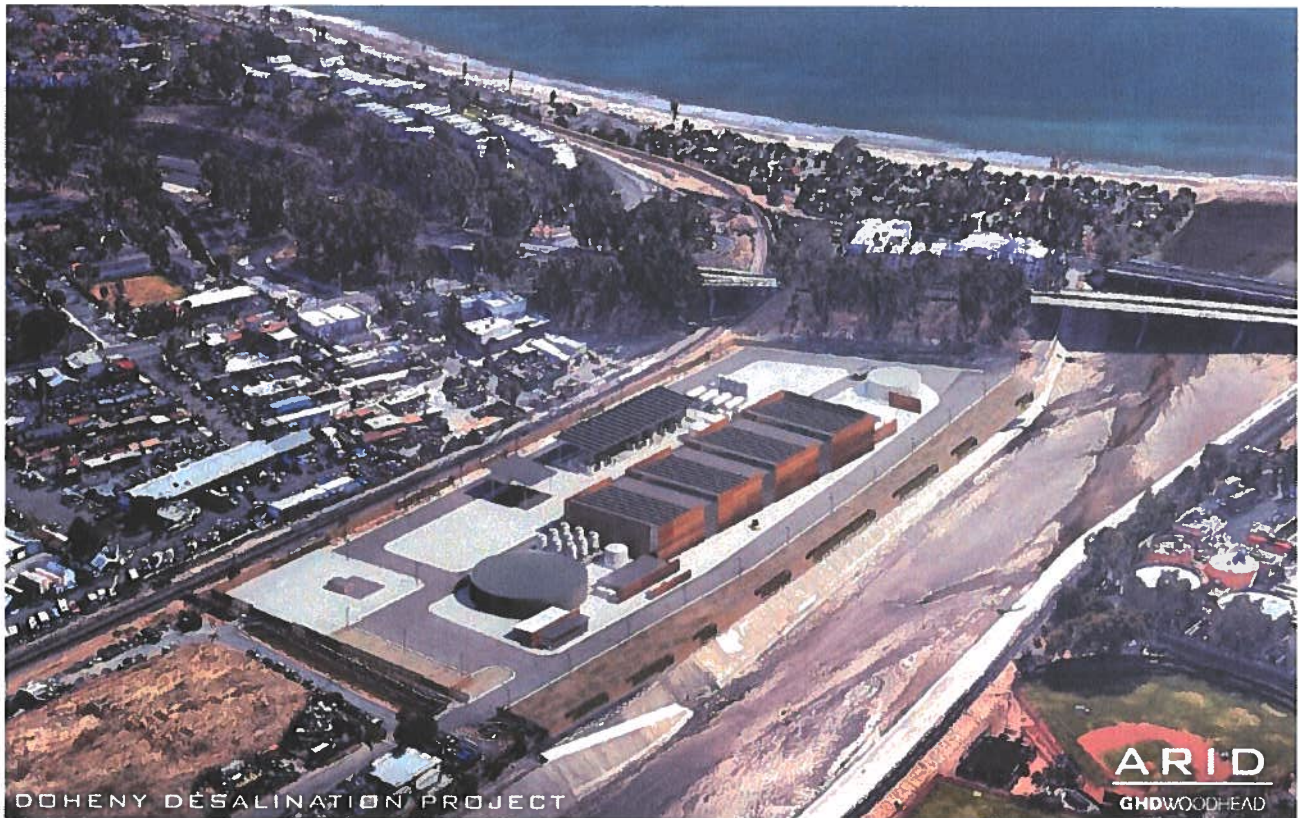




— BUREAU OF —
RECLAMATION

National Environmental Policy Act Finding of No Significant Impact

**Doheny Ocean Desalination Project
South Coast Water District, Orange County, California**



Mission Statements

The Department of the Interior (DOI) conserves and manages the Nation's natural resources and cultural heritage for the benefit and enjoyment of the American people, provides scientific and other information about natural resources and natural hazards to address societal challenges and create opportunities for the American people, and honors the Nation's trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities to help them prosper.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.



— BUREAU OF —
RECLAMATION

**National Environmental Policy Act (NEPA)
Finding of No Significant Impact**

No. 20-SCAO-029-FONSI

Doheny Ocean Desalination Project
Orange County, California


The Bureau of Reclamation is providing funding for the Doheny Ocean Desalination Project in Orange County, California. The South Coast Water District applied for financial assistance under the Water Infrastructure Improvements for the Nation (WIIN) Act. Funding has been authorized by Congress.

The funds will be used to plan, design, and construct the Phase I ocean water desalination project in Dana Point, including subsurface intake wells at Doheny State Beach and conveyance pipelines from the intake wells to the desalination site 1/2 mile inland along San Juan Creek. The Phase I project will produce up to 5 million gallons per day (MGD), with potential for future expansion to 15 MGD.

Based on our review of an Environmental Impact Report (EIR) for the Doheny Ocean Desalination Project, California State Clearinghouse No. 2016031038, we have determined that the financial assistance does not constitute a major federal action which would significantly affect the quality of the human environment within the meaning of Section 102(2)(C) of the National Environmental Policy Act of 1969. Accordingly, preparation of an environmental impact statement is not required.

Recommended: **DOUGLAS MCPHERSON** Digitally signed by DOUGLAS MCPHERSON
Date: 2023.07.28 13:35:30 -07'00' Date: _____
Doug McPherson, Environmental Protection Specialist

Reviewed By: **VIRANOUSACK SOUBANNARATH** Digitally signed by VIRANOUSACK SOUBANNARATH
Date: 2023.07.28 13:39:07 -07'00' Date: _____
Viranousack (Alex) Soubannarath
Program Analyst (Title XVI Coordinator)

Approved:  Date: 8/16/23
John E. Simes, Jr., Area Manager
Southern California Area Office



Cooperative Agreement No. R20AP00009 provides funds to the South Coast Water District for project management, planning, permitting, environmental compliance, design, engineering, and construction of the Doheny Ocean Desalination Project in Dana Point at Doheny State Beach and vicinity. The Phase I project will have an initial capacity of up to 5 MGD with potential future expansion to 15 MGD.

South Coast Water District applied for financial assistance under Funding Opportunity Announcement No. BOR-DO-18-F012, *WaterSMART: Desalination Construction Projects Under the WIIN Act*. Legislation authorizing fund transfers for the Project was enacted in December 2019.

PURPOSE AND NEED

The South Coast Water District currently relies on imported water for 85 percent of their supply. The desalination facility will decrease reliance on imported water by integrating desalinated ocean water with their existing local water supply portfolio. The Phase 1 "Local" desalination project will produce 5 MGD or 5,321 acre-feet per year, with 2 MGD of new potable water for South Coast Water District and 3 MGD available for local project partners.

The project objectives are to:

- Create a drought-proof, hydrologically independent, reliable, high-quality source of potable water.
- Further diversify South Coast Water District's portfolio with a locally controlled supply, combining conservation, recycling, and other local supplies to reduce dependence on imported water.
- Provide emergency backup water supplies, should an earthquake, system shutdown, or other event disrupt the delivery of imported water to the south Orange County area.

Funding opportunity announcement BOR-DO-19-F008 invited sponsors of ocean and brackish water desalination projects to request cost-shared funding for planning, design, and/or construction. The funding opportunity announcement facilitates investment in technology and enables broader scale deployment of desalination technology supporting the goals of the October 19, 2018, *Presidential Memorandum on Promoting the Reliable Supply and Delivery of Water in the West*. These projects provide new sources of water and increase water management flexibility, making supplies more reliable.

Desalination is an essential tool to stretch limited water supplies in the Western United States. These projects develop and supplement municipal and irrigation water supplies through treatment of ocean or brackish water, providing a local supply, flexibility during shortages, and diversified supply portfolios.

AUTHORITY

The funding opportunity announcement was issued under the authority of the Water Desalination Act of 1996, Public Law 104-298, as amended by section 4009(a) of Title II, Subtitle J of the WIIN Act.

The WIIN Act, Public Law 114-322, was enacted in December 2016 to address water resource infrastructure critical to the Nation's economic growth, health, and competitiveness. Section 4009(a) of Subtitle J of the WIIN Act includes amendments to the Water Desalination Act of 1996 that authorize the Bureau of Reclamation to provide funding for construction of desalination projects.

Fund transfers for the Doheny Ocean Desalination Project are authorized by the Further Consolidated Appropriations Act, 2020 (Public Law 116-94), enacted December 20, 2019, in Title II of DIVISION C—ENERGY AND WATER DEVELOPMENT AND RELATED AGENCIES APPROPRIATIONS ACT, 2020: "Provided further, That in accordance with section 4009(a) of Public Law 114-322, and as recommended by the Secretary [of the Interior] in a letter dated February 13, 2019, funding provided for such purpose in fiscal years 2017 and 2018 shall be made available to the Doheny Ocean Desalination Project."

PROJECT DESCRIPTION

The Doheny Ocean Desalination Project consists of a subsurface water intake system (beach wells), a raw ocean water conveyance pipeline, a desalination facility, a concentrate (brine) disposal system, a product water storage tank and distribution system, appurtenant facilities, and offsite electrical supply.

