

Notice of Exemption

Appendix E

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk

County of: Orange

601 North Ross Street

Santa Ana, CA 92701

From: (Public Agency): South Coast Water District
31592 West Street
Laguna Beach, CA 92651

(Address)

Project Title: Joint Regional Water Supply System Joint Transmission Main Unit 3 Reach 6 Relocation Project

Project Applicant: South Coast Water District

Project Location - Specific:

Camino Del Avion at Ritz Pointe Drive - (Latitude/Longitude 33.490363, -117.712576)

Project Location - City: Laguna Niguel, Dana Point Project Location - County: Orange

Description of Nature, Purpose and Beneficiaries of Project:

South Coast Water District, as the contract operator for the Joint Regional Water Supply System, proposes to relocate approximately 650 feet of existing 36" potable water transmission main from an easement in a vegetated slope to a new alignment within Camino Del Avion. The existing pipeline will be abandoned.

Name of Public Agency Approving Project: South Coast Water District

Name of Person or Agency Carrying Out Project: South Coast Water District

Exempt Status: (check one):

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: Section 15301, Existing Facilities - Class 1(b)
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:

The proposed project is categorically exempt under the "Class 1" categorical exemption (CE), Existing Facilities, as outlined in Section 15301 of the California Environmental Quality Act (CEQA) Guidelines. "Class 1" exemptions consist of operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use. None of the exceptions to the use of a categorical exemption (CEQA Guidelines Section 15300.2 apply to the project.

Lead Agency

Contact Person: Vernon R. Weisman, P.E. Area Code/Telephone/Extension: (949) 342-2314

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? Yes No

Signature: Vernon R. Weisman Date: 2/24/2026 Title: JRWSS Capital Program Mgr

▪ Signed by Lead Agency Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

February 3, 2025

Attachment to Notice of Exemption (Appendix E): Joint Regional Water Supply System Joint Transmission Main Unit 3 Reach 6 Relocation Project, Cities of Dana Point and Laguna Niguel, California

1 Project Description

The South Coast Water District (SCWD) proposes to relocate an approximately 650-foot-long segment of the existing 36-inch Joint Regional Water Supply System (JRWSS) Joint Transmission Main (JTM) from an easement in a steep, overgrown and largely inaccessible ravine to an alignment primarily within Camino Del Avion. No expansion of service is planned. The existing pipeline and appurtenances will be abandoned after the project has been put in service. Pavement repairs and landscaping repairs will also occur in the area of the abandoned portion of the pipeline.

2 Categorical Exemption

The proposed project is categorically exempt under the “Class 1” categorical exemption (CE), Existing Facilities, as outlined in Section 15301 of the California Environmental Quality Act (CEQA) Guidelines. “Class 1” exemptions consist of operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use. The key consideration is whether the project involves an expansion of use. One of the examples included under Section 15301 of the CEQA Guidelines is as follows: “Existing facilities of both investor and publicly owned utilities used to provide electric power, natural gas, sewerage, or other public utility services.” The proposed project involves the relocation of Reach 6 of publicly owned utility (South Coast Water District) involving no expansion of use.

3 Exceptions to the Use of Categorical Exemptions

Section 15300.2 of the CEQA Guidelines provides several exceptions that would otherwise preclude the use of a CE:

- All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.
- A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.
- A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway.
- A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

- A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

Biological resources and noise technical assessments were completed to evaluate whether the project has the potential to result in a significant effect on the environment due to unusual circumstances. A cultural resources assessment was completed to assess whether the project has the potential to result in a substantial adverse change in the significance of an archaeological or historical resource. These reports are included as part of this attachment. A summary of the results of each report is provided below. The following discussion describes why each of the exceptions to the use of a CE are not applicable to the proposed project. Because none of the exceptions precluding the use of a CE is applicable to the proposed project, the “Class 1” CE is appropriate.

Cumulative Impact

CEs, as defined in Section 15300 of the CEQA Guidelines, are projects that have been determined not to have a significant effect on the environment. As such, the proposed project would not considerably contribute to cumulative impacts in the greater project region. In addition, other projects in the region would presumably be bound by their applicable lead agency to (1) comply with all applicable federal, state, and local regulatory requirements; and (2) incorporate all feasible mitigation measures, consistent with CEQA, to further ensure that their potentially cumulative impacts would be reduced to less-than-significant levels.

Unusual Circumstances

Potential unusual circumstances related to the project site and/or the scope of the project were identified in the areas of biological resources and noise. Technical assessments were completed for each of these resource areas to determine whether there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances. The technical reports confirmed that there is no reasonable possibility of significant effects in either of these areas, as summarized below.

Biological Resources Letter Report

A literature review and site visit were conducted to assess the presence of biological resources that could be impacted by the project. The results of the site visit were that no sensitive vegetation communities, special-status plant species, and special-status wildlife species were identified within the study area. Additionally, no special-status or listed plant species are expected to occur, and no non-listed special-status wildlife have a moderate or higher potential to occur. It was determined that the project site is not within a designated wildlife corridor or habitat linkage and is not expected to be used as a wildlife corridor, habitat linkage, or native wildlife nursery site.

The project will comply with regulations under the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code, including having a qualified biologist conduct a pre-construction survey for nesting birds and raptors within the project site and a 500-foot buffer no more than three days prior to any vegetation disturbance during the general avian breeding season (February 1–September 30). The project will avoid take of nesting birds protected under the MBTA and California Fish and Game Code by establishing appropriate no-construction buffer zones around any nests identified during the surveys. If the biologist does not find any active nests within or immediately adjacent to the impact areas, the vegetation clearing/construction work would be allowed to proceed. If the biologist finds an active nest within or immediately adjacent to the vegetation removal area and determines that the nest

may be impacted or breeding activities substantially disrupted, the Biologist will delineate an appropriate no-work buffer zone around the nest depending on the sensitivity of the species, location of the nest, and the nature of the construction activity at their discretion. Construction personnel would be instructed on the sensitivity of nest areas and no-work buffers would remain in place until the nest is vacated, juveniles have fledged, and there is no evidence of a second attempt at nesting. Limits of construction to avoid an active nest would be established in the field with flagging or fencing, and construction personnel shall be instructed on the sensitivity of nest areas.

Potential waters of the state regulated by the Regional Water Quality Control Board (RWQCB) were identified within concrete v-ditches and basin in the ravine bottom within the project area. However, the project likely will not result in impacts to any aquatic features under RWQCB jurisdiction as project activities are anticipated to occur at the top of the ravine slope and within the Camino Del Avion roadway alignment. Should dredging, filling, or discharging of materials occur within these potential RWQCB-jurisdictional features as part of project implementation, the proposed project will maintain compliance with the Porter-Cologne Water Quality Act and obtain a WDR permit with the Santa Ana RWQCB, which would reduce impacts.

The conclusion of the Biological Resources Letter Report was that no impacts are expected to occur to sensitive or special-status biological resources as a result of project implementation, and the project site has no value as habitat for endangered, rare, or threatened species. As such, the project would not have a significant effect on the environment due to unusual circumstances related to biological resources.

Noise Memorandum

Noise emissions from the project's construction activities were calculated at the nearest noise-sensitive land uses, specifically the exteriors of residences at three locations along Corniche Drive (City of Dana Point) and three along Lanteen Circle (City of Laguna Niguel), with distances ranging from 75 to 260 feet. The noise regulations for both cities allow for temporary noise level exceedances caused by construction during the hours of 7:00 a.m. to 8:00 p.m. and as such, there are no effective quantified construction noise exposure limits for these time periods during which project construction is expected to occur. However, to assess potential impacts relative to a reasonable numerical threshold, the Federal Transit Administration (FTA) guidance-based limit of 80 dBA 8-hour Leq was used. The results of the noise modeling indicate that the predicted 8-hour Leq values noise do not exceed 80 dBA and therefore, the increases in outdoor sound level attributed to the project would be considered less than significant and not require mitigation.

With respect to roadway traffic noise, the memorandum determined that closure of one or more lanes of westbound Camino del Avion traffic as a result of traffic control plans would be expected to exhibit the net effect of decreasing vehicle volumes and average roadway vehicle speeds, both of which are factors that decrease traffic noise and would thus not cause perceptible increases to the outdoor ambient sound environment. For this reason, traffic noise impacts attributable to the project would be less than significant.

Based on the results of the noise memorandum, which indicate that noise impacts from the proposed project would be less than significant, the project would not have a significant effect on the environment due to unusual circumstances related to noise.

Scenic Resources within a State Scenic Highway

The proposed project site is not within a state scenic highway. There are no officially designated state scenic highways in the vicinity of the project site. There are two eligible state scenic highway in the general vicinity of the project sites: (1) State Route 1 (Coast Highway), which is located approximately 0.75 miles west of the project site, and (2) Interstate 5 transition to State Route 74, which is located approximately 3.2 miles east of the project site (Caltrans 2025). The proposed project site would not be visible from either of these eligible state scenic highways and would not be impacted by the proposed project.

Section 65962.5 of the Government Code

Section 65962.5 of the Government Code, also known as the Cortese List, is a compilation of various lists compiled by several state agencies identifying facilities or sites that are impacted by environmental contamination or hazardous waste. The 76 Station immediately adjacent to the project site is listed on the State Water Board GeoTracker as a LUST Cleanup Site but the status is listed as “Completed - Case Closed” (SWRCB 2024) and the project site does not overlap with the gas station footprint. The project site is not on any list compiled pursuant to the requirements of Section 65962.5 of the Government Code (CalEPA 2024).

