The project at the time was referred to as the South Orange County Ocean Desalination Project but has since been renamed the Doheny Ocean Desalination Project (Project).

The Project applicant, the South Coast Water District (SCWD), is a public agency that provides potable water, recycled water for irrigation, and wastewater services to approximately 35,000 residents, 1,000 businesses, and 2 million visitors per year in south Orange County. The SCWD's service area includes the communities of Dana Point, South Laguna Beach, and areas of San Clemente and San Juan Capistrano.

For nearly 20 years, the MWDOC and the SCWD have prepared Project feasibility and technical studies, and on December 8, 2005 ([Item 64, December 8, 2005](#)), the Commission authorized a General Lease – Public Agency Use to the MWDOC for a

test slant well at Doheny State Beach Doheny State Beach. In 2017, the test slant well casing was decommissioned and destroyed. Slant well tests and modeling indicated that slant wells at Doheny State Beach could withdraw up to approximately 30 million gallons per day (MGD) of ocean water without adversely affecting groundwater resources.

In 2016, the SCWD published its [Foundational Actions Funding Program](#) document, which summarized the work of the SCWD's consultants and the MWDOC regarding slant well technology and potential effects to groundwater and water quality.

In 2017, the SCWD completed a [Water Reliability Study](#), which identified existing and future water reliability concerns, including system and supply reliability. The study also ranked five other water supply projects compared with the Project. The Doheny Ocean Desalination Project ranked highest in system and supply reliability, resilience to seismic events and climate change, and retaining a high level of local control over the Project. (Related materials are available in SCWA's [Technical Library](#) for the Project.)

STAFF ANALYSIS AND RECOMMENDATION:

AUTHORITY:

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

PUBLIC TRUST AND STATE'S BEST INTERESTS:

The SCWD has applied for a General Lease – Public Agency Use to construct, operate, and maintain up to five subsurface slant wells and to operate and maintain one acoustic doppler current profiler associated with the Project. The SCWD proposes to construct and operate an ocean desalination facility with an initial capacity of 5 MGD, with the potential for future expansion of up to 15 MGD. SCWD prepared an Environmental Impact Report (EIR) for the Project, certifying it on June 27, 2019. The EIR analyzed the 5 MGD operations of the Project; any future expansion beyond 5 MGD will require additional analysis under the California Environmental Quality Act (CEQA).

The SCWD currently imports the majority of its water supply from the MWDOC. This supply is brought to the Southern California area by the Metropolitan Water District of Southern California. The SCWD anticipates an 11 percent increase in water demand and 7 percent population growth over the next 25 years. The SCWD believes the Project will reduce dependence on imported water and secure a reliable, drought-proof water supply. Together with recycled water and

groundwater, the Project is anticipated to provide the SCWD with approximately 92 percent of its water supply. The EIR notes that the Project is proposed in conjunction with, not as a replacement for, existing efficiency measures such as, conservation, an automated Leak Detection Program, use of recycled water for irrigation, and a Groundwater Recovery Facility that treats brackish water to drinking water standards. The Project would also provide the SCWD with the opportunity to meet emergency water demands from other local agencies.

The Project components within the Commission's jurisdiction are limited to the five subsurface slant wells and the concentrated brine disposal system, specifically, the use of the existing San Juan Creek wastewater ocean outfall (SJCOO) to discharge brine from the proposed upland desalination plant. The SJCOO is currently under a separate lease (Lease 5253) with the South Orange County Wastewater Authority (SOCWA).

Subsurface slant wells

Up to five subsurface slant wells would originate from two ~~to three~~ wellheads, located within Doheny State Beach and south of San Juan Creek. The wellheads themselves are outside the Commission's jurisdiction. The slant wells will extend 600-900 feet waterward of the wellheads and terminate 75-130 feet beneath the seafloor within the Commission's leasing jurisdiction. The wells will be constructed using a dual rotary drilling method. This method utilizes a large diameter cased borehole inside which the well is constructed, and gravel packed before the outer casing is then extracted. Dual rotary drilling is a relatively fast method of construction and has a relatively small footprint. Once installed, the wells would be developed, which involves pumping out sand and other debris. Ocean water from the well development process would be discharged via the existing SJCOO vault located at the Doheny State Beach Campgrounds. Exact well location will be determined by geotechnical investigations prior to construction and by field observations during construction of the initial slant wells.

Once operational, the slant wells would provide the upland desalination plant approximately 10 MGD of feedwater. The recovery rate of potable water is roughly 50 percent. The remaining 50 percent is brine and existing treated process waste streams, which would be disposed of through the SJCOO.

Construction is anticipated to begin in the fourth quarter of 2024 and would occur over a continuous 18 to 24-month period.

Brine Discharge

Processed brine from the desalination plant would be discharged through the existing SJCOO, which is owned and operated by the SOCWA, of which the SCWD is a member agency. The brine and treated process waste streams would be

blended in the outfall pipeline with the existing wastewater streams from the J.B. Latham Wastewater Treatment Plant. Mixing desalination brine with existing wastewater treatment plant flow (comingled discharge) is the preferred method and consistent with the State Water Resources Board's [Ocean Plan Amendment](#) on seawater desalination facilities.

On March 9, 2022, the San Diego Regional Water Quality Control Board (SDRWQCB) adopted [Order No. R9-2022-0005](#) and National Pollutant Discharge Elimination System Permit (NPDES) No. CA0107417. The order became effective on May 1, 2022, and expires on April 30, 2027. The order requires the offset of potential harm from brine discharge associated with the Project by creating 7.45 acres of wetland mitigation. Additionally, the order includes a requirement for use of new technology for monitoring water quality near the outfall, the outfall wastewater plume location, and potential migration to recreational areas, as well as a fecal source marker to identify bacteria that poses a potential health threat to swimmers, surfers, and other ocean recreational users. The NPDES Permit authorizes a combined discharge of approximately 43.8 million gallons per day from multiple member agency sources to the SJCOO.

The SOCWA has applied to the Commission to terminate their existing lease for the SJCOO and has applied for a new lease to allow for the continued use of the outfall, including the disposal of brine from the Project. That proposed new lease will be considered as a separate agenda item (Item 52) at the December 9, 2022, Commission meeting.

Acoustic Doppler Current Profiler

The SCWD has also requested to operate and maintain an acoustic doppler current profiler (ADCP), which will be placed offshore of Doheny State Beach as part of a larval fish study required as part of Order No. R9-2022-0005, issued by the SDRWQCB. The ADCP will be a seafloor-mounted, upward looking system that will periodically measure and record current speed and direction throughout the water column. The ADCP will be mounted to an aluminum tripod frame. The frame measures 24-inches on each side (1.7 square feet) and is 24-inches tall. The frame would be anchored to the seafloor using anchors on chains. The unit would also include an attached zinc anode to minimize corrosion. The unit itself would be mounted in the center of the frame.

Public Trust Uses and Public Access

The proposed slant wells would be located below Doheny State Beach and the seafloor and would not interfere with Public Trust uses. Public access to lands under the Commission's jurisdiction would not be negatively impacted or restricted during project construction. Public access to Doheny State Beach from the Doheny State

Beach north and south day use day areas would remain open during project construction. However, the closure of the Doheny State Beach Campground will impact camping opportunities along the coast. SCWD is working closely with State Parks to fund the opening of nearby coastal campgrounds that are generally closed seasonally due to staffing and funding constraints. The proposed lease does not alienate the State's fee simple interest or permanently impair public rights. The lease is limited to a 20-year term and does not grant the lessee exclusive rights to the lease premises. Upon termination of the proposed lease, the lessee may be required to remove all improvements from State land and restore the lease premises to their original condition.

CLIMATE CHANGE:

Climate change impacts, including sea level rise, more frequent and intense storm events, increased flooding and erosion, and changes in sand deposition, affect open coastal areas in California. The subsurface slant wells and the ADCP would be located in the Pacific Ocean offshore of the City of Dana Point, which is a tidally influenced site.

The California Ocean Protection Council updated the *State of California Sea-Level Rise Guidance* in 2018 to provide a synthesis of the best available science on sea level rise projections and rates. Commission staff evaluated the "high emissions," "low risk aversion" scenario to apply a conservative approach based on both current emission trajectories and the lease location and structures. The La Jolla tide gauge was used for the projected sea level rise scenario for the region as listed in Table 1.

Table 1. Projected Sea Level Rise for La Jolla

Year	Projection (feet)
2030	0.6
2040	0.9
2050	1.2
2100	3.6

Source: Table 31, State of California Sea-Level Rise Guidance: 2018 Update

Note: Projections are with respect to a 1991 to 2009 baseline.

As stated in *Safeguarding California Plan: 2018 Update* (California Natural Resources Agency 2018), climate change is projected to increase the frequency and severity of natural disasters related to flooding, drought, and storms (especially when coupled with sea level rise). The combination of these conditions will likely result in increased wave run-up, storm surge, and flooding in coastal areas. In tidally

influenced waterways, more frequent and powerful storms can result in increased flooding conditions and damage from storm-created debris.

Climate change and sea level rise will further influence coastal areas by changing erosion and sedimentation rates. Beaches and coastal landscapes will be exposed to increased wave force and run-up, potentially resulting in greater erosion than previously experienced.

Rising sea levels can lead to increased flooding through regular inundation and larger flooding events, when combined with tidal events and storm surges. These climate change and sea level rise impacts can also affect erosion and sedimentation rates through increased wave action and scour, which in turn can lead to decreased shoreline stability and structure. Approximately 800 to 900 linear feet of the slant wells lie within the jurisdiction of the Commission and would be found below the seafloor. There is no slant well development directly on Doheny State Beach, on the seafloor, or in ocean waters within the Commission's leasing jurisdiction. The slant wells will extend 600-900 feet waterward of the wellheads and terminate 75-130 feet beneath the seafloor within the Commission's jurisdiction. Therefore, the portion of the slant well facilities within the lease area is not likely to be vulnerable to the impacts from sea level rise, or frequent and intense storms that are the result of climate change.

The effects of more frequent and intense storms and wave action may require more frequent inspection and maintenance of all ADCP components (i.e., anchor, chain, tripod, etc.). While the ADCP is designed to remain anchored to the seafloor, future increased storm activity may necessitate additional infrastructure to connect the ADCP to the anchor. Regular maintenance and inspections during the information-collecting period will reduce the likelihood of severe structural degradation or dislodgement. The lease includes an acknowledgement that the lease premises may be subject to the effects of sea level rise and may require additional maintenance or protection as a result, for which the lessee agrees to be solely responsible.

GREENHOUSE GAS EMISSIONS:

As adopted in the Mitigation Monitoring and Reporting Program for the Final EIR in 2019, the Project would include carbon offset purchases as part of mitigation measure (MM) GHG-1 to achieve net carbon neutrality. Since the Final EIR was certified, however, *Golden Door Properties, LLC v. County of San Diego* (2020) 50 Cal. App.5th 467 (*Golden Door II*) added a level of increased rigor for the use of greenhouse gas (GHG) credits as CEQA mitigation. In its decision, the California Fourth District Court of Appeal held that a supplemental environmental impact report prepared by San Diego County for their Climate Action Plan violated CEQA

because it relied on a mitigation measure that was improperly deferred and lacked enforceable performance criteria. The court specifically questioned the use of GHG credits not approved according to California Air Resources Board (CARB) protocol within the California Cap-and-Trade Program and in particular, credits that could originate outside of California. The court also criticized the measure's sole reliance on San Diego County staff to assess future GHG credit feasibility and enforcement.

While the court's decision does not prohibit the use of GHG credits as CEQA mitigation, it underscores the need for such mitigation to include enforceable performance standards and objective criteria to ensure that the GHG reductions from GHG credits are achieved. Therefore, staff recommends MM GHG-1 be modified to be consistent with recent court guidance. The updated measure outlines specific and comprehensive criteria for purchasing the GHG credits, requiring GHG offsets to 1) come from GHG reduction projects, and 2) be purchased from an approved registry. MM GHG-1 also requires the SCWD to prioritize GHG offset purchases from the Project region (see Exhibit C for full text).

Additionally, the proposed lease includes provisions requiring the lessee to provide staff a copy of the Annual GHG Verification Report ("True-up" Report) described in and required by Mitigation Measure GHG-2 of the Mitigation and Monitoring Program so that staff can confirm lessee's compliance with GHG mitigation as well as gather needed data on the GHG credit market.

TRIBAL CULTURAL RESOURCES REVIEW:

The Final EIR found that impacts to unanticipated tribal cultural resources, including those that could potentially result from excavation activities, could result from activities occurring on or affecting State lands. However, two mitigation measures were adopted by the SCWD that would reduce these impacts to a less than significant level by providing worker awareness training as well as construction monitoring to establish work stoppage and reporting protocols in the event of a tribal cultural resource discovery.

The SCWD continued tribal consultations after Final EIR certification, reaching out to the Juaneño Band of Mission Indians – Acjachemen Nation (Lucero Group) and following up with calls, presentations, and email correspondence between June 6, 2022, and July 8, 2022, including a comprehensive Project briefing and updates for the Lucero Group on July 7, 2022. The SCWD provided responses to various questions and continues to coordinate with the tribe. The SCWD also reached out to the Juaneño Band of Mission Indians, Acjachemen Nation, led by Joyce Perry (Belardes Group) and followed up with calls, presentations, and email correspondence between June 8, 2022, and July 19, 2022, including a

comprehensive Project briefing and updates on July 11, 2022, via Zoom. The Belardes Group requested MM CUL-2 include retention of a Native Monitor representing the Juaneño Band of Mission Indians, Acjachemen Nation – Belardes/Lucero, to which the SCWD agreed.

On September 7, 2022, the SCWD informed the Lucero Group and Belardes Group that, at State Park's request, the Modified Project would limit construction to the Doheny State Beach Campgrounds and avoid the north day use area. On November 2 and November 9, 2022, the SCWD emailed and called, respectively, the Gabrieleño Band of Mission Indians – Kizh Nation to ascertain their interest in the Project and to provide any needed information. Finally, on November 14, 2022, the SCWD reached out to the Gabrielino-Tongva Tribe of the San Gabriel Band of Mission Indians via email and phone call. Tribal consultation and coordination efforts remain ongoing, and the SCWD has not received any tribal objections or further concerns related to the Modified Project as of November 14, 2022.

As indicated above, the SCWD agreed to modify MM CUL-2 after the Final EIR was certified, and the new language requires both a Cultural Resource Specialist and a Native Monitor from the Juaneño Band of Mission Indians, Acjachemen Nation-Belardes, to be present during deep excavations with the authority to halt construction if tribal cultural resources or materials are encountered. However, as the SCWD's tribal engagement remains ongoing, staff recommends further modifications to MM CUL-2, requiring the SCWD to contact other culturally-affiliated tribes and retain additional Native Monitors if requested (see Exhibit C for full text).

ENVIRONMENTAL JUSTICE:

Environmental Justice is a priority for the Commission. In December 2018, the Commission adopted a new Environmental Justice Policy and Implementation Blueprint ([Item 75, December 3, 2018](#)). The Commission's Environmental Justice Policy emphasizes community outreach, inclusive decision-making, transparency, and accountability, among other things. Consistent with the policy, staff reviewed environmental justice data and analyzed impacts to the surrounding communities.

Staff used data from CalEnviroScreen that indicated a high pollution burden in the Project area. These burdens may result in health impacts such as asthma and cardiovascular disease. The same data showed high exposure to diesel particulate matter, high traffic density, and close proximity to solid waste facilities, cleanup sites, hazardous waste, and impaired water bodies. In addition to using environmental pollution burden information, staff also analyzed socioeconomic characteristics of the communities serviced by the applicant. Staff used data sets available through CalEnviroScreen and AB 1550 low-income communities. These

data showed several neighborhoods with higher housing burdens than the rest of the state. Moreover, communities in the service area are considered linguistically isolated, with about 2,000 individuals whose primary language is Spanish.

Based on the results of the analysis, staff reached out to the local community to seek their perspective on the proposed Project. In an effort to not overburden environmental justice organizations, Commission staff partnered with Coastal Commission staff, which was reviewing the Project at the same time, and held a number of engagement meetings with environmental justice stakeholders.

Although the applicant conducted outreach as part of the CEQA requirements and EIR process, including through the Notice of Preparation and the Notice of Availability, some of the main concerns raised by stakeholders include lack of meaningful engagement and public participation opportunities. There were also concerns related to language access. Interviewees expressed discontent with the lack of materials made available in Spanish and the highly technical language used in communications with the public. Furthermore, they were frustrated with the lack of meaningful tribal outreach and engagement. Staff has included a lease provision requiring the applicant submit a report of the ongoing tribal outreach and consultation and has revised MM CUL-2 in the Final EIR to include outreach, and consultation if requested, with all culturally-affiliated tribes.

The environmental justice stakeholders appreciated that a public water district is undertaking this Project instead of a private for-profit company and that it is smaller in scale than other recent desalination projects. Yet, they emphasized that desalination is far more expensive than alternative water sources, such as water recycling and increased conservation. Project opponents expressed concern about the increase in water cost for people in the applicant's service area that are low-income and considered environmental justice communities. They fear that this economic burden could be acutely felt by renters in multi-family units and might drive community members to leave the area. Staff has included a lease provision requiring the applicant provide a copy of the Low-Income Ratepayer Impacts Assessment Report required by the California Coastal Commission Coastal Development Permit (CDP) Special Condition 15. The report will include a low-income study that identifies low-income customers in the district and limited English proficiency customers in SCWD's service area. The report will also include recommendations on feasible programming to alleviate costs burdens to low-income customers and lastly, how SCWD will implement feasible programs into its operations.

Additionally, the lease includes provisions to help assure that expenditures on GHG credits do not contribute to an undue burden on ratepayers, particularly those of low-income. The proposed lease would require the lessee to create, and provide to staff, every three years, an Offset Costs Report summarizing and comparing Lessee's actual expenditures and associated ratepayer costs for purchases of GHG credits (offsets). Based on the information in the Offset Costs Report, the Commission would reserve the right to reassess and revise Mitigation Measure GHG-1 in coordination with Lessee following each 10-year anniversary of the Lease.

CONCLUSION:

In summary, the proposed lease is for a public agency project to augment water supply in conjunction with existing water efficiency measures. The lease requires the Project's compliance with all regulatory permits, including a water quality NPDES permit requiring, among other provisions, wetland mitigation, a larval fish study, and water quality monitoring. The lease also requires compliance with the CDP that requires a report on ratepayer impacts that would also be provided to Commission staff. Public access to Commission Public Trust lands would not be restricted during Project construction, and the lease is for a limited 20-year, non-exclusive lease.

For all the reasons above, staff believes the issuance of this lease will not substantially impair public access or the public rights to navigation and fishing or substantially interfere with Public Trust needs and values at this location, at this time, and for the foreseeable term of the proposed lease; and is in the best interests of the State.

OTHER PERTINENT INFORMATION:

1. Approval or denial of the lease is a discretionary action by the Commission. Each time the Commission approves or rejects a use of sovereign land, it exercises legislatively delegated authority and responsibility as trustee of the State's Public Trust lands as authorized by law. If the Commission denies the application, the lessee may not proceed with the proposed project. The lessee has no right to a new lease or to renewal of any previous lease.
2. This action is consistent with the "Meeting Evolving Public Trust Needs," "Leading Climate Activism," "Prioritizing Social, Economic, and Environmental Justice," and "Partnering with Sovereign Tribal Governments and Communities" Strategic Focus Areas of the Commission's 2021-2025 Strategic Plan.
3. The approved Project as described in the Final EIR assumed construction within the Doheny State Beach north and south day use areas. The installation of slant

wells was also initially proposed adjacent to the north day use area. State Parks staff suggested a modified project that would limit construction at Doheny State Beach to occur entirely within the Doheny State Beach campground area. The modified Project avoids all construction and operational impacts within the north and south day use areas; slant wells would no longer be drilled adjacent to the north day use area and across the San Juan Creek Lagoon. The Modified Project would reduce the construction footprint from 32 to 9 acres: a roughly 70% reduction in the area affected by the Project within Doheny State Beach.

4. Closure of the Doheny State Beach campground during Project construction will allow State Parks to complete long-planned repairs and improvements, including:
 - Water, power, and sewer hookups for individual campsites;
 - Safety improvements to the existing bicycle and pedestrian path that runs adjacent and through the campground; and
 - Replacing the existing amphitheater/firepit and kiosk area with an appropriate interpretation/education area.
5. **Doheny Ocean Desalination Project:** An EIR, State Clearinghouse (SCH) No. 2016031038, was prepared by the SCWD for the Doheny Ocean Desalination Project (Project) and certified on June 27, 2019. As part of its project approval, the SCWD made a Statement of Facts and Findings and adopted a Mitigation Monitoring and Reporting Program. However, the EIR does not include an analysis of September 2022 changes to the Project (Modified Project). Pursuant to the Commission's delegation of authority and the State CEQA Guidelines (Cal. Code Regs., tit. 14, § 15025), the Commission staff has prepared an Addendum to analyze the environmental impacts from the Modified Project, including a compressed construction schedule, slant well placement at the Doheny State Beach Campgrounds, and elimination of Project activities from the Doheny State Beach north day use area and the beach. In November 2022, staff posted the [Addendum](#) on the Commission website with links to the SCWD's Draft EIR and Final EIR. Based on substantial evidence and the evaluation of the Modified Project contained in the Addendum, no new mitigation measures are required and none of the conditions described in CEQA Guidelines section 15162, subdivision (a), have occurred.