Subsurface water intake system: The well field will include two to three slant well “pods” (subsurface vaults) accommodating up to five slant wells that will extract a combined total up to 10 MGD of seawater from alluvial deposits beneath the seafloor. The wellheads will be located within the Doheny State Beach campground, just south of the mouth of San Juan Creek. Each wellhead will be installed within a below-grade cast-in-place concrete vault with up to three slant wells, depending on geotechnical investigations conducted before construction. Each well will extend up to 1,000 feet seaward beneath the beach and seafloor, with the offshore endpoint 75 to 130 feet beneath the seafloor.

The wellhead vaults will be set back from the shoreline and above the beach to avoid or reduce effects of sea level rise and coastal hazards during their expected operating lives. The well field will include two electrical control buildings constructed nearby to house various controls. The electric control buildings will be approximately 12 feet wide, 25 feet long, 10 feet high and set back away from the beach co-located with campground restrooms.

Well field construction will require closure of the Doheny State Beach campground for 18 to 24 months. South Coast Water District is working with State Parks to combine the desalination project with a long-planned campground restoration and upgrade project. Doheny State Beach is a popular surf spot. The day use area on the north side of the lagoon will remain open. Surf access will not be impeded.

Raw ocean water conveyance pipeline: New conveyance pipelines will deliver seawater from the wellfield to the desalination facility. The pipelines will follow existing roads and rights-of-way from the campground and will cross beneath the adjacent rail line to the desalination facility site. An alternate raw water pipeline alignment that avoids two rail crossings and disruptions to local streets is under review.

Desalination facility: The new desalination facility will receive ocean feedwater at 10 MGD with an anticipated recovery rate of 50%, producing 5 MGD of potable drinking water. The desalination facility will be located on a 12-acre industrial site ½ mile from the beach. The desalination facility will include pretreatment, seawater reverse osmosis membranes, an energy recovery system, post-treatment conditioning, solids handling and disposal, product water storage, electrical equipment, staff facilities, and connections to off-site brine disposal, sanitary sewer, and product water conveyance facilities. A utility power connection will probably be required. An alternative energy source is also being evaluated. The desalination facility will include solar photovoltaic panels on flat rooftops where feasible. Other alternative energy sources being evaluated include natural-gas turbines and fuel cells to maximize efficiency and minimize energy cost.

Concentrate (brine) disposal system: The existing San Juan Creek Ocean Outfall will return brine and treated process waste streams to the ocean. The waste concentrate will be blended with the existing wastewater stream from the J.B. Latham Wastewater Treatment Plant and other regional facilities.

Product water storage tank and distribution system: The project will feed into the South Coast Water District local distribution system and, depending on plant capacity and District demands, other adjacent local and regional transmission pipelines located adjacent to the desalination site. Desalinated product water from the Phase I project can be conveyed entirely using existing infrastructure with no off-site improvements other than a short connection to existing local transmission lines.

Appurtenant facilities include pump stations, valves, and metering.

Offsite Electrical Transmission Facilities will be provided by a short connection from the desalination site to existing underground electrical lines in Stonehill Drive.

ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENT

NEPA requires review of a proposed Federal action to determine its impact on the human environment. Council on Environmental Quality (CEQ) regulations direct Federal agencies to cooperate with State and local agencies to reduce duplication between NEPA and State and local requirements (40 CFR 1506.2). Department of Interior regulations for implementing NEPA encourage tiering of environmental documents and provide for adoption of existing environmental documents if, upon evaluation by a responsible official, it is found to comply with relevant provisions of the CEQ regulations.

An EIR (SCH No. 2016031038) was prepared for the Doheny Ocean Desalination Project under the California Environmental Quality Act (CEQA). The EIR included an evaluation of federal cross-cutting requirements consistent with the "CEQA-Plus"¹ process. On June 27, 2019, the Board of Directors of South Coast Water District certified the EIR, adopted a mitigation monitoring and reporting program, and approved the project by Resolution No. 29-18/19. Notice of determination was filed on June 28, 2019.

In November 2022, an Addendum to the EIR was prepared by the California State Lands Commission to document modifications negotiated by the California Department of Parks and Recreation. State Lands Commission filed a notice of determination on December 13, 2022. No supplemental EIR was required.

Bureau of Reclamation staff reviewed the EIR and Addendum and concluded that the reasonably foreseeable environmental effects of the action are adequately identified and evaluated. We adopt the documents in accordance with regulations for implementing NEPA promulgated by the CEQ at 40 CFR 1506.3 and by the Department of the Interior at 43 CFR 46.320(a).

SUMMARY OF FINDINGS

The EIR concluded that the Phase 1 project will not result in any unavoidable significant impacts. Design features and mitigation measures were adopted to avoid or minimize environmental effects. Any future expansion of the desalination facility will require additional environmental review.

The EIR addressed Aesthetics, 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, as well as energy conservation, alternatives, potential growth-inducing effects, and cumulative impacts.

The modifications reduced the project footprint by centralizing well pod sites within the Doheny State Beach campground, avoiding effects to the North Day Use Area and to most of the South Day Use Area. Modified Project construction activities will disturb the campgrounds. The proposed campground restoration is consistent with planned improvements in the Doheny State Beach General Plan.

OTHER FEDERAL CONSIDERATIONS

Clean Air Act

The South Coast air basin is designated extreme nonattainment for 2008 8-hour ozone, maintenance for 1997 8-hour ozone, maintenance for ozone 1-hour, maintenance for carbon monoxide, and attainment for lead, NO₂, PM_{2.5} and PM₁₀. Regulatory thresholds at 40 CFR 93.153(b) will not be exceeded during construction or operation. No conformity determination is required.

Endangered Species Act

Four listed species may occur within or adjacent to the San Juan Creek lagoon: southern steelhead trout (*Oncorhynchus mykiss irideus*), western snowy plover (*Charadrius alexandrius nivosus*), least Bell's

¹ "CEQA-Plus" is an environmental review process negotiated between the US Environmental Protection Agency and the California State Water Resources Control Board for the Clean Water State Revolving Fund program.

vireo (*Vireo bellii pusillus*), and California least tern (*Sternula antillarum browni*). San Juan Creek is designated critical habitat for southern steelhead.

Project slant well pumping operations may lower San Juan Creek Lagoon water level by 0.72 inches to 3.12 inches. This is within normal lagoon water level variations. Groundwater monitoring and well phasing will be implemented to ensure that lagoon water levels are not significantly impacted relative to the southern steelhead critical habitat.

No sensitive habitats or listed species will be affected by slant well construction. The desalination facility site is highly modified and currently developed with limited landscaped areas, hardscape, dirt lots, parking lots, and buildings. No habitat or listed species occur on the desalination plant site.

National Historic Preservation Act

Two resources considered eligible for listing in the National Register of Historic Places are located within Doheny State Beach Park and will be avoided.

Magnuson-Stevens Fishery Conservation Management Act

Offshore components of the project (slant wells) extend beneath the ocean bottom within an area designated as Essential Fish Habitat for both the Coastal Pelagic and Pacific Groundfish Fisheries Management Plans. San Juan Creek lagoon is designated a Habitat Area of Particular Concern (HAPC). The proposed action will not affect Essential Fish Habitat or the lagoon HAPC.

Migratory Bird Treaty Act

Preconstruction nesting bird surveys will ensure compliance with the Migratory Bird Treaty Act. There will be no take of migratory birds, their eggs, parts, or nests.

Water Resources

The Phase 1 project will produce up to 5 MGD of potable water. South Coast Water District operates an adjacent Groundwater Recovery Facility that extracts and treats 1,300 AFY of brackish groundwater. The desalination subsurface intake slant well operation will draw a small percentage of inland groundwater, estimated at 6.6% when the wells reach steady-state conditions.

Farmland Protection Policy Act

There are no agricultural lands within the project area. No prime or unique farmland or farmland of statewide significance will be affected.

Clean Water Act

The Project will produce up to 5 MGD of reject concentrate brine that will be discharged to the Pacific Ocean by the existing San Juan Creek Ocean Outfall, regulated under NPDES permit no. CA0107417. The NPDES permit has been amended to include the new brine discharge. The NPDES permit amendment requires 7.45 acres of wetland mitigation to compensate for marine life mortality associated with the discharge from the Doheny Desalination Project based on a draft Marine Life Mitigation Plan.

The project will comply with the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (NPDES No. CAS000002) and with the General Permit for Storm Water Discharges Associated with Industrial Activities (NPDES NO. CAS000001).

Marine Mammal Protection Act

Slant well construction will not generate significant marine noise or vibration and will not have significant impacts on marine mammals.

Wetlands

Pumping operation of the slant wells may result in a small drawdown of the San Juan Creek lagoon. The amount of drawdown is estimated at 0.72 inches to 3.12 inches. This is within normal lagoon variation and will not significantly affect the lagoon habitat. No other wetland impacts were identified.

Floodplain

The project is within mapped the mapped 100-year floodplain. The desalination facility site in Flood Zone AO, with an average of one-foot inundation depth under a 1% annual chance (100-Year) flood. The South Coast Water District proposes to elevate the desalination facility site three to five feet to elevation 28.2 feet above mean sea level prior to placing desalination facility structures on the site. Following grading, no structures will be placed within the 100-year flood zone.

Socioeconomic Resources

The project will not have significant social or economic effects. No housing or people will be displaced. No communities will be divided. No effects to public health and safety were identified. The desalinated water supply will replace existing imported or other constrained water supplies and is not a significant growth-inducing impact. The reliable drought-proof water supply will allow continued economic activity and future economic expansion, consistent with Dana Point's General Plan.