Historical Resources

Archaeological Resources Letter Report

No built environment historic resources would be impacted by the project. The potential for impacts to archaeological resources were assessed through a literature review, records search, Native American correspondence and a pedestrian survey. As part of the assessment, a records search of the project area and surrounding one-mile radius was conducted at the South Central Coastal Information Center (SCCIC). The records search identified 20 previously recorded cultural resources located within one mile of the project area, none of which are located within the project area. A Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search was also requested for project. The were positive for Native American cultural resources within one mile of the project area, though the NAHC did not provide details on what the resource(s) are or where they are located. No cultural resources were identified within the Project area during a reconnaissance-level pedestrian survey completed for the project, though the majority of the ground surface was obscured by roadway development, hardscape, dense vegetation and mulch/leaf litter. An archival review revealed that the majority of the project area is characterized by steep slopes and has been disturbed in the past by roadway development, slopeside grading, and ground clearance. The steepness of the slopes were determined to make the project area unsuitable for sustaining buried cultural deposits. The assessment concluded that there is a low potential for the inadvertent discovery of intact subsurface cultural deposits during project implementation. No further archaeological efforts or mitigation, including archaeological monitoring, were determined to be necessary in support of the project. However, because the unanticipated discovery of archaeological resources cannot be entirely ruled out, management recommendations to reduce potential impacts to unanticipated archaeological resources and human remains during construction activities are provided below. These two recommendations are standard requirements for SCWD and are included in their contractor specifications as a matter of practice:

Unanticipated Discovery of Archaeological Resources

In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Project, all construction work occurring within 50 feet of the find shall immediately stop until a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards can evaluate the significance of the find. Construction activities may continue in other areas, or use existing paths of travel, but should be redirected a safe distance from the find. Avoidance and/or preservation in place should be considered the preferred management approach wherever possible. If the new discovery is evaluated and found to be significant under CEQA and avoidance is not feasible, additional work such as data recovery may be warranted. A data recovery plan shall be developed by the qualified archaeologist in consultation with SCWD and consulting parties, if applicable. Ground disturbance can continue only after the resources has been properly mitigated with approval by SCWD.

Unanticipated Discovery of Human Remains

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify the person or persons it believes to be the Most Likely Descendant (MLD) from the deceased Native American. The MLD shall complete inspection after being granted access to the site and make recommendations for the treatment and disposition, in consultation with SCWD, of the human remains.

The results of the archaeological assessment indicate that the project would not result in a substantial adverse change in the significance of a historical resource.

4 References

- CalEPA (California Environmental Protection Agency). 2024. "Cortese List Data Resources." Accessed February 3, 2025. <https://calepa.ca.gov/SiteCleanup/CorteseList/>.
- Caltrans (California Department of Transportation). 2024. "California State Scenic Highway System Map." Accessed February 3, 2025. <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>.
- SWRCB (State Water Resources Control Board). 2025. GeoTracker. Accessed February 3, 2025. https://geotracker.waterboards.ca.gov/search?CMD=search&case_number=&business_name=&main_street_name=&city=&zip=&county=&SITE_TYPE=LUFT&oilfield=&STATUS=&BRANCH=&MASTER_BASE=&Search=Search.

January 28, 2025

16812

Vernon Weisman, PE
Principal Engineer
South Coast Water District
31592 West Street
Laguna Beach, CA 92651

Subject: Cultural Resources Letter Report for the Joint Regional Water Supply System Joint Transmission Main Unit 3 Reach 6 Relocation Project, Cities of Dana Point and Laguna Niguel, California

Dear Vernon Weisman:

This letter documents the results of Dudek's cultural resources inventory efforts conducted for the Joint Regional Water Supply System (JRWSS) Joint Transmission Main (JTM) Unit 3 Reach 6 Relocation Project (Project), located in the Cities of Dana Point and Laguna Niguel, California. The Project is located within Section 9 of Township 8 South and Range 8 West of the *Dana Point, California* U.S. Geological Survey (USGS) 7.5 Minute Series Quadrangle (Figure 1, Project Location). The Project involves the relocation of an approximately 650-foot-long segment of the existing 36-inch JTM from an easement in a steep, overgrown and largely inaccessible ravine to an alignment primarily within Camino Del Avion (Figure 2, Project Area).

The South Coast Water District (SCWD), as the contract operator for the JRWSS, is the lead agency responsible for compliance with the California Environmental Quality Act (CEQA). In accordance with CEQA and local regulations, Dudek performed a Phase I cultural resources inventory that included a records search, an archival information review, correspondence with the Native American Heritage Commission (NAHC), and a cultural resources pedestrian survey of the Project area.

Dudek conducted a California Historical Resources Information System (CHRIS) records search of the Project area and surrounding one-mile radius at the South Central Coastal Information Center (SCCIC). The records search identified 20 previously recorded cultural resources located within one mile of the Project area, none of which intersect with the Project area. Additionally, Dudek requested a NAHC Sacred Lands File (SLF) search, and results were positive for Native American cultural resources within one mile of the Project area, though the NAHC did not provide details on what the resource(s) are or where they are located.

Dudek archaeologist Roshanne Bakhtiary conducted a reconnaissance-level pedestrian survey of the Project area on December 18, 2024. No cultural resources were identified within the Project area during the survey, though the majority of the ground surface was obscured by roadway development, hardscape, dense vegetation and mulch/leaf litter. An archival review also revealed that the majority of the Project area is characterized by steep slopes and has been disturbed in the past by roadway development, slopeside grading, and ground clearance.

Due to the steepness of the slopes of the ravine in which the Project area is located, and in consideration of the records search results, archival review, and pedestrian survey, there is a low potential for the inadvertent discovery of intact subsurface cultural deposits during Project implementation. No further archaeological efforts or mitigation,

including archaeological monitoring, are recommended to be necessary in support of Project implementation. In the event that archaeological resources are identified during construction activity, ground disturbance shall cease in the area until a qualified archaeologist, in consultation with SCWD, can evaluate the resource. If human remains are found, the County Coroner shall be immediately notified of the discovery in accordance with Section 7050.5 of the California Health and Safety Code.

1 Project Description and Location

The Project area encompasses 3.46-acres and is located within Section 9 of Township 8 South and Range 8 West of the *Dana Point, California* USGS 7.5 Minute Series Quadrangle (Figure 1). SCWD, as the contract operator for the JRWSS, plans to relocate an approximately 650-foot-long segment of the existing 36-inch Joint JTM from an easement in a steep, overgrown and largely inaccessible ravine between Camino Del Avion and the privately owned Ritz Pointe multi-family housing development to an alignment primarily within Camino Del Avion between Ritz Pointe Drive and Niguel Road on the border between the cities of Dana Point and Laguna Niguel, California (Figure 2). Apart from this segment, the remainder of the JTM paralleling Camino Del Avion was relocated at some point over the previous 40 years in concert with the development of the area. The existing pipe is cement-mortar lined and coated steel pipe that was constructed in 1988. The existing JTM lies within a 1961-era 25-foot-wide pipeline easement and is difficult to access for pipeline maintenance. No expansion of service is planned. The existing pipeline and appurtenances will be abandoned after the new one has been put in service between the connection points for this project and the pipeline will be filled with cellular concrete. Pavement repairs and landscaping repairs will also occur in the area of the abandoned portion of the pipeline.

2 Regulatory Framework

The Project is subject to compliance with CEQA and local regulatory conditions. No federal nexus is presently anticipated.

2.1 California Register of Historic Resources

In California, the term “historical resource” includes, but is not limited to, “any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (PRC Section 5020.1[j]). In 1992, the California legislature established the California Register of Historical Resources (CRHR) “to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Section 5024.1[a]). The criteria for listing resources in the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the National Register of Historic Place (NRHP), enumerated as follows: According to California Public Resources Code (PRC) Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains “substantial integrity” and (ii) meets at least one of the following criteria:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.

- (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history.

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (14 CCR 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

2.2 California Environmental Quality Act

The following CEQA statutes (PRC Section 21000 et seq.) and CEQA Guidelines (14 CCR 15000 et seq.) are of relevance to the analysis of archaeological, historic, and Tribal Cultural Resources (TCRs):

- PRC Section 21083.2(g) defines “unique archaeological resource.”
- PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) defines “historical resources.” In addition, CEQA Guidelines Section 15064.5(b) defines the phrase “substantial adverse change in the significance of an historical resource”; it also defines the circumstances when a project would materially impair the significance of a historical resource.
- PRC Section 21074(a) defines “Tribal Cultural Resources.”
- PRC Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated cemetery.
- PRC Sections 21083.2(b) and 21083.2(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures. Preservation in place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context and may help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause “a substantial adverse change in the significance of an historical resource” (PRC Section 21084.1; 14-CCR 15064.5[b]).

A “substantial adverse change in the significance of an historical resource,” reflecting a significant effect under CEQA, means “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (14-CCR 15064.5[b][1]; PRC Section 5020.1[q]). In turn, the significance of a historical resource is materially impaired when a project does any of the following (14 CCR 15064.5[b][2]):

1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register [CRHR]; or
2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a lead agency for purposes of CEQA.

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any historical resources, then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance would be materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Sections 21083.2[a]–[c]).

PRC Section 21083.2(g) defines a *unique archaeological resource* as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria (PRC Section 21083.2[g]):

4. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
5. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
6. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impacts on non-unique archaeological resources are generally not considered a significant environmental impact (PRC Section 21083.2[a]; 14 CCR 15064.5[c][4]). However, if a non-unique archaeological resource qualifies as a TCR (PRC Sections 21074[c] and 21083.2[h]), further consideration of significant impacts is required.

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are detailed in PRC Section 5097.98.

2.3 Native American Historic Cultural Sites (California Public Resources Code section 5097 et seq.)

State law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the NAHC to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection

Act makes it a misdemeanor punishable by up to 1 year in jail to deface or destroy an Indian historic or cultural site that is listed or may be eligible for listing in the CRHR.

2.4 California Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act (California Repatriation Act), enacted in 2001, required all state agencies and museums that receive state funding and that have possession or control over collections of human remains or cultural items, as defined, to complete an inventory and summary of these remains and items on or before January 1, 2003, with certain exceptions. The California Repatriation Act also provides a process for the identification and repatriation of these items to the appropriate tribes.

2.5 California Health and Safety Code section 7050.5 and Public Resources Code Section 5097.98

CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98.

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the County coroner has examined the remains (California Health and Safety Code Section 7050.5[b]). If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (California Health and Safety Code Section 7050.5[c]). In accordance with California Public Resources Code Section 5097.98(a), the NAHC will notify the Most Likely Descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. Within 48 hours of being granted access to the site, the MLD may recommend means of treatment or disposition, with appropriate dignity, of the human remains and associated grave goods.

2.6 Guidelines for Determining Significance

According to CEQA (§15064.5b), a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. CEQA defines a substantial adverse change:

Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.

The significance of an historical resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR; or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA.