Staff has reviewed these documents and prepared an independent Mitigation Monitoring Program (MMP) (attached, Exhibit C) that incorporates the SCWD's document. The MMP contains an updated MM CUL-2 (Construction Monitoring),

which the SCWD has agreed to adopt, replacing the original MM CUL-2. Staff recommends adoption of the Exhibit C MMP by the Commission.

Staff also prepared Findings made in conformance with the State CEQA Guidelines (Cal. Code Regs., tit. 14, §§ 15091, 15096) contained in the attached Exhibit D. Staff recommends the Commission adopt the Findings contained in the attached Exhibit D.

6. **Installation of an Acoustic Doppler Current Profiler:** Staff recommends that the Commission find that this activity is exempt from the requirements of CEQA as a categorically exempt project. The project is exempt under Class 6, Information Collection; California Code of Regulations, title 2, section 2905, subdivision (e)(5).

Authority: Public Resources Code section 21084 and California Code of Regulations, title 14, section 15300 and California Code of Regulations, title 2, section 2905.

7. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370 et seq, but such activity will not affect those significant lands. Based upon participation from the agency nominating such lands through the CEQA review and permitting process, it is staff's opinion that the project, as proposed, is consistent with its use classification.

APPROVALS OBTAINED:

California Coastal Commission
San Diego Regional Water Quality Control Board

APPROVALS REQUIRED:

California State Parks
U.S. Army Corps of Engineers
U.S. Fish and Wildlife Service
National Marine Fisheries Service

EXHIBITS:

- A. Land Description
- B. Site and Location Map

- C. Mitigation Monitoring Program
- D. Statement of Findings

RECOMMENDED ACTION:

It is recommended that the Commission:

CEQA FINDING:

Doheny Ocean Desalination Project: Find that an EIR, State Clearinghouse No. 2016031038, was prepared for the Doheny Ocean Desalination Project by the South Coast Water District and certified on June 27, 2019, and that the Commission has reviewed and considered the information contained therein, and in the [Addendum](#) prepared by staff in November 2022.

Find that in its independent judgment, none of the events specified in Public Resources Code section 21166 or State CEQA Guidelines section 15162 resulting in any new or substantially more severe significant impacts has occurred, and therefore, no additional CEQA analysis is required.

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

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

Determine that the Project, as approved, will not have a significant effect on the environment.

Installation of an Acoustic Doppler Current Profiler: Find that the activity is exempt from the requirements of CEQA as a categorically exempt project, Class 6, Information Collection; California Code of Regulations, title 2, section 2905, subdivision (e)(5).

SIGNIFICANT LANDS INVENTORY FINDING:

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

PUBLIC TRUST AND STATE'S BEST INTERESTS:

Find that the proposed lease will not substantially interfere with the Public Trust needs and values at this location, at this time, and for the foreseeable term of the lease; and is in the best interests of the State.

AUTHORIZATION:

1. Authorize issuance of a General Lease – Public Agency Use to the Applicant beginning December 9, 2022, for a term of 20 years, for the construction, operation, and maintenance of up to five subsurface slant wells and the operation and maintenance of one acoustic doppler current profiler, as described in Exhibit A and shown on Exhibit B (for reference purposes only) attached and by this reference made a part hereof; consideration being the public use and benefit, with the State reserving the right at any time to set a monetary rent if the Commission finds such action to be in the State's best interest.
2. Authorize the Executive Officer or designee to replace Exhibits in the lease upon submission, review, and approval of site location descriptions following installation of the authorized improvements.

EXHIBIT "A"

A 3216

LAND DESCRIPTION

All those certain portions of tide and submerged land in the Pacific Ocean adjacent to Doheny State Park, situated in the County of Orange, State of California, as shown on the map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina" by the California State Lands Division, dated February 1964 and filed as plan 8083, August 15, 1964, in the Office of the Orange County Surveyor, described as follows:

Parcel D1

A 100.00 foot wide strip of land lying 50.00 feet on each side of the following described centerline:

BEGINNING at a point that bears North 70°48'17" West, 2649.95 feet from NGS monument DOHENY as shown on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina";

thence from said **POINT OF BEGINNING** South 30°12'58" West, 870.00 feet to the **POINT OF TERMINATION**.

The sidelines of said strip are to be extended or shortened to begin on the mean high tide line of said Pacific Ocean and to terminate at a line perpendicular to the terminus of said centerline.

EXCEPTING THEREFROM any portion lying landward of the Mean High Tide Line as shown on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina."

The bearings shown hereon are based on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina."

Parcel D2

A 100.00 foot wide strip of land lying 50.00 feet on each side of the following described centerline:

BEGINNING at a point that bears North 70°48'17" West, 2649.95 feet from NGS monument DOHENY as shown on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina";

thence from said **POINT OF BEGINNING** South 16°11'43" West, 910.00 feet to the **POINT OF TERMINATION**.

The sidelines of said strip are to be extended or shortened to begin on the mean high tide line of said Pacific Ocean and to terminate at a line perpendicular to the terminus of said centerline.

EXCEPTING THEREFROM any portion lying landward of the Mean High Tide Line as shown on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina."

ALSO EXCEPTING THEREFROM any portion within Parcel D1 herein described.

The bearings shown hereon are based on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina."

Parcel D3

A 100.00 foot wide strip of land lying 50.00 feet on each side of the following described centerline:

BEGINNING at a point that bears North 70°48'17" West, 2649.95 feet from NGS monument DOHENY as shown on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina";

thence from said **POINT OF BEGINNING** South 0°19'54" East, 930.00 feet to the **POINT OF TERMINATION**.

The sidelines of said strip are to be extended or shortened to begin on the mean high tide line of said Pacific Ocean and to terminate at a line perpendicular to the terminus of said centerline.

EXCEPTING THEREFROM any portion lying landward of the Mean High Tide Line as shown on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina."

ALSO EXCEPTING THEREFROM any portion within Parcels D1 and D2 herein described.

The bearings shown hereon are based on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina."

Parcel E1

A 100.00 foot wide strip of land lying 50.00 feet on each side of the following described centerline:

BEGINNING at a point that bears North 70°31'35" West, 2070.38 feet from NGS monument DOHENY as shown on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina";

thence from said **POINT OF BEGINNING** South 22°19'45" West, 930.00 feet to the **POINT OF TERMINATION**.

The sidelines of said strip are to be extended or shortened to begin on the mean high tide line of said Pacific Ocean and to terminate at a line perpendicular to the terminus of said centerline.

EXCEPTING THEREFROM any portion lying landward of the Mean High Tide Line as shown on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina."

The bearings shown hereon are based on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina."

Parcel E2

A 100.00 foot wide strip of land lying 50.00 feet on each side of the following described centerline:

BEGINNING at a point that bears North 70°31'35" West, 2070.38 feet from NGS monument DOHENY as shown on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina";

thence from said **POINT OF BEGINNING** South 0°48'49" West, 970.00 feet to the **POINT OF TERMINATION**.

The sidelines of said strip are to be extended or shortened to begin on the mean high tide line of said Pacific Ocean and to terminate at a line perpendicular to the terminus of said centerline.

EXCEPTING THEREFROM any portion lying landward of the Mean High Tide Line as shown on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina."

ALSO EXCEPTING THEREFROM any portion within Parcel E1 herein described.

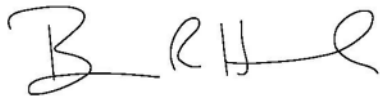
The bearings shown hereon are based on said map of the "Survey of The Mean High Tide Line Along the Shore of The Gulf of Santa Catalina."

Parcel G – Acoustic Doppler Current Profiler (ADCP)

A circle with a radius of 8.00 feet, the radius point being at the center of the Acoustic Doppler Current Profiler to be located at 33 degrees 26.262 minutes of Latitude and -117 degrees 41.262 minutes of Longitude.

The coordinates shown hereon are based on the World Geodetic System 1984.

END OF DESCRIPTION

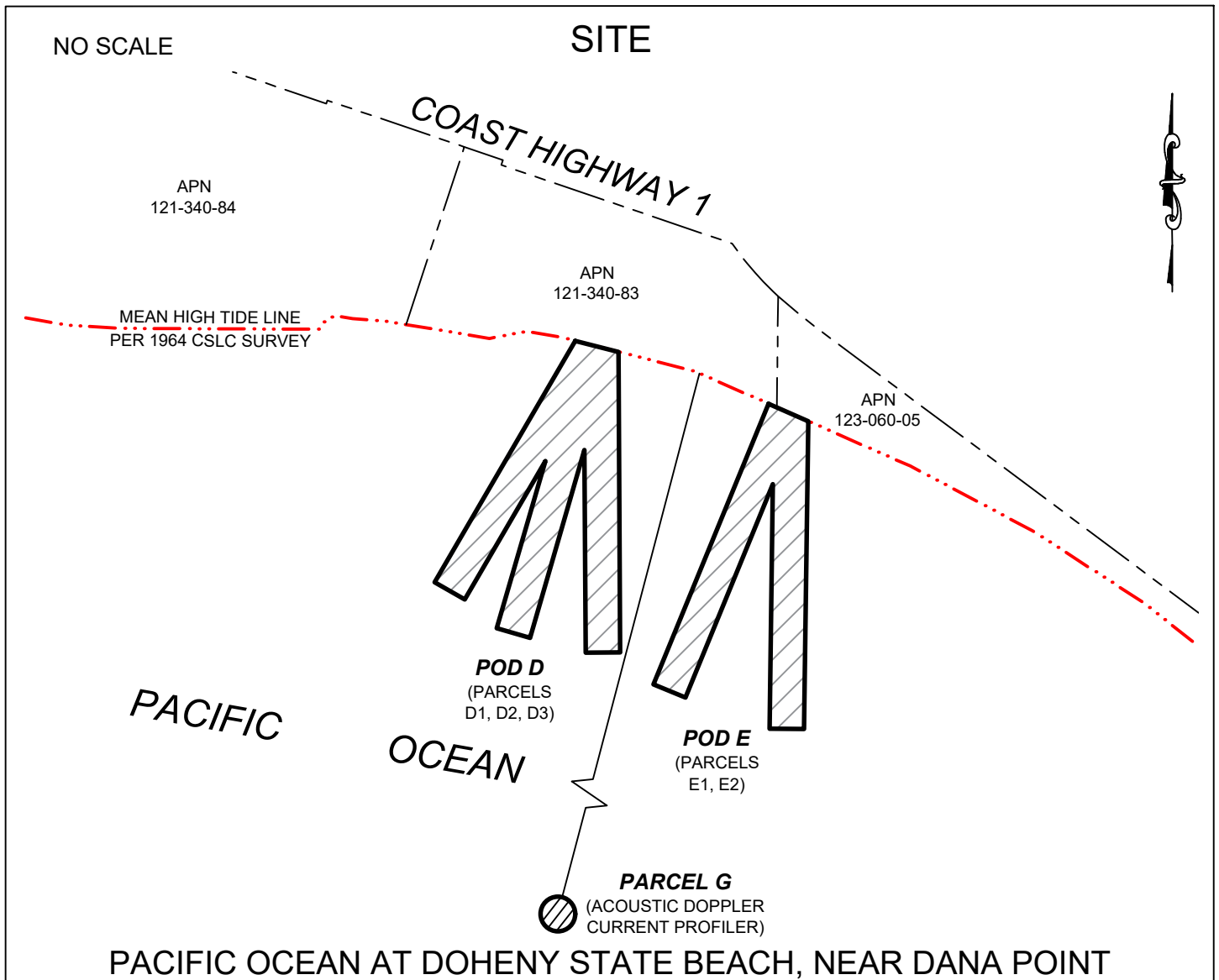


09-21-22

Brian R. Howard PLS 7250

Date





PACIFIC OCEAN AT DOHENY STATE BEACH, NEAR DANA POINT

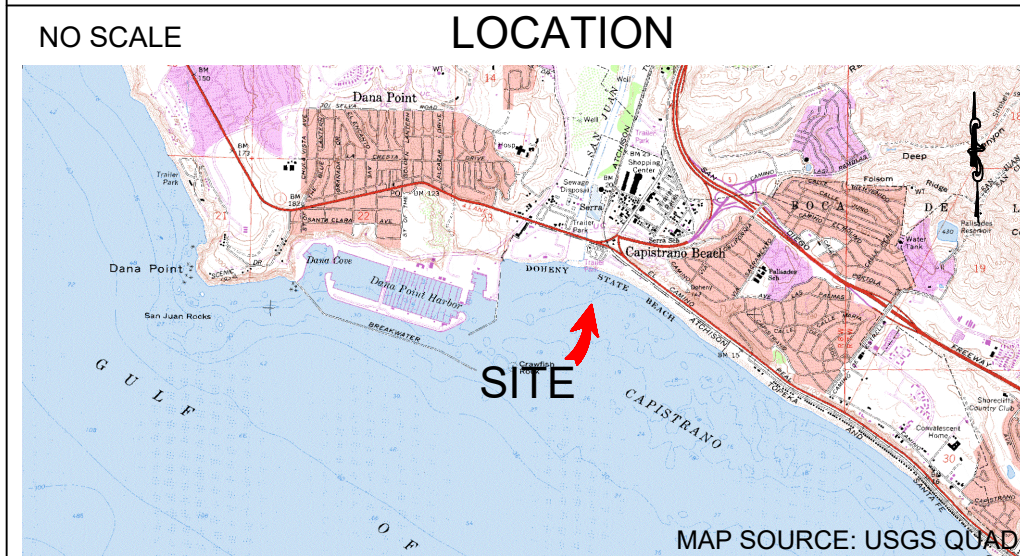


EXHIBIT B
A 3216
SOUTH COAST WATER DISTRICT
APNs 121-340-83, -84 &
123-060-05
GENERAL LEASE -
PUBLIC AGENCY USE
ORANGE COUNTY



THIS EXHIBIT IS SOLELY FOR PURPOSES OF GENERALLY DEFINING THE LEASE PREMISES, IS BASED ON UNVERIFIED INFORMATION PROVIDED BY THE LESSEE OR OTHER PARTIES AND IS NOT INTENDED TO BE, NOR SHALL IT BE CONSTRUED AS, A WAIVER OR LIMITATION OF ANY STATE INTEREST IN THE SUBJECT OR ANY OTHER PROPERTY.

EXHIBIT C
CALIFORNIA STATE LANDS COMMISSION
MITIGATION MONITORING PROGRAM
DOHENY OCEAN DESALINATION PROJECT
(A3216, State Clearinghouse No. 2016031038)

The California State Lands Commission (Commission or CSLC) is a responsible agency under the California Environmental Quality Act (CEQA) for the Doheny Ocean Desalination Project (Project). The CEQA lead agency for the Project is the South Coast Water District.

In conjunction with approval of this Project, the Commission adopts this Mitigation Monitoring Program (MMP) for the implementation of mitigation measures for the portion(s) of the Project located on State lands. The purpose of a MMP is to impose feasible measures to avoid or substantially reduce the significant environmental impacts from a project identified in an Environmental Impact Report (EIR) or a Mitigated Negative Declaration (MND). State CEQA Guidelines¹ section 15097, subdivision (a), states in part:

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

The lead agency certified an EIR, State Clearinghouse No. 2016031038, adopted an MMRP for the whole of the Project (see Exhibit C, Attachment C-1), and remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with its program. The Commission's action and authority as a responsible agency apply only to the mitigation measures listed in Table C-1 below. The full text of each mitigation measure, as set forth in the MMRP prepared by the CEQA lead agency and provided in Attachment C-1, is incorporated by reference in this Exhibit C. Any mitigation measures adopted by

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

the Commission that differ substantially from those adopted by the lead agency are shown as follows:

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

Table C-1. Project Impacts and Applicable Mitigation Measures

Potential Impact	Mitigation Measure (MM) ²	Difference Between CSLC MMP and Lead Agency MMP
<u>Air Quality</u>		
4.2-1, 4.2-2, and 4.2-3	AQ-1, AQ-2, AQ-3	None
<u>Biological Resources</u>		
4.3-1, 4.3-2, 4.3-3, 4.3-4, 4.3-5	BIO-4, OPA-1	None
<u>Cultural Resources</u>		
4.4-2	CUL-1, CUL-2	See below for CUL-2
4.4-3	CUL-3	See below for CUL-3
4.4-4	CUL-1, CUL-2	See below for CUL-2
<u>Geology and Soils</u>		
4.5-1	GEO-1	None
4.5-2	HWQ-1, HWQ-2	None
4.5-4	GEO-1	None
<u>Greenhouse Gas Emissions</u>		
4.6-1, 4.6-2	GHG-1, GHG-2	See below for GHG-1
<u>Hazards and Hazardous Materials</u>		
4.7-1	HAZ-1, HAZ-2, HAZ-3	None
4.7-2	HAZ-1, HAZ-2, HAZ-3, HAZ-4, HAZ-5, HAZ-9	None
<u>Hydrology and Water Quality</u>		
4.8-1, 4.8-5	HWQ-1, HWQ-4	None
4.8-6	HWQ-1	None
<u>Noise</u>		
4.10-1, 4.10-4	NOI-1, NOI-2	None

² See Attachment C-1 for the full text of each MM taken from the MMRP prepared by the CEQA lead agency.

Potential Impact	Mitigation Measure (MM) ²	Difference Between CSLC MMP and Lead Agency MMP
<u>Recreation</u>		
4.12-1	REC-1	None
<u>Tribal Cultural Resources</u>		
4.14-1	CUL-1, CUL-2	See below for CUL-2
<u>Utilities and Service Systems</u>		
4.15-7	UTIL-1	None

CUL-2: Construction Monitoring. Prior to construction, the District (or its designee) shall retain a CRS that meets the minimum qualifications of the U.S. Secretary of Interior Guidelines (NPS 1983). Prior to ground disturbance, the District (or its designee) shall retain a Native Monitor representing the Juaneño Band of Mission Indians, Acjachemen Nation – Belardes/Lucero. Prior to ground disturbance, the District shall also contact other culturally-affiliated tribes (including, but not limited to, the Gabrieleño Band of Mission Indians – Kizh Nation and the Gabrielino-Tongva Tribe of the San Gabriel Band of Mission Indians) and shall retain a culturally-affiliated tribal monitor if requested. The CRS and Native Monitor(s) shall be present during initial deep excavations for pipeline trenches, vaults and desalination facility structures that penetrate below native ground surface. ~~The District shall offer local Native American tribes the opportunity to be present during such initial deep excavations.~~ The CRS, Native Monitor(s), and the CM shall have the authority to halt construction if previously unknown cultural resource sites or materials are encountered. ~~Redirection of ground disturbance shall be accomplished under the direction of the construction manager.~~ In the event of unexpected cultural resource discovery, the District (or its designee) shall coordinate a mutually agreeable solution with the Native Monitor(s), the CRS, and the CM to redirect ground disturbance as appropriate.

If such resources are found or impacts can be anticipated, the halting or redirection of construction shall remain in effect until all of the following have occurred:

- a) The CRS and Native Monitor(s) have notified the District (or its designee), and the CM ~~has been notified~~ within 24 hours of the find description and the work stoppage;
- b) The CRS, the Native Monitor(s), the District (or its designee), and the CM have conferred and determined what, if any, data recovery or other mitigation is needed and the scope of that mitigation;

c) Any necessary data recovery and mitigation has been completed.

All archaeological materials collected as a result of the archaeological investigations (survey, testing, and data recovery) shall be curated in accordance with the State Historical Resources Commission's "Guidelines for the Curation of Archaeological Collections," into a retrievable storage collection in a public repository or museum. The public repository or museum must meet the standards and requirements for the curation of cultural resources set forth at Federal Code of Regulations, Part 79, Title 36. Title to abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the state and under the jurisdiction of the State Lands Commission. Should any cultural resources on state lands be discovered during construction, the District shall contact appropriate Commission staff. The final disposition of archaeological, historical, and paleontological resources recovered on state lands under the jurisdiction of the California State Lands Commission must be approved by the Commission.

CUL-3: Paleontological Construction Monitoring and Compliance Program. The following measures would be implemented to reduce potential impacts to paleontological resources to less than significant:

- Retain a Qualified Paleontologist. Prior to initial ground disturbance, the South Coast Water District (SCWD) shall retain a project paleontologist, defined as a paleontologist who meets the Society of Vertebrate Paleontology standards for Qualified Professional Paleontologist, to direct all mitigation measures related to paleontological resources.
- Paleontological Mitigation and Monitoring Program. After project design has been finalized to determine the precise extent and location of planned ground disturbances, and prior to construction activity, a qualified paleontologist will prepare a Paleontological Mitigation and Monitoring Program to be implemented during ground disturbance activity for the proposed project. This program will outline the procedures for construction staff Worker Environmental Awareness Program (WEAP) training, paleontological monitoring extent and duration, salvage and preparation of fossils, the final mitigation and monitoring report, and paleontological staff qualifications. The program will be prepared in accordance with the standards set forth by current Society of Vertebrate Paleontology guidelines

(2010) and with proper implementation, will reduce or eliminate potential impacts to paleontological resources.