Environmental Justice

No impacts relevant to Environmental Justice were identified. The desalination facilities are in Dana Point, a relatively affluent area of south Orange County. Overall, Orange County is 60% white; the Census Tract (0422.01) encompassing the desalination project is 73.9% white with 9% at the poverty level. The project does not divide an established community and does not disproportionately affect a minority, low-income or indigenous population.

Indian Trust Assets

No Indian trust assets have been identified in the project area.

Wild and Scenic Rivers

No Wild & Scenic Rivers or waterways listed on the National Rivers Inventory are involved.

Coastal Zone Management Act

The project is within the California Coastal Zone. Coastal Development Permit application no. 9-20-0691 was approved by the California Coastal Commission on October 13, 2022. The Coastal Development Permit approval constitutes a consistency certification under the federal Coastal Zone Management Act.

Coastal Barrier Resources Act

The federal expenditure will not encourage development or modification of coastal barriers. The project is not within any units of the Coastal Barrier Resources System. The Coastal Barrier Resources Act applies on the Atlantic, Gulf, and Great Lakes coasts. No system units are located along the Pacific coast.

Safe Drinking Water Act

Potable water produced by the desalination facility will be treated to a level suitable for human consumption in compliance with California requirements for potable. The project will require a Permit to Operate a Public Water System under California Health and Safety Code § 116525.

Sole Source Aquifers

The San Juan Creek aquifer is not an EPA-designated sole source aquifer.

AGENCY CONSULTATION AND COORDINATION

Army Corps of Engineers

South Coast Water District has applied for approval of a Rivers and Harbors Act permit to install the intake wells beneath the floor of the Pacific Ocean.

San Diego Regional Water Quality Control Board

Order R9-2022-0005, adopted by the San Diego Regional Water Quality Control Board March 9, 2022, renewed NPDES permit no. CA0107417 and added the Doheny Desalination Project to the permit, authorizing discharge to the Pacific Ocean through the San Juan Creek Ocean Outfall.

California State Historic Preservation Officer (SHPO)

The California SHPO concurred with a finding of "No Historic Properties Affected" on May 14, 2021 (ref: BUR_2021_0419_001).

Fish and Wildlife Service

Consultation with the Fish and Wildlife Service under section 7 of the Endangered Species Act was not required. The action will not affect listed species or critical habitats regulated by the Fish and Wildlife Service. A "no effect" memorandum was transmitted on January 30, 2023. Fish and Wildlife Service responded by e-mail on February 9th advising that they did not object to the "no effect" determination.

National Marine Fisheries Service (NMFS)

A finding of "not likely to adversely affect" southern steelhead trout or its critical habitat was submitted to NMFS on September 2, 2021. NMFS concurred on April 5, 2022 (ref: WCRO-2021-02247).

California Coastal Commission

Coastal Development Permit application 9-20-0691 was approved by the California Coastal Commission on October 13, 2022. Coastal Commission approval of the State coastal permit constitutes a consistency certification under the federal Coastal Zone Management Act.

California State Lands Commission

On December 9, 2022, the State Lands Commission approved a 20-year General Land Lease for public agency use of submerged public trust lands.

Federal Emergency Management Agency (FEMA)

South Coast Water District will obtain a Conditional Letter of Map Revision from FEMA, in coordination with the County of Orange and City of Dana Point. The desalination site will be removed from the 100-year flood hazard zone.

Department of Agriculture, Natural Resources Conservation Service (NRCS)

Consultation with the NRCS District Conservationist is not required.

Tribal Consultation

South Coast Water District contacted the Gabrieleño Band of Mission Indians - Kizh Nation, the Juaneño Band of Mission Indians - Acjachemen Nation, and the Gabrielino-Tongva Tribe of the San Gabriel Band of Mission Indians. A Native Monitor representing the Juaneño Band of Mission Indians, Acjachemen Nation will be present during deep excavations. Prior to ground disturbance, South Coast Water District will contact other culturally affiliated tribes and will retain a tribal monitor if requested.

ENVIRONMENTAL COMMITMENTS

A mitigation monitoring and reporting program was adopted by South Coast Water District. The adopted mitigation measures are considered ameliorative design elements per 43 CFR 46.130(b). No additional environmental commitments are required by the Bureau of Reclamation.

REFERENCES

Environmental Impact Report for the Doheny Ocean Desalination Project, SCH No. 2016031038, South Coast Water District, June 2019

Addendum to the Final Environmental Impact Report Doheny Ocean Desalination Project, California State Lands Commission, November 2022.

ATTACHMENTS

1. ESA "no effect" memorandum to Fish and Wildlife Service, January 30, 2023.
2. ESA "not likely to adversely affect" concurrence by National Marine Fisheries Service, April 5, 2022.
3. California SHPO concurrence with "no historic properties affected," May 14, 2021.



United States Department of the Interior



BUREAU OF RECLAMATION
Southern California Area Office
27226 Via Industria, Suite A
Temecula, CA 92590

IN REPLY REFER TO:
SCAO-1500
2.2.1.06

JAN 30 2023

Memorandum

To: Scott Sobiech, Field Supervisor
Carlsbad Fish and Wildlife Office
ATTN: Carol Roberts, Los Angeles/Orange County Branch Chief

From: John E. Simes, Jr.
Area Manager

Subject: Doheny Ocean Desalination Project, Orange County, California
Project Code: 2022-0053059

The Bureau of Reclamation is providing funds under the Water Infrastructure Improvements for the Nation Act to plan, design, and construct the Doheny Ocean Desalination Project in Orange County, California. The project may also be funded by the Environmental Protection Agency under the Water Infrastructure Finance and Innovation Act (WIFIA) and by the State Water Resources Control Board under the Clean Water State Revolving Fund (CWSRF).¹

The South Coast Water District plans to construct the ocean desalination facility in Dana Point with subsurface slant well intakes installed from Doheny State Beach Park beneath the floor of the Pacific Ocean. The selected Phase 1 "Local" alternative has a design capacity up to 5 million gallons per day (mgd) with potential future expansion to 15 mgd as a regional project.

Preliminary design plans approved by State Parks and the Coastal Commission are attached. An environmental impact report (SCH #2016031038) was prepared to evaluate the project under the California Environmental Quality Act (CEQA). Project design features, mitigation measures, and monitoring requirements have been adopted to avoid effects to sensitive species.

Project facilities are sited at existing developed or disturbed sites, avoiding impacts to sensitive natural habitat. The desalination facility site is highly modified and currently developed with limited landscaped areas, hardscape, dirt lots, parking lots, and buildings. No habitat or listed species occur at the proposed desalination plant site.

No sensitive habitats or listed species will be affected by slant well construction. Slant well construction drill rig work areas are set back from the beach in the campground areas to avoid potential conflicts with shorebirds.

¹ The CWSRF program is partially funded by a capitalization grant from the EPA. Issuance of CWSRF funds is considered equivalent to a federal action. The EPA delegated the California State Water Resources Control Board as a non-federal representative for carrying out the requirements of the ESA.

INTERIOR REGION 8 • LOWER COLORADO BASIN

ARIZONA, CALIFORNIA*, NEVADA*

* PARTIAL

San Juan Creek is designated critical habitat for southern steelhead trout (*Oncorhynchus mykiss*), listed as an endangered Distinct Population Segment under the Endangered Species Act (ESA). Subsurface intake well operation will draw a small percentage (6.6%) of inland groundwater into the slant wells and may lower water levels in San Juan Creek Lagoon by 1.7 to 3.1 inches.

Bureau of Reclamation staff concluded that the action is not likely to adversely affect southern steelhead or steelhead critical habitat. National Marine Fisheries Service concurrence is attached. We have also determined that the action will not affect any other species listed under the ESA. No other critical habitats are designated within the action area.

Threatened western snowy plover (*Charadrius alexandrius nivosus*) are known to forage and roost at Doheny State Beach, an active public recreation area. The area will be monitored during construction. Drill rig work areas will be screened for noise and light attenuation. Effects to western snowy plover will be avoided. Endangered California least tern (*Sternula antillarum browni*) may forage in San Juan Creek lagoon and will not be affected. Monarch butterfly (*Danaus plexippus*), a candidate species, may occur in the action area but will not be affected.

Endangered tidewater goby (*Eucyclogobius newberryi*) was not found in the lagoon and has not been reported in San Juan Creek in many years. Endangered Least Bell's vireo (*Vireo bellii pusillus*) was not observed. The action area does not support robust willow or mule fat habitat and does not provide suitable vireo nesting habitat. Threatened California gnatcatcher (*Polioptila californica californica*), endangered Pacific pocket mouse (*Perognathus longimembris pacificus*) and endangered arroyo toad (*Anaxyrus californicus*) were not observed and have a low potential to occur due to lack of appropriate habitat. Endangered short-tailed albatross (*Phoebastria albatrus*) has not been observed in southern California for 40 years, except for a single individual reported a few miles off San Pedro in June 2021 (source: Orange County Register).

If you have any questions or need additional information, please contact Doug McPherson at (951) 695-5314 or e-mail: dmcpherson@usbr.gov.