Section 15064.5(c) of CEQA applies to effects on archaeological sites and contains the following additional provisions regarding archaeological sites:

- When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subsection (a).
- If a lead agency determines that the archaeological site is a historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.
- If an archaeological site does not meet the criteria defined in subsection (a) but does meet the definition of a unique archaeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of section 21083.2. The time and cost limitations described in Public Resources Code Section 21083.2 (c–f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.
- If an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or Environmental Impact Report (EIR), if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

Section 15064.5(d) and (e) contain additional provisions regarding human remains. Regarding Native American human remains, paragraph (d) provides:

When an initial study identifies the existence of, or the probable likelihood of, Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code SS5097.98. The applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission. Action implementing such an agreement is exempt from:

7. The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5); and

8. The requirement of CEQA and the Coastal Act.

Under CEQA, an EIR is required to evaluate any impacts on unique archaeological resources (California Public Resources Code section 21083.2.) A “unique archaeological resource” is defined as:

[A]n archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

(California Public Resources Code section 21083.2(g)). An impact to a non-unique archaeological resource is not considered a significant environmental impact and such non-unique resources need not be further addressed in the EIR (Public Resources Code section 21083.2(a); CEQA Guidelines section 15064.5(c)(4)).

As stated above, CEQA contains rules for mitigation of “unique archaeological resources.” For example, “[i]f it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Examples of that treatment, in no order of preference, may include, but are not limited to, any of the following:

1. Planning construction to avoid archaeological sites.
2. Deeding archaeological sites into permanent conservation easements.
3. Capping or covering archaeological sites with a layer of soil before building on the sites.
4. Planning parks, greenspace, or other open space to incorporate archaeological sites.”
(Pub. Resources Code section 21083.2(b)(1)-(4).)

Public Resources Code section 21083.2(d) states that “[e]xcavation as mitigation shall be restricted to those parts of the unique archaeological resource that would be damaged or destroyed by the project. Excavation as mitigation shall not be required for a unique archaeological resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the resource, if this determination is documented in the environmental impact report.”

The rules for mitigating impacts to archaeological resources to qualify as “historic resources” are slightly different. According to CEQA Guidelines section 15126.4(b), “[p]ublic agencies should, whenever feasible, seek to avoid damaging effects on any historic resource of an archaeological nature. The following factors shall be considered and discussed in an EIR for a project involving such an archaeological site:

- A. Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.
- B. Preservation in place may be accomplished by, but is not limited to, the following:
 - 1. Planning construction to avoid archaeological sites;
 - 2. Incorporation of sites within parks, greenspace, or other open space;
 - 3. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site[; and]
 - 4. Deeding the site into a permanent conservation easement.

Thus, although section 21083.2 of the Public Resources Code, in addressing “unique archaeological sites,” provides for specific mitigation options “in no order of preference,” CEQA Guidelines section 15126.4(b), in addressing “historical resources of an archaeological nature,” provides that “[p]reservation in place is the preferred manner of mitigating impacts to archaeological sites.”

Under CEQA, “[w]hen data recovery through excavation is the only feasible mitigation,” the lead agency may cause to be prepared and adopt a “data recovery plan,” prior to any excavation being undertaken. The data recovery plan must make “provision for adequately recovering the scientifically consequential information from and about the historic resource.” (CEQA Guidelines section 15126.4(b)(3)(C).) The data recovery plan also “must be deposited with the California Historical Resources Regional Information Center.” (*Ibid.*) Further, “[i]f an artifact must be removed during project excavation or testing, curation may be an appropriate mitigation.” (*Ibid.*)

However, “[d]ata recovery shall not be required for an historical resource if the lead agency determines that testing or studies already completed have adequately recovered the scientifically consequential information from and about the archaeological or historic resource, provided that determination is documented in the EIR and that the studies are deposited with the California Historical Resources Regional Information Center.” (CEQA Guidelines Section 15126.4(b)(3)(D).)

2.7 City of Dana Point General Plan

The Conservation/Open Space Element of the City of Dana Point’s General Plan, adopted in 1991, contains the following goals and policies relating to cultural resources (City of Dana Point 1991):

Goal 8. Encourage the preservation of significant historical or culturally significant buildings, sites, or features within the community.

Policy 8.1. Require reasonable mitigation measures where development may affect historical, archaeological, or paleontological resources.

Policy 8.2. Retain and protect resources of significant historical, archaeological, or paleontological value for education, visitor-serving, and scientific purposes.

Policy 8.3. Development adjacent to a place, structure, or object found to be of historical significance should be designed so that the uses permitted and the architectural design will protect the visual setting of the historical site.

Policy 8.4. Develop and maintain a cultural resources inventory.

2.8 City of Laguna Niguel General Plan

Chapter 3 of the City of Laguna Niguel's General Plan, adopted in 1992, details the city's plan to maintain and promote their cultural and archaeological heritage. The City of Laguna Niguel's goal and associated policies and actions for cultural resources are outlined below (City of Laguna Niguel 1992):

Goal 7. Recognize significant cultural sites or features within the community.

Intent. The intent is to ensure that these resources are conserved because they provide a link to a community's past, as well as a frame of reference for the future. These resources require conservation if they will be lost to future generations.

Policy 7.1. Review the technical data on sensitive cultural resources for all new development proposals.

Policy 7.2. Require mitigation of impacts to significant areas of archaeological and paleontological resources.

Policy 7.3. Preserve uncovered resources in their natural state, as much as feasible to assure their preservation and availability for later study. Require that uncovered resources are documented and retains in an appropriate museum or other institution.

Action 7.3.1. Require effective mitigation measures where development may affect archaeological or paleontological resources.

Action 7.3.2. Require the preparation of archaeological or paleontological reports in areas where there is potential to impact cultural resources.

Action 7.3.3. Require that an archaeologist or paleontologist be retained to observe grading activities in areas where the probable presence of archaeological or paleontological resources is indicated.

3 Results

3.1 Records Search

Dudek archaeologist Brenda Rogers conducted a records search of the CHRIS on December 19, 2024, at the SCCIC located on the campus of the California State University, Fullerton. The records search encompassed the entire Project area and a one-mile search radius. The purpose of the records search is to identify any previously recorded cultural resources that may be located in or adjacent to the Project area and to identify previous studies in the Project vicinity. In addition to a review of previously prepared site records and reports, the records search also included a review of historical maps of the Project area, ethnographies, the NRHP, the CRHR, the California Historic Property Data File, and the lists of California State Historical Landmarks, California Points of Historical Interest, and Archaeological Determinations of Eligibility.

3.1.1 Previous Cultural Resources Studies

The SCCIC records search indicates that 50 previous cultural resources studies have been conducted within a one-mile radius of the Project area. Of these, four (4) studies intersect with the Project area (Table 1). These studies include two (2) archaeological resources inventories, one (1) site report, and one (1) monitoring report. None of these reports are directly relevant to or address the Project area. See Confidential Appendix A for the complete SCCIC records search results and associated documentation.

Table 1. Cultural Resources Studies Intersecting Project Area

Report Number	Authors	Date	Title
Intersecting Project Area			
OR-00691	Mabry, Theo N.	1979	Archaeological Reconnaissance Salt Creek Area Orange County, California
OR-00823	Bissell, Ronald M.	1986	Cultural Resources Assessment of Shea Company Property and Surface Collection of Sites CA-ORA-493 and CA-ORA-540, Laguna Niguel, Orange County, California
OR-00850	Bissell, Ronald M.	1986	Archaeological Site CA-ORA-1108: a Seed and Vegetable Fiber Collecting and Processing Station in Laguna Niguel, Orange County, California
OR-01041	Jertberg, Patricia R.	1989	Archaeological Monitoring for Tentative Tracts 9947 and 12315

3.1.2 Previously Recorded Cultural Resources

The SCCIC records search did not identify any cultural resources within the Project area, though it did identify 20 cultural resources within a one-mile radius of the Project area (Table 2). All 20 resources are characterized as prehistoric resources and include five (5) lithic and groundstone scatters, four (4) shell midden deposits, three (3) sparse lithic and shell scatters, two (2) shell scatters, one (1) lithic scatter, one (1) raw material quarry, and (4) isolates. The majority (18) of these prehistoric resources were first recorded in the 1970s, during the development of the surrounding communities of Dana Point and Laguna Niguel. The results of this records search and all California Department of Parks and Recreation (DPR) 523 site forms are attached as part of Confidential Appendix A.

Table 2. Previously Recorded Cultural Resources within One Mile of Project Area

Primary Number	Trinomial	Age	Description	CRHR Eligibility
Outside Project Area				
P-30-000010	CA-ORA-000010	Prehistoric	Lithic and groundstone scatter	Not evaluated
P-30-000011	CA-ORA-000011	Prehistoric	Shell midden deposit	Not evaluated
P-30-000127	CA-ORA-000127	Prehistoric	Sparse lithic and shell scatter	Not evaluated
P-30-000128	CA-ORA-000128	Prehistoric	Shell midden deposit	Not evaluated
P-30-000129	CA-ORA-000129	Prehistoric	Sparse lithic and shell scatter	Not evaluated
P-30-000182	CA-ORA-000182	Prehistoric	Shell midden deposit	Not evaluated
P-30-000360	CA-ORA-000360	Prehistoric	Lithic and groundstone scatter	Not evaluated

Table 2. Previously Recorded Cultural Resources within One Mile of Project Area

Primary Number	Trinomial	Age	Description	CRHR Eligibility
Outside Project Area				
P-30-000371	CA-ORA-000371	Prehistoric	Lithic and groundstone scatter	Not evaluated
P-30-000567	CA-ORA-000567	Prehistoric	Lithic and groundstone scatter	Not evaluated
P-30-000568	CA-ORA-000568	Prehistoric	Sparce lithic and shell scatter	Not evaluated
P-30-000569	CA-ORA-000569	Prehistoric	Shell scatter	Not evaluated
P-30-000570	CA-ORA-000570	Prehistoric	Shell scatter	Not evaluated
P-30-000571	CA-ORA-000571	Prehistoric	Shell midden deposit	Not evaluated
P-30-000642	CA-ORA-000642	Prehistoric	Lithic scatter	Not evaluated
P-30-001108	CA-ORA-001108	Prehistoric	Lithic and groundstone scatter	Not evaluated
P-30-100155	-	Prehistoric	Lithic isolate	Categorically ineligible
P-30-100156	-	Prehistoric	Lithic isolate	Categorically ineligible
P-30-100158	-	Prehistoric	Groundstone isolate	Categorically ineligible
P-30-100462	-	Prehistoric	Groundstone isolate	Categorically ineligible
P-30-120019	-	Prehistoric	Lithic quarry	Not evaluated

3.2 Review of Historic Topographic Maps and Aerial Photographs

In addition to the SCCIC records search, Dudek conducted an online review of historic aerial photographs and historic topographic maps to better understand the development of the Project area and surrounding vicinity over time.