- Paleontological Worker Environmental Awareness Program (WEAP). Prior to the start of construction, the project paleontologist or his or her designee shall conduct training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. The WEAP shall be presented at a preconstruction meeting that a qualified paleontologist shall attend. In the event of a fossil discovery by construction personnel, all work in the immediate vicinity of the find shall cease and a qualified paleontologist shall be contacted to evaluate the find before restarting work in the area. If it is determined that the fossil(s) is (are) scientifically significant, the qualified paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources.
- Paleontological Monitoring. Ground disturbing construction activities (including grading, trenching, foundation work, and other excavations) in areas mapped as high paleontological sensitivity (see Exhibit 4.4-2, Paleontological Sensitivity Area) should be monitored on a full-time basis by a qualified paleontological monitor during initial ground disturbance. Areas mapped as low to high paleontological sensitivity should be monitored when ground-disturbing activities exceed five feet in depth, because underlying sensitive sediments could be impacted. Areas considered to have an undetermined paleontological sensitivity should be inspected and further assessed if construction activities bring potentially sensitive geologic deposits to the surface. The Paleontological Mitigation and Monitoring Program shall be supervised by the project paleontologist. Monitoring should be conducted by a qualified paleontological monitor, who is defined as an individual who has experience with collection and salvage of paleontological resources. The duration and timing of the monitoring will be determined by the project paleontologist. If the project paleontologist determines that full-time monitoring is no longer warranted, he or she may recommend that monitoring be reduced to periodic spot-checking or cease entirely. Monitoring would be reinstated if any new or unforeseen deeper ground disturbances are required and reduction or suspension would need to be reconsidered by the Supervising Paleontologist. Ground disturbing activity that does not exceed five feet in depth would not require paleontological monitoring.

- Salvage of Fossils. If fossils are discovered, the project paleontologist or paleontological monitor should recover them. Typically, fossils can be safely salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case, the paleontologist would have the authority to temporarily direct, divert, or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner.
- Preparation and Curation of Recovered Fossils. Once salvaged, the District would ensure that significant fossils would be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection (such as the San Diego County Natural History Museum), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the project paleontologist. Field collection and preparation of fossil specimens will be performed by the project paleontologist with further preparation as needed by an accredited museum repository institution at the time of curation. Title to abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the state and under the jurisdiction of the State Lands Commission. Should any paleontological resources on state lands be discovered during construction, the District shall contact appropriate Commission staff. The final disposition of archaeological, historical, and paleontological resources recovered on state lands under the jurisdiction of the California State Lands Commission must be approved by the Commission.

Final Paleontological Mitigation Report. Upon completion of ground disturbing activity (and curation of fossils, if necessary) the qualified paleontologist should prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report should include discussion of the location, duration, and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated.

GHG-1³: SCWD (or its designee) shall prepare an Energy Minimization and GHG Reduction Plan prior to the start of Project construction activities. The purpose of the Plan is to document Project GHG emissions and the net incremental emissions required to be offset in order to achieve net carbon neutrality (no net increase in GHG emissions beyond emissions associated with imported water, defined as the GHG emissions that are attributed to SCWD's portfolio, with the Project's water supply replaced by water imported from CRA and SWP). The Plan shall, at a minimum, include the following elements:

- 1) **Project GHG Emissions** – updated GHG emission estimates based upon final design plans;
- 2) **Construction GHG Emissions** – provide GHG offsets for construction-related GHG emissions in the first year of operation, to be estimated and offset prior to construction and verified following construction, rather than amortizing these emissions over a 30-year period;
- 3) **Updated CRA and SWP GHG Emissions** – updated emissions associated with importing water that would be imported from CRA and SWP if the Project were not constructed;
- 4) **Incremental Project GHG Emissions** – Project GHG emissions minus GHG emissions associated with importing water, representing the net incremental GHG emissions requiring offset in order to achieve net carbon neutrality, currently estimated at 5,959 MTCO₂eq /year for the up to 5 MGD Project.
- 5) **GHG Mitigation Options** – the Plan shall identify specific strategies to be implemented which shall, at minimum, be sufficient to reduce or offset the Project's incremental GHG emissions to a “no net increase” performance standard. Strategies shall be verifiable and feasible to acquire and implement over the Project life. The Plan shall identify how each strategy shall be implemented, and the emission reductions associated with strategy. The Plan shall identify the measure prioritization, with onsite measures preferred over Carbon Offsets. Subject to review and modification by other

³ MM GHG-1 also includes three footnotes, not shown in this exhibit (refer to Attachment C-1). The Commission has modified footnote 1, as follows: “... – the best structure depending on the markets where the consumer and renewable projects are located, as well as the goals, priorities, and risk tolerance of the consumer (from <https://3degreesinc.com/resources/ppas-power-purchase-agreements/> (accessed ~~January 27, 2018~~ November 21, 2022)).

permitting agencies (including the California Coastal Commission and State Lands Commission), SCWD may include any/or all of the following strategies in the Plan:

- a. **Minimize Project's Energy Demand** – SCWD is committed to constructing and operating an environmentally sound project that minimizes electricity demand through implementation of reasonable and feasible design measures. The Plan shall include a summary of state-of-the-art energy recovery and conservation technologies available for utility-scale desalination facilities and shall include a commitment by SCWD to incorporate all available feasible energy recovery and conservation technologies; or, if SCWD finds that any of the technologies will not be feasible for the project, the Plan shall include a detailed description as to why such technology is considered to be infeasible. The carbon footprint estimate for the approved project shall include consideration of all proposed energy recovery and conservation technologies that will be employed by the project, and shall clearly describe the calculated GHG emissions reductions that will be associated with each technology.
- b. **On-site Solar PV** – SCWD is committed to installing on-site roof-top solar PV panels or other on-site renewable energy (subject to space availability and only such that there would be no significant visual impacts). The GHG reduction benefit would depend on rooftop surface area availability and other factors. According to initial design calculations, the desalination facility site buildings would accommodate solar panels on a roof surface of approximately 45,000 square feet, with the potential to generate less than 1,000 MWh/year of electricity. If installed, the electricity produced by the onsite PV system would be used by the Project and therefore would reduce the Project's electrical demand on SDG&E. SCWD is in the process of exploring solar proposals and will update this information as it becomes available.
- c. **On-site Fuel Cells** – The District is committed to reducing GHG emissions by reasonable and feasible methods, including potential use of on-site fuel cells. Potential use of fuel cells is being explored by the District in consultation with SDG&E, relative to cost, requirements for offsite improvements if any, additional permitting requirements, and timeliness of this option. If fuel cells are not deemed feasible, the District commits to

a “net carbon neutral” project as described further in Mitigation Measure GHG-2.

- d. **Renewable Power Purchase Agreement (PPA)** – SCWD may pursue a Renewable PPA to achieve the required level of GHG emission reductions to achieve net carbon neutrality.
- e. **Renewable Energy Certificates (REC)** – SCWD may pursue RECs to achieve the required level of GHG emission reductions to achieve net carbon neutrality.
- f. **GHG Offsets (or “Carbon Offset”)** – ~~SCWD may pursue a Renewable Power Purchase Agreement (PPA) to achieve the required level of GHG emission reductions to achieve net carbon neutrality. If the PPA and/or RECs are is-not feasible or desirable to provide adequate GHG emissions reduction, SCWD would pursue additional third-party verifiable GHG offsets and/or Renewable Energy Certificates. To the extent practicable, GHG offset projects must be located within California.~~

Any use of offsets is subject to the following requirements. All GHG offsets must be purchased from a California Air Resources Board (CARB)-approved registry. These registries are currently the American Carbon Registry (ACR), Climate Action Reserve (CAR), and Verra, although additional registries may be accredited by CARB in the future. These registries use robust accounting protocols for all GHG offsets created for their exchange, including the six currently approved CARB protocols. This mitigation measure specifically requires GHG offsets created for the Project to originate from a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB protocol requirements under 17 CCR § 95972. The protocol must demonstrate that the reduction of GHG emissions is real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in 17 CCR § 95802(a). Note that *enforceable*, as defined in 17 CCR § 95802(a), is specific to CARB's Cap-and-Trade regulatory program, where CARB holds enforcement authority. This mitigation measure employs GHG offsets from the voluntary market, where CARB has no enforcement authority. Therefore, *enforceable* is modified to mean in this context that the GHG reduction project generating the GHG offset must be owned by a single entity and must be backed by a legal instrument or contract that defines exclusive ownership.

SCWD shall purchase GHG offsets by geographic prioritization herein called "Tiers." Each Tier identifies a geographic location or region in which emissions-reduction projects may occur.

Tier 1: Within Orange County or the counties adjacent to Orange County.

Tier 2: Within California

Tier 3: Within the United States

SCWD shall purchase GHG offsets at the lowest Tier (i.e., Tier 1, then Tier 2, etc.), subject to availability or cost prohibition as described:

1. Lack of sufficient available GHG offsets in a lower Tier; or
2. GHG offsets at a lower Tier are priced at or above the settlement price of the latest CARB Cap-and-Trade auction, or the costs of the Tier 1 or Tier 2 offset is more than 50 percent greater than the Tier 3 offsets.

All GHG offsets shall be verified by an independent verifier accredited by the ANSI National Accreditation Board (ANAB) or CARB, or an expert with equivalent qualifications to the extent necessary to assist with the verification. The verifying entity shall not be the same entity as the offset vendor. The verifying entity shall provide a verification report to the Lead Agency and responsible agencies describing the offsets, verifying that they meet the requirements of this measure, and describing how they meet the requirements of this measure.

Following the standards and requirements established by the accreditation board (ANAB or CARB), the verifier shall certify:

- The GHG offsets conform to a CARB-approved protocol or a protocol that is equal to or more rigorous than CARB requirements under 17 CCR § 95972. Verification of the latter requires certification that the offsets meet or exceed the standards in 17 CCR § 95972.
- The GHG offsets are real, permanent, quantifiable, verifiable, enforceable, and additional, as defined in this measure.
- The GHG offsets were purchased according to the geographic prioritization defined in this measure.

Verification of GHG offsets must occur as part of the certification process for compliance with the accounting protocol. Once certified, SCWD shall provide to the responsible agencies' staffs copies of the retirement verification for all GHG offsets purchased pursuant to this measure at least 30 days in advance of commencement of Project activities.

Offsets may include, but not be limited to:

- i. *Landfill Methane Capture*: Methane capture removes GHG emissions from the atmosphere. These GHG offsets are readily available across the country from numerous verified providers.
- ii. *Reforestation*: Reforestation provides GHG reduction associated with carbon sequestration, and is a widely available GHG offset nationally and internationally.

~~Wind Power: Wind Power provides clean energy to reduce fossil fuel related electricity emissions. Wind Power GHG offsets are readily available across the country and internationally.~~

ATTACHMENT C-1

MITIGATION MONITORING AND REPORTING PROGRAM ADOPTED BY THE SOUTH COAST WATER DISTRICT

Note: The lead agency adopted the following document as shown,
including the text in ~~strikeout~~ and underline.

SECTION 1: AUTHORITY

This environmental Mitigation Monitoring and Reporting Program (Program) has been prepared pursuant to Section 21081.6 of the *California Environmental Quality Act* (CEQA) (Public Resources Code Section 21000 et seq.), and CEQA Guidelines (14 Cal. Code Regs. Section 15000 et seq.) Sections 15091(d) and 15097, to ensure implementation of and provide for the monitoring of mitigation measures required of the Doheny Ocean Desalination Project (Project), as set forth in the Final Environmental Impact Report (EIR) prepared for the Project. This report will be kept on file in the offices of the CEQA Lead Agency, South Coast Water District (“District” or “SCWD”).

As noted in the EIR, the Project has been designed to avoid sensitive resources, as reflected in Project design plans and in Project Design Features. The EIR also addresses the potential environmental impacts of the Project, and, where appropriate, recommends mitigation measures to avoid or substantially lessen significant environmental impacts. The Program detailed in the matrix table below is designed to monitor and ensure implementation of all mitigation measures that are adopted for the Project.

The District is the lead agency for the Project and assumes ultimate enforcement responsibilities for implementation of all mitigation measures listed in this Program. The District may assign responsibility for implementation or monitoring to appropriate designees such as a construction manager or third-party monitor. However, as the lead agency, the District remains responsible for ensuring that implementation of the mitigation measures occurs in accordance with this Program. In some cases, the District is required to secure permits or approvals from third-party agencies in order to implement a mitigation measure. In these cases, the District is responsible for verifying that such permits or approvals have been obtained in accordance with the conditions stipulated in the mitigation measure. The District’s existing planning, engineering, operations, and procurement review and inspection processes will be used as the basic foundation for the Program procedures and will also serve to provide the documentation for the reporting program.

SECTION 2: MONITORING SCHEDULE

Prior to construction, while detailed design plans are being prepared by District staff or its agents, District staff will be responsible for ensuring compliance with mitigation monitoring applicable to the Project construction, development, and design phases. Once construction has begun and is underway, monitoring of the mitigation measures associated with construction will be included in the responsibilities of District staff, who shall prepare or cause to be prepared periodic monitoring reports as appropriate. Regulatory agencies will have to harmonize CEQA mitigation with regulatory permit conditions and monitoring/reporting as part of the regulatory permitting process and will likely require submittal of formal monitoring reports. Once construction has been completed, the District will monitor the project as specified in the mitigation measures or as otherwise deemed necessary. At minimum, the District will prepare a mitigation monitoring



status report prior to commencing construction, prior to commencing operations, within 90 days of commencing operations, and following completion of the first full year of operations.

SECTION 3: SUPPORT DOCUMENTATION

Findings and related documentation supporting the findings involving modifications to mitigation measures shall be maintained in the Project file with the Mitigation Monitoring and Reporting Program and shall be made available to the public upon request.

SECTION 4: FORMAT OF MITIGATION MONITORING MATRIX

The mitigation monitoring matrix on the following pages identifies the environmental issue areas for which monitoring is required, the required mitigation measures, the time frame for monitoring, and the responsible implementing and monitoring agencies.

SECTION 5: DEFINITIONS

The following list provides definitions for acronyms used in the mitigation monitoring and reporting program.



<i>Acronyms/Abbreviation</i>	<i>Description</i>
ACM	Asbestos-Containing Materials
AES	Aesthetics, Light, and Glare
AQ	Air Quality
ARB	Air Resources Board
BACT	Best Available Control Technology
BIO	Biological Resources
BMP	Basic Metabolic Panel
BMPs	Best Management Practices
CalARP	California Accidental Release Prevention Program
Cal/OSHA	California Division of Occupational Safety and Health Administration
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CLOMR	Conditional Letter of Map Revision
CM	Construction Manager
County Parks	Orange County Parks Department
CRA	Colorado River Aqueduct
CRS	Cultural Resource Specialist
CSD	Community Services District
CSS	Construction Safety Supervisor
CUL	Cultural Resources
DB	Designated Biologist
District	South Coast Water District
DMMP	Drilling Monitoring and Management Program
DSB	Doheny State Beach
DTSC	Department of Toxic Substances Control
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GHG	Green House Gas (Emissions/ Reduction plan/Mitigation)
GPS	Global Positioning System
HAZ	Hazardous Waste Management Plan
HWQ	Hydrology and Water Quality
LID	Low Impact Development
LMC	Landfill Methane Capture
LOMR	Letter of Map Revision
MBTA of 1918	Migratory Bird Treaty Act of 1918
MGD	Million Gallons per Day
NMFS	National Marine Fisheries Service
NOI	Noise
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
O&M	Operations & Management
OCFA	Orange County Fire Authority



OCTA	Orange County Transportation Authority
OPA	Oil Pollution Act
PCH	Pacific Coast Highway
PPA.....	Power Purchase Agreement
PV.....	Photovoltaic
RBM	Regulated Building Materials
REC.....	Recreation
RI.....	Remedial Investigation
SCAQMD	South Coast Air Quality Management District
SCWD	South Coast Water District
SDG&E	San Diego Gas & Electric
SDRWQCB.....	San Diego Regional Water Quality Control Board
SJBA	San Juan Basin Authority
SJCOO	San Juan Creek Ocean Outfall
SOCWA.....	South Orange County Wastewater Authority
State Parks.....	California Department of Parks & Recreation
SWA	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCP	State Water Resources Control Board
TCP	Traffic Control Plan
TRF	Transportation and Traffic
USFWS	United States Fish and Wildlife Service
UTIL.....	Utilities and Service Systems
WEAP	Worker Environmental Awareness Program
WMP	Waste Management Plan
WQMP	Model Water Quality Management Plan



Mitigation Measures – AESTHETICS, LIGHT, AND GLARE	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>AES-1: Prior to the start of construction, SCWD shall prepare a Construction Lighting & Screening Plan. The Construction Lighting & Screening Plan should indicate aesthetic and lighting treatments for all construction work areas, including staging areas, slant well drill rig work area, and the desalination facility. The Plan shall identify methods used to ensure construction lighting is directional (aimed toward work areas, and not toward nearby sensitive receptors), and limited to sufficient wattage for safety and security. Construction areas visible to sensitive receptors shall be screened via curtains from public view, including the staging and slant well drill rig work area within the State Park and County Park, and the western and southern edges of the desalination facility site and the western edge of the adjacent staging area. Construction screening materials shall be of sufficient height and appropriate color to minimize viewshed impacts, as determined appropriate by the applicable jurisdiction(s). As noted above, for slant well work areas, the construction screening may be open to the ocean for directional sound control and shall include additional aesthetic enhancements such as temporary landscaping in front of the screen.</p>	SCWD	Before construction	SCWD
<p>AES-2: SCWD shall prepare a Site Architectural, Landscape and Lighting Plan Prior to the start of construction, for the purposes of minimizing aesthetic and light/glare impacts from all above-ground facilities, including the electrical control panel near the slant wells, and the desalination facility. Given the desalination facility site's visibility from areas west of San Juan Creek and from PCH, the desalination facility architecture and building elevations shall be designed to create an aesthetically appropriate appearance, as determined by the City of Dana Point and/or California</p>	SCWD	Before construction	SCWD



Mitigation Measures – AESTHETICS, LIGHT, AND GLARE	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>Coastal Commission through the facility's Coastal Development Permit review process. Architectural design shall favor natural appearing materials that blend with the surrounding areas, as well as use of non-reflective glass to minimize glare. A Lighting Plan shall be prepared, demonstrating use of directional lighting and lighting that is limited to intensity needed for site security and safety, in order to minimize light/glare impacts to viewers west of San Juan Creek. All rooftop mechanical and electrical equipment will be screened or placed in areas that are not highly visible from residential and public areas, where feasible. A Landscape Plan shall be prepared, to provide adequate site landscaping for aesthetic enhancement, using non-invasive, drought-tolerant native species. <u>The landscape plan shall be consistent with City of Dana Point's MS4s Permit requirements and City of Dana Point Municipal Code Chapter 9.55 on Water Efficient Landscape Standards and Requirements.</u></p>			
Mitigation Measures – AIR QUALITY	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>AQ-1: During Project construction, all internal combustion engines/construction, equipment operating on the Project site shall meet EPA-Certified Tier 4 emissions standards, or higher according to the following:</p> <ul style="list-style-type: none"> ▪ All off-road diesel-powered construction equipment greater than 50 horsepower shall meet Tier 4 off-road emissions standards. In addition, all 	Construction Manager	During construction	Construction Manager



Mitigation Measures – AIR QUALITY	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>construction equipment shall be outfitted with BACT devices certified by ARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by ARB regulations.</p> <p>A copy of each unit's certified tier specification, BACT documentation, and ARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment.</p>			
<p>AQ-2: On-road vehicle idling time shall be minimized and shall not exceed a five-minute maximum. Additionally, off-road engines shall not idle for longer than five minutes per § 2449(d)(3) of Title 13, Article 4.10, Chapter 9 of the California Code of Regulations. Clear signage of this requirement shall be provided for construction workers at all access points to construction areas.</p>	Construction Manager	During construction	Construction Manager
<p>AQ-3: Although the Project's construction emissions are not projected to exceed the PM10 or PM2.5 significance threshold, the District is committed to reducing levels of particulate matter emissions. This includes the implementation of a fugitive dust control plan that is in accordance with techniques prescribed by SCAQMD's Fugitive Dust Mitigation Measure Tables XI-A through XI-E. Actions would include the following:</p> <ul style="list-style-type: none"> Water all active construction areas at least twice daily; Cover all trucks hauling soil, sand, and other loose materials and require trucks to maintain at least 2 feet of freeboard; 	SCWD	<p>Prior to construction (haul route permit)</p> <p>During construction (fugitive dust, construction)</p>	<p>City of Dana Point</p> <p>SCWD</p>