Attachments (2)

cc: (electronic mail)

Environmental Protection Agency, Alaina McCurdy, mccurdy.alaina@epa.gov

State Water Resources Control Board, Abbygail Britton, abbygayle.britton@waterboards.ca.gov

Army Corps of Engineers, Gerry Salas, gerardo.salas@usace.army.mil

California Coastal Commission, Cassidy Teufel, Cassidy.Teufel@coastal.ca.gov

South Cost Water District, Rick Shintaku, Rshintaku@scwd.org



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4250

April 05, 2022

Refer to NMFS No:
WCRO-2021-02247

John E. Simes, Jr.
Acting Area Manager
Bureau of Reclamation
Southern California Area Office
27226 Via Industria, Suite A
Temecula, CA 92590

Re: Endangered Species Act Section 7(a)(2) Concurrence Letter and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Response for the Doheny Desalination Project, Orange County, California

Dear Mr. Simes:

On September 3, 2021, NOAA's National Marine Fisheries Service (NMFS) received the Bureau of Reclamation's (Reclamation) request for written concurrence under Section 7 of the U.S. Endangered Species Act (ESA) of 1973 (16 U.S.C. 1531 et seq.). This request concerns Reclamation's proposal to fund the planning, design, and construction of the South Coast Water District's (District) Doheny Ocean Desalination Project under the Water Infrastructure Improvements for the Nation Act. The proposed action is within range of the endangered Southern California Distinct Population Segment of steelhead (*Oncorhynchus mykiss*) and designated critical habitat for the species. This response to Reclamation's request was prepared by NMFS pursuant to section 7(a)(2) of the ESA and implementing regulations at 50 CFR 402.

NMFS also reviewed the likely effects of the proposed action on Essential Fish Habitat (EFH), as regulated by Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1855(b)). The proposed action is within EFH for both the Coastal Pelagic Species and Pacific Groundfish Fisheries Management Plans, with San Juan Creek lagoon designated as a Habitat Area of Particular Concern. After reviewing the proposed action, we concluded there is no adverse effect on EFH given the proposed minimization measures, which address release of contaminants, entrainment or impingement, and altered water quality. The proposed action adopts suggested *Conservation Measures for Desalination Facilities* (see 16.1 Desalination Facilities, Appendix D Groundfish Fisheries Management Plan). NMFS does not believe additional conservation recommendations are necessary to avoid, minimize, mitigate, or



otherwise offset the impact of the proposed action on EFH. Therefore, we are hereby concluding EFH consultation.

This letter underwent pre-dissemination review using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The document will be available within two weeks at the Environmental Consultation Organizer [<https://www.fisheries.noaa.gov/resource/tool-app/environmental-consultation-organizer-eco>]. A complete record of this consultation is on file at the California Coastal Office in Long Beach.

Consultation History

On September 3, 2021, NMFS received Reclamation's consultation request for the proposed action. On October 25, 2021, NMFS and Reclamation mutually agreed to extend the duration of the consultation 60 days to allow the District time to provide, and NMFS time to review and consider, a monthly streamflow dataset, which informed the Hydrogeological Analysis (Geoscience 2019). On December 10, 2021, the District provided Reclamation and NMFS the monthly streamflow dataset (Kimley-Horn 2021a¹).

On December 22, 2021, Reclamation and NMFS mutually agreed to extend informal consultation again to allow sufficient time to adequately review the modeled changes to lagoon-surface elevation. In a conference call with the District and Reclamation on January 4, 2022, NMFS requested additional information on the modeled changes to the lagoon. On January 6, 2022, the District provided Reclamation and NMFS with model-calculated groundwater elevations, which predicted changes to the shallow aquifer² under the lagoon (Geoscience 2022a³). On January 28, the District provided Reclamation and NMFS updated monthly averages for changes in groundwater and lagoon-water levels (Geoscience 2022b⁴).

Proposed Action and Action Area

The proposed action would provide funding for infrastructure, which can produce up to 5 million gallons per day (MGD) of potable water⁵ over a 50-year project-planning horizon (year 2070). Specifically, the well pumping rate will be 10 MGD for source (raw) water. The intake design will use a subsurface, slant well layout (Figure 1), where half (5 MGD) will be processed for drinking water, and the remaining half will be discharged to the ocean at the existing South Orange County Wastewater Authority (SOCWA) San Juan Creek Ocean Outfall.

¹ Kimley-Horn. 2021a. Email communication on behalf of the District from Kevin Thomas re *quantification of the potential reduction in surface flow* (Geoscience 2019). December 10.

² Underground layer of water-bearing permeable rock, rock fractures or unconsolidated materials (Accessed on Feb. 28, 2022: <https://opentextbc.ca/geology/chapter/14-1-groundwater-and-aquifers/>).

³ Geoscience. 2022a. Email communication on behalf of the District from Brian Villalobos re *Analysis of Impacts of Project on Low Flow Periods in San Juan Creek Lagoon*. January 6.

⁴ Geoscience. 2022b. Email communication on behalf of the District from Brian Villalobos re *Analysis of Impacts of Project on Low Flow Periods in San Juan Creek Lagoon*. January 28.

⁵ Equates to approximately 5,320-AFY at 95% utilization. The actual production capacity may be smaller than five MGD depending on phasing, financing, and optimization during final design.



Figure 1. Subsurface slant well layout along Doheny Beach (white circles, A-E) adjacent to San Juan Creek Lagoon (black lines show alignment only) including evaluation sites (black circles, A-D), which will monitor changes to the shallow aquifer under the lagoon (source: Draft Environmental Impact Report (DEIR), Figure 8 in Appendix 10.10.1).

Below is a summary of the infrastructure as described under the proposed action. For a full description of the proposed action, refer to the DEIR⁶ (May 17, 2018).

- subsurface water intake system:** This system will have subsurface slant wells (located below the ocean floor) that draw in ocean water through offshore alluvial material, while providing natural sand-bed filtration and eliminating the entrainment and impingement of marine biota (Figure 2).

⁶ Access the DEIR and related CEQA documents using this link:
https://www.scwd.org/about/district_projects/doheny_desalination/index.php

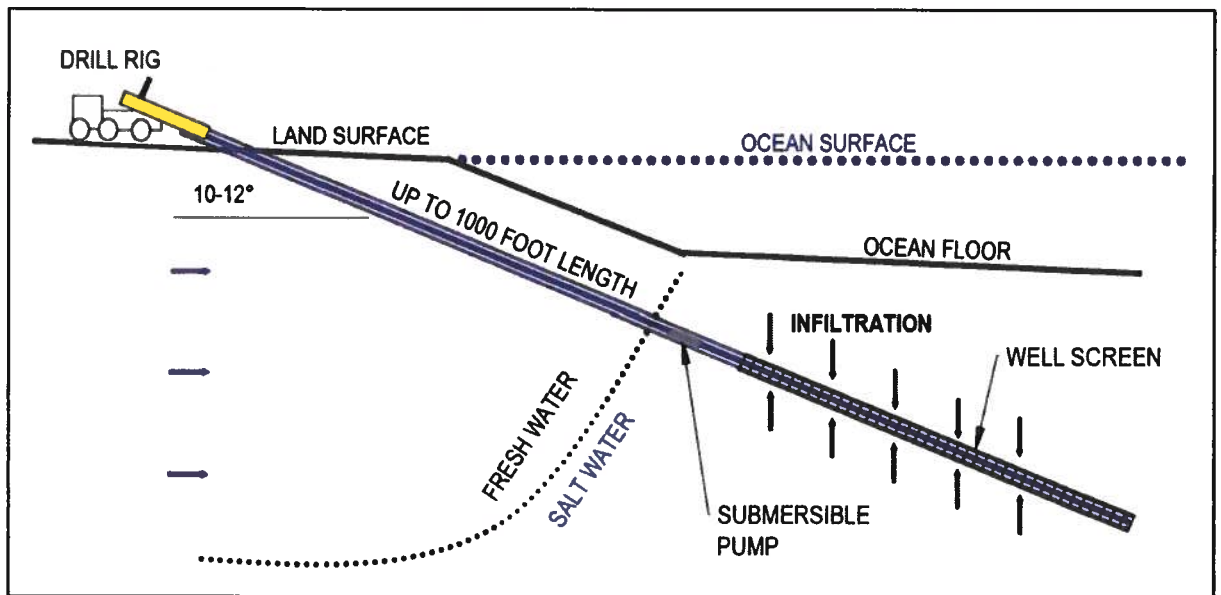


Figure 2. Schematic slant-well diagram as described in the DEIR Section 3.0 Project Description (source: Appendix 10.1).

- **raw (ocean) water conveyance pipeline:** This pipeline would deliver the subsurface intake system's ocean water to the desalination facility site.
- **desalination facility:** The proposed facility is on the District's existing property, which is an industrial site away from the beach but in close proximity to the subsurface intake wells. The facility includes a variety of typical desalination process equipment and appurtenant facilities, such as pretreatment, seawater reverse osmosis membranes, an energy-recovery system, post-treatment conditioning, solids handling and disposal, product-water storage, electrical equipment, staff facilities, sanitary sewer, and product-water conveyance facilities (see DEIR Section 3.0 Project Description, Exhibit 3-3, Project Facility Locations; also see Figure 16 in the DEIR Appendix 10.1).
- **concentrate (brine) disposal system and brine discharge tank:** The system would utilize the existing San Juan Creek Ocean Outfall (SJCOO), to return brine and treated process-waste streams to the ocean through blending⁷ in the outfall pipe with the existing wastewater stream from the J.B. Latham Wastewater Treatment Plant, and other regional treatment plants.⁸

The proposed action incorporates avoidance and minimization measures to reduce potential impacts near the mouth and within the lagoon of San Juan Creek. The measures are organized in

⁷ Mixing desalination brine with existing wastewater treatment plant flow (a "comingled discharge") is consistent with the State Board's Ocean Plan Amendment.