Historic aerial photographs (historic aeriels) of the Project area are available from 1938 to 2022 (NETR 2025). The earliest historic aerial from 1938 depicts the Project area as undeveloped and within a steep hillside ravine. There are no substantial changes to the Project area as depicted in the historic aeriels until 1967. By 1967, a dirt roadway appears running on an east to west axis within the central portion of the Project area (within the ravine), though the majority of the Project area remains undeveloped. By 1980, the roadway has been graded and widened. Additionally, there is evidence of slopeside grading and land infill along the northern portion of the Project area. The 1985 historic aerial depicts an unfinished roadway within the Northern portion of the Project area, while the roadway within the central portion of the Project area remains. In addition to this, residential development begins to appear to the north, outside of the Project area. By 1988 the roadway within the central portion of the Project area appears to be no longer in use, likely replaced in function by Camino Del Avion, which now runs through the northern portion of the Project area in its current extent. Throughout the 1990s, additional residential development appears to the north, south, east and west, of Project area. By 1995, evidence of heavy grading directly to the east of the Project area appears, and by 1997, the gas station located directly to the east of the Project area is complete. There are no significant changes to the Project area and surrounding vicinity as evidenced in the historic aeriels from 1996 to the last available in 2022 (NETR 2025).

Historic topographic maps (historic topos) of the Project area are available for the years of 1902 to 1982 (USGS 2025). The earliest historic topo from 1902 depicts the Project area as undeveloped and within a steep hillside adjacent to a seasonal stream that runs on a north to south axis to the east of the Project area (Salt Creek). There are no changes to the depiction of the Project area as evidenced in the historic topos until 1968. By 1968, an

unimproved roadway appears running on an east to west axis within the central portion of the Project area, though the majority of the Project area remains undeveloped. There are no significant changes to the Project area and surrounding vicinity as evidenced in the historic topos from 1968 to the last available in 1982 (USGS 2025).

As evidenced by this archival review, it appears that the Project area sits within a naturally steep hillside ravine and remained largely undeveloped throughout the first half of the twentieth century until the 1960s. By the 1960s, the expansion of the community of Laguna Niguel spurred roadway development within the Project area, and later residential and commercial development surrounding the Project area. Additionally, there is evidence to indicate that the Project area has been subject to ground disturbances associated with roadway development, slopeside grading, and ground clearance.

3.3 Review of Geomorphological Context

According to the U.S. Department of Agriculture Natural Resources Conservation Services (USDA 2025), the soil type mapped within the Project area is a Calleguas clay loam (100%), 50 to 75 percent slopes, eroded. The Calleguas clay loam soil series generally occurs in steep hillside settings deriving from residuum weathered from calcareous shale and is found in areas with elevations ranging from 220 to 2,110 feet above sea level. Generally, soils of this type and high percent of slope have a low potential for containing intact subsurface cultural deposits.

3.4 NAHC Correspondence

Dudek requested a NAHC search of the SLF for the Project area and a one-mile radius on November 29, 2024. The SLF consists of a database of known Native American resources. These resources may not be included in the SCCIC database. The NAHC replied via email on December 17, 2024, stating that the SLF search was completed with positive results. Positive results indicate the presence of Native American cultural resources within one mile of the Project area, and not necessarily directly within the Project area. The NAHC did not provide details on what the resource(s) are or where they are located. Additionally, the NAHC provided a list of Native American tribes and individuals/organizations with traditional geographic associations that might have knowledge of cultural resources in the area. To date, Dudek has not sent outreach letters to the entities identified by the NAHC. See Appendix B for complete documentation of SLF search results.

3.5 Pedestrian Survey

Dudek archaeologist Roshanne Bakhtiary conducted a reconnaissance-level pedestrian survey of the Project area on December 18, 2024. Standard archaeological procedures and techniques consistent with the Secretary of the Interior's Standards for Archaeology were employed during the pedestrian survey. When possible, 10-meter interval survey transects were conducted and oriented in cardinal direction. Where visible, the ground surface was examined for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock, imported marine shell), soil discoloration that might indicate the presence of a cultural midden, soil depressions, features indicative of the current or former presence of structures or buildings (e.g., standing exterior walls, post holes, foundations), and historic artifacts (e.g., metal, glass, ceramics, building materials). Ground disturbances such as rodent/reptile burrows, cut banks, and drainages were also visually inspected for exposed subsurface materials. All fieldwork was documented using field notes and an Apple iPad equipped with ESRI Field Maps. Location-specific photographs were taken using an eighth-generation Apple iPad equipped with an eight (8)

mega-pixel 1080p resolution camera and georeferenced PDF maps of the Project area. All field notes, photographs, and records related to the current study are on file at Dudek's Mission Viejo, California office.

The Project area is largely disturbed, consisting predominantly of Camino Del Avion and associated sidewalk (Exhibit 1), and a steep, overgrown and largely inaccessible ravine (Exhibit 2). A small portion of the Project area along the ravine was subject to an intensive-level pedestrian survey (5%). A reconnaissance-level pedestrian survey was conducted for the remainder of the Project area (95%).

Ground visibility throughout the Project area was poor (0%) and largely obscured by hardscape (predominantly asphalt and concrete), dense vegetation, and mulch/leaf litter. Vegetation throughout the Project area included various species of invasive grasses and ornamental landscaping plants like pampas grass, agave, and aloe. No native soils were observed, and no cultural resources were identified during the pedestrian survey of the Project area.

4 Summary and Management Considerations

Dudek's cultural resources inventory of the Project indicates that there is a low potential for the inadvertent discovery of intact subsurface cultural deposits during Project implementation. Dudek conducted a records search of the Project area and surrounding one-mile radius at the SCCIC. The records search identified 20 previously recorded cultural resources located within one mile of the Project area, none of which are located within the Project area. A NAHC SLF search was also requested for Project, and results were positive for Native American cultural resources within one mile of the Project area, though the NAHC did not provide details on what the resource(s) are or where they are located.

No cultural resources were identified within the Project area during the reconnaissance-level pedestrian survey, though the majority of the ground surface was obscured by roadway development, hardscape, dense vegetation and mulch/leaf litter. An archival review also revealed that the majority of the Project area is characterized by steep slopes and has been disturbed in the past by roadway development, slopeside grading, and ground clearance.

Due to the steepness of the slopes making the Project area unsuitable for sustaining buried cultural deposits, and in consideration of the records search results, archival review, and pedestrian survey, Dudek recommends no further archaeological efforts or mitigation, including archaeological monitoring, to be necessary in support of the Project. Management recommendations to reduce potential impacts to unanticipated archaeological resources and human remains during construction activities are provided below.

Unanticipated Discovery of Archaeological Resources

In the event that archaeological resources (sites, features, or artifacts) are exposed during construction activities for the Project, all construction work occurring within 50 feet of the find shall immediately stop until a qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards can evaluate the significance of the find. Construction activities may continue in other areas, or use existing paths of travel, but should be redirected a safe distance from the find. Avoidance and/or preservation in place should be considered the preferred management approach wherever possible. If the new discovery is evaluated and found to be significant under CEQA and avoidance is not feasible, additional work such as data recovery may be warranted. A data recovery plan shall be developed by the qualified archaeologist in consultation with SCWD and consulting

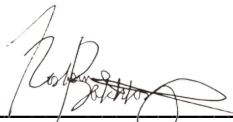
parties, if applicable. Ground disturbance can continue only after the resources has been properly mitigated with approval by SCWD.

Unanticipated Discovery of Human Remains

In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are found, the County Coroner shall be immediately notified of the discovery. No further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined the appropriate treatment and disposition of the human remains. If the County Coroner determines that the remains are, or are believed to be, Native American, he or she shall notify the NAHC in Sacramento within 24 hours. In accordance with California Public Resources Code Section 5097.98, the NAHC must immediately notify the person or persons it believes to be the MLD from the deceased Native American. The MLD shall complete inspection after being granted access to the site and make recommendations for the treatment and disposition, in consultation with SCWD, of the human remains.

Should you have any questions relating to this report and its findings, please do not hesitate to contact me at 760.557.0998 or rbakhtiary@dudek.com.

Respectfully submitted,



Roshanne Bakhtiary, M.A.
Archaeologist

Att.: *Figure 1. Project Location Map*
Figure 2. Project Area Map
Exhibit 1. Overview of the Project area along Camino Del Avion, view facing northwest.
Exhibit 2. Overview of the Project area within the ravine, view facing southeast.
National Archaeological Database Information
Confidential Appendix A, SCCIC Records Search Results
Appendix B, NAHC Correspondence