Mitigation Measures – AIR QUALITY	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<ul style="list-style-type: none"> ▪ Apply water three times daily, or apply (non-toxic) soil stabilizers, on unpaved access roads, parking areas, and staging areas at construction sites; ▪ Sweep daily (with water sweepers) all paved access roads, parking areas, and staging areas at construction sites; ▪ Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets; ▪ Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 4 days or more); ▪ Enclose, cover, or water twice daily exposed stockpiles (dirt, sand, etc.); ▪ Limit traffic speeds on unpaved roads to 15 miles per hour; ▪ Install sandbags or other erosion control measures to prevent silt runoff to public roadways; ▪ Replant vegetation in disturbed areas as quickly as possible; ▪ Wheel washers shall be installed and used by truck operators at the exits of the construction sites. ▪ <u>The applicant (District), or its designee, shall apply for and obtain a haul route permit from the City of Dana Point for all truck activity for the proposed construction activities. The haul route for all activities shall be outlined in the permit application.</u> <p><u>During the construction phase, District, or its designee, shall ensure all construction materials, waste, grading or demolition debris, and stockpiles of soil, aggregates,</u></p>		material, waste mitigation)	



Mitigation Measures – AIR QUALITY	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<u>soil amendment, or similar material, shall be properly covered, stored, managed, secured and disposed to prevent transport into the streets, gutters, storm drains, creeks and/or coastal waters by wind, rain, tracking, tidal erosion or dispersion.</u>			
Mitigation Measures – BIOLOGICAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>BIO-1: Preconstruction Nesting Bird Survey. All construction activities shall comply with the federal MBTA of 1918, and California Fish and Game Code Sections 3503, 3503.5, 3511 and 3513. The MBTA governs the taking and killing of migratory birds, their eggs, parts, and nests and prohibits the take of any migratory bird, their eggs, parts, and nests. Compliance with the MBTA shall be accomplished by following the guidelines contained therein. Construction-related tree removal, if any, shall be conducted between September 1 and December 31. If construction occurs inside the nesting season between January 15 and August 31 (this time frame includes both the passerine and raptor nesting season), the Designated Biologist (DB) [to be approved by the District subject to confirmation by State Parks and CDFW] shall conduct a pre-construction nesting avian species clearance survey in accordance with the following guidelines:</p> <p>a) At least one pre-construction survey shall be conducted within 72 hours preceding initiation of vegetation removal and construction activity. Additional follow-up surveys may be required if periods of construction inactivity exceed</p>	Designated Biologist	<p>Before construction (Pre-construction nesting survey)</p> <p>During construction (MBTA compliance)</p>	<p>Designated Biologist</p> <p>Biologist</p>



Mitigation Measures – BIOLOGICAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>three weeks in any given area, an interval during which birds may establish a nesting territory and initiate egg laying and incubation.</p> <p>b) The survey shall cover all potential nesting habitat and substrate, including the beach, on the Project site and within 500 feet of its perimeter.</p> <p>c) If the DB does not find any active nests, the construction work shall be allowed to proceed. The DB conducting the clearance survey shall document a negative survey with a report indicating that no impacts to active avian nests would occur.</p> <p>d) If the DB finds an active nest during the survey and determines that the nest may be impacted, the DB shall establish a no-disturbance buffer zone (protected areas around the nest). The size of the buffer shall be determined by the DB in consultation with the District or its designee (in coordination with CDFW and USFWS), and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. These buffers are typically 300 feet from the nests of non-listed passerine species and 500 feet from the nests of raptors and listed species.</p> <p>e) Any active nests observed during the survey shall be mapped on an aerial photograph using GPS.</p> <p>f) If active nests are detected during the survey, the Designated Biologist (DB) shall monitor all nests with buffers at least once per week, to determine whether birds are being disturbed (distress or other disruption of nesting activity). Activities that might, in the opinion of the DB, disturb nesting activities (e.g., excessive noise, exposure to exhaust), shall be prohibited</p>			



Mitigation Measures – BIOLOGICAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>within the buffer zone. If signs of disturbance are observed, the DB shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed, or placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, placing noisy stationary construction equipment in acoustically engineered enclosures and/or relocating them away from noise-sensitive receptors, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors. The DB shall implement these or other appropriate measures to ensure that no significant impacts occur to nesting birds pursuant to requirements of the MBTA.</p> <p>g) If active nests are detected during the survey, the DB shall monitor the nest until it is determined that nestlings have fledged and dispersed or the nest is no longer active.</p> <p>h) Only vegetation removal and construction activities (if any) that have been approved by a Biological Monitor (BM) shall take place within the buffer zone until the nest is no longer considered active, consistent with MBTA requirements, such that nesting birds are not disturbed.</p>			



Mitigation Measures – BIOLOGICAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>i) The DB shall serve as a construction monitor when construction activities take place near active nest areas to ensure that no significant indirect impacts on these nests occur, through enforcing measures noted above.</p> <p>Prior to the start of any pre-construction site mobilization, the District shall provide applicable regulatory agencies with a letter-report describing the findings of any preconstruction nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor(s); and a list of species observed. If active nests are detected during the survey, the report shall include a map or aerial photo identifying the location of the nest and shall depict the boundaries of the proposed no disturbance buffer zone around the nest. All impact avoidance and minimization measures related to nesting birds shall be included in the monitoring plan.</p>			
<p>BIO-2: DSB Facility Siting. Any facilities sited within DSB shall be reviewed and approved by State Parks and applicable regulatory agencies prior to construction, demonstrating avoidance of sensitive habitat, particularly with respect to the potential well development discharge connection to the existing SOCWA SJCOO vault and the proposed electrical control building.</p>	SCWD	Before construction	State Parks
<p>BIO-3: Preconstruction Groundwater Quality Data. Prior to construction of any slant wells at Capistrano Beach Park, the District or its designee shall obtain additional nearshore groundwater quality data (whether onshore or offshore) to refine the anticipated sourcewater quality for the purpose of pretreatment and characterization of well development discharge water quality. Should the water quality data indicate elevated levels of iron or manganese such that the well</p>	SCWD	Before construction at Capistrano Beach Park	SCWD



Mitigation Measures – BIOLOGICAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
development water would not meet applicable water quality requirements, the District will either provide suitable onsite treatment (such as use of Baker tanks to settle out solids), convey the well development water to the existing SOCWA vault at DSB campground, or convey the raw water to the desalination facility for supplemental pretreatment via temporary modular treatment units or equivalent (Capistrano Beach Park wells only).			
BIO-4: DSB Groundwater Monitoring (for SJC Lagoon). The District shall monitor San Juan Creek Lagoon water levels <u>and salinity</u> following commencement of pumping for the first slant well installed at DSB. The monitoring reports shall be submitted monthly to the Coastal Commission, <u>SJBA</u> and NOAA NMFS (at minimum), and shall be used to site any future slant wells at DSB, in consultation with the <u>San Juan Basin Authority</u> , Coastal Commission and NOAA NMFS, such that Phase I slant wells at DSB do not create a significant impact to San Juan Creek Lagoon water levels <u>or salinity</u> relative to southern steelhead trout, as determined by NOAA NMFS.	SCWD	Following slant well installation	SCWD
BIO-5: Black Abalone Protection (Capistrano Beach Park only). If construction is proposed in locations that will result in the disturbance of existing riprap structures (e.g. Capistrano Beach Park) the District will consult with a qualified biologist to determine if the work area has potential for the occurrence of black abalone based on the elevation and depth distribution of the construction zone. If a potential for occurrence is identified, then the District contractor will conduct a black abalone survey no more than 90 days prior to initiation of construction work. The District will ensure a survey of the existing riprap structures be conducted at both	Not applicable	Not applicable	Not applicable



Mitigation Measures – BIOLOGICAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>intertidal and subtidal habitats to the base of the riprap wall to determine if black abalone is present on the structures. The survey team will include qualified divers and biologists experienced in identifying abalone. Survey results will be provided to the District and to the National Marine Fisheries Service (NMFS). If black abalone are determined to be present, the District contractor will consult with NMFS to develop and implement a black abalone protection plan. If necessary and feasible, the District contractor will develop a transplantation plan acceptable to NMFS that includes the identification of a suitable transplant location nearby, temporary holding and transport methods, and reporting requirements.</p>			
<p>OPA-1: OPA Compliance. Prior to issuance of an NPDES Permit, the Project will require an OPA compliance determination from the SDRWQCB and SWRCB in consultation with the State Lands Commission and California Coastal Commission. Should these agencies determine that marine life “mitigation” is required for the Project, the District shall implement required mitigation. One such potential mitigation site would be the San Juan Creek Lagoon, as part of the San Juan Creek Restoration Project outlined in SDRWQCB Resolution NO. R9-2015-0041, adopted June 24, 2015.</p>	SCWD	Prior to issuance of an NPDES Permit	SWRCB, SDRWQCB, Coastal Commission, State Lands Commission



Mitigation Measures – CULTURAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>CUL-1: Worker Environmental Awareness Training (all components). Prior to ground disturbing activities and ongoing during construction, all contractors shall undergo a Worker Environmental Awareness Program (WEAP). The training, which may be presented in the form of a video, shall include:</p> <ul style="list-style-type: none"> a) A discussion of applicable environmental resource laws and penalties under the law; b) Samples or visuals of artifacts that may be found in the Project vicinity; c) Information that the Cultural Resource Specialist (CRS) and Construction Manager (CM) have the authority to halt construction to the degree necessary, as determined by the CRS, in the event of a discovery or unanticipated impact to a cultural resource; d) Instruction that employees are to halt work on their own in the vicinity of a potential cultural resources find, and shall contact their supervisor and the CRS or CM; redirection of work shall be determined by the construction supervisor and the CRS; e) An informational brochure that identifies reporting procedures in the event of a discovery; f) An acknowledgment form signed by each worker indicating that they have received the training; and 	Construction Manager	Prior to ground disturbance, during construction	SCWD



Mitigation Measures – CULTURAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
A sticker that shall be placed on hard hats indicating that environmental training has been completed. The District (or its designee) shall maintain WEAP Certification of Completion forms of persons who have completed the training.			
<p>CUL-2: Construction Monitoring. Prior to construction, the District (or its designee) shall retain a CRS that meets the minimum qualifications of the U.S. Secretary of Interior Guidelines (NPS 1983). The CRS shall be present during initial deep excavations for pipeline trenches, vaults and desalination facility structures that penetrate below native ground surface. The District shall offer local Native American tribes the opportunity to be present during such initial deep excavations. The CRS and the CM shall have the authority to halt construction if previously unknown cultural resource sites or materials are encountered. Redirection of ground disturbance shall be accomplished under the direction of the construction manager.</p> <p>If such resources are found or impacts can be anticipated, the halting or redirection of construction shall remain in effect until all of the following have occurred:</p> <ul style="list-style-type: none"> a) The CRS has notified the District (or its designee), and the CM has been notified within 24 hours of the find description and the work stoppage; b) The CRS, the District (or its designee), and the CM have conferred and determined what, if any, data recovery or other mitigation is needed and the scope of that mitigation; c) Any necessary data recovery and mitigation has been completed. 	<p>SCWD</p> <p>SCWD, CRS, CM</p>	<p>Prior to construction</p> <p>During construction</p>	<p>SCWD</p> <p>SCWD</p>



Mitigation Measures – CULTURAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>All archaeological materials collected as a result of the archaeological investigations (survey, testing, and data recovery) shall be curated in accordance with the State Historical Resources Commission’s “Guidelines for the Curation of Archaeological Collections,” into a retrievable storage collection in a public repository or museum. The public repository or museum must meet the standards and requirements for the curation of cultural resources set forth at Federal Code of Regulations, Part 79, Title 36. <u>Title to abandoned shipwrecks, archaeological sites, and historic or cultural resources on or in the tide and submerged lands of California is vested in the state and under the jurisdiction of the State Lands Commission. Should any cultural resources on state lands be discovered during construction, the District shall contact appropriate Commission staff. The final disposition of archaeological, historical, and paleontological resources recovered on state lands under the jurisdiction of the California State Lands Commission must be approved by the Commission.</u></p>			
<p>CUL-3: Paleontological Construction Monitoring and Compliance Program. The following measures would be implemented to reduce potential impacts to paleontological resources to less than significant:</p> <ul style="list-style-type: none"> Retain a Qualified Paleontologist. Prior to initial ground disturbance, the South Coast Water District (SCWD) shall retain a project paleontologist, defined as a paleontologist who meets the Society of Vertebrate Paleontology standards for Qualified Professional Paleontologist, to direct all mitigation measures related to paleontological resources. 	SCWD	<p>Prior to initial ground disturbance</p> <p>During Construction</p>	<p>Project Paleontologist</p> <p>Project Paleontologist</p>



Mitigation Measures – CULTURAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<ul style="list-style-type: none"> ▪ Paleontological Mitigation and Monitoring Program. After project design has been finalized to determine the precise extent and location of planned ground disturbances, and prior to construction activity, a qualified paleontologist will prepare a Paleontological Mitigation and Monitoring Program to be implemented during ground disturbance activity for the proposed project. This program will outline the procedures for construction staff Worker Environmental Awareness Program (WEAP) training, paleontological monitoring extent and duration, salvage and preparation of fossils, the final mitigation and monitoring report, and paleontological staff qualifications. The program will be prepared in accordance with the standards set forth by current Society of Vertebrate Paleontology guidelines (2010) and with proper implementation, will reduce or eliminate potential impacts to paleontological resources. ▪ Paleontological Worker Environmental Awareness Program (WEAP). Prior to the start of construction, the project paleontologist or his or her designee shall conduct training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. The WEAP shall be presented at a preconstruction meeting that a qualified paleontologist shall attend. In the event of a fossil discovery by construction personnel, all work in the immediate vicinity of the find shall cease and a qualified paleontologist shall be contacted to evaluate the find before restarting work in the area. If it is determined that the fossil(s) is (are) scientifically significant, the qualified paleontologist shall complete the following conditions to mitigate impacts to significant fossil resources. 			



Mitigation Measures – CULTURAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<ul style="list-style-type: none"> ▪ Paleontological Monitoring. Ground disturbing construction activities (including grading, trenching, foundation work, and other excavations) in areas mapped as high paleontological sensitivity (see Exhibit 4.4-2, Paleontological Sensitivity Area) should be monitored on a full-time basis by a qualified paleontological monitor during initial ground disturbance. Areas mapped as low to high paleontological sensitivity should be monitored when ground-disturbing activities exceed five feet in depth, because underlying sensitive sediments could be impacted. Areas considered to have an undetermined paleontological sensitivity should be inspected and further assessed if construction activities bring potentially sensitive geologic deposits to the surface. The Paleontological Mitigation and Monitoring Program shall be supervised by the project paleontologist. Monitoring should be conducted by a qualified paleontological monitor, who is defined as an individual who has experience with collection and salvage of paleontological resources. The duration and timing of the monitoring will be determined by the project paleontologist. If the project paleontologist determines that full-time monitoring is no longer warranted, he or she may recommend that monitoring be reduced to periodic spot-checking or cease entirely. Monitoring would be reinstated if any new or unforeseen deeper ground disturbances are required and reduction or suspension would need to be reconsidered by the Supervising Paleontologist. Ground disturbing activity that does not exceed five feet in depth would not require paleontological monitoring. ▪ Salvage of Fossils. If fossils are discovered, the project paleontologist or paleontological monitor should recover them. Typically, fossils can be safely 			



Mitigation Measures – CULTURAL RESOURCES	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>salvaged quickly by a single paleontologist and not disrupt construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. In this case, the paleontologist would have the authority to temporarily direct, divert, or halt construction activity to ensure that the fossil(s) can be removed in a safe and timely manner.</p> <ul style="list-style-type: none"> ■ Preparation and Curation of Recovered Fossils. Once salvaged, the District would ensure that significant fossils would be identified to the lowest possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection (such as the San Diego County Natural History Museum), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the project paleontologist. Field collection and preparation of fossil specimens will be performed by the project paleontologist with further preparation as needed by an accredited museum repository institution at the time of curation. <p>Final Paleontological Mitigation Report. Upon completion of ground disturbing activity (and curation of fossils, if necessary) the qualified paleontologist should prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report should include discussion of the location, duration, and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated.</p>			



Mitigation Measures – GEOLOGY AND SOILS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>GEO-1: Prior to ground disturbing activities, a site-specific soils engineering report as required by California Building Standards Code § 1803 shall be prepared by a registered geologist. The soils engineering report shall detail existing soils and geologic conditions and shall be required for all Project components located within Liquefaction Investigation Zones, Landslide Investigation Zones or Alquist-Priolo designated Earthquake Fault Rupture Hazard Zones. The soils engineering report shall specifically include laboratory test data, associated geotechnical engineering analysis, and a thorough discussion of seismicity, liquefaction, landslide, dynamic compaction, compressible soils, corrosive soils, and tsunami (as applicable). The soils engineering report shall include any recommendations for ground improvement and/or foundation systems necessary to mitigate potential geologic hazards, as necessary. Recommendations shall be reflected in Project grading and design plans as appropriate.</p> <p><u>Prior to operations, the District (or its designee) shall ensure that a complete final Geotechnical Report shall be prepared by the Project geotechnical consultant, in accordance with City of Dana Point standards. A copy of the final geotechnical report shall be distributed to all stakeholders including the City of Dana Point.</u></p> <p><u>Prior to operations, the District (or its designee) shall ensure that an As-Built Grading Plan shall be prepared by the Civil Engineer of Record. A copy of the as-built grading plans shall be distributed to all stakeholders including the City of Dana Point.</u></p> <p><u>Further mitigation requires that:</u></p>	<p>Registered Geologist, SCWD</p> <p>SCWD, Civil Engineer of record, Project Geotechnical Consultant</p>	<p>Prior to ground disturbing activities, before operations</p> <p>Prior to operations</p>	<p>SCWD</p> <p>City of Dana Point</p>



Mitigation Measures – GEOLOGY AND SOILS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>a) <u>The applicant (District), or its designee, shall provide a complete site-specific geotechnical engineering report for review by the City of Dana Point City Engineer</u></p> <p>b) <u>That geotechnical report shall provide a statement that on-site observation and testing shall be provided to allow the Engineer of Record to certify all work completed.</u></p> <p><u>That geotechnical report shall also provide geotechnical recommendations for constructing retaining walls and/or associated temporary slopes as applicable.</u></p>			
Mitigation Measures – GREENHOUSE GAS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>GHG-1: SCWD (or its designee) shall prepare an Energy Minimization and GHG Reduction Plan prior to the start of Project construction activities. The purpose of the Plan is to document Project GHG emissions and the net incremental emissions required to be offset in order to achieve net carbon neutrality (no net increase in GHG emissions beyond emissions associated with imported water, defined as the GHG emissions that are attributed to SCWD’s portfolio, with the Project’s water supply replaced by water imported from CRA and SWP). The Plan shall, at a minimum, include the following elements:</p>	SCWD	Before construction	SCWD



Mitigation Measures – GREENHOUSE GAS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<ol style="list-style-type: none"> 1) Project GHG Emissions – updated GHG emission estimates based upon final design plans; 2) Construction GHG Emissions – <u>provide GHG offsets for construction-related GHG emissions in the first year of operation, to be estimated and offset prior to construction and verified following construction, rather than amortizing these emissions over a 30-year period;</u> 3) Updated CRA and SWP GHG Emissions – updated emissions associated with importing water that would be imported from CRA and SWP if the Project were not constructed; 4) Incremental Project GHG Emissions – Project GHG emissions minus GHG emissions associated with importing water, representing the net incremental GHG emissions requiring offset in order to achieve net carbon neutrality, currently estimated at 5,959 MTCO₂eq /year for the up to 5 MGD Project. 5) GHG Mitigation Options – the Plan shall identify specific strategies to be implemented which shall, at minimum, be sufficient to reduce or offset the Project’s incremental GHG emissions to a “no net increase” performance standard. Strategies shall be verifiable and feasible to acquire and implement over the Project life. The Plan shall identify how each strategy shall be implemented, and the emission reductions associated with strategy. <u>The Plan shall identify the measure prioritization, with onsite measures preferred over Carbon Offsets.</u> Subject to review and modification by other permitting agencies (including the California Coastal Commission and State Lands 			



Mitigation Measures – GREENHOUSE GAS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>Commission), SCWD may include any/or all of the following strategies in the Plan:</p> <p>a. <u>Minimize Project’s Energy Demand</u> – SCWD is committed to constructing and operating an environmentally sound project that minimizes electricity demand through implementation of reasonable and feasible design measures. The Plan shall include a summary of state-of-the-art energy recovery and conservation technologies available for utility-scale desalination facilities and shall include a commitment by SCWD to incorporate all available feasible energy recovery and conservation technologies; or, if SCWD finds that any of the technologies will not be feasible for the project, the Plan shall include a detailed description as to why such technology is considered to be infeasible. The carbon footprint estimate for the approved project shall include consideration of all proposed energy recovery and conservation technologies that will be employed by the project, and shall clearly describe the calculated GHG emissions reductions that will be associated with each technology.</p> <p>b. <u>On-site Solar PV</u> – SCWD is committed to installing on-site roof-top solar PV panels or other on-site renewable energy (subject to space availability and only such that there would be no significant visual impacts). The GHG reduction benefit would depend on rooftop surface area availability and other factors. According to initial design calculations, the desalination facility site buildings would accommodate solar panels on a roof surface of approximately 45,000 square feet, with the potential to generate less than 1,000 MWh/year of electricity. If installed, the electricity produced by the</p>			



Mitigation Measures – GREENHOUSE GAS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>onsite PV system would be used by the Project and therefore would reduce the Project’s electrical demand on SDG&E. SCWD is in the process of exploring solar proposals and will update this information as it becomes available.</p> <p>c. <u>On-site Fuel Cells</u> – The District is committed to reducing GHG emissions by reasonable and feasible methods, including potential use of on-site fuel cells. Potential use of fuel cells is being explored by the District in consultation with SDG&E, relative to cost, requirements for offsite improvements if any, additional permitting requirements, and timeliness of this option. If fuel cells are not deemed feasible, the District commits to a “net carbon neutral” project as described further in Mitigation Measure GHG-2.</p> <p>d. <u>GHG Offsets (or “Carbon Offset”)</u> – SCWD may pursue a Renewable Power Purchase Agreement (PPA) ¹ to achieve the required level of GHG emission reductions to achieve net carbon neutrality. If the PPA is not feasible or desirable to provide adequate GHG emissions reduction, SCWD would pursue additional third-party verifiable GHG offsets and/or Renewable</p>			

¹ A renewable power purchase agreement is a contract between two parties where one party sells both electricity and renewable energy certificates (RECs) to another party. The “seller” is often the developer or project owner, the “buyer” is the power consumer. Renewable energy PPAs can take two primary forms – physical or financial (the latter often referred to as “virtual”) – the best structure depending on the markets where the consumer and renewable projects are located, as well as the goals, priorities, and risk tolerance of the consumer (from <https://3degreesinc.com/ppas-power-purchase-agreements/> (accessed January 27, 2018).