⁸ There are multiple entities identified as "Dischargers" at this ocean outfall; see State Water Quality Control Board, NPDES CA0107417 with a tentative order planned for adoption on March 9, 2022, which can be accessed here (reference Attachment B):

https://www.waterboards.ca.gov/sandiego/board_decisions/tentative_orders/docs/r9_2022_0005and0006/sjcoo_r9_2022_0005.pdf

three main categories: work area elements, groundwater levels, and lagoon water-surface elevation monitoring.

Work Area Elements

- Construction staging areas will utilize existing disturbed or developed sites to avoid disruption to existing sensitive resources and eliminate all adverse effects to sensitive natural habitat.
- Pipeline installation will utilize trenchless construction to eliminate all adverse effects to San Juan Creek and San Juan Creek Lagoon.
- The existing beach diffuser from pilot-well testing in years past is strategically placed along the rock jetty to return raw ocean water from the slant well back to the surf zone for maximum mixing and dispersion (see Section 4.8 Hydrology and Water Quality and Appendix 10.1 of the DEIR).

Groundwater Levels

- Phasing the installation of slant wells over time will allow the groundwater modeling to be refined (increase model accuracy) as slant-well pump data is obtained.

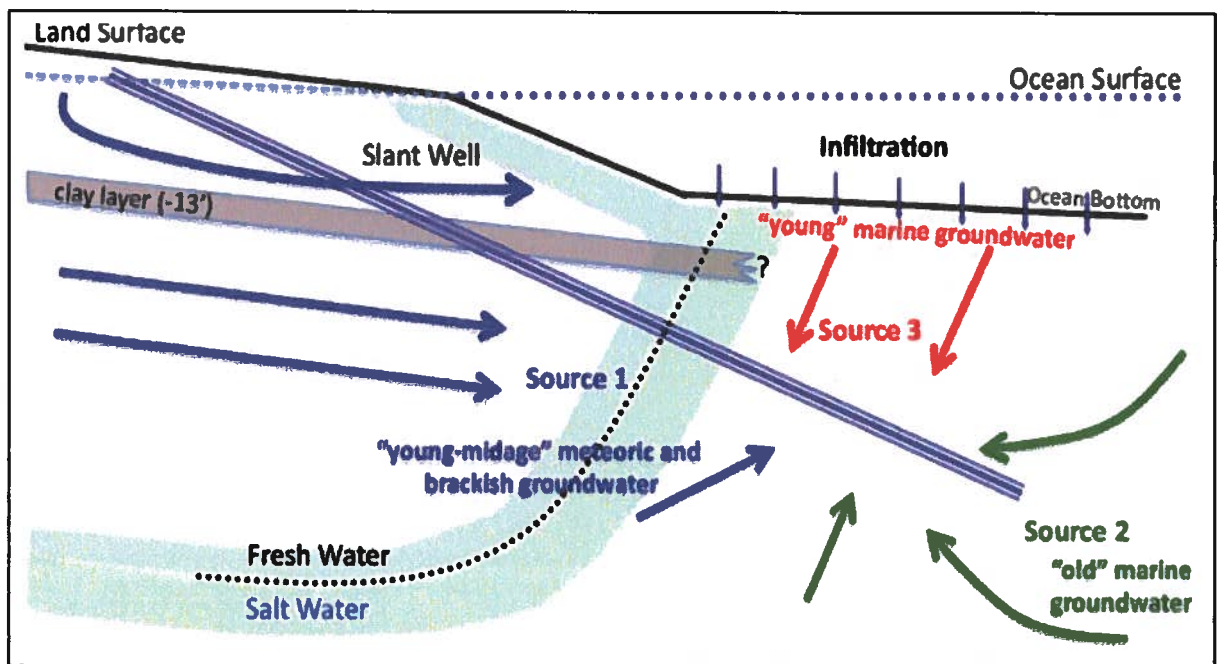


Figure 3. Diagram showing available sources of groundwater the slant well will withdraw beneath the lagoon and ocean floor (source: Figure 4 in the DEIR Appendix 10.1).

- Based on model projections, utilizing slant wells, rather than vertical wells, measurably reduces the percentage of brackish groundwater (i.e., shallow aquifer groundwater under

the lagoon) withdrawn to approximately six percent of the total raw water demand while the remaining demand is using young ocean water.⁹

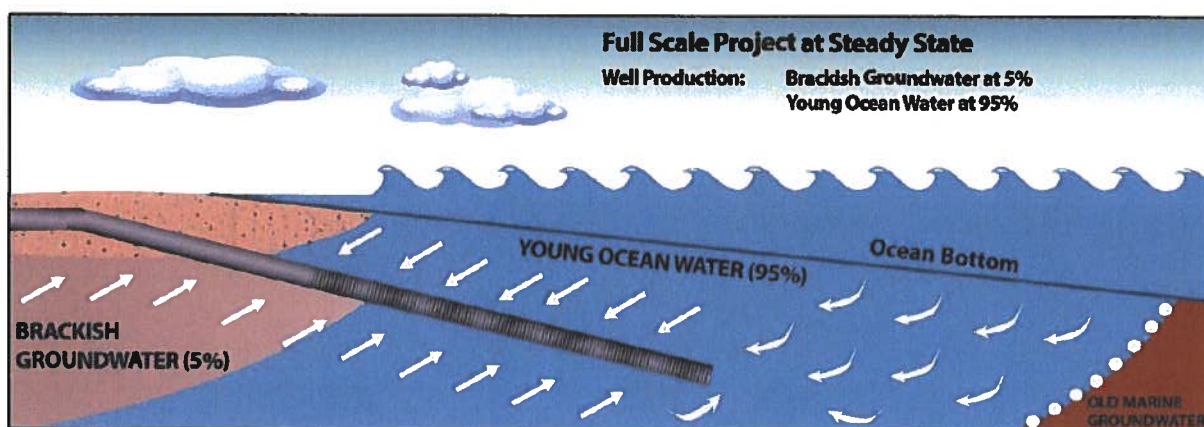


Figure 4. Diagram showing sources of water the slant well will withdraw beneath the lagoon and ocean floor (estimated percentages before modeling projections). See full discussion in the DEIR Section 3.0 Project Description, Figure 3-10: *Source Water Replacement Process*.

- The proposed action includes establishing an expanded groundwater-monitoring network for the lagoon inclusive of review and analysis of groundwater data (Kimley-Horn 2021b¹⁰).
- The proposed action includes data collection prior to commencement of slant-well pumping to more accurately describe baseline (pre-project) conditions including establishing “response triggers” by using the groundwater-monitoring network¹¹ inclusive of evaluation sites (Figure 1) to document changes to lagoon water-surface elevations as the slant wells begin pumping and throughout operations (Kimley-Horn 2021b).

Lagoon Water-Surface Elevation Monitoring

- The District will monitor San Juan Creek Lagoon water levels and salinity following commencement of pumping for the first slant well installed at Doheny State Beach (DSB). The proposed groundwater monitoring and well phasing will enable the District to monitor well siting and phasing to detect if monitoring results indicate possible adverse effects to lagoon water levels; collected data within the monitoring reports will be the basis for corroborating the modeled/predicted impacts to the lagoon.
- The proposed action includes information exchange between the District and NMFS, specifically the District will provide NMFS monthly lagoon-monitoring reports, and

⁹ Submarine groundwater is a combination of meteoric water (groundwater of recent atmospheric origin), connate water (water incorporated into rock pores when the rocks form), and recirculated seawater.

¹⁰ Kimley-Horn. 2021b. Email communication on behalf of the District from Kevin Thomas re *quantification of the potential reduction in surface flow (Geoscience 2019)*. December 8.

¹¹ The San Juan Basin Focused Model was developed and calibrated to more accurately predict slant well pumped water quality over time, injection water flow/water quality/reactants, and ocean water intrusion. The finer cell size (resolution) used for the focused model was also important to understand seasonal coastal lagoon drawdown effects. Lagoon levels were calculated by the Focused Model.

monitoring data will be used to site future slant wells at DSB in consultation with NMFS (see Mitigation Measure BIO-4).

- The proposed action includes review and analysis of lagoon water-surface and water-quality information to establish response triggers in the event observed trends deviate from anticipated (modeled/predicted) impacts to the lagoon. Response triggers will be protective of the habitat to avoid adverse effects to the species and designated critical habitat. Response triggers to reconcile differences between anticipated impacts and real-time observed data include: (1) shifting slant-well production to slant wells farther from the lagoon (tested during initial slant-well pumping), and/or (2) temporarily reducing pumping (Kimley-Horn 2021b).

The action area is within the City of Dana Point (southern Orange County) and offshore. The action area includes the subsurface intake wells at DSB (Figure 1). Designed conveyance facilities are on either side of San Juan Creek depending on the subsurface intake well location. The proposed action includes a groundwater-surface water model with a boundary area upstream of the lagoon, where the model inputs include San Juan Creek channel profiles (Figure 5).