cc: Adam Giacinto, MA, RPA, Dudek; Rachel Struglia, PhD, AICP, Dudek

5 References

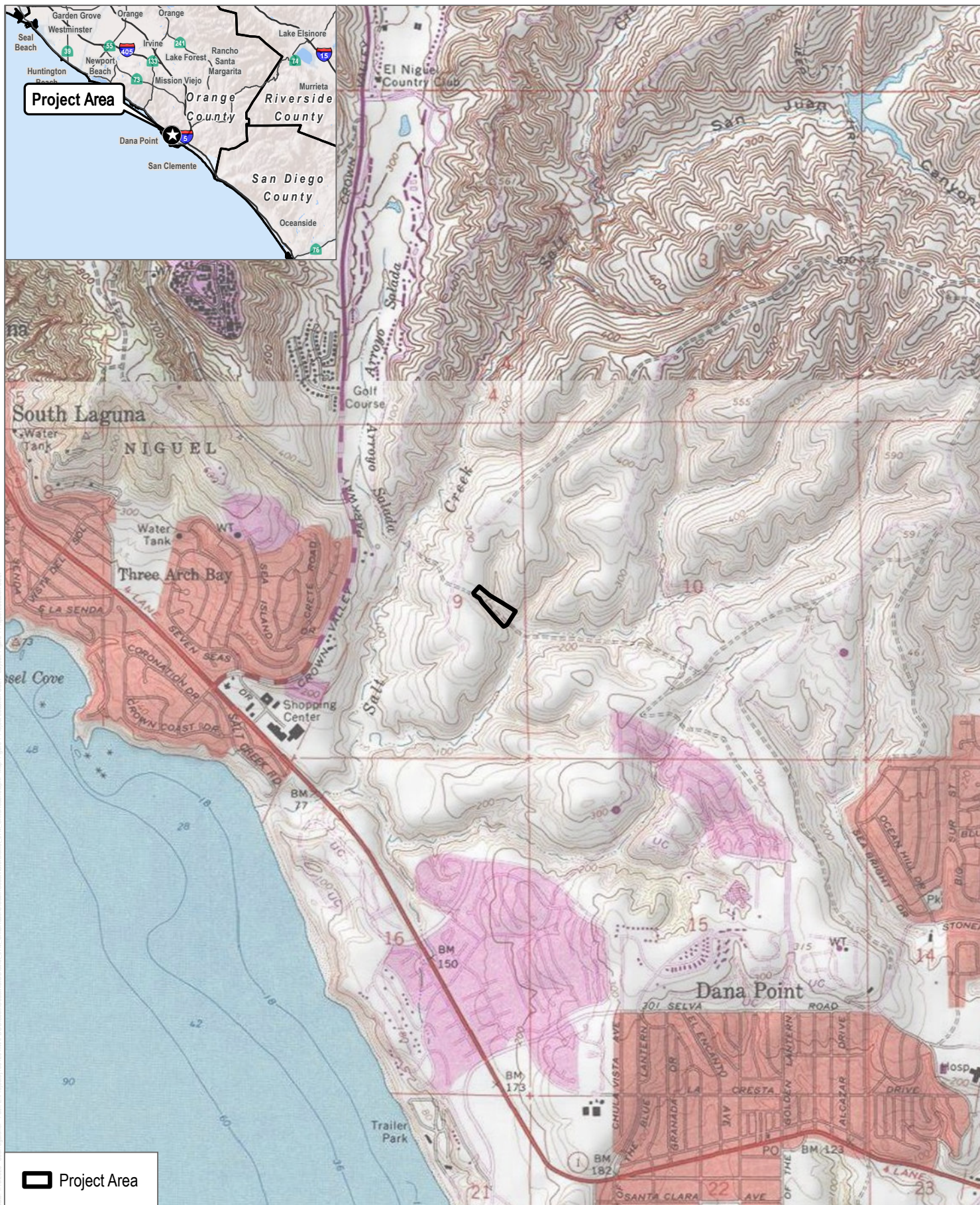
City of Laguna Niguel. 1992. General Plan for the City of Laguna Niguel. Accessed January 2025.
<https://www.cityoflagunaniguel.org/132/General-Plan>

City of Dana Point. 1991. General Plan, City of Dana Point. Accessed January 2025. <https://www.danapoint.org/i-want-to-/general-plan>

NETR (National Environmental Title Research). 2025. Historic Aerial Photographs for Laguna Niguel, California.
Accessed January 2025. <https://www.historicaerials.com/>

USDA (United States Department of Agriculture). 2025. Natural Resources Conservation Service Soil Web Survey.
Accessed January 2025. <https://websoilsurvey.nrcs.usda.gov/>

USGS (United States Geological Survey). 2025. Historic Topographic Maps for Laguna Niguel, California. Accessed
January 2025. <https://livingatlas.arcgis.com/topomapexplorer/>



SOURCE: USGS 7.5 Minute Series 1:24,000
 Dana Point Quadrangle - Township 8S Range 8W Section 09

DUDEK



0 1,000 2,000 0 280 560
 Feet Meters

FIGURE 1

Project Location

South Coast Water District JRWSS JTM Unit 3 Reach 6 Project



SOURCE: Bing Maps (Accessed: 2025)

DUDEK

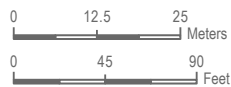


FIGURE 2

Project Area Map

South Coast Water District JRWSS JTM Unit 3 Reach 6 Project



Exhibit 1. Overview of the Project area along Camino Del Avion, view facing northwest.



Exhibit 2. Overview of the Project area within the ravine, view facing southeast.

National Archaeological Database (NADB) Information

Authors:	Roshanne Bakhtiary, MA
Firm:	Dudek
Project Proponent:	South Coast Water District
Report Date:	January 2025
Report Title:	Cultural Resources Letter Report for the Joint Regional Water Supply System Joint Transmission Main Unit 3 Reach 6 Relocation Project, Cities of Dana Point and Laguna Niguel, California
Type of Study:	Cultural Resources Inventory
Resources:	None
USGS Quads:	Dana Point, California Quadrangle, Township 8 South, Range 8 West, Section 9
Acreage:	3.46-acres
Permit Numbers:	N/A
Keywords:	Inventory, Negative, City of Dana Point, City of Laguna Niguel, South Coast Water District

Confidential Appendix A

SCCIC Records Search Results

Appendix B

NAHC Correspondence

Roshanne Bakhtiary

From: Roshanne Bakhtiary
Sent: Friday, November 29, 2024 8:18 AM
To: NAHC@NAHC
Subject: DUDEK SCWD PN 16812 SLF Search Request
Attachments: SCWD_PN16812_NAHC_SLF_Request.pdf

Dear NAHC,

Please find attached to this email the NAHC Sacred Lands File Search request with project location map for the SCWD JRWSS JTM Unit 3 Reach 6 Project (Dudek #16812) located in the Cities of Dana Point and Laguna Niguel, California. Dudek is requesting an NAHC Sacred Lands File Search for any sacred sites, tribal cultural resources, and other places of Native American community value that may fall within a one-mile radius of the proposed project location.

Please let me know if you have any questions regarding this project. You can email the results to me at: rbakhtiary@dudek.com.

Thank you,

Roshanne Bakhtiary

Archaeologist

DUDEK

O: 949 373 8307 **C:** 760 557 0998

dudek.com



Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission

1550 Harbor Blvd, Suite 100

West Sacramento, CA 95691

916-373-3710

916-373-5471 – Fax

nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: SCWD JRWSS JTM Unit 3 Reach 6 Project PN 16812

County: Orange

USGS Quadrangle Name: Dana Point and San Juan Capsitrano

Township: 8S **Range:** 8W **Section(s):** 03, 04, 08, 09, 10, 15, 16

Company/Firm/Agency: Dudek

Street Address: 605 Third Street

City: Encinitas, CA **Zip:** 92024

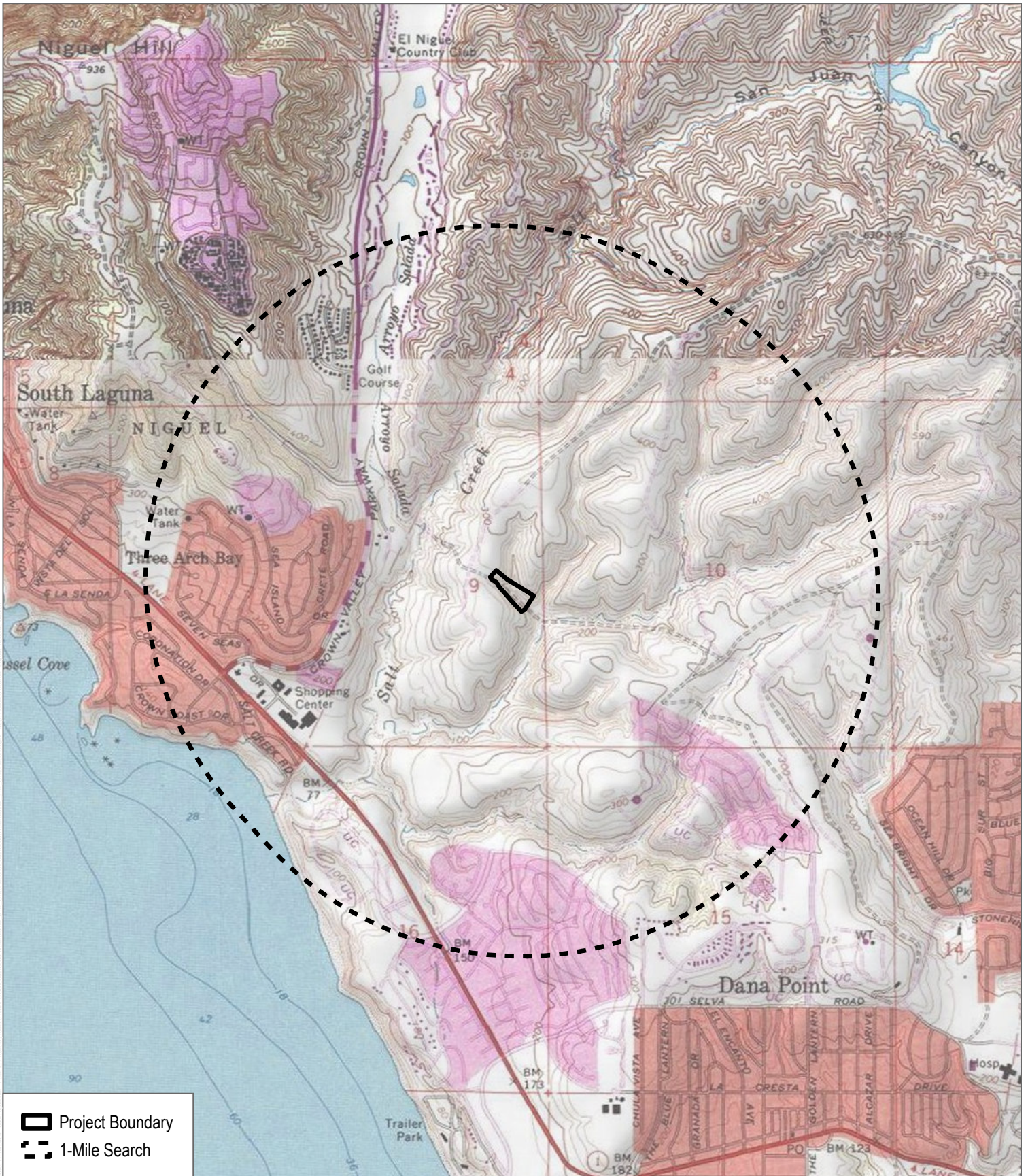
Phone: (760) 557-0998

Fax:

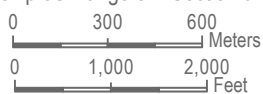
Email: rbakhtiary@dudek.com

Project Description:

Relocation of an approximately 650-foot-long segment of a joint transmission main.