Mitigation Measures – GREENHOUSE GAS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>Energy Certificates². To the extent practicable, GHG offset projects must be located within California. Offsets may include, but not be limited to: ³</p> <ul style="list-style-type: none"> i. <i>Landfill Methane Capture</i>: Methane capture removes GHG emissions from the atmosphere. These GHG offsets are readily available across the country from numerous verified providers. ii. <i>Reforestation</i>: Reforestation provides GHG reduction associated with carbon sequestration, and is a widely available GHG offset nationally and internationally. <p><i>Wind Power</i>: Wind Power provides clean energy to reduce fossil-fuel related electricity emissions. Wind Power GHG offsets are readily available across the country and internationally.</p>			

² Carbon offsets, also known as VERs or CRTs (carbon reduction tons), represent the act of reducing, avoiding, destroying or sequestering the equivalent of a ton of greenhouse gas (GHG) in one place to “offset” an emission taking place somewhere else. Offsets generally represent direct emission reductions or sequestration -- for example, the destruction of methane emitted from decaying manure at a dairy farm. So they can be used to offset direct emissions, like those from Scope I in a company’s footprint. On the other hand, renewable energy certificates, or RECs, represent proof that one megawatt hour (MWh) of energy was generated from a clean, renewable source, such as wind, solar, hydro, or certain types of renewable biomass, which effectively offsets the GHGs that would have otherwise been associated with the production electricity. RECs are also known as Green Tags, Renewable Energy Certificates or Tradable Renewable Certificates.

³ SCWD assumes that each or any of the identified GHG mitigation strategies either have or will receive any required discretionary approvals prior to being applied to the Project, or otherwise have negligible environmental impact.



Mitigation Measures – GREENHOUSE GAS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
GHG-2: SCWD (or its designee) shall prepare and publish an Annual GHG Verification Report in the first quarter of each year following Project construction or operations. The purpose of the Plan is to “true up” the incremental GHG emission estimate annually by reporting on actual estimated Project GHG emissions, emissions associated with importing water, and the GHG offsets associated with verifiable GHG mitigation. The Report shall be prepared by SCWD and verified by an independent accredited verification entity, pursuant to ARB Mandatory Reporting Regulation. The findings of the Report shall be used to adjust the annual GHG offsets required for the subsequent Project operational years. Additional offsets, if required, shall be in place by the end of the next operational year, <u>with verification and validation of any additional offsets included in the following year’s Report.</u>	SCWD	Annually in the first quarter of each year following project construction or operations	Independent accredited verification entity

Mitigation Measures – HAZARDS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
HAZ-1: Drilling Monitoring and Management Program. Prior to the issuance of a grading, drilling, or construction permit, the District or its designee shall prepare a Drilling Monitoring and Management Program (DMMP) to be implemented as part of the Project. The DMMP would be used to minimize potential hazardous materials effects and releases to the environment, and shall include best management practices (BMPs). BMPs shall include monitoring all drilling activities and to ensure that the loss of drilling fluids including drilling mud, borehole, collapse, and	SCWD	Prior to grading, drilling, or construction permit	SCWD



Mitigation Measures – HAZARDS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>groundwater interference does not occur. To help prevent such releases or collapse, monitoring of all drilling activities shall be done by a qualified geotechnical engineer and will include strategies to minimize the potential for leaks including; using pilot holes to test best drilling location; using muds with naturally occurring materials and that are heavier than water such as bentonite and non-toxic polymers; monitoring of fluid pressures; adjusting fluids to maintain proper drilling pressures; and by using dyes to detect leaks into the water column.</p> <p>In case of a spill, the DMMP shall clearly define measures that would be used to contain spills and minimize other hazards. The monitoring and response measures shall be designed to be specific to the expected subsurface conditions for each Intake Well proposed to be drilled.</p>			
<p>HAZ-2: Hazardous Waste Management Plan. Prior to issuance of a grading, drilling, or construction permit, the District or its designee shall prepare a Hazardous Waste Management Plan for all waste generated, used, handled, or transported during facility construction and operation to include, seawater intakes, conveyance system, desalination facility, brine disposal, and water distribution system. The Hazardous Waste Management Plan shall define all wastes expected to be generated during construction activities. The Plan shall contain, at a minimum, the following:</p> <ul style="list-style-type: none"> ▪ Incorporation of applicable elements of the District's Hazardous Material Business Plan as determined by the District; ▪ Address applicable provisions of local, state and federal law, including CalARP; 	SCWD	Prior to grading, drilling, or construction permit	SCWD



Mitigation Measures – HAZARDS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<ul style="list-style-type: none"> ▪ A description of all waste streams, including projections of frequency, amounts generated, and hazard classifications; and ▪ Methods of managing each waste, including storage, treatment methods, disposal by a licensed contractor, and companies contracted with for treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/reduction plans. <p>Implementation of the Hazardous Waste Management Plan shall be verified and implemented through the construction and operation horizon. The District also shall complete an Annual Compliance Report, documenting the actual waste management methods used during the year compared to planned management methods.</p>			
<p>HAZ-3: Registered Professional Engineer or Geologist. The District shall have a Registered Professional Engineer or Geologist, with experience in remedial investigation and feasibility studies, available for consultation during soil excavation and grading activities. The Registered Professional Engineer or Geologist shall be given full authority to oversee any drilling, microtunneling, jack and bore, excavation, trenching, or other earthmoving activities that have the potential to disturb contaminated soil or groundwater and provide recommendations for remediation and/or prevention should it be necessary.</p> <p><u>Slant well construction and operation shall include ongoing groundwater monitoring, both for lagoon surface water levels (BIO-4) and groundwater quality. Groundwater quality will be monitored both for slant well product water quality to</u></p>	Registered Professional Engineer or Geologist	During soil excavation and grading activities	Registered Professional Engineer or Geologist SDRWQCB, DTSC



Mitigation Measures – HAZARDS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p><u>ensure drinking water quality standard compliance, as well as groundwater levels and quality in existing and new groundwater monitoring wells. Groundwater modeling in Draft EIR Appendix 10.10.2 (pages 52-62) indicates that the Project is anticipated to have a beneficial effect on existing groundwater plumes. Should the Project adversely affect existing groundwater plumes based on groundwater quality monitoring, the District shall implement a Remedial Action Plan for review and approval by applicable regulatory agencies including the SDRWQCB and DTSC, such that Project drinking water will meet applicable drinking water standards, and existing groundwater pumpers are not adversely affected by Project pumping. A copy of the final hydrology or other studies related to Project slant well construction and monitoring shall be distributed to appropriate stakeholders including the City of Dana Point.</u></p>			
<p>HAZ-4: Inspection of Potentially Contaminated Soils. If potentially contaminated soils are unearthed during site disturbance activities as evidenced by discoloration, odor, detection by handheld instruments, or other signs, the Registered Professional Engineer or Geologist (per HAZ-3) shall inspect the identified area, determine the need for sampling to confirm the nature and extent of contamination, and file a written report to the City of Dana Point Community Development Department (Building and Safety Division) and the Orange County Department of Environmental Health stating the recommended course of action. Depending on the nature and extent of contamination, the Registered Professional Engineer or Geologist shall have the authority to temporarily suspend construction activity at that location for the protection of workers or the public. If significant remediation may be required, the Registered Professional Engineer or Geologist</p>	Registered Professional Engineer or Geologist	During site disturbance activities	Registered Professional Engineer or Geologist City of Dana Point, Orange County Department of Environmental Health



Mitigation Measures – HAZARDS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>shall contact representatives of the San Diego Regional Water Quality Control Board, DTSC, and other local agencies, as applicable, for guidance and possible oversight. The District is responsible for implementing all recommended actions.</p> <p><u>If soil contamination is suspected or observed in the Project area, then excavated soil will be sampled prior to export and disposal. If the soil is contaminated, it will be disposed of in accordance with all applicable and relevant laws and regulations. Contaminated soil will be included as a potential waste stream in the Hazardous Waste Management Plan (HAZ-2). All soil sampling will be conducted under the oversight of the Registered Professional Engineer or Geologist (Haz-3).</u></p> <p><u>Any imported soil used for backfill and any backfill soil that will be imported will be properly screened or evaluated to ensure the backfill material is free from contamination. Soils imported from a quarry will be sampled and certified by the quarry prior to acceptance. Soils to be imported from other locations will be evaluated per the Department of Toxic Substance Control's "Information Advisory Clean Imported Fill Material" dated October 2001.</u></p>			
<p>HAZ-5: Remedial Investigation Workplan. Prior to demolition of any structures or equipment on the proposed desalination facility, in the event hazardous materials are discovered that require remediation (pursuant to HAZ-4), the District shall prepare a Remedial Investigation Workplan (RI Workplan) to the satisfaction of City of Dana Point Community Development Department (Building and Safety Division) and the Orange County Department of Environmental Health. The RI Workplan shall include a detailed site characterization plan with soil and groundwater sampling and analysis to determine the extent and nature of contamination existing beneath</p>	SCWD	Prior to demolition of existing structures	City of Dana Point, Orange County Department of Environmental Health, DTSC, SDRWQCB



Mitigation Measures – HAZARDS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>the surface of the desalination facility. The RI Workplan shall be provided to the DTSC, San Diego Regional Water Quality Control, and City of Dana Point Fire Department, and other local agencies, as applicable, for review and comment. If contaminated soil or groundwater is found to exist, the District shall contact representatives of appropriate agencies for further guidance and possible oversight. In no event shall the District proceed with site preparation or construction activities at any location on the site where hazardous waste contamination is found to be present until that location is either remediated or shown to pose an insignificant risk to humans and the environment as demonstrated to the satisfaction of the applicable agency responsible for remediation oversight.</p>			
<p>HAZ-6: Survey of Asbestos-Containing Materials and Lead-Based Paint. Prior to demolition of any existing structures (including piping materials), the District shall, to the satisfaction of City of Dana Point Community Development Department (Building and Safety Division) and the Orange County Department of Environmental Health, complete and submit a survey of all Asbestos-Containing Materials (ACM) and Regulated Building Materials (RBM) that contain lead-based paint to the listed agencies for review and comment and for approval. If any such materials are located, and after receiving approval and prior to demolition, the District shall remove all ACM and RBM from the site in accordance with all applicable guidelines and regulations pertaining to the safe handling, removal, and disposal of such materials. The District shall contract with a licensed company to perform all related work efforts and shall inform the City of Dana Point and County of Orange when all ACM and RBM were removed from the site.</p>	SCWD	Prior to demolition of existing structures	City of Dana Point, Orange County Department of Environmental Health



Mitigation Measures – HAZARDS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>HAZ-7: Project Demolition and Construction Safety and Health Program. Prior to demolition of any existing structures, the District shall, to the satisfaction of City of Dana Point Community Development Department (Building and Safety Division) and the Orange County Department of Environmental Health, submit for review and comment a copy of the Project Demolition and Construction Safety and Health Program containing the following:</p> <ul style="list-style-type: none"> ▪ A Demolition and Construction Safety Program; ▪ A Demolition and Construction Personal Protective Equipment Program; ▪ A Demolition and Construction Exposure Monitoring Program; ▪ A Demolition and Construction Emergency Action Plan; and ▪ A Demolition and Construction Fire Protection and Prevention Plan <p>The Demolition and Construction Fire Protection and Prevention Plan and Emergency Action Plan shall include the following:</p> <ol style="list-style-type: none"> a) Methods to maintain fire access roadways and submittal of a fire access layout plan for review by the City of Dana Point Fire Department. b) Provision of fire flow calculations to verify that the available water supply proposed will be adequate for emergency operations. <p>A requirement that all temporary fire mains and hydrants shall be adequately braced and tied-down to anticipate the effects of water hammer and that protection from vehicular impact is provided as necessary</p>	SCWD	Prior to demolition of existing structures	City of Dana Point, Orange County Department of Environmental Health



Mitigation Measures – HAZARDS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>HAZ-8: Project Operations and Maintenance Safety and Health Program. Prior to issuance of any well, grading or construction permit, the District shall, to the satisfaction of City of Dana Point Community Development Department (Building and Safety Division) and the Orange County Department of Environmental Health, submit for approval a copy of the Project Operations and Maintenance Safety and Health Program containing the following:</p> <ul style="list-style-type: none"> ▪ An Operation Injury and Illness Prevention Plan; ▪ An Emergency Action Plan; ▪ Hazardous Materials Management Program; ▪ Operations and Maintenance Safety Program; ▪ Fire Protection and Prevention Program (8 CCR § 3221); and, ▪ Personal Protective Equipment Program (8 CCR § 3401-3411). <p>The Operation Injury and Illness Prevention Plan, Emergency Action Plan, and Personal Protective Equipment Program shall be submitted to the Cal/OSHA Consultation Service, for review and comment concerning compliance of the program with all applicable Safety Orders for approval. The Operation Fire Protection Plan and the Emergency Action Plan shall also be submitted to the City of Dana Point Fire Department for review and comment. The Project Operations Fire Protection and Prevention Plan and Emergency Action Plan shall address:</p> <ol style="list-style-type: none"> a) Provision of remote annunciation for all fire alarm and automatic suppression devices and the placement of remote annunciation at applicable project sites. 	SCWD	Prior to issuance of a well, grading or construction permit, before construction	<p>City of Dana Point, Orange County Department of Environmental Health</p> <p>City of Dana Point, Orange County Fire Authority</p>



Mitigation Measures – HAZARDS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>b) Provision of fire alarm system and automatic fire sprinklers for all new structures.</p> <p>c) Adequate emergency access for Fire Department operations.</p> <p><u>Prior to construction, the applicant (District), or its designee, shall prepare a Fire Master Plan and submit said plan to the Orange County Fire Authority (OCFA) and the City of Dana Point Public Works for review and approval. Hydrant locations shall be designated as part of the Plan. A Fire Master Plan shall be required for the proposed facility and slant well location as deemed necessary by OCFA.</u></p>			
<p>HAZ-9: Retain a Site Construction Safety Supervisor. The District shall, to the satisfaction of City of Dana Point Community Development Department (Building and Safety Division), retain a site Construction Safety Supervisor (CSS) who, by way of training and/or experience, is knowledgeable of construction activities and relevant laws, ordinances, regulations, and standards; is capable of identifying workplace hazards relating to the construction activities; and has authority to take appropriate action to assure compliance and mitigate hazards. The CSS shall:</p> <ul style="list-style-type: none"> ▪ Have over-all authority for coordination and implementation of all occupational safety and health practices, policies, and programs; and ▪ Ensure that the Project’s safety program complies with relevant Cal/OSHA and federal regulations, including the following: ▪ Ensure that all construction workers, operational employees, and supervisors receive adequate safety training; 	SCWD	Before construction	City of Dana Point



Mitigation Measures – HAZARDS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<ul style="list-style-type: none"> Complete accident and safety-related incident investigations, emergency response reports for injuries, and inform the Project Engineer of safety-related incidents; and Ensure that all required plans and other applicable mitigation measures are implemented. <p>The CSS shall submit a monthly safety inspection report to the Project Engineer that includes the following:</p> <ul style="list-style-type: none"> Record of all employees trained for that month (all records shall be kept on site for the duration of the Project); Summary report of safety management actions and safety-related incidents that occurred during the month; Report of any continuing or unresolved situations and incidents that may pose a danger to life or health; and <p>Report of accidents and injuries that occurred during the month.</p>			



Mitigation Measures – HYDROLOGY AND WATER QUALITY	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>HWQ-1: Prior to any ground disturbance activities, SCWD shall manage stormwater pollution from construction activities by complying with State Water Resources Control Board’s National Pollutant Discharge Elimination System (NPDES) Waste Discharge Requirements for Discharges of Stormwater Runoff Associated with Construction Activities. At least 30 days prior to construction, SCWD (or its designee) shall develop and implement a construction Stormwater Pollution Prevention Plan (SWPPP) for the construction of the Project that identifies project-specific best management practices (BMPs) to be implemented during the construction phase. The SWPPP shall include applicable erosion control measures, with the intent to satisfy Erosion Control Plan requirements of regulatory permitting agencies including the California Coastal Commission, State Parks, County Parks and City of Dana Point. <u>District (or its designee) shall ensure that construction activities are coordinated with the City of Dana Point, City of San Juan Capistrano and State Parks relative to ongoing efforts related to dry weather runoff monitoring.</u></p> <p><u>During the construction phase, the District (or its designee) shall ensure that all construction materials, waste, grading or demolition debris, and stockpiles of soil, aggregates, soil amendments, or similar material are properly covered, stored, managed, secured and disposed to prevent transport into the streets, gutters, storm drains, creeks and/or coastal waters by wind, rain, tracking, tidal erosion or dispersion.</u></p>	SCWD	Prior to any ground disturbance activities, during construction	City of Dana Point, City of San Juan Capistrano, State Parks (as appropriate)
<p>HWQ-2: High Surf Mitigation—In order to minimize potential for coastal wave damage, SCWD or its contractor shall prepare a High Surf Mitigation Plan for any slant well construction proposed at Capistrano Beach Park, or otherwise subject to</p>	Not applicable	Not applicable	Not applicable



Mitigation Measures – HYDROLOGY AND WATER QUALITY	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>high surf wave damage. This Plan shall be prepared for applicable regulatory agency review and approval at least 30 days prior to construction, and shall include the following at minimum (or equivalent measures as determined appropriate by the Coastal Commission and County of Orange) to provide for public safety and avoid construction site erosion or related water quality impacts):</p> <ul style="list-style-type: none"> ■ The drill rig itself shall be on a skid-mounted platform, secured by temporary pilings keyed into competent underlying material, estimated at 20-30 feet deep. ■ The drill rig shall be capable of elevating above grade during small wave events. ■ For smaller coastal storm events (typically less than one foot of water over the site, to be determined by the Contractor, based on typical coastal wave patterns for this season), the drill rig work area shall be secured by sandbags or K-rails. ■ For larger storm events (typically where more than two feet of water would be over the site, to be determined by the Contractor, where local or National Weather Service warnings indicate high surf hazards or the drill rig work area is otherwise anticipated to be exposed to coastal wave damage beyond which sandbags or K-rails will suffice), the drill rig and appurtenant equipment will be temporarily demobilized and relocated depending on the storm severity, requiring 6-12 hours of advanced warning. <p>To prevent damage to the slant well drill hole, the temporary casings at the surface would be temporarily sealed.</p>			