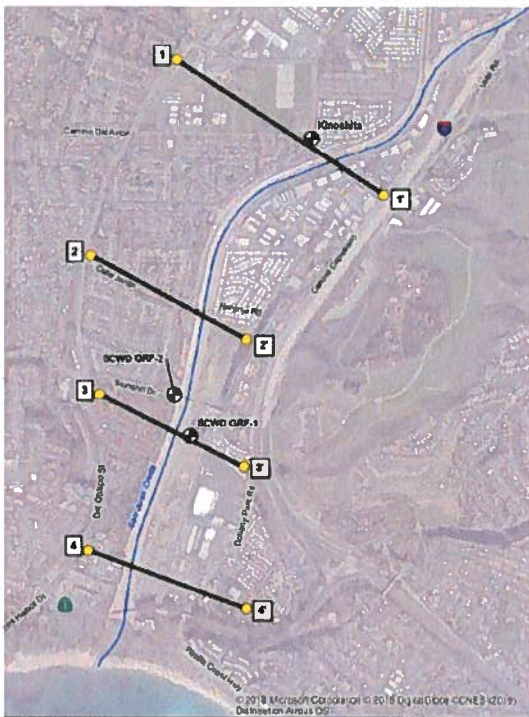


Figure 5. San Juan Creek profile locations to inform groundwater modeling, which provided an evaluation of potential effects on San Juan Creek surface water (source: Figure 1 and 10 in the Geoscience Hydrogeologic Analysis, 2019).

The proposed action would discharge brine through the existing San Juan Creek Ocean Outfall, which terminates approximately 10,550 feet (two miles) offshore south of Dana Point Harbor. The existing diffuser discharges approximately 94.5 to 97.5 feet below mean sea level. The diffuser site is on the ocean floor, which largely consists of soft sediments and lacks a hard-rocky substrate.

A portion of the action area boundary is delineated as the “Doheny Beach Slant Well Area” (see Figure 4 in the DEIR Appendix 10.10.1). Based on a complete overview of the proposed action, the action area involves riverine, estuarine, surf zone, and marine components (Figure 6).

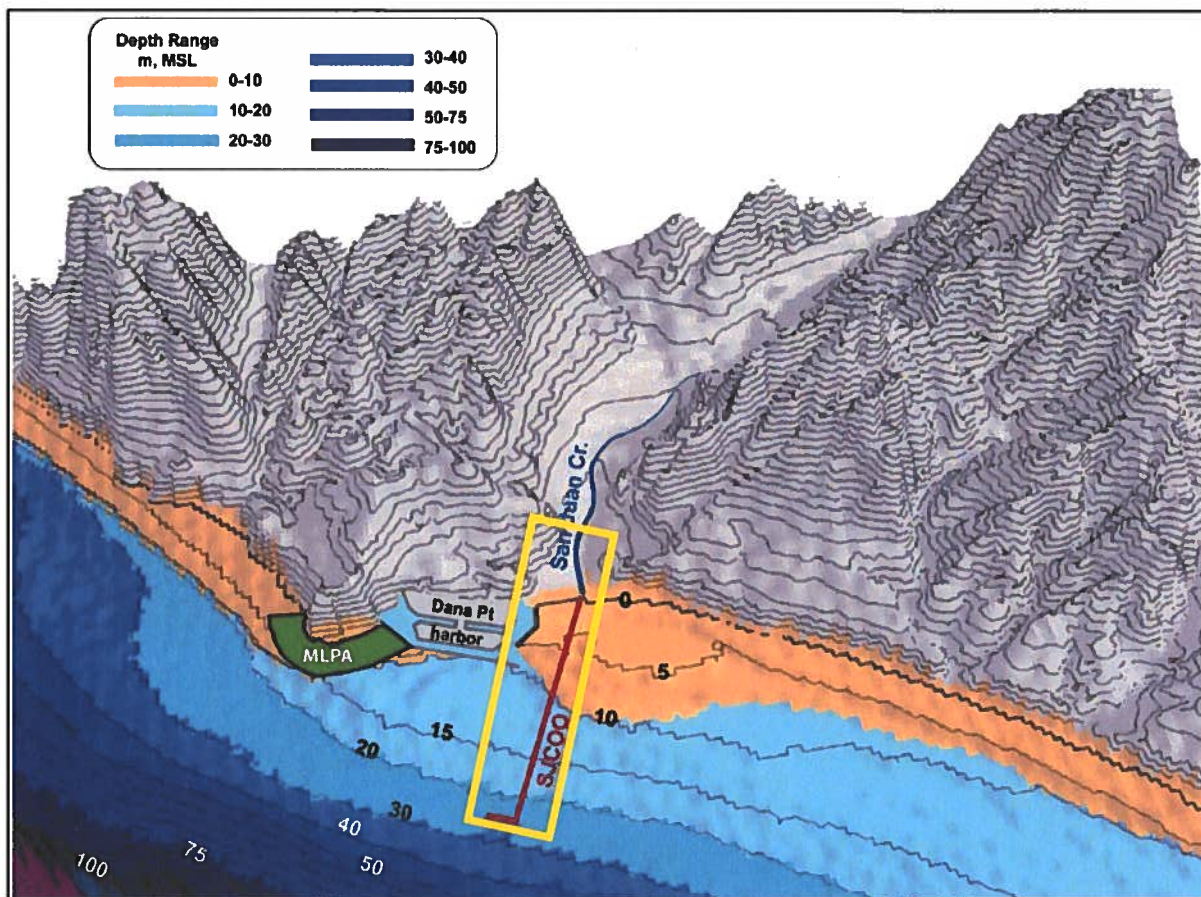


Figure 6. Landscape view of the action area (yellow rectangle) with bathymetry contours, m MSL; NOAA, NGDC, GEDOAS 3 arc-sec resolution (source: Figure 1 in the DEIR Appendix 10.11, *Brine Dilution Assessment*).

We considered under the ESA whether the proposed action would cause any other activities and determined that it would not. There is a potential future expansion of the proposed action to 15 MGD as a regional project, but this expansion is not reasonably certain to occur based on a few factors, which remain speculative at this time: funding, partnerships, and permitting including the requirement to initiate a separate CEQA review process for expansion beyond Phase 1 “Local” Alternative (i.e., proposed action).

Background and Action Agency’s Effects Determination

Reclamation determined the proposed action is not likely to adversely affect endangered steelhead (71 FR 8343) or its designated critical habitat (70 FR 524884). Reclamation also concluded avoidance and minimization measures identified through the CEQA review are adequate to avoid effects to EFH, Habitat Area of Particular Concern (San Juan Creek Lagoon) and listed marine mammals and sea turtles.

ENDANGERED SPECIES ACT

Effects of the Action

Under the ESA, “effects of the action” are all consequences to listed species or critical habitat that are caused by the proposed action, including the consequences of other activities that are caused by the proposed action. A consequence is caused by the proposed action if it would not occur but for the proposed action and it is reasonably certain to occur. Effects of the action may occur later in time and may include consequences occurring outside the immediate area involved in the action (50 CFR 402.02). In our analysis, which describes the effects of the proposed action, we considered 50 CFR 402.17(a) and (b). When evaluating whether the proposed action is not likely to adversely affect listed species or critical habitat, NMFS considers whether the effects are expected to be completely beneficial, insignificant, or discountable. Completely beneficial effects are contemporaneous positive effects without any adverse effects to the species or critical habitat. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Effects are considered discountable if they are extremely unlikely to occur.

Exposure-Response Framework

We analyzed whether endangered Southern California steelhead and their critical habitat would be exposed to the effects of the proposed action, including construction of the desalinization plant and changes to surface flow in the creek and water surface elevations in the lagoon resulting from operation of the desalinization plant. If this species and critical habitat would be exposed to the effects of the proposed action, then we analyzed their response.

In this context, we analyzed the groundwater withdrawals from the shallow aquifer under the lagoon due to the potential for the withdrawals to impact the amount and extent of surface flow in the creek and water-surface elevation of the lagoon.

The seasonal consideration represented in our effects analysis emphasizes the dry season because the potential effects of the groundwater withdrawals from the shallow aquifer, should they be observed, would be expected to be the most pronounced when creek flows (and therefore inflows to the lagoon) are lowest. We don't expect effects from the proposed groundwater withdrawals during the wet season because the proposed withdrawals do not alter the magnitude, frequency, or duration of the storm hydrograph. Also, during the wet season, changes to lagoon surface water levels are largely a result of storm flows rather than groundwater withdrawals from the shallow aquifer through proposed slant wells.

We determined juvenile steelhead, including smolts, that may seasonally rear or temporarily hold in the lower creek and lagoon is expected to be the life stage that has the potential to be affected by the proposed action. We do not expect adult steelhead to be affected by the shallow aquifer withdrawals because this life stage migrates during rain-induced periods of elevated winter and spring discharges; the shallow aquifer withdrawals are not expected capable of having a detectable effect on elevated creek discharges when adults are expected to be migrating.

Lastly, given the observed and documented relationship between surface water and groundwater in the action area (State Water Resources Control Board 2021¹²), our analysis includes consideration of the extent to which shallow aquifer withdrawals influence water surface levels of the lagoon including changes to surface flow entering the lagoon. Recall, the proposed rate of withdrawal is 10 MGD of source (raw) water; thus, modeling efforts use 10 MGD (see DEIR Scenario 1, Appendix 10.10.1; see FEIR Appendix 4.2.3) to predict effects in the action area (Geoscience 2019).