SOURCE: USGS 7.5-Minute Series Dana Point Quadrangle - Township 8S Range 8W Section 08, 09, 10, 16, 15;
 San Juan Capistrano Quadrangle - Township 8S Range 8W Section 04, 03



Records Search Map

South Coast Water District JRWSS JTM Unit 3 Reach 6 Project

Roshanne Bakhtiary

From: Green, Andrew@NAHC <Andrew.Green@nahc.ca.gov>
Sent: Tuesday, December 17, 2024 1:18 PM
To: Roshanne Bakhtiary
Cc: kaamalam@gmail.com
Subject: SCWD JRWSS JTM Unit 3 Reach 6 PN 16812 Project
Attachments: SLF Yes SCWD JRWSS JTM Unit 3 Reach 6 PN 16812 Project 12.17.2024.pdf; SCWD JRWSS JTM Unit 3 Reach 6 PN 16812 Project 12.17.2024.xlsx

Follow Up Flag: Follow up
Flag Status: Flagged

Good Afternoon,

Attached is the response to the project referenced above. If you have any additional questions, please feel free to contact our office email at nahc@nahc.ca.gov.

Regards,

Andrew Green

Native American Heritage Commission
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Andrew.Green@nahc.ca.gov
Direct Line: (916) 573-1072
Office: (916) 373-3710



NATIVE AMERICAN HERITAGE COMMISSION

December 17, 2024

Roshanne Bakhtiary
DudekVia Email to: rbakhtiary@dudek.com**Re: SCWD JRWSS JTM Unit 3 Reach 6 PN 16812 Project, Orange County**

To Whom It May Concern:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the Juaneno Band of Mission Indians Acjachemen Nation – Belardes on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green
Cultural Resources Analyst

Attachment

CHAIRPERSON
Reginald Pagaling
ChumashVICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki,
NomlakiSECRETARY
Sara Dutschke
MiwokPARLIAMENTARIAN
Wayne Nelson
LuiseñoCOMMISSIONER
Isaac Bojorquez
Ohlone-CostanoanCOMMISSIONER
Stanley Rodriguez
KumeyaayCOMMISSIONER
Laurena Bolden
SerranoCOMMISSIONER
Reid Milanovich
CahuillaCOMMISSIONER
Bennae Calac
Pauma-Yuima Band of
Luiseño IndiansACTING EXECUTIVE
SECRETARY
Steven Quinn**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

Native American Heritage Commission
Native American Contact List
Orange County
12/17/2024

Tribe Name	F/N	Contact Person	Contact Address	Phone	Email Address	Cultural Affiliation	Counties
Cahuilla Band of Indians	F	Anthony Madrigal, Tribal Historic Preservation Officer	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549	anthonymad2002@gmail.com	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Cahuilla Band of Indians	F	BobbyRay Esparza, Cultural Director	52701 CA Highway 371 Anza, CA, 92539	(951) 763-5549	besparza@cahuilla-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Cahuilla Band of Indians	F	Erica Schenk, Chairperson	52701 CA Highway 371 Anza, CA, 92539	(951) 590-0942	chair@cahuilla-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Gabrieleno Band of Mission Indians - Kizh Nation	N	Andrew Salas, Chairperson	P.O. Box 393 Covina, CA, 91723	(844) 390-0787	admin@gabrielenoindians.org	Gabrieleno	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura
Gabrieleno Band of Mission Indians - Kizh Nation	N	Christina Swindall Martinez, Secretary	P.O. Box 393 Covina, CA, 91723	(844) 390-0787	admin@gabrielenoindians.org	Gabrieleno	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura
Gabrieleno/Tongva San Gabriel Band of Mission Indians	N	Anthony Morales, Chairperson	P.O. Box 693 San Gabriel, CA, 91778	(626) 483-3564	GTTribalcouncil@aol.com	Gabrieleno	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura
Gabrielino Tongva Indians of California Tribal Council	N	Christina Conley, Cultural Resource Administrator	P.O. Box 941078 Simi Valley, CA, 93094	(626) 407-8761	christina.marsden@alumni.usc.edu	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura

Tribe Name	F/N	Contact Person	Contact Address	Phone	Email Address	Cultural Affiliation	Counties
Gabrielino Tongva Indians of California Tribal Council	N	Robert Dorame, Chairperson	P.O. Box 490 Bellflower, CA, 90707	(562) 761-6417	gtongva@gmail.com	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura
Gabrielino/Tongva Nation	N	Sandonne Goad, Chairperson	106 1/2 Judge John Aiso St., #231 Los Angeles, CA, 90012	(951) 807-0479	sgoad@gabrielino-tongva.com	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura
Gabrielino-Tongva Tribe	N	Sam Dunlap, Cultural Resource Director	P.O. Box 3919 Seal Beach, CA, 90740	(909) 262-9351	tongvatcr@gmail.com	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura
Gabrielino-Tongva Tribe	N	Charles Alvarez, Chairperson	23454 Vanowen Street West Hills, CA, 91307	(310) 403-6048	Chavez1956metro@gmail.com	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura
Juaneno Band of Mission Indians	N	Sonia Johnston, Chairperson	P.O. Box 25628 Santa Ana, CA, 92799		sonia.johnston@sbcglobal.net	Juaneno	Orange, Riverside, San Diego
Juaneno Band of Mission Indians Acjachemen Nation - Belardes	N	Joyce Perry, Cultural Resource Director	4955 Paseo Segovia Irvine, CA, 92603	(949) 293-8522	kaamalam@gmail.com	Juaneno	Los Angeles, Orange, Riverside, San Bernardino, San Diego
Juaneno Band of Mission Indians Acjachemen Nation 84A	N	Heidi Lucero, Chairperson, THPO	31411-A La Matanza Street San Juan Capistrano, CA, 92675	(562) 879-2884	jbmian.chairwoman@gmail.com	Juaneno	Los Angeles, Orange, Riverside, San Bernardino, San Diego
La Jolla Band of Luiseno Indians	F	Norma Contreras, Chairperson	22000 Highway 76 Pauma Valley, CA, 92061	(760) 742-3771		Luiseno	Orange, Riverside, San Diego

Tribe Name	F/N	Contact Person	Contact Address	Phone	Email Address	Cultural Affiliation	Counties
Pala Band of Mission Indians	F	Christopher Nejo, Legal Analyst/Researcher	PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3564	cnejo@palatribe.com	Cupeno Luiseno	Orange, Riverside, San Bernardino, San Diego
Pala Band of Mission Indians	F	Alexis Wallick, Assistant THPO	PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3537	awallick@palatribe.com	Cupeno Luiseno	Orange, Riverside, San Bernardino, San Diego
Pala Band of Mission Indians	F	Shasta Gaughen, Tribal Historic Preservation Officer	PMB 50, 35008 Pala Temecula Road Pala, CA, 92059	(760) 891-3515	sgaughen@palatribe.com	Cupeno Luiseno	Orange, Riverside, San Bernardino, San Diego
Pauma Band of Luiseno Indians	F	Temet Aguilar, Chairperson	P.O. Box 369 Pauma Valley, CA, 92061	(760) 742-1289	bennaecalac@aol.com	Luiseno	Orange, Riverside, San Diego
Santa Rosa Band of Cahuilla Indians	F	Vanessa Minott, Tribal Administrator	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	vminott@santarosa-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Santa Rosa Band of Cahuilla Indians	F	Steven Estrada, Tribal Chairman	P.O. Box 391820 Anza, CA, 92539	(951) 659-2700	sestrada@santarosa-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Soboba Band of Luiseno Indians	F	Jessica Valdez, Cultural Resource Specialist	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-6261	jvaldez@soboba-nsn.gov	Cahuilla Luiseno	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego
Soboba Band of Luiseno Indians	F	Joseph Ontiveros, Tribal Historic	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-5279	jontiveros@soboba-nsn.gov	Cahuilla Luiseno	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego

Tribe Name	F/N	Contact Person	Contact Address	Phone	Email Address	Cultural Affiliation	Counties
		Preservation Officer					

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed SCWD JRWSS JTM Unit 3 Reach 6 PN 16812 Project, Orange County.

MEMORANDUM

To: Vernon Weisman (SCWD)
From: Carson Wong (Dudek)
Subject: SCWD – JRWSS JTM Unit 3 Reach 6 Pipeline Replacement
Noise Technical Memorandum
Date: January 20, 2025
Cc: Rachel Struglia (Dudek)
Attachment(s): Attachment A: Baseline Ambient Noise Measurement Documentation (“IForms”)
Attachment B: Construction Noise Modeling Worksheets

The South Coast Water District (SCWD or District) plans to replace an approximately 650-foot segment of the existing 36-inch Joint Transmission Main (JTM) for the Joint Regional Water Supply System (JRWSS), known as the Unit 3 Reach 6 Project (Project). To support a Categorical Exemption (“CatEx”) for the Project, per California Environmental Quality Act (CEQA) environmental assessment parameters, the following is a concise memorandum displaying the results of an outdoor ambient sound level survey and predictive analysis of sound propagation of Project construction noise level exposures to the nearest offsite sensitive receptors in the adjoining communities of Laguna Niguel and Dana Point.

Project Summary

The Project pipeline alignment will be located primarily within Camino Del Avion between Ritz Pointe Drive and Niguel Road on the border between the cities of Dana Point and Laguna Niguel. Apart from this segment, the remainder of the JTM paralleling Camino Del Avion was relocated at some point over the previous 40 years in concert with the development of this area. The new 650-foot-long segment of the potable water transmission main will need to include an isolation valve (likely a 30” size) situated within a vault, located on the northern end of the proposed alignment. Connections to the existing transmission main on either end of the new pipe will be outside of the street and within public right-of-way or an existing pipeline easement on private property. The existing pipeline and appurtenances will be abandoned after the new one has been put in service between the Project connection points. Pavement repairs and landscaping repairs will also occur in the area of the abandoned portion of the pipeline.

Pipeline construction would need to occur during the January to March timeframe when systemwide demands are at their lowest for the year and the transmission main can be removed from service in approximately 10 days. Pipeline construction is anticipated for January to March 2026. The pipeline segments would be assembled offsite and transported to the site for installation. Traffic control will be required for the portion of Camino del Avion where the pipeline will be relocated or if the pipeline is relocated into the adjacent sidewalk, and at least one lane of Camino del Avion will need to be temporarily closed to traffic while the construction occurs. Traffic control plans will be consistent with the City of Laguna Niguel requirements. Once the new

pipeline is constructed, water will be routed through it and operations will continue as before, with no new maintenance trips anticipated.