Mitigation Measures – HYDROLOGY AND WATER QUALITY	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>HWQ-3: Minimum SJCOO Flow As part of the Project's NPDES Permit application for brine discharge, the District stipulates that the Project will comply with applicable OPA requirements. If required to meet OPA requirements, the District, as a SOCWA member agency with shared responsibility in managing SJCOO discharges, will ensure that SJCOO wastewater discharges are at least 0.35 MGD where required to provide adequate blending of the Project's brine discharge.</p>	Mitigation has been removed	Mitigation has been removed	Mitigation has been removed
<p>HWQ-4: Prior to construction Early in the design/planning, the District (or its designee) shall prepare a <u>Preliminary Water Quality Management Plan (WQMP)</u> for review and approval by the City of Dana Point <u>in conformance with <i>Model Water Quality Management Plan (Model WQMP) for South Orange County (2017)</i> and associated <i>Technical Guidance Document (2017)</i></u>, identifying applicable site design BMPs, which address low impact development and designing the site in sustainable ways, source control BMPs, which are operation, management, LID/Treatment Control BMPs <u>(Harvest & Reuse, On-site retention and/or biofiltration), and Hydromodification Management BMPs, as applicable. Prior to final approval and operations, the District (or its designee) shall prepare and submit a Final WQMP and Operations and Maintenance (O&M) Plan pursuant to the City's Water Quality Development Standards to the City for review and approval, including: and</u> housekeeping activities which control pollutants at the source, include staff and contractor training, street sweeping, storm drain system maintenance, efficient irrigation practices, litter management, etc.; and treatment BMPs, which remove pollutants from runoff prior to discharge. All these BMPs will be implemented for</p>	SCWD	<p>During project design/planning</p> <p>Prior to operations</p>	<p>City of Dana Point</p> <p>City of Dana Point</p>



Mitigation Measures – HYDROLOGY AND WATER QUALITY	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>comprehensive pollutant management program and management and treatment of the runoff generated from the project.</p> <p>District or its designee shall ensure that <u>final certification for all improvements associated with water quality and the Project WQMP for review shall be submitted to the City Engineer by separate submittal by the project's Civil Engineer. The submittal shall indicate that the improvements are substantially completed and in conformance with the approved WQMP. The City's WQMP Construction Certification letter template, including photos, shall be completed by the project's Civil Engineer, certifying that all structural best management practices (BMPs) described in the Project's WQMP have been constructed and installed in conformance with approved plans and specifications after field inspection has been conducted.</u></p>			
<p>HWQ-5: Prior to grading, the District or its designee shall prepare a final design hydrology study in compliance with City and FEMA requirements to demonstrate that the desalination facility site is adequately protected from flood hazards, and any associated improvements (including elevating the site above existing grade) do not adversely affect adjacent properties. The District shall coordinate with the City, County and FEMA in preparing and processing a Conditional Letter of Map Revision (CLOMR) and Letter of Map Revision (LOMR) to remove the site from the 100-year flood hazard area, at which time FEMA will update its FIRM flood hazard maps for the area.</p>	SCWD	Prior to grading	City of Dana Point, County of Orange, FEMA
<p>HWQ-6: Prior to constructing the electrical control building, the District shall prepare a final hydrology study that demonstrates the facility is adequately</p>	SCWD	Before the construction of	State Parks



Mitigation Measures – HYDROLOGY AND WATER QUALITY	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
protected from flood hazards. The facility should be sited as far as practicable from extreme flood hazard potential areas, recognizing the coastal location may make this challenging. In the event the facility is sited in a flood hazard zone, the building shall be designed to withstand reasonably foreseeable future flood hazard events, to the satisfaction of State Parks. <u>The District (or its designee) will make available the final hydrology study, consistent with other studies and information generated through the final design stages, to Project stakeholders including the City of Dana Point.</u>		the electrical control building	
HWQ-7: Prior to any construction shoreward of PCH, the District shall prepare a Coastal Hazard Mitigation Plan, for review and approval by the property owner (State Parks and/or County Parks), in addition to the Coastal Commission. The Coastal Hazard Plan shall demonstrate that the proposed facilities are adequately protected from coastal hazards during construction, operation and maintenance activities, such that facilities and workers are protected, as determined appropriate by the reviewing agencies (State Parks and/or County Parks, and Coastal Commission). For any slant well subject to coastal erosion or wave damage, the Plan shall demonstrate that the slant well vault and associated infrastructure are buried sufficiently deep so as to avoid exposure in the reasonably foreseeable future for the life of the slant well. The Plan shall be implemented by the District (or its designee) for the duration of Project construction and operations.	SCWD	Before construction shoreward of PCH	State Parks, Coastal Commission



Mitigation Measures – NOISE	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>NOI-1: Prior to construction, SCWD (or its designee) shall ensure that the Grading Plan, Building Plans, and specifications stipulate that:</p> <ul style="list-style-type: none"> ▪ All construction equipment, fixed or mobile, is equipped with properly operating and maintained mufflers and other State-required noise attenuation devices. ▪ When feasible, construction haul routes shall avoid noise sensitive uses (e.g., residences, convalescent homes, etc.). ▪ During construction, stationary construction equipment shall be placed such that emitted noise is directed away from the nearest noise sensitive receptors. ▪ Construction activities that generate noise shall not take place outside of the allowable hours specified by the City of Dana Point Municipal Code Chapter 11.10.014 (8:00 p.m. to 7:00 a.m. on weekdays, including Saturdays, or at any time on Sunday or Federal holiday, with exception on PCH between San Juan Creek Bridge and Crystal Lantern) ▪ <u>SCWD (or its designee) or the Project contractor shall, to the extent feasible, schedule construction activities to avoid simultaneous operation of construction equipment so as to minimize noise levels resulting from operating several pieces of high noise levels resulting from operating several pieces of high-noise-level-emitting equipment.</u> ▪ <u>SCWD (or its designee) shall ensure that construction noise reduction methods such as shutting off idling equipment, construction of a temporary noise barrier, maximizing the distance between construction equipment staging areas</u> 	SCWD	Before construction	SCWD



Mitigation Measures – NOISE	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p><u>and adjacent residences, and use of electric air compressors and similar power tools, rather than diesel equipment, are used where feasible.</u></p> <p><u>SCWD (or its designee) shall ensure that construction hours, allowable workdays, and the phone number of the job superintendent are clearly posted at all construction entrances to allow surrounding property owners to contact the job superintendent if necessary. In the event the City receives a complaint, SCWD (or its designee) shall ensure appropriate corrective actions are implemented and a report of the action provided to the reporting party.</u></p>			
<p>NOI-2: Slant Well 24-hour Drilling Noise Mitigation</p> <p>a) <u>Construction Hours.</u> SCWD shall conduct construction activities between 7:00 a.m. and 6:00 p.m. Monday through Saturday and 9:00 a.m. to 6:00 p.m. Sunday or for a shorter period if so stipulated in the relevant local noise ordinance. Exceptions shall only apply to drilling operations associated with the proposed slant well construction.</p> <p>b) <u>Temporary Noise Barriers.</u> SCWD, the contractor or designee shall install temporary noise barriers between well drilling and sensitive receptors. Temporary noise barriers shall be installed between the drilling rig and nearby receptors such that noise levels at nearby residences and overnight camping sites are reduced. Depending on the length of the noise barrier, it may need to be repositioned after drilling of each well has been completed and the drilling rig has been repositioned. The height and location of the noise barrier shall be determined based on the size of the drilling rig to be used and the location of the proposed wells, and shall be included in a drilling plan submitted to State</p>	SCWD	<p>During construction</p> <p>Prior to construction</p> <p>Prior to construction, during construction and operation</p>	<p>SCWD</p> <p>SCWD</p> <p>SCWD</p>



Mitigation Measures – NOISE	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>Parks and County Parks for review and approval. Exceptions shall apply only upon approval by the State or County.</p> <p>c) <u>Advanced Notice to Sensitive Receptors</u>. SCWD or its construction contractor shall provide advanced notice, between 2 and 4 weeks prior to construction, by mail to all sensitive receptors and residences within 300 feet of construction sites, staging areas, and access roads. The announcement shall state specifically where and when construction would occur in the area. If construction delays of more than 7 days occur, an additional notice shall be made, either in person or by mail. Notices shall provide tips on reducing noise intrusion; for example, by closing windows facing the planned construction. The notice shall also advise the recipient on how to inform the applicant/contractor if specific noise- or vibration-sensitive activities are scheduled so that construction can be rescheduled, if necessary, to avoid a conflict. SCWD shall also publish a notice of impending construction in local newspapers, stating when and where construction will occur.</p> <p>d) <u>Dedication of a Public Liaison</u>. SCWD shall identify and provide a public liaison before and during construction to respond to concerns of neighboring receptors, including residents, about noise construction disturbance. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public. SCWD shall also establish a toll-free telephone number for receiving questions or complaints during construction and develop procedures for responding to callers. Prior to public notification, procedures included in the notices shall be submitted to State Parks and County Parks for review and approval. SCWD shall provide State</p>			



Mitigation Measures – NOISE	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>Parks and County Parks with a bimonthly letter reporting the number of calls received and a summary of caller concerns and how concerns were addressed.</p> <p>e) <u>Use of Appropriate Mufflers</u>. Construction equipment shall be equipped with the appropriate mufflers to reduce noise impacts to less than significant levels in accordance with applicable noise regulations.</p> <p>f) Use of the Doheny State Beach campground shall be prohibited within 120 feet of the drilling sites on the (Pods D and E) in order to avoid exposure to construction noise levels in excess of City standards.</p> <p>g) Throughout Project construction and operation, SCWD (or its designee) shall document, investigate, evaluate, and attempt to resolve all Project-related noise complaints as soon as possible.</p>			
<p>NOI-3: Prior to construction, SCWD (or its designee) shall review noise specifications (noise ratings, power ratings, etc.) for all stationary equipment (microfiltration units, reverse osmosis units, pumps, generators, etc.) and enclosures to confirm that facility noise levels are within the City of Dana Point’s acceptable noise standards at nearby sensitive receptors. If noise levels are anticipated to exceed the applicable City noise standards, noise-attenuation measures, such as locating stationary equipment within an upgraded noise enclosure/structure that provides sufficient attenuation and with adequate setback and screening, would be required to achieve acceptable noise levels at the property lines of nearby sensitive receptors (residential uses) in accordance with the Dana Point General Plan and</p>	SCWD	Before construction	SCWD



Mitigation Measures – NOISE	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>Dana Point Municipal Code Chapter 11.10 (Noise Standards). Once the equipment is installed, noise levels shall be monitored to ensure compliance with the applicable noise standards. If stationary noise exceeds the City of Dana Point’s standards, an acoustical engineer shall be retained to install additional noise attenuation measures, in order to meet the applicable noise standard.</p>			
<p>NOI-4: Pump Facility Noise. Prior to construction, SWCD (or its designee) shall review noise specifications (noise ratings, power ratings, etc.) for all stationary equipment (conveyance pumps, generators, etc.) to confirm that the Project noise levels are within the City of Dana Point’s acceptable noise standards at nearby sensitive receptors. If noise levels are anticipated to exceed the applicable City’s noise standards, noise-attenuation measures, such as locating stationary equipment within enclosed structures with adequate setback and screening, would be incorporated into Project design sufficient to achieve acceptable noise levels at the property lines of nearby sensitive noise receptors (residential uses) in accordance the Dana Point General Plan and City’s Municipal Code § 11.10.10-12 (Noise Standards). Once the equipment is installed, noise levels shall be monitored to ensure compliance with the City’s noise standards. If stationary noise exceeds City’s standards, an acoustical engineer shall be retained to install additional noise attenuation measures, in order to meet the applicable noise standard.</p>	SCWD	Before construction	SCWD



Mitigation Measures – RECREATION	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>REC-1: Minimize Construction Impacts on Parks and Recreational Facilities. As part of final design and permitting, SCWD shall review detailed design plans with affected recreational agencies, in order to refine facility layout, design, staging, construction and operational details. Prior to obtaining encroachment permits or other approvals from State Parks, County Parks and the City of Dana Point, SCWD shall demonstrate that</p> <ul style="list-style-type: none"> ▪ SCWD has considered potential recreational impacts in its decision for slant well phasing, such that prioritization of Pods A-C and Pods G and H shall be higher for purposes of recreational facility impacts, recognizing that other pods may be more favorable for design purposes, well production capacity, operational/maintenance consideration, or other factors; ▪ Pod F has been eliminated from consideration; ▪ Pod G has been shifted south of the basketball courts; ▪ If pipeline trenching across Palisades Drive is necessary (for Pods G and H), use of the CSD maintenance road or other methods have been explored to minimize temporary disruption of the Class I bike trail; ▪ The Project has incorporated appropriate mitigation measures to reduce recreational impacts, related to aesthetics/lighting, noise, and parking/access (as set forth in Section 4.1, 4.10 and 4.13); ▪ Project construction shall maintain pedestrian/bicycle access for routes within the State Park and County Park, through either avoidance or temporary rerouting; 	SCWD	Before permitting	State Parks, Orange County Parks (only for Capistrano Beach Park), City of Dana Point



Mitigation Measures – RECREATION	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<ul style="list-style-type: none"> Where Project construction affects existing on-street Class I bike lanes (such as Dana Point Harbor Drive and Del Obispo Street), temporary bicycle lane closures shall include advanced notice of closures and applicable temporary rerouting (see REC-2 below); Appropriate signage and advance notification is provided to the affected agency for dissemination to the public and posting on-site; and <p>Where practical, Project construction shall be timed with any other planned improvements to minimize disruption of recreational facilities.</p>			
<p>REC-2: Provide Construction Updates and Detour Information for Bicyclists. If the use of bicycle facilities must be temporarily impacted due to construction of the proposed Project, SCWD or its designee shall coordinate with the affected agency (State Park, County Park and/or the City of Dana Point) to ensure:</p> <ul style="list-style-type: none"> Project construction activities are minimized during peak-use periods for any impacted facilities, to the extent practical; The bicycle facility is restored to its original condition following construction; and <p>Appropriate advance notification is provided to the affected agency and public, in addition to on-site signage and notices for temporary detours and rerouting of bikeways.</p>	SCWD	During construction	State Parks, Orange County Parks (only for construction at Capistrano Beach Park), City of Dana Point



Mitigation Measures – TRANSPORTATION AND TRAFFIC	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>TRF-1: Prior to commencing Project construction, SCWD (or its designee) shall develop and implement a Parking and Staging Plan for all phases of construction to require that all Project-related parking occurs on-site or in pre-designated off-site parking areas. The Staging Area shall maintain through park access for motor vehicles, bicycles and pedestrians. To accommodate peak parking demand for Special Events during the off-season, SCWD (or its designee) shall coordinate with State Parks to reschedule Special Events to alternate venues or to outside the off-season construction period, and if not possible, shall arrange for sufficient off-site parking and shuttles such that the displaced parking stalls are offset. The contractor shall utilize shuttles to transport workers to and from any off-site staging/parking areas (if utilized) and Project construction areas. At least 60 days prior to start of site mobilization, SCWD (or its designee) shall submit the Plan to each affected jurisdiction for review and approval.</p> <p><u>If off-site staging/parking areas are utilized, and are outside of SCWD property, such as in the City of Dana Point, SCWD (or its designee) shall notify and coordinate with the City or other affected jurisdiction(s), on the location and duration of use of the off-site staging/parking area(s).</u></p>	SCWD	Before construction	City of Dana Point, State Parks
<p>TRF-2: Prior to construction, SCWD (or its designee) shall submit for review and approval a Construction Traffic Control Plan (TCP) to each affected jurisdiction (including State Parks, Caltrans, County Parks, and City of Dana Point), as part of the encroachment permit or related approval process. The TCP shall address, at minimum, the following issues:</p>	SCWD	Before construction, during construction	State Parks, Caltrans, Orange County Parks, City of Dana Point (for affected roads



Mitigation Measures – TRANSPORTATION AND TRAFFIC	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<ul style="list-style-type: none"> ▪ Controlling construction traffic flow by use of a flag person at construction site entrances on public roads, including Stonehill Drive/SCWD Access Road, Dana Point Harbor Drive/Park Lantern, and Palisades Drive/PCH; ▪ Signage, lighting, and traffic control device placement if required; ▪ Need, if any, for construction work hours and arrival/departure times outside of peak traffic periods; ▪ Maintaining access for emergency vehicles; ▪ Advanced notice to local agencies, transit providers, school districts, and emergency service providers regarding the anticipated schedule, location, and duration of any temporarily reduced through lanes, including clear plans for temporary detours and alternate routes, if applicable; ▪ Main through access in each direction on any public road; ▪ Maintain access to adjacent properties during the construction; ▪ Specify construction related haul routes for any material import/export; ▪ Timing of heavy equipment and building materials deliveries; ▪ Identify specific contractor training and related safety procedures for construction vehicles exiting and entering work areas from public roads. ▪ <u>For construction-related activities of all project components: The extent and duration of open trench construction activities, including the timing of construction work shifts, nighttime construction activities (if any), and whether roadway plates will be used when construction is ceased for the day (and re-</u> 			<p>within each jurisdiction)</p> <p>OCTA</p>



Mitigation Measures – TRANSPORTATION AND TRAFFIC	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p><u>opened during construction), or used during the weekday AM and PM peak commute hours</u></p> <ul style="list-style-type: none"> ▪ <u>For the preferred South Alignment of Raw Water Conveyance:</u> SCWD shall confirm with Caltrans and the City of Dana Point that the bents (columns/piles) of the PCH bridge over Doheny Park Road are seismically stable to allow for the transverse crossing of the raw water pipeline within 10 feet of the footings. If the bents are not seismically stable for the transverse crossing, SCWD shall develop an alternate plan to meet the seismic requirements of crossing under the bridge, or, consider use of the North Alignment, via Del Obispo Street. ▪ <u>For the alternate North Alignment of Raw Water Conveyance:</u> SCWD shall reimburse the City of Dana Point for loss of the City's Pavement Grant Funds if the North Alignment is selected and construction activities occur before fall 2021. The City completed a major paving project on Del Obispo Street in 2016. The paving was grant funded with a 5-year moratorium on construction. The North Alignment will only be considered should the South Alignment be determined infeasible and if SCWD elects to offset the City's loss of grant funds (which the City would forfeit if repaving occurs prior to fall 2021). <p><u>During Construction activities, the applicant (SCWD), or its designee, shall coordinate all traffic, site ingress and egress and construction parking along Shoreline Drive with the City of Dana Point. The coordination shall address and minimize any potential impact to PCH.</u></p>			



Mitigation Measures – TRANSPORTATION AND TRAFFIC	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>TRF-3: Prior to construction, SCWD (or its designee) shall submit an encroachment permit application to the City of Dana Point for review. SCWD shall work with the City of Dana Point to address impacts expected with the work per the City's Municipal Code, Encroachment Permit Standard Conditions and Detail, and other applicable regulations, and secure an encroachment permit prior to commencement of any work activities. The encroachment permit shall address at a minimum the required traffic control (also included in TRF-1), required asphalt and concrete repairs to City streets, storage of equipment and materials, water quality regulations, dust control, street sweeping, construction hours, and all other impacts/requirements.</p>	SCWD	Before construction	City of Dana Point
Mitigation Measures – UTILITIES AND SERVICE SYSTEMS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<p>UTIL-1: Prior to the start of both site mobilization and project operation, SCWD (or its designee) shall prepare and submit to the City of Dana Point, and/or any other applicable local agency, for review and comment, a Waste Management Plan (WMP) for all wastes generated during construction and operation of the Doheny Ocean Desalination Project. At a minimum, the WMP shall contain the following:</p> <ul style="list-style-type: none"> ▪ A description of all waste streams, including projections of frequency, amounts generated and hazard classifications; 	SCWD	Before site mobilization and project operation	City of Dana Point



Mitigation Measures – UTILITIES AND SERVICE SYSTEMS	Responsibility for Implementation	Timing of Implementation	Responsibility for Monitoring and Verification
<ul style="list-style-type: none">Requirements in the demolition/construction contracts that all materials that can feasibly be recovered be salvaged and recycled. The contractor(s) shall submit a recycling plan to the District for review and approval prior to commencing demolition or construction; and <p>Methods of managing each waste, including storage, treatment methods and companies contracted with for treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling and waste minimization/reduction plans.</p>			



EXHIBIT D – Doheny Ocean Desalination Project

CALIFORNIA STATE LANDS COMMISSION

STATEMENT OF FINDINGS

1.0 INTRODUCTION

The California State Lands Commission (Commission or CSLC), acting as a responsible agency under the California Environmental Quality Act (CEQA), makes these findings to comply with CEQA as part of its discretionary approval to authorize issuance of a General Lease – Public Agency Use to the South Coast Water District (SCWD) for use of sovereign land associated with the proposed Doheny Ocean Desalination Project (Project). (See generally Pub. Resources Code, § 21069; State CEQA Guidelines¹, § 15381.) The Commission has jurisdiction and management authority over all ungranted tidelands, submerged lands, and the beds of navigable lakes and waterways. The Commission also has certain residual and review authority for tidelands and submerged lands legislatively granted in trust to local jurisdictions. (Pub. Resources Code, §§ 6301, 6306, 6009, subd. (c).) All tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, are subject to the protections of the common law Public Trust.

The Commission is a responsible agency under CEQA for the Project because the Commission must approve a lease for the Project to go forward and because the SCWD, as the CEQA lead agency, has the principal responsibility for approving the Project and has completed its environmental review under CEQA. The SCWD analyzed the environmental impacts associated with the Project in a Final Environmental Impact Report (EIR) (State Clearinghouse [SCH] No. 2016031038) and, in June 2019, certified the EIR and adopted a Mitigation Monitoring and Reporting Program (MMRP) and Findings.