Assumptions and Limitations

The best currently available information to inform our understanding of potential effects on estuarine habitat is the San Juan Basin Focused Model (Geoscience 2019). This is because the finer cell size (resolution) used for the focused model was important to understand seasonal, coastal lagoon drawdown effects. And, lagoon levels were calculated by the Focused Model to simulate the surface water-groundwater interaction. For changes in lagoon water level, Geoscience calibrated the model with monthly flow data to predict effects of proposed withdrawals on a daily timestep should such effects exist.

The best currently available information to inform our understanding of potential effects on surface flow in San Juan Creek was simulated in the 2016 San Juan Basin Regional Model (Regional Model) and accounts for the interaction between surface water and groundwater (Geoscience 2019). Portions of the action area are outside the Focused Model so the Regional Model was used to evaluate changes in groundwater levels upstream of the immediate lagoon boundary. Information on streamflow was available from observed measurements at the San Juan Creek at La Novia and Trabuco Creek at San Juan Capistrano gaging stations, which were also used for model calibration.

The timestep for considering potential effects of the proposed action's shallow aquifer withdrawals is based on the model-simulated monthly streamflow (Kimley-Horn 2021a; Geoscience 2022b), which is the highest-frequency timestep available. Higher-frequency time series such as daily or hourly would be the preferred time series because the data is sensitive to changes in rates or frequencies that may occur hourly or daily including accurately representing what might be happening to lagoon levels on an hourly or daily timestep. These time series would allow for more precise estimates of impacts on lagoon surface water levels, for example. However, these time series are unavailable because the closest USGS gages that have daily, hourly and 15-minute frequency are in the upper watershed, and consequently, outside of the model domain to quantify changes to surface water as a result of the proposed withdrawals (Geoscience 2022b). However, for changes in lagoon water level, Geoscience calibrated the model with monthly flow data to predict effects of proposed withdrawals on a daily timestep should such effects exist.

¹² State Water Resources Control Board. 2021. Report of Investigation, INV 7806, Division of Water Rights, San Juan Basin Authority and City of San Juan Capistrano. August 25. 75pp.

The District referenced a steelhead-passage model (ESA 2017¹³), which is a hydraulic model that does not consider percolation rates, streambed hydraulic conductivity, or the function and utility of fine-scale habitat features such as lagoon depth variability and sediment deposits during spring and fall when lagoon access may be available for both juvenile and adult steelhead. Further, this model makes a series of assumptions, which are inappropriate given: (1) the proposed action does not include impoundment or diversion of surface water, and (2) the anticipated presence of steelhead juvenile- and smolt-life stages in the action area (the model assumes adults are present and only considers adult passage conditions), thus NMFS relied on monthly streamflow data and the Regional Model to evaluate potential reduction in surface flow under the proposed action (i.e., extracting groundwater from a shallow aquifer under the lagoon).

Effects on Designated Critical Habitat

The work sites completely avoid lagoon habitat including the creek channel, thus exposure of designated critical habitat for endangered steelhead to construction activities and related effects is extremely unlikely and discountable. Although the proposed work window is during the steelhead-migration season when elevated flows may occur in the action area, construction impacts to the lagoon and creek are not expected given the proposed precautionary measures to avoid effects (see *Work Area Elements* under the *Proposed Action and Action Area* section).

The available information indicates the lagoon is hydrologically connected to a shallow aquifer, where a portion (approximately six percent) of the groundwater withdrawals will occur. The anticipated reduction in lagoon water levels on a daily (0.0024 - 0.03 inches) and monthly (1.4 - 2.3 inches) frequency is not expected to influence physical and biological features of the lagoon at a scale that would change the quantity and direction of flow between the shallow aquifer and lagoon given low permeability of the materials (silt and clay) lining the lagoon bottom, as described more fully in the next paragraph.

The modeled reduction in flow is not at a scale that is reasonably expected to alter the magnitude, duration, and frequency of peak flows for moderate (2-yr), channel forming (5-yr or 10-yr), or extreme events (25-yr, 50-yr 100-yr); when surface flows are present in the action area, the modeled monthly reduction in flow is negligible (Kimley-Horn 2021b). Overall, the magnitude of change to flows under the proposed action is not expected to diminish living space within the action area for juvenile steelhead, thus effects to designated critical habitat are expected to be insignificant.

The anticipated effects during the low-flow season (typically May-November) are expected to be negligible based on the modeled groundwater/surface-water exchange (Geoscience 2022b). Under existing conditions (without the proposed action) and under the proposed action (Scenario 1), the modeled shallow aquifer groundwater becomes hydrologically disconnected from the lagoon at the same frequency and duration (Geoscience 2022a) indicating the proposed action is not likely to alter groundwater-surface water exchange trends because the percolation rate is driven by the streambed hydraulic conductivity and not by depth to the groundwater elevation.

¹³ ESA. 2017. *Draft San Juan Creek Fish Passage Assessment: Hydrologic Modeling Report (Three dam alternative)* to inform effects under the proposed San Juan Watershed Project. May 11. Prepared for Santa Margarita Water District. 26 pp.

In other words, streamflow is the primary factor controlling the amount of groundwater/surface water exchange in the lagoon, and thus streamflow into the lagoon influences lagoon surface elevation to a larger degree relative to groundwater withdrawals from the shallow aquifer. Thus, effects to designated critical habitat are expected to be insignificant.

The predicted average monthly reduction in hydrology (0.00-0.02 cubic feet/second (cfs)) during the low-flow season (Geoscience 2019; Kimley Horn 2021a) is not expected to measurably influence physical and biological features of the lagoon. Even within the low-flow season, storm events occur (e.g., April/May 1998) where monthly average flows were recorded at 67 and 91 cfs, respectively, and as a result of the proposed action, flows are expected to experience only a small reduction (0.31 cfs on average for April and May), and therefore not at a scale where we would anticipate alteration of the spring, late summer, and fall surface flows on a monthly timestep¹⁴. The anticipated minor reduction in surface flow during the low-flow season will have a negligible impact on the amount and types of habitat available in the lagoon because the flow reductions are very small and because habitat types in this lagoon are controlled by the pattern of erosion and the shifting matrix of braided channels, which are formed between periods of elevated winter flows¹⁵. As a result, the proposed action is not likely to influence observed trends in predation risk, water quality (e.g., salinity and water temperatures), amount of cover, prey availability, or forage opportunities (see Chambers 2016 or reference the DEIR, Appendix 10.4.2). Thus, predicted changes to designated critical habitat are expected to be insignificant.

Effects on Endangered Southern California Steelhead

The work sites completely avoid lagoon habitat including the creek channel, thus endangered steelhead exposure to construction and related effects is extremely unlikely and therefore discountable.

The proposed action is expected to result in insignificant effects to the species for the following reasons. Based on observed lagoon-depth profiles before and after storms including tidal influence (Chambers 2016¹⁶), shifts in the frequency or duration of available living space or changes in seasonal evaporation rates as a result of the proposed action are not expected to be detectable. The predicted daily changes in lagoon water levels due to the proposed action are small as noted above and as such are not at a scale expected to measurably influence: (1) salinity or temperature profiles supportive of tolerances for juveniles and smolts in the action area; (2) entry opportunities into the lagoon (altering the existing berm-breach frequency); and, (3) the estimated number of days the lagoon is accessible to the species.

Conclusion

¹⁴ Surface flow data on a daily and hourly timestep remains unavailable for the action area, thus the effects analysis is based on monthly averages; see *Assumptions and Limitations* section.

¹⁵ Surveys included two sampling periods: once in the spring after the end of the winter high-flow period and once in the late summer/early fall as the dry season ends.

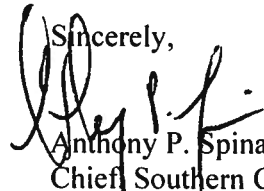
¹⁶ Chambers Group, Inc. (Chambers). 2016. Lower San Juan Creek and seasonal coastal lagoon habitat assessment Orange County, California. Prepared for the South Coast Water District and the Municipal Water District of Orange County. 94 p plus appendices.

Based on this analysis, NMFS concurs with Reclamation that the proposed action is not likely to adversely affect the endangered Southern California Distinct Population Segment of steelhead and designated critical habitat for the species.