Baseline Noise Level Sampling

To characterize and quantify the existing outdoor ambient sound environment prior to Project construction, a field measurement survey was performed on November 20, 2024. Exhibit 1 displays with tagged pinpoints the four representative offsite community locations (indicative of nearest residential land uses to the Project) where an investigator measured sound pressure level (SPL) for a total of 15 minutes per sampling period. Table 1 presents summarized acoustical metrics, including energy-equivalent level (L_{eq}), maximum sound level (L_{max}), and minimum sound level (L_{min}) for the indicated time period at each of these four survey locations. An American National Standards Institute (ANSI) “Type 1” sound level meter (SLM, a Rion brand NL-52 model analyzer) was used to conduct these baseline SPL measurements, and Attachment A, Baseline Ambient Noise Measurement Documentation (“IForms”), includes the survey field notes and photographs of the monitoring positions.

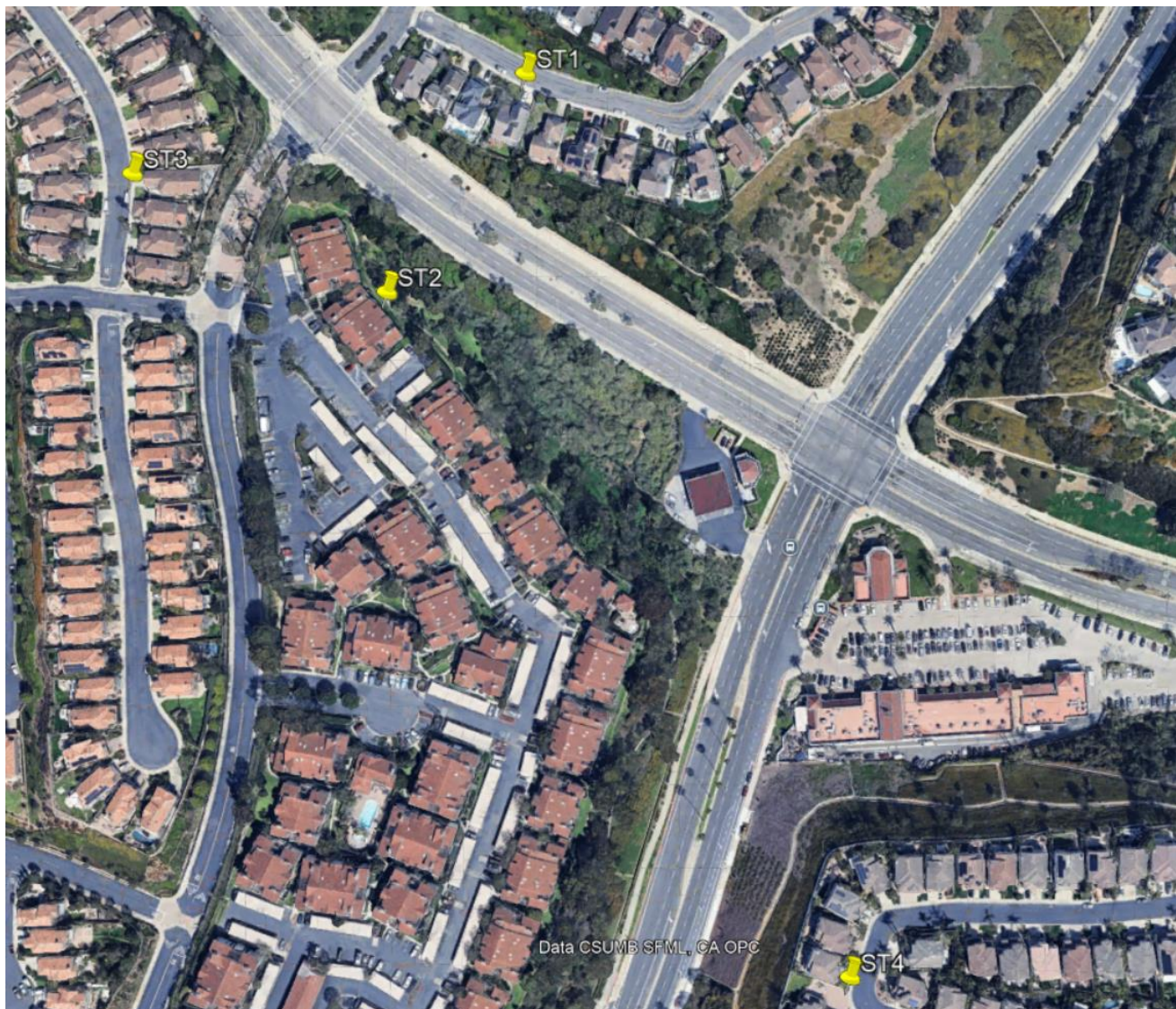


Exhibit 1. Baseline Outdoor Sound Level Measurement Survey Positions (yellow pinpoints)

Table 1: Baseline Outdoor Ambient Sound Level Measurements

Exhibit 1 Survey Position Tag	Time	L_{eq} (dBA)	L_{max} (dBA)	L_{min} (dBA)
ST1	11:15 AM to 11:30 AM	45.6	64.2	38.3
ST2	11:39 AM to 11:54 AM	47.3	66.1	41.1
ST3	12:00 PM to 12:15 PM	55.3	72.7	41.3
ST4	12:27 PM to 12:42 PM	47.5	63.1	39.2

Source: Attachment A

Notes: L_{eq} = energy-equivalent sound level; L_{max} = maximum sound level; L_{min} = min; dBA = A-weighted decibels

Based on these short-term outdoor ambient SPL measurement samples during daytime hours as appearing in Table 1, L_{eq} values range between 45 dBA and 55 dBA and are consistent with expectations with respect to observed acoustical contributors that include local (e.g., Camino del Avion) and distant roadway traffic, bird song, nearby conversation speech, distant landscaping, and leaves rustling. Survey positions ST1 and ST2, representing noise-sensitive receivers (NSR) in the cities of Laguna Niguel and Dana Point, respectively, are located nearest to the Project pipeline alignment planned under the Camino del Avion westbound roadway lanes or the adjoining easement to the south.

Regulatory Setting

As the Project is bounded by residential communities in two municipalities, the following are summaries of applicable local noise regulations and recommended guidance at the federal and/or state level.

Federal Transit Administration Guidance

In its Transit Noise and Vibration Impact Assessment Manual, the Federal Transit Administration (FTA) recommends a daytime construction noise level threshold of 80 dBA L_{eq} over an 8-hour period (FTA 2018) when detailed construction noise assessments are performed to evaluate potential impacts to community residences surrounding a project. Although this FTA guidance is not a binding regulation, it is provided here for comparison purposes and to establish a quantitative threshold of significance for construction noise in the absence of such limits at the state and/or local jurisdictional levels.

Local Noise Regulations

City of Laguna Niguel

Section 6-6-7 (5) from the City's municipal code exempts construction activities associated with "any real property" from its default exterior noise thresholds (enumerated in code Section 6-6-5) "provided such activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a federal holiday." (City of Laguna Niguel 1990)

Section 6-6-7 (11) exempts construction activities associated with "any facilities owned by or operated by the city or a utility, including, but not limited to, water, sewer, electricity, gas, storm drain, traffic control, telephone and cable television" from its default exterior noise thresholds "provided the director of public works determines that an unusual or unique condition exists and that all other reasonable alternatives are not feasible for the construction, repair or maintenance to take place between 7:00 a.m. and 8:00 p.m. on weekdays, including Saturdays." (City of Laguna Niguel 1990) The "unusual conditions" reproduced from Section 6-6-7 (11) of the City's municipal code are as follows:

- a. Construction, repair or maintenance of a public street that would have an adverse impact on the flow of traffic on that street if such construction, repair or maintenance took place between 7:00 a.m. and 8:00 p.m. on weekdays, including Saturday.
- b. Construction, installation, maintenance or repair of water, sewer, electricity, gas, storm drain, traffic control, telephone or cable television lines and appurtenant facilities when there would be less

interference with the use of such utilities and facilities by members of the public at night than during normal working hours.

- c. Sewer line repairs when there would be minimal flow in the line at night.
- d. Construction, repair or maintenance of facilities over existing public streets, such as power lines and bridges.
- e. Construction, repair or maintenance of a public street that requires that the street be closed in both directions.
- f. Construction, repair or maintenance of a public street that is at or near a freeway, especially if the state department of transportation requires that such work be done at night.

In summary, daytime construction activity noise is exempt, and satisfaction of any of the above-listed conditions would enable nighttime construction noise—should it need to occur—to be exempt as well for all days except Sundays and federal holidays.

City of Dana Point

The City provides the following exemption from Noise Zone 1 exterior and interior noise limits per Section 11.10.014.e of its municipal code that states as follows: “Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday, with the exception of work on Pacific Coast Highway between the San Juan Creek Bridge and Crystal Lantern which is defined in Subsection (k) of this Section.” (City of Dana Point 2024) Hence, as long as Project work does not occur during this period when the exemption does not apply, there is no quantified noise threshold within which the Project activities must comply. However, should Project construction activities take place “between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a Federal holiday,” then the City’s normal exterior noise level thresholds per Section 11.10.010 would apply and likely necessitate the need for the planned temporary noise wall—or the allocation of resources to tennis facility and/or offsite residential recipients.

Although Section 11.10.010.c provides an opportunity to upgrade noise standards on the basis of measured outdoor ambient sound levels that may exceed the default limits, which are 55 dBA during daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA during nighttime hours (10:00 p.m. to 7:00 a.m.), the measurement samples at ST2, ST3, and ST4 either match or are lower than the daytime default limit of 55 dBA and would thus not qualify to raise the standards.

Roadway Construction Modeling Results

Construction activities include temporary noise and vibration sources with emission levels varying from hour to hour and day to day, depending on the equipment in use, the operations performed, and the distance between the source and receptor. Construction noise modeling with a Microsoft Excel-based noise prediction technique emulating the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) and using its reference

equipment noise level data. Input variables include the equipment type (e.g., backhoe, excavator, pump), the number of equipment pieces, the "acoustical usage factor" (AUF) for each piece of equipment (i.e., percentage of time that equipment actually works under full load conditions and exhibits L_{max} noise emission magnitudes), number of hours during which the onsite equipment is active, and the distance from the sensitive receptor.