The Project would involve all actions related to the construction and operation of a subsurface intake water system, an ocean water conveyance pipeline system, a desalination facility, a brine disposal system, and appurtenant facilities.

The SCWD determined that the Project could have significant environmental effects on the following environmental resources:

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

- Aesthetics, Light, and Glare;
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Greenhouse Gas Emissions;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Land Use and Planning;
- Noise;
- Public Services;
- Recreation;
- Transportation and Traffic;
- Tribal Cultural Resources; and
- Utilities and Service Systems.

Of the 15 resources areas noted above, Project components within the Commission's jurisdiction (i.e., slant well construction and operation) could have significant environmental effects on 11 of the resource areas, as follows:

- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;
- Greenhouse Gas Emissions;
- Hazards and Hazardous Materials;
- Hydrology and Water Quality;
- Noise;
- Recreation;
- Tribal Cultural Resources; and
- Utilities and Service Systems.

In certifying the Final EIR and approving the Project, the SCWD imposed various mitigation measures for Project-related significant effects on the environment as conditions of Project approval and concluded that Project-related impacts would be substantially lessened with implementation of these mitigation measures such that the impacts would be less than significant.

Following the SCWD's certification of the Final EIR and approval of the Project, the Project was modified (Modified Project). A subsequent EIR is required for a project only if substantial changes in the project or circumstances require major revisions due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects, or if certain new information shows that the project will result in significant new or more severe effects or new or previously infeasible mitigation measures are now

feasible and would substantially reduce significant effects. (State CEQA Guidelines, § 15162). If some changes or additions are necessary to a previously certified EIR, but none of the conditions described in section 15162 calling for preparation of a subsequent EIR has occurred, then a responsible agency considering a project is required to prepare an addendum (State CEQA Guidelines, § 15164).

As a responsible agency, the Commission complies with CEQA by considering the EIR and the Commission's [Addendum to the Final EIR](#) for the Modified Project (November 2022) and reaching its own conclusions on whether, how, and with what conditions to approve a project. In doing so, the Commission may require changes in a project to lessen or avoid the effects, either direct or indirect, of that part of the project which the Commission will be called on to carry out or approve. In order to ensure the identified mitigation measures and/or Project revisions are implemented, the Commission adopts the Mitigation Monitoring Program (MMP) as set forth in Exhibit C as part of its Project approval.

2.0 ADMINISTRATIVE RECORD OF PROCEEDINGS AND CUSTODIAN OF THE RECORD

These Findings are supported by substantial evidence contained in the EIR and Addendum to the Final EIR and other relevant information provided to the Commission or existing in its files, all of which is contained in the administrative record. The administrative record is located at the California State Lands Commission, 100 Howe Avenue, Suite 100-South, Sacramento, CA 95825. The custodian for the administrative record is the California State Lands Commission Division of Environmental Planning and Management.

3.0 FINDINGS

The Commission's role as a responsible agency affects the scope of, but not the obligation to adopt, findings required by CEQA. Findings are required under CEQA by each "public agency" that approves a project for which an EIR has been certified that identifies one or more significant impacts on the environment (Pub. Resources Code, § 21081, subd. (a); State CEQA Guidelines, § 15091, subd. (a).) Because the EIR certified by the SCWD for the Project identifies potentially significant impacts that fall within the scope of the Commission's approval, the Commission makes the Findings set forth below as a responsible agency under CEQA. (State CEQA Guidelines, § 15096, subd. (h); *Riverwatch v. Olivenhain Mun. Water Dist.* (2009) 170 Cal.App.4th 1186, 1202, 1207.

While the Commission must consider the environmental impacts of the Project as set forth in the EIR and of the Modified Project as set forth in the Commission's Addendum to the Final EIR, the Commission's obligation to mitigate or avoid the

direct or indirect environmental impacts of the Project is limited to those parts which it decides to carry out, finance, or approve (Pub. Resources Code, § 21002.1, subd. (d); State CEQA Guidelines, §§ 15041, subd. (b), 15096, subds. (f)-(g).) Accordingly, because the Commission's exercise of discretion involves only issuing a General Lease – Public Agency Use for this Project, the Commission is responsible for considering only the environmental impacts related to lands or resources subject to the Commission's jurisdiction. With respect to all other impacts associated with implementation of the Project, the Commission is bound by the legal presumption that the EIR fully complies with CEQA.

The Commission has reviewed and considered the information contained in the Project EIR. The Commission has also reviewed and considered the information contained in the Commission's Addendum to the Final EIR that evaluates changes proposed by the Modified Project. All significant adverse impacts of the Project identified in the EIR and in the Modified Project identified in the Addendum to the Final EIR relating to the Commission's approval of a General Lease – Public Agency Use, which would allow slant well construction and operation, are included herein and organized according to the resource affected.

These Findings, which reflect the independent judgment of the Commission, are intended to comply with CEQA's mandate that no public agency shall approve or carry out a project for which an EIR has been certified that identifies one or more significant environmental effects unless the agency makes written findings for each of those significant effects. Possible findings on each significant effect are:

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

A discussion of supporting facts follows each Finding.

² See Public Resources Code section 21081, subdivision (a) and State CEQA Guidelines section 15091, subdivision (a).

- Whenever Finding (1) occurs, the mitigation measures that lessen the significant environmental impact are identified in the facts supporting the Finding.
- Whenever Finding (2) occurs, the agencies with jurisdiction are specified. These agencies, within their respective spheres of influence, have the responsibility to adopt, implement, and enforce the mitigation discussed.

The mitigation measures are briefly described in these Findings; more detail on the mitigation measures is included in the Final EIR and in Exhibit C, Attachment C-1.

A. SUMMARY OF FINDINGS

Based on public scoping, the proposed Project will have No Impact on the following environmental issue areas:

- Agriculture and Forestry Resources
- Mineral Resources
- Population and Housing

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

B. POTENTIALLY SIGNIFICANT IMPACTS

The impacts within CSLC jurisdiction identified in Table D-1 were determined in the Final EIR to be potentially significant absent mitigation. After application of mitigation, however, all impacts were determined to be less than significant (LTSM). For the full text of each mitigation measure (MM), please refer to Exhibit C, Attachment C-1.

Table D-1 – Significant Impacts by Issue Area

Environmental Issue Area	Impact Nos. (LTSM)
Air Quality	4.2-1, 4.2-2, 4.2-3
Biological Resources	4.3-1, 4.3-2, 4.3-3, 4.3-4, 4.3-5
Cultural Resources	4.4-2, 4.4-3, 4.4-4
Geology and Soils	4.5-1, 4.5-4

Greenhouse Gas Emissions	4.6-1, 4.6-2
Hazards and Hazardous Materials	4.7-1, 4.7-2
Hydrology and Water Quality	4.8-1, 4.8-5, 4.8-6
Noise	4.10-1, 4.10-4
Recreation	4.12-1
Tribal Cultural Resources	4.14-1
Utilities and Service Systems	4.15-7

C. IMPACTS REDUCED TO LESS THAN SIGNIFICANT LEVELS WITH MITIGATION

The impacts identified below were determined in the Final EIR to be potentially significant absent mitigation; however, the impacts were determined to be LTSM.

1. AIR QUALITY

CEQA FINDING NO. 4.2-1

Impact: **Impact 4.2-1. Would the Project conflict with or obstruct implementation of the applicable air quality plan.**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in emissions of pollutants exceeding the South Coast Air Quality Management District's (SCAQMD) regional significance thresholds. The EIR found that, during the originally expected construction period in 2019, 2020, and 2021, the unmitigated nitrogen oxides (NOx) emissions were projected to exceed the significance threshold of 100 pounds per day. The Modified Project, evaluated in the Addendum to the Final EIR in November 2022, would result in NOx emissions projected to exceed the significance threshold during construction in 2025.

Implementation of MMs AQ-1, AQ-2, and AQ-3 has been incorporated into the Project to reduce this impact to a less than significant level.

MM AQ-1 (no title)

MM AQ-2 (no title)

MM AQ-3 (no title)

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

CEQA FINDING NO. 4.2-2

Impact: **Impact 4.2-2: Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in emissions of pollutants exceeding the South Coast Air Quality Management District's (SCAQMD) regional significance thresholds. The EIR found that, during the originally expected construction period in 2019, 2020, and 2021, the unmitigated nitrogen oxides (NOx) emissions were projected to exceed the significance threshold of 100 pounds per day. The Modified Project, evaluated in the Addendum to the Final EIR in November 2022, would result in NOx emissions projected to exceed the significance threshold during construction in 2025.

Implementation of MMs AQ-1, AQ-2, and AQ-3 has been incorporated into the Project to reduce this impact to a less than significant level.

MM AQ-1 (no title)

MM AQ-2 (no title)

MM AQ-3 (no title)

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

CEQA FINDING NO. 4.2-3

Impact: **Impact 4.2-3: Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in Project construction emissions that would exceed NO_x significance, as discussed under Impact 4.2-2. Project Design Features substantially avoid or reduce potential air quality impacts, as summarized on Draft EIR page 4.2-20, but not to a less-than-significant impact level.

Implementation of MMs AQ-1, AQ-2, and AQ-3 has been incorporated into the Project to reduce this impact to a less than significant level.

MM AQ-1 (no title)

MM AQ-2 (no title)

MM AQ-3 (no title)

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

2. BIOLOGICAL RESOURCES

CEQA FINDING NO. 4.3-1

Impact: **Impact 4.3-1: Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in slant well pumping effects on San Juan Creek (SJC) Lagoon and nearby reaches of San Juan Creek, which is listed as critical habitat for the southern steelhead trout. The Draft EIR found that slant well pumping over time could reduce the water levels in the SJC Lagoon by approximately 0.14 to 0.26 feet. In addition, the [Ocean Plan Amendment](#) (OPA) requires that a project address the potential impacts it has on “all forms of marine life” due to the potential adverse effects from elevated salinity or turbulence mortality.

Implementation of MMs BIO-4 and OPA-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM BIO-4: DSB³ Groundwater Monitoring (for SJC Lagoon)

MM OPA-1: OPA Compliance

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

³Doheny State Beach

CEQA FINDING NO. 4.3-2

Impact: **Impact 4.3-2: Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in slant well pumping effects on SJC Lagoon and nearby reaches of San Juan Creek, which is listed as critical habitat for the southern steelhead trout. The Draft EIR found that slant well pumping over time could reduce the water levels in the SJC Lagoon by approximately 0.14 to 0.26 feet.

Implementation of MMs BIO-4 and OPA-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM BIO-4: DSB Groundwater Monitoring (for SJC Lagoon)**MM OPA-1: OPA Compliance**

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

CEQA FINDING NO. 4.3-3

Impact: **Impact 4.3-3: Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

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

FACTS SUPPORTING THE FINDING(S)

Operational impacts to SJC Lagoon are described in Impact 4.3-1. The District will monitor lagoon levels to refine the groundwater modeling and facilitate

siting of subsequent slant wells, in order to ensure that no significant impacts occur.

Implementation of MMs BIO-4 and OPA-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM BIO-4: DSB Groundwater Monitoring (for SJC Lagoon)

MM OPA-1: OPA Compliance

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

CEQA FINDING NO. 4.3-4

Impact: **Impact 4.3-4: Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

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

FACTS SUPPORTING THE FINDING(S)

Operational impacts to SJC Lagoon are described in Impact 4.3-1. The District will monitor lagoon levels to refine the groundwater modeling and facilitate siting of subsequent slant wells, in order to ensure that no significant impacts occur to southern steelhead habitat and associated migration.

Implementation of MMs BIO-4 and OPA-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM BIO-4: DSB Groundwater Monitoring (for SJC Lagoon)

MM OPA-1: OPA Compliance

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

CEQA FINDING NO. 4.3-5

Impact: **Impact 4.3-5: Would the project conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance?**

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

FACTS SUPPORTING THE FINDING(S)

Operational impacts to SJC Lagoon are described in Impact 4.3-1. The District will monitor lagoon levels to refine the groundwater modeling and facilitate siting of subsequent slant wells, in order to ensure that no conflicts with any applicable plan or policy occur. A detailed discussion of local regulation and ordinance compliance is provided in Draft EIR Table 4.9-2, DSB General Plan Consistency Analysis, and Draft EIR Table 4.9-4, Dana Point General Plan Consistency Analysis.

Implementation of MMs BIO-4 and OPA-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM BIO-4: DSB Groundwater Monitoring (for SJC Lagoon)**MM OPA-1: OPA Compliance**

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

3. CULTURAL RESOURCES**CEQA FINDING NO. 4.4-2**

Impact: **Impact 4.4-2: Would the project cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in impacts to currently unmapped surface or subsurface archaeological resources. Due to

archaeological sensitivity of the study area, and as requested by native American tribes through AB 52 consultation, the Project construction will include worker awareness training and archaeological monitoring to mitigate potential impacts.

Implementation of MMs CUL-1 and CUL-2 has been incorporated into the Project to reduce this impact to a less than significant level.

MM CUL-1: Worker Environmental Awareness Training (all components)

MM CUL-2: Construction Monitoring

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

CEQA FINDING NO. 4.4-3

Impact: **Impact 4.4-3: Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

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

FACTS SUPPORTING THE FINDING(S)

The subsurface intake wells would be in an area with undetermined paleontological sensitivity. Unnamed Miocene marine sediments are mapped offshore in the shallow subsurface and are not known to contain fossils but could result in a potentially significant impact.

Implementation of MM CUL-3 has been incorporated into the Project to reduce this impact to a less than significant level.

MM CUL-3: Paleontological Construction Monitoring and Compliance Program

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

CEQA FINDING NO. 4.4-4

Impact: **Impact 4.4-4: Would the project disturb any human remains, including those interred outside of formal cemeteries?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in the discovery of human remains and associated impacts to human remains, should they be discovered during construction.

Implementation of MMs CUL-1 and CUL-2 has been incorporated into the Project to reduce this impact to a less than significant level.

MM CUL-1: Worker Environmental Awareness Training (all components)

MM CUL-2: Construction Monitoring

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

4. GEOLOGY AND SOILS

CEQA FINDING NO. 4.5-1

Impact: **Impact 4.5-1: Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: Strong seismic ground shaking? Seismic-related ground failure, including liquefaction?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project would be located in the Southern California region and could be exposed to the harmful effect of seismic ground shaking. The areas that the Project components are in have a history of liquefaction and are defined as “areas where local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation would be required” (California Geological

Survey, 2001). The risk of ground shaking can also adversely impact the components operation as well.

Implementation of MM GEO-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM GEO-1 (no title)

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

CEQA FINDING NO. 4.5-4

Impact: **Impact 4.5-4: Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to occur in soils that expand and contract in volume ("shrink-swell" pattern), are considered to be expansive, and may cause damage to infrastructure as a result of density changes that shift overlying materials.

Implementation of MM GEO-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM GEO-1 (no title)

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

5. GREENHOUSE GAS EMISSIONS

CEQA FINDING NO. 4.6-1

Impact: **Impact 4.6-1: Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

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

FACTS SUPPORTING THE FINDING(S)

The majority of Project-related operational emissions are from indirect emissions associated with the Project's electricity consumption from the power grid, including greenhouse gas (GHG) emissions associated with importing water through the Department of Water Resources's State Water Project. Activities proposed as part of the Project and evaluated in the EIR would have had the potential to result in incremental increases in GHG emissions when compared to the District's current water supply portfolio, for a total of approximately 12,460 metric tons of carbon dioxide equivalent (MTCO₂e). Of that amount, the GHG emissions associated with slant well construction and Project-wide pipework (the components occurring on or affecting State lands) would have been 8,354 MTCO₂e. The Modified Project would generate an estimated 8,270 MTCO₂e of direct and indirect GHG emissions for those same components on State lands.

Implementation of MMs GHG-1 and GHG -2 has been incorporated into the Project to reduce this impact to a less than significant level.

MM GHG-1 (no title)

MM GHG-2 (no title)

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

CEQA FINDING NO. 4.6-2

Impact: **Impact 4.6-2: Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in GHG emissions increases when compared to the District's current water supply portfolio, as discussed under Impact 4.6-1.

Implementation of MMs GHG-1 and GHG -2 has been incorporated into the Project to reduce this impact to a less than significant level.

MM GHG-1 (no title)

MM GHG-2 (no title)

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

6. HAZARDS AND HAZARDOUS MATERIALS**CEQA FINDING NO. 4.7-1**

Impact: **Impact 4.7-1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

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

FACTS SUPPORTING THE FINDING(S)

Drilling activities proposed as part of the Project have the potential to result in potential releases of hazardous material to the environment from fluid and mud loss, borehole collapse, and groundwater interference. In addition, impacts could occur from waste generated, used, handled, or transported during facility construction and operation as well as drilling, microtunneling, jack and bore,

excavation, trenching, or other earthmoving activities with the potential to disturb contaminated soil or groundwater.

Implementation of MMs HAZ-1, HAZ-2, and HAZ-3 has been incorporated into the Project to reduce this impact to a less than significant level.

MM HAZ-1: Drilling Monitoring and Management Program

MM HAZ-2: Hazardous Waste Management Plan

MM HAZ-3: Registered Professional Engineer or Geologist

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

CEQA FINDING NO. 4.7-2

Impact: **Impact 4.7-2: Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to disturb unknown incidents of hazardous materials releases that could affect Project construction or operations. If during Project construction, areas with unknown contaminants are upset, the disturbance associated with construction-related activities could expose the public, construction workers, and environment to contaminated soil, contaminated groundwater, or other underground hazards and hazardous materials.

Implementation of MMs HAZ-1 through HAZ-5, HAZ-8, and HAZ-9 has been incorporated into the Project to reduce this impact to a less than significant level.

MM HAZ-1: Drilling Monitoring and Management Program

MM HAZ-2: Hazardous Waste Management Plan

MM HAZ-3: Registered Professional Engineer or Geologist

MM HAZ-4: Inspection of Potentially Contaminated Soils

MM HAZ-5: Remedial Investigation Workplan

MM HAZ-8: Project Operations and Maintenance Safety and Health Program

MM HAZ-9: Retain a Site Construction Safety Supervisor

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

7. HYDROLOGY AND WATER QUALITY

CEQA FINDING NO. 4.8-1

Impact: **Impact 4.8-1: Would the project violate any water quality standards or waste discharge requirements?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in temporary water quality impacts associated with stormwater runoff.

Implementation of MMs HWQ-1 and HWQ-4 has been incorporated into the Project to reduce this impact to a less than significant level.

MM HWQ-1 (no title)

MM HWQ-4 (no title)

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

CEQA FINDING NO. 4.8-5

Impact: **Impact 4.8-5: Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in significant impacts from additional sources of polluted runoff, during construction and Project operation, that could affect existing stormwater drainage systems and erosion control measures.

Implementation of MMs HWQ-1 and HWQ-4 has been incorporated into the Project to reduce this impact to a less than significant level.

MM HWQ-1 (no title)

MM HWQ-4 (no title)

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

CEQA FINDING NO. 4.8-6

Impact: **Impact 4.8-6: Would the project otherwise substantially degrade water quality?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in hazardous materials spills and/or erosion that would degrade the Project area's stormwater runoff.

Implementation of MM HWQ-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM HWQ-1 (no title)

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

8. NOISE**CEQA FINDING NO. 4.10-1**

Impact: **Impact 4.10-1: Would the Project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in noise from construction activities that would be generated by two primary sources: (1) the noise related to active construction equipment; and (2) the transport of workers, materials, and equipment to construction sites. These noise sources can be a nuisance to local residents and businesses or unbearable to sensitive receptors (i.e., residential, hospital, hotel/motel, schools, parks, and places of worship).

Implementation of MMs NOI-1 and NOI-2 has been incorporated into the Project to reduce this impact to a less than significant level.

MM NOI-1 (no title)**MM NOI-2: Slant Well 24-hour Drilling Noise Mitigation**

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

CEQA FINDING NO. 4.10-4

Impact: **Impact 4.10-4: Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in temporary but high construction-related impacts due to noise generation, and particularly high at DSB due to continuous slant well drilling including night-time drilling.

Implementation of MMs NOI-1 and NOI-2 has been incorporated into the Project to reduce this impact to a less than significant level.

MM NOI-1 (no title)

MM NOI-2: Slant Well 24-hour Drilling Noise Mitigation

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

9. RECREATION**CEQA FINDING NO. 4.12-1**

Impact: **Impact 4.12-1: Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

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

FACTS SUPPORTING THE FINDING(S)

The enclosed drill rig area and nearby staging area would have a temporary significant impact on DSB recreational areas. Even with the implementation of Project Design Features, the temporary slant well construction would result in temporary loss of beach parking. Within the Campground (Pods D and E), slant

well construction is currently planned to be 24-hours a day drilling for approximately three months per well. Although this will be off-season, this will temporarily displace approximately 50 campsites to allow for the drill rig work area and a suitable surrounding area for safety and for distance due to noise and lighting during night-time drilling. The Modified Project would close the entire Campground for 18 to 24 consecutive months instead of two to three years of off-season construction.