Reinitiation of Consultation

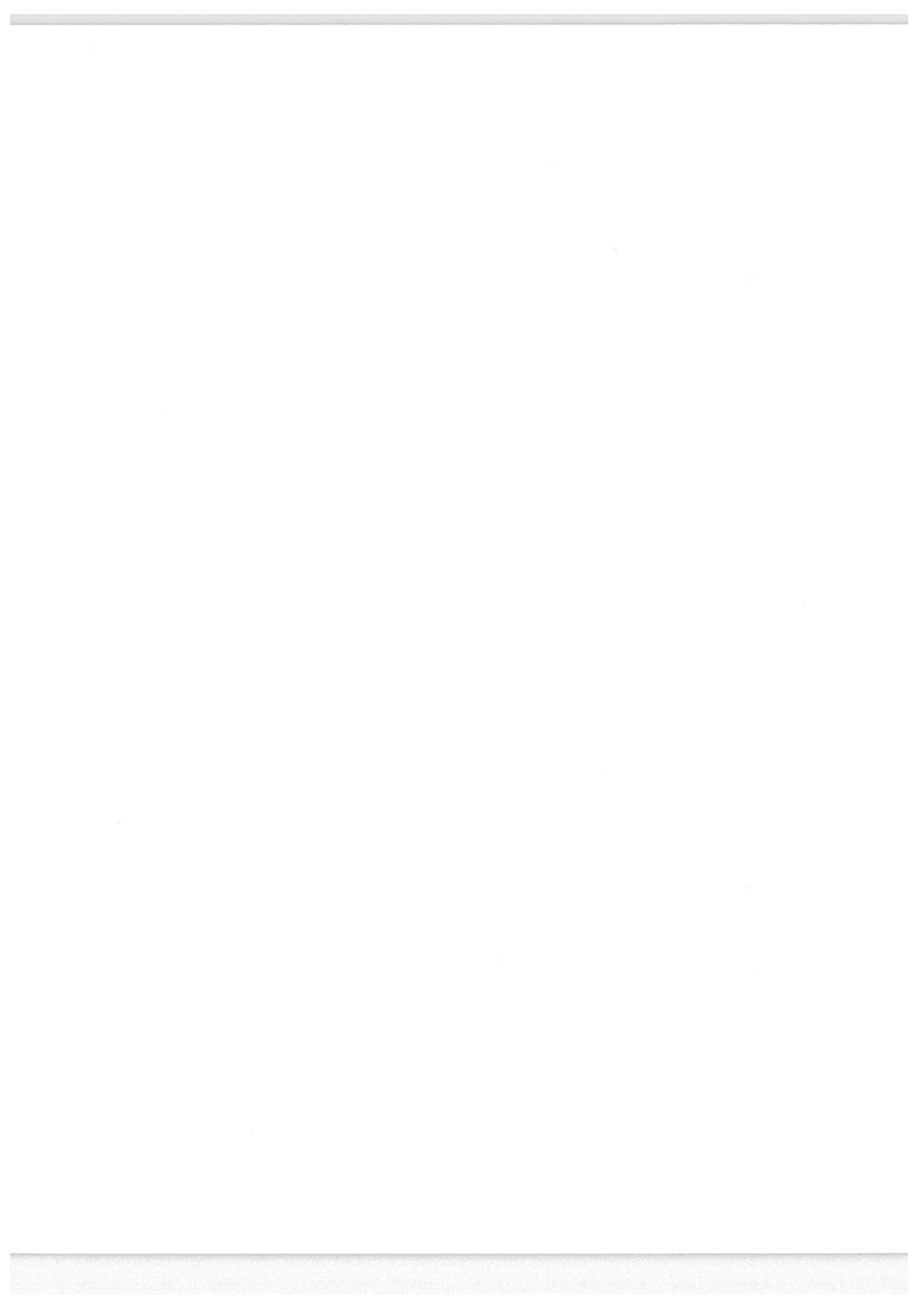
Reinitiation of consultation is required and shall be requested by Reclamation or by NMFS, where discretionary Federal involvement or control over the action has been retained or is authorized by law and (1) the proposed action causes take; (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the written concurrence; or (4) a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16). This concludes the ESA consultation.

Please contact Brittany Struck via email at Brittany.Struck@noaa.gov if you have a question concerning this letter.

Sincerely,

Anthony P. Spina
Chief, Southern California Branch
California Coastal Office

cc: **Doug McPherson**, Bureau of Reclamation, Southern California Area Office, 27226 Via Industria, Suite A, Temecula, CA 92590, dmcpherson@usbr.gov
Kevin Thomas, Kimley-Horn, 3880 Lemon Street, Suite 420, Riverside, CA 92501, Kevin.Thomas@kimley-horn.com
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**DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION**

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May 14, 2021

Reply In Reference To: BUR_2021_0419_001

John E. Simes, Jr. – Acting Area Manager
United States Department of the Interior – Bureau of Reclamation
Southern California Area Office
27226 Via Industria, Suite A
Temecula, CA 92590

RE: Section 106 consultation – Doheny Ocean Desalination Project, Orange County, California

This letter is being sent in electronic format only. Please confirm receipt of this letter. If you would like a hard copy mailed to you, respond to this email to request a hard copy be mailed.

Dear Mr. Simes:

The State Historic Preservation Officer (SHPO) received the Bureau of Reclamation's (BUR) 13 April 2021 letter initiating consultation on the above referenced undertaking pursuant to 36 CFR Part 800 (as amended 8-05-04) regulations implementing Section 106 of the National Historic Preservation Act (NHPA). BUR requests SHPO agreement with a proposed finding of "no historic properties affected."

The undertaking proposes to construct an ocean (water) desalination facility with subsurface slant well intakes that would be drilled beneath the floor of the Pacific Ocean. The submission did not discuss the horizontal and vertical scope of project work in detail however it did identify the City of Dana Point as the location for the proposed desalination facility and nearby Doheny State Beach the location for the associated subsurface slant well intakes.

BUR determined the Area of Potential Effect (APE) to be a contiguous unit of land defined by two adjacently located alternative construction sites for the desalination facility and the boundary of Doheny State Beach Park. Totalling 92-acres, the APE was illustrated in a figure titled "*Doheny Ocean Desalination Project, Orange County*" that was attached to the BUR letter report and in Figure-3 of following study that was submitted as evidence of CHRIS and Native American Heritage Commission (NAHC) record searches, consultation with NAHC identified contacts and field-survey having been completed in support of Section 106:

- *County of Orange, Doheny Desalination Project, Cultural Resources Report (Rincon 2018)*

Per BUR's submission, Native American consultation resulted in one request from the Juaneno Band of Mission Indians Acjachemen Nation for Native American and archaeological monitoring of ground disturbing activities. As understood, BUR would provide for both monitors during project implementation.

Section 106 work submitted by BUR identified the following previously recorded cultural resources in the APE:

- P-30-000188/CA-ORA-188** - Described as a shell-midden site and identified as having been destroyed by prior construction activities.
- P-30-001337/CA-ORA-1337/H** - Described as the remnants of a railroad siding with concrete pads and identified as located adjacent the proposed desalination construction site.
- P-30-176663/No trinomial** - Described as the Burlington Northern Santa Fe Railway and identified as located adjacent the proposed desalination construction site.
- P-30-177596/No trinomial** - Described as the location of the Dana Villa Inn and identified as having been demolished.
- "Thor's Hammer"** - The resource was not described, however a photo attached to the submission depicted it as a jetty. The submission identified the resource as located near the Doheny State Beach Entry (see below) and where the subsurface intake wells would be constructed.
- "Doheny State Beach Entry"** - Described as the arched entry to Doheny State Beach and identified as located near "Thor's Hammer" (see above) and where the subsurface slant well intakes would be constructed.

In the list of cultural resources identified in the APE, BUR determined that "Thor's Hammer" and the "Doheny State Beach Entry" were the only historic properties that the undertaking had potential to cause effects. In support of its proposed finding of "no effect" for the two resources, the submission stated that they "will be avoided" during project implementation albeit BUR did not discuss how it would implement the proposed treatment.

The submission stated that that P-30-176663 had been previously "recommended" not eligible for the National Register of Historic Places (NRHP), however no prior evaluation work was provided as evidence of the work having been completed or of having received SHPO concurrence. A search of records in the Information Management Unit (IMU) of OHP made by the author of this letter indicated that the resource did receive SHPO concurrence on a prior determination of not eligible and, as such, would not be a historic property under Section 106.

Albeit BUR made no case in the submission in support of its proposed finding of "no effect" for P-30-001337/CA-ORA-1337/H, the same record search of the IMU also indicated that it too had received SHPO concurrence on prior determination of not

eligible and, as mentioned for P-30-176663, it too would not be a historic property under Section 106.

My following comments are based on a review of submitted materials:

1. Pursuant to 36 CFR Part 800.4(a)(1), there are no objections to the APE as described.
2. Pursuant to 36 CFR Part 800.4(b)(1), BUR has documented a reasonable and good faith effort to identify and evaluate historic properties for the proposed undertaking.
3. Pursuant to 36 CFR Part 800.4(d)(1), I **do not object** with the finding of "*no historic properties affected*" however BUR should consider the following two items:
 - A. In order to implement the treatment of "avoidance", in the project administrative record have the two historic properties that were identified in the APE ("Thor's Hammer" and "Doheny State Beach Entry") designated Environmentally Sensitive Areas (ESA) in which project activities would be prohibited.
 - B. Instead of the proposed finding of effect, consider a finding of "*no adverse effect*" pursuant to 36 CFR Part 800.5(b) as Section 106 work did identify two historic properties in the APE that the undertaking could cause an affect and because the proposed finding generally means there are no historic properties in a given APE.
4. Per the results of Native American consultation, the Juaneno Band of Mission Indians Acjachemen Nation has requested Native American monitoring. Please discuss details of this work with the Tribe prior to the implementation of project work.
5. Please be aware that consultation on the potential for inadvertent finds of cultural or archaeological resources being historic properties should proceed in compliance with 36 CFR Part 800.13 for "*Post Review Discoveries*."

BUR may have additional Section 106 responsibilities for the undertaking under certain conditions such as changes in the project scope; the post review discovery of off-shore shipwrecks; or, an inability to avoid, or prohibit, project activities from occurring within the two historic properties that were identified in the APE. Please direct questions to Jeff Brooke (Associate State Archaeologist) at (916) 445-7003 or at Jeff.Brooke@parks.ca.gov.

Sincerely,



Julianne Polanco
State Historic Preservation Officer