Implementation of MM REC-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM REC-1: Minimize Construction Impacts on Parks and Recreational Facilities

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

10. TRIBAL CULTURAL RESOURCES

CEQA FINDING NO. 4.14-1

Impact: **Impact 4.14-1: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources defined in Public Resources Code Section 5020.1(k) or b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code (PRC) Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to affect previously unidentified tribal cultural resources during construction activities including grading, trenching, and excavation.

Implementation of MMs CUL-1 and CUL-2 has been incorporated into the Project to reduce this impact to a less than significant level.

MM CUL-1: Worker Environmental Awareness Training (all components)

MM CUL-2: Construction Monitoring

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

11. UTILITIES AND SERVICE SYSTEMS

CEQA FINDING NO. 4.15-7

Impact: **Impact 4.15-7: Would the project comply with federal, state, and local statutes and regulations related to solid waste?**

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

FACTS SUPPORTING THE FINDING(S)

Activities proposed as part of the Project have the potential to result in solid waste that could be generated from slant well construction, including drilling mud and cuttings.

Implementation of MM UTIL-1 has been incorporated into the Project to reduce this impact to a less than significant level.

MM UTIL-1 (no title)

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

D. FINDINGS ON ALTERNATIVES

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

When it comes time to decide on project approval, the public agency's decisionmaking body evaluates whether the alternatives [analyzed in the EIR] are actually feasible.... At this final stage of project approval, the agency considers whether '[s]pecific economic, legal, social, technological, or other considerations...make infeasible the mitigation measures or alternatives identified in the environmental impact report.' Broader

considerations of policy thus come into play when the decisionmaking body is considering actual feasibility than when the EIR preparer is assessing potential feasibility of the alternatives [citations omitted].

The 5 alternatives analyzed in the EIR represent a reasonable range of potentially feasible alternatives that could reduce one or more significant impacts of the Project. These alternatives include:

- 1) "No Project";
- 2) "Enhanced Conservation";
- 3) "Enhanced Recycled Water";
- 4) "Reduced Capacity"; and
- 5) "Seawater Intrusion Minimization (DSB only)".

As presented in the EIR, the alternatives were described and compared with each other and with the proposed Project.

Under State CEQA Guidelines section 15126.6, subdivision (e)(2), if the No Project Alternative is identified as the environmentally superior alternative, the EIR must also identify an environmentally superior alternative among the other alternatives. Based on the analysis contained in the EIR, the "Seawater Intrusion Minimization (DSB only)" alternative is the environmentally superior alternative. It would reduce potential Project impacts, would further reduce seawater intrusion, and would meet all of the Project objectives.

The SCWD independently reviewed and considered the information on alternatives provided in the EIR and in the record. The EIR reflects the SCWD's independent judgment as to alternatives. The SCWD found that the "Seawater Intrusion Minimization (DSB only)" alternative provides the best balance between the Project goals and objectives and the Project's benefits. The 4 other CEQA alternatives proposed and evaluated in the EIR were rejected as being infeasible for reasons provided in the SCWD's Findings Regarding Alternatives (Attachment D-1).

Based upon the objectives identified in the Final EIR and the detailed mitigation measures imposed upon the Project, the Commission has determined that the Project should be approved, subject to such mitigation measures (Exhibit C, Mitigation Monitoring Program).

ATTACHMENT D-1

FINDINGS REGARDING ALTERNATIVES ADOPTED BY THE SOUTH COAST WATER DISTRICT

contracted with for treatment services, waste testing methods to assure correct classification, methods of transportation, disposal requirements and sites, and recycling waste minimization plans.

Finding: The District adopts CEQA Finding 1 (CEQA Guidelines §15091(a)(1)).

Facts in Support of Finding: To ensure compliance with existing solid waste statutes and regulations, Mitigation Measure UTIL-1 would be implemented, which requires SCWD to submit to the City of Dana Point and/or any other applicable agency, a Waste Management Plan for all waste generated during construction and operation of the Project. Compliance with Mitigation Measure UTIL-1, along with the various statutes and regulations pertaining to solid waste disposal, would ensure the Project's construction and operation-related impacts would be less than significant.

Section 6: Environmental Impacts Found to Be Significant and Unavoidable

The Draft EIR concluded that the Phase I Local Project would not result in any unavoidable significant impacts, recognizing the various Project Design Features and mitigation measures that serve to avoid or minimize potentially significant environmental impacts. (Draft EIR Section 6.1). The Final EIR includes responses to all written comments on the Draft EIR submitted during the public review period, and reaffirms that the Phase I Local Project does not have any unavoidable significant impacts. (Final EIR Section 2, Master Response 3, pages 17-21).

Section 7: Alternatives to the Proposed Project

CEQA requires that “an EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives” (State CEQA Guidelines § 15126.6 (a)).

Alternatives Rejected from Further Consideration

Section 15126.6(c) of the State CEQA Guidelines permits the elimination of an alternative from detailed consideration due to: Failure to meet most of the basic project objectives; infeasibility; or inability to avoid significant environmental impacts. The following alternatives have been rejected from further consideration:

Alternative Sites

The District and others [(including the Municipal Water District of Orange County (MWDOC)] have been exploring a desalination site at Doheny State Beach (DSB) since early 2000, and the Project site has been identified in numerous policies, planning and facility siting studies (see Draft EIR Section 3.3, Project History). The District is not aware of any feasible alternative to the desalination facility site being identified

in any prior studies and is not aware of any feasible alternative location that would avoid or substantially lessen significant effects of the Project. The District already owns the San Juan Creek Property.

No significant and unavoidable impacts would occur with implementation of the proposed project at the Project site with mitigation measures described in the EIR. Alternative sites located inland are infeasible as the Project must be in close proximity to the ocean. The District has already incorporated various siting and design options as part of the Project, most notably the addition of the southeast intake well study area to explore potential additional feasible subsurface intake well locations. In consideration of the above, the District does not believe an “alternative site” is necessary or relevant to the Doheny Ocean Desalination Project (DEIR pp. 1.0-51 & 52).

Shallow Neodren® Technology

Neodren® is the trademarked name of a patented subsurface ocean water intake system, using horizontal directional drilling (HDD) technology to install porous high-density polyethylene (HDPE) pipe. The Neodren® system has possible advantages over slant wells, including longer well lengths (of 2,000 feet or more), which allow the ability to launch further back from the beach or further out into the ocean. The use of flexible (HDPE) pipe and HDD drilling allows the well to stay relatively shallow, rather than dive deeper on a fixed angle. However, the District has not identified any unavoidable significant impacts associated with slant well construction or operation, and as such this technology is not necessary at this site. Furthermore, the Neodren® method has never been operationally demonstrated in North America (current installations are limited to Spain), and its HDD construction method typically requires the HDD drill to penetrate the ocean floor at the terminus to “pull” the porous HDPE pipe back through the borehole, which represents a new impact not found with slant wells. The District may pilot test the Neodren® technology as part of future subsurface intake well design studies, which would require separate regulatory permitting and CEQA review (DEIR p. 5.0-7).

Vertical Well Technology

Because the Project’s slant wells have been shown to meet or exceed source water intake requirements with all impacts mitigated to less than significant levels, alternate technologies such as vertical wells are not being considered. In addition, vertical wells pose other challenges that make this technology less desirable, including lower per unit production rate, greater percentage of inland groundwater, increased variability in groundwater quality, and greater impact upon the San Juan Creek Lagoon (DEIR p. 5.0-8, Final EIR Master Response 4 and Response L6-3).

ALTERNATIVE 1: “NO PROJECT” ALTERNATIVE

The “No Project” Alternative assumes that the existing land uses and condition of the project site at the time the Notice of Preparation (NOP) was published (March 14, 2016) would continue to exist without changes (DEIR p. 5.0-8). The setting of the proposed Project site at the time the NOP was published is described as part of the existing conditions noted throughout Section 4.0 of the Draft EIR, with respect to individual environmental issues, and forms the baseline of the impact assessment of the proposed project.

Elimination of Project impacts should be understood as countered by some level of likely future development impact on the District's San Juan Creek Property should the desalination facility not be constructed (see the 2002 San Juan Creek Property Final EIR). In addition, failure to implement the Project would be in direct conflict with the District's Urban Water Management Plan (UWMP) and Strategic Plan, would completely fail to meet any of the Project Objectives, would contradict over 20 years of water supply planning for the Project, and would necessitate implementation of one or more alternative water supply sources, each of which would have its own environmental impacts. The No Project Alternative would leave the District vulnerable to catastrophic water supply shortages in the event of a major system failure or seismic damage, potentially resulting in extraordinary financial impacts to this area and associated tourism-based economy. For these reasons, the District has rejected the No Project Alternative (DEIR p. 1.0-52 & 53).

ALTERNATIVE 2: "ENHANCED CONSERVATION" ALTERNATIVE

Under the "Enhanced Conservation" Alternative, water users within the District would be required to conserve at least an additional 4,400 acre-feet per year (AFY) of water to meet the identified minimum additional supply needed for water reliability of 3.9 million gallons per day (MGD). Adding an extra 3.9 MGD of annual conservation to conservation efforts that are currently occurring within the District would essentially require nearly tripling the District's future water conservation efforts. To triple the future conservation efforts of the District in such a relatively short period of time (to maintain the District's desired schedule) would require, at a minimum, the imposition of prescriptive water conservation standards for activities, like outdoor residential irrigation, that are currently considered discretionary consumptive water use, or the enactment of the District's Water Conservation and Water Supply Shortage program (Stage 2 or Stage 3) outside of the water supply condition thresholds identified in [Table 5-1](#) in [Section 5.0](#) of the EIR. To achieve a long-term reliable and drought-proof supply similar to the proposed project, Stage 2 and/or Stage 3 water shortage contingency provisions would likely have to be enacted and ultimately enforced on a permanent basis. Enforcement effectiveness at such high conservation targets would likely be challenging.

The "Enhanced Conservation" Alternative would not provide a new, diversified water supply portfolio, and would not provide a hydrologically independent water supply in the event of continued drought. The "Enhanced Conservation" Alternative is not considered a permanent and sustainable method to close the existing minimum additional 3.9 MGD water supply gap while meeting the stated objective of providing an immediate and reliable emergency water source for District customers in the event of a catastrophic failure of District infrastructure or regional distribution facilities such as State Water Project (SWP) and Colorado River Aqueduct (CRA) facilities. As a result, the "Enhanced Conservation" Alternative would not improve the overall supply diversity to the area or improve the protection of public health and welfare during supply shortages that could be caused by outage of the imported system or curtailments in imported water supply due to drought or other emergency outage of the system. As such, the "Enhanced Conservation" Alternative would fail to meet the water reliability needs of the District to the same degree as the proposed project (DEIR p. 1.0-53, Final EIR Response O3-2).

ALTERNATIVE 3: “ENHANCED RECYCLED WATER” ALTERNATIVE

Under the “Enhanced Recycled Water” Alternative, the District would need to construct additional recycled water treatment facilities and infrastructure to create a supplemental water supply of at least 3.9 MGD (4,400 AFY) to offset potable water shortages during a catastrophic outage. Under the “Enhanced Recycled Water” Alternative, the proposed desalination facility, subsurface water intake system, and raw (ocean) water conveyance pipeline would not be constructed and the existing minimum necessary additional potable water supply gap of 3.9 MGD would be supplemented from existing potable water supplies that would become available through the increased recycled water production.

Full implementation of the recycled water facilities envisioned in the District’s 2015 UWMP would result in a total projected recycled water demand of 1,350 AFY, which approaches the District’s existing 1,350 AFY of available recycled water to supply to customers. Implementation of the “Enhanced Recycled Water” Alternative would require the District to supply an additional 3,350 AFY, or more than four times the District’s current recycled production of 850 AFY, by year 2020. This also assumes that recycled water could be used in direct “flange to flange” potable water applications, for which there is no current regulatory pathway in California. In addition, the “Enhanced Recycled Water” Alternative would itself require new infrastructure including pipelines and wastewater treatment facilities, which would have similar impacts to the Project, at least for onshore facilities. The Project’s impacts can be mitigated to less than significant levels, so this Alternative does not reduce any unavoidable significant impacts (DEIR p. 1.0-54).

Regardless, the District has insufficient recycled water production potential to make this alternative feasible. In addition, given the time necessary for regulations to allow for this, to investigate, finance, and construct a number of facilities above and beyond those identified in the District’s 2015 UWMP, implementation of the “Enhanced Recycled Water” Alternative would fail to produce sufficient recycled water offsets to create a minimum additional 3.9 MGD (4,400 AFY) of reliable water supply and eliminate the existing projected supply gap in a timely manner.

The “Enhanced Recycled Water” Alternative would also fail to meet basic Project objectives, as it would not provide a reliable emergency water source for District customers in the event of a catastrophic failure of District infrastructure or regional distribution facilities such as SWP and CRA facilities. As a result, this Alternative would not improve the overall supply diversity to the area or improve the protection of public health and welfare during supply shortages that could be caused by outage of the imported system or curtailments in imported water supply due to drought or other emergency outage of the system. As such, the “Enhanced Recycled Water” Alternative would fail to meet the water reliability needs of the District to the same degree as the proposed Project, and is not being considered by the District. This alternative is further clarified in Final EIR Response O6-3.

ALTERNATIVE 4: “REDUCED CAPACITY” ALTERNATIVE

A minimum desalination facility capacity of 3.9 MGD has been recommended based on certain specific system reliability parameters (including the minimum capacity needed to meet a 60-day imported water supply interruption). However, the District desires to construct up to a 5 MGD facility with the intent to create further reliability and local water supply security, particularly given the difficulty and cost of developing alternative new water supplies for a water-scarce south Orange County. For the purposes of CEQA alternatives, the EIR evaluates a “Reduced Capacity Alternative,” which is hypothesized to be a 3.9 MGD facility to meet the minimum identified 60-day imported water supply shortage gap. This Alternative is assumed to be at the same site and with the same general facility locations, with the exception of reduced source water intake, brine discharge, raw water treatment and desalination and equipment (corresponding to roughly 20% reduction in impacts related to source water production, treatment, and discharge). Depending on individual slant well production, one of the estimated three to four Phase I Project slant wells could be avoided with a 20% reduction in capacity. The desalination facility site would have similar impacts as the Project, since the entire desalination site would require grading, and the structures would be similar in size as those required for the Project.

Overall, the “Reduced Capacity” Alternative would result in a slight reduction in Project impacts, including approximately a 20% reduction in subsurface intake of ocean water, reverse osmosis treatment and associated pretreatment and posttreatment processes, greenhouse gas emissions, and brine discharge volume. However, in each of these cases, the Project’s impacts can be fully mitigated, and the “Reduced Capacity” Alternative would therefore not avoid any unavoidable significant impacts. Comparing effects on the San Juan Creek Lagoon, [Appendix 10.10](#) shows little to no effect by reducing slant well pumping by 20 percent. (DEIR p.1.0-55).

The “Reduced Capacity” Alternative would achieve the basic Project objectives, albeit 20% less as effective as the proposed Project. As a result, this alternative would partially improve the overall supply diversity to the area and partially improve the protection of public health and welfare during supply shortages that could be caused by outage of the imported system or curtailments in imported water supply due to drought or other emergency outages of the system. However, the “Reduced Capacity” Alternative would not avoid any unavoidable significant impacts. This Alternative may still be considered by the District. This alternative is further clarified in Final EIR Response O5-7.

“SEAWATER INTRUSION MINIMIZATION (DSB ONLY)” ALTERNATIVE

The District has evaluated a specific alternative to the Phase I Project, involving focusing the initial slant wells in the immediate vicinity of San Juan Creek Lagoon (such as Pods C and D). This Alternative would achieve all of the Project objectives and provide the desired full Phase I production capacity of up to 5 MGD. The overall impacts would, therefore, be similar to the proposed Project, with the exception of more effective barrier against seawater intrusion into inland groundwater, and temporary slant well construction impacts.

In the SCWD Stonehill Well, total dissolved solids (TDS) concentrations begin to rise after approximately 15 years of Project operations (compared to the 13.5 years under Baseline conditions) and reach a concentration of roughly 4,000 mg/L by the end of year 2045 (1976 hydrology). This is approximately 3,000 mg/L less than the concentration under Baseline conditions and indicates that slant well pumping at DSB establishes control over ocean water intrusion through the pumping trough created by the feed water system ([Appendix 10.10.2](#), page 9, further clarified in Final EIR Response L7-9).

Therefore, this Alternative would reduce seawater intrusion compared to the Project (where slant wells could be located anywhere within the Study Area, from Pods A – H). Furthermore, this Alternative involves wells closest to the San Juan Creek Lagoon where slant well production capacity is estimated to be highest, thereby reducing the total number of slant wells and associated temporary construction-related impacts (rather than an assumed three to four wells with the Project, this Alternative could be constructed with two to three slant wells due to higher production capacity). In addition, slant wells sited at San Juan Creek Lagoon would have a shorter total conveyance pipeline length to the desalination facility, thereby reducing pipeline construction-related impacts and would be entirely within DSB thereby avoiding impacts at Capistrano Beach Park (including greater coastal erosion potential and temporary loss of parking). This would also reduce the total number of agencies required for permitting and approvals (avoiding a long-term lease and encroachment permits from County Parks). This Alternative would be in closer proximity to the San Juan Creek Lagoon and would focus slant well construction within DSB. The Draft EIR and Final EIR have explicitly addressed slant well impacts at DSB through analysis of specific slant well pods A through E. Slant well construction and operational impacts at DSB can be mitigated to less than significant levels as discussed throughout the Draft and Final EIRs, including discussion in [Section 4.3, Biological Resources](#), and [Section 4.12, Recreation](#) of Draft EIR.

Therefore, the “Seawater Intrusion Minimization (DSB Only)” Alternative would reduce potential Project impacts, would further reduce seawater intrusion, and would meet all of the Project objectives. This Alternative is considered “Environmentally Superior” to the proposed Project, and may be considered by the District, pending further consultation with State Parks and other regulatory agencies and stakeholders.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires an EIR to identify the environmentally superior alternative. The environmentally superior alternative is the one that would result in the fewest or least significant environmental impacts. The context of an environmentally superior alternative is based on the consideration of several factors including the reduction of environmental impacts to a *less than significant* level, the project objectives, and an alternative’s ability to fulfill the objectives with minimal impacts to the existing site and surrounding environment. The No Project Alternative would be the environmentally superior alternative because it would eliminate all of the potentially significant impacts of the proposed project. However, while the “No Project” Alternative is the environmentally superior alternative, it is not capable of meeting any of the basic objectives of the proposed Project. Section 15126.6(e)(2) of the State CEQA Guidelines states that if the “No Project” alternative is found to be environmentally superior, “the EIR shall also identify an environmentally superior alternative among the other alternatives.”

Therefore, the environmentally superior alternative to the proposed Project is the one that would result in the fewest or least significant environmental impacts while meeting most (or all) of the basic Project objectives. As discussed above, based on the evaluation undertaken, the “Seawater Intrusion Minimization (DSB Only)” Alternative is the environmentally superior alternative, and may be considered by the District, pending further consultation with State Parks and other regulatory agencies and stakeholders (DEIR p. 1.0-56).

In fact, as stated in the Staff Report, Resolution and these Findings, the Board is only considering approval of slant wells at DSB at this time, effectively the “Environmentally Superior Alternative.”

Section 8: Additional CEQA Considerations

a. Significant Irreversible Environmental Changes (Draft EIR Section 6.2)

This project will utilize both renewable and non-renewable resources over the course of its construction and operation. The construction will use these resources in a manner consistent with other municipal or industrial developments. While the operation of the proposed desalination facility would result in an increased use of energy and natural gas, it would not require substantial new or expanded energy or natural gas supplies or distribution facilities, or conflict with applicable energy standards (the Project would include minor underground electrical lines extended to the site, and equipment powered by electricity or natural gas). The Project would implement several environmental design features that would reduce energy demand, including a commitment to offset the additional energy consumed by the Project in comparison to baseline conditions. With the implementation of environmentally friendly design features and mitigation from the EIR, the Project would present a less than significant long-term increase in non-renewable resource consumption.

b. Growth-Inducing Impacts (Draft EIR Section 6.3, Final EIR Response to Comment O2-1)

Regarding economic growth (Draft EIR Section 6.3.2), the project would only temporarily employ construction personnel during the development of the project components leading to a less than significant impact economically. In operation the desalination facility would employ 4-6 people (12-15 people for the regional project). This lower employee count does not represent a significant economic expansion or a significant growth inducing impact.

Regarding population growth (Draft EIR, Section 6.3.3) the Project would not create new residential structures and thus would not induce population growth. Also, the project would not create new infrastructure to increase population growth. The public utilities/service systems are already readily available in the area, and would not be increased by the project, further reducing the potential for population increases and significant growth impacts.

Regarding removal of impediment to growth (Draft EIR, Section 6.3.4) the project, while not expected to lead directly to economic or population growth through its development, has the