With this RCNM emulator, noise emissions from the Project's construction activities were calculated at the nearest noise-sensitive land uses, specifically the exteriors of residences at three locations along Corniche Road and similarly three along Lanteen Road, with distances ranging from 75 to 260 feet as shown in Exhibit 2. Receptors along Lanteen Road are located in Laguna Niguel, while those along Corniche Road are in Dana Point. Both cities, as discussed in the preceding section of this document, allow for temporary noise level exceedances caused by construction during the hours of 7:00 a.m. to 8:00 p.m.

The anticipated construction equipment for each sequential phase of the Project is detailed in Attachment B, Construction Noise Modeling Worksheets. For purposes of this assessment, and in a manner similar to the Federal Transit Administration (FTA) "detailed assessment" approach for estimating construction noise exposures, each piece of equipment is conservatively assumed to operate on the Project alignment for a full eight hours (albeit not at full load for the entirety of this period, hence application of equipment AUF) and share the same perpendicular distance to the studied receptor location. The model does consider both horizontal distances and the elevations of sources and receptors relative to a common grade level. For two of the studied receptors, Corniche 2 and Corniche 3, two receptor elevations were studied: first floor and second floor, the latter of which would have clear line-of-sight to the Project despite the presence of an existing property line wall. The prediction results are summarized in Table 2.

Table 2. Predicted Project Construction Noise Levels

Task/Activity	Corniche 1	Corniche 2*	Corniche 3*	Lanteen 1	Lanteen 2	Lanteen 3
	$L_{eq\ 8hr}$ (dBA)	$L_{eq\ 8hr}$ (dBA)	$L_{eq\ 8hr}$ (dBA)	$L_{eq\ 8hr}$ (dBA)	$L_{eq\ 8hr}$ (dBA)	$L_{eq\ 8hr}$ (dBA)
Trenching	80.0	73.6	69.7	77.0	75.5	72.3
Pipeline Installation	79.8	71.9	68.0	76.5	73.8	70.6
Road Resurface and Clean up	77.4	69.4	65.5	74.1	71.3	68.1

Note: $L_{eq\ 8hr}$ = average noise level equivalent over an 8-hour period; dBA = A-weighted decibel. *at the second floor receptor position

Source: Attachment B

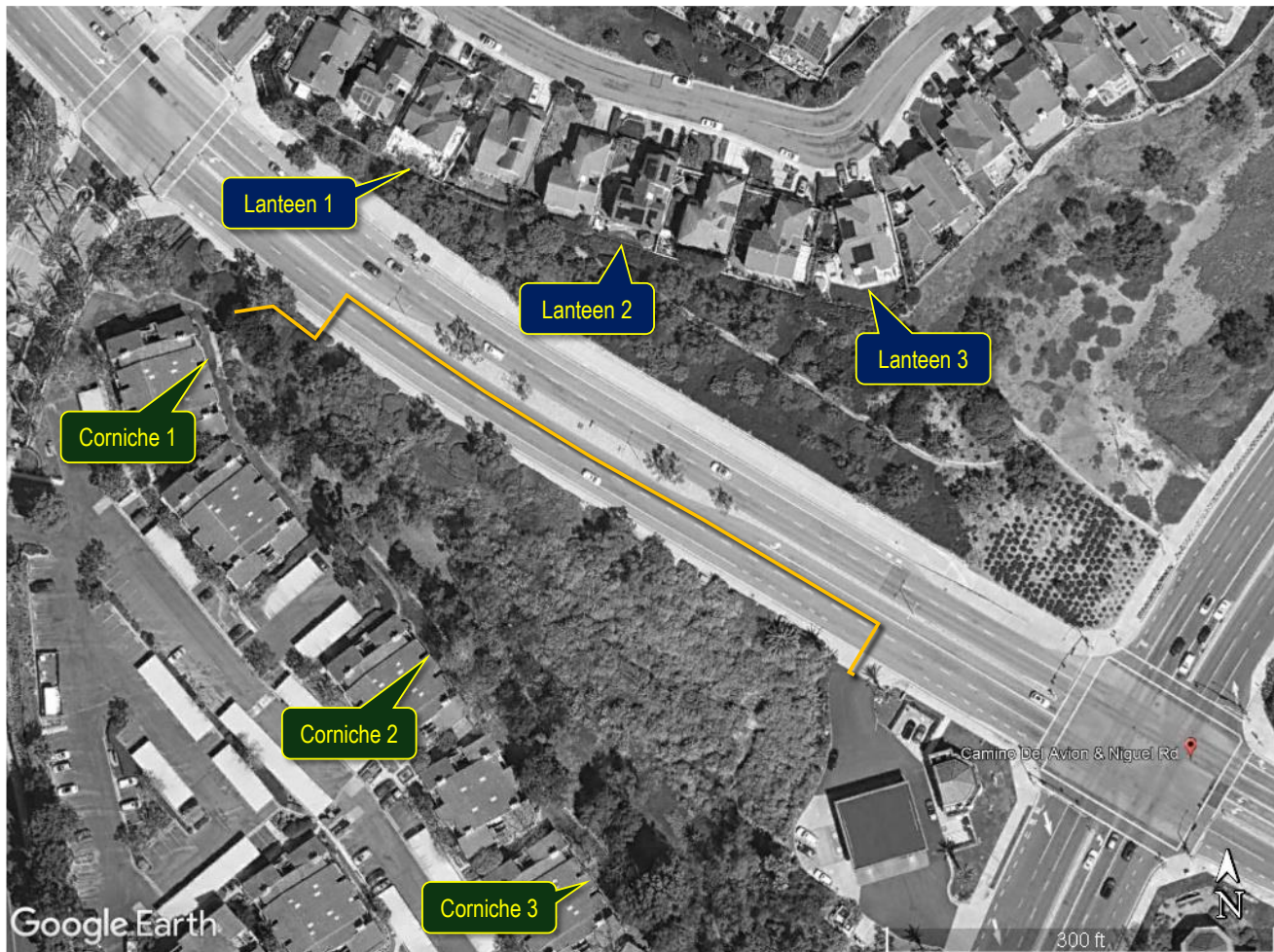


Exhibit 2. Studied Representative Noise-sensitive Receptor Locations (callouts) vis-à-vis Project Alignment (orange line segments)

Because Dana Point and Laguna Niguel allow for construction noise to be exempt from their respective default exterior noise limits during prescribed daytime hours, there are no effective quantified construction noise exposure limits for these time periods during which Project construction is expected to occur. Hence, the FTA guidance-based limit of 80 dBA 8-hour L_{eq} can be used for purposes of this construction noise assessment and thus be consistent with CEQA expectation of evaluating temporary increase in outdoor ambient sound levels with respect to “applicable standards of other agencies.” The significance of the magnitude of an ambient noise level increase resulting from Project construction activity is inherently evaluated by application of this FTA standard, since it presumes there is some pre-existing outdoor ambient sound level (such as the measured samples appearing in Table 1) to which Project construction noise would add and result in a future noise level. Therefore, this FTA fixed-value construction noise limit accounts for the pre-Project outdoor ambient noise level associated with each studied receptor location such that an outdoor ambient noise level increase that exceeds this limit would be considered sufficiently substantial and therefore a significant impact.

Since the predicted 8-hour L_{eq} values in Table 2 for construction noise do not exceed 80 dBA, it can be concluded that increases in outdoor sound level attributed to the Project, while potentially double-digit increases when compared to the measured samples of Table 1, would nonetheless be considered less than significant and not require mitigation.

With respect to roadway traffic noise, closure of one or more lanes of westbound Camino del Avion traffic as a result of traffic control plans (beyond the scope of this memorandum) would be expected to exhibit the net effect of decreasing vehicle volumes and average roadway vehicle speeds, both of which are factors that decrease traffic noise and would thus not cause perceptible increases to the outdoor ambient sound environment. For this reason, traffic noise impacts attributed to the Project would be less than significant.

With both construction and traffic noise impacts evaluated herein as being less than significant environmental noise impacts, this memorandum can support a CEQA Categorical Exemption for the Project.

Should South Coast Water District have any questions regarding these measurements, predictive analyses or their corresponding findings please do not hesitate to contact Mr. Carson Wong (cwong@dudek.com) or Mr. Mark Storm (mstorm@dudek.com).

Sincerely,



Mark Storm, INCE Bd. Cert.
Acoustic Services Manager



Carson Wong
Environmental Acoustician

References

- City of Dana Point. 2024. Code of Ordinances. Title 11. Chapter 11.10 Noise Control. Accessed January 15, 2025 at <https://ecode360.com/42957293?highlight=noise&searchId=17745720766405100#42957293>
- City of Laguna Niguel. 1990. Code of Ordinances. Title 6. Division 6 Noise Control. Article 1. Accessed January 15, 2025 at https://library.municode.com/ca/laguna_niguel/codes/code_of_ordinances?nodeId=TIT6HESA_DIV6NOCO_ART1GEPR_S6-6-5EXNOST
- Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual*. FTA Report No. 0123. John A. Volpe National Transportation Systems Center. September. Accessed January 25, 2022 at https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

Attachment A

Baseline Ambient Noise Measurement Documentation ("IForms")

Field Noise Measurement Data

Record: 2010

Project Name	Reach 6
Observer(s)	
Date	2024-11-20

Meteorological Conditions

Temp (F)	65
Humidity % (R.H.)	45
Wind	Light
Wind Speed (MPH)	4
Wind Direction	South West
Sky	Sunny

Instrument and Calibrator Information

Instrument Name List	(ENC) Rion NL-52
Instrument Name	(ENC) Rion NL-52
Instrument Name Lookup Key	(ENC) Rion NL-52
Manufacturer	Rion
Model	NL-52
Serial Number	553896
Calibrator Name	(ENC) LD CAL150

FORMS FIELD DATA REPORT

Calibrator Name	(ENC) LD CAL150
Calibrator Name Lookup Key	(ENC) LD CAL150
Calibrator Manufacturer	Larson Davis
Calibrator Model	LD CAL150
Calibrator Serial #	5152
Pre-Test (dBA SPL)	94
Post-Test (dBA SPL)	94
Windscreen	Yes
Weighting?	A-WTD
Slow/Fast?	Slow

Monitoring	
Record #	1
Site ID	ST1
Site Location Lat/Long	33.491096, -117.712300
Begin (Time)	11:15:00
End (Time)	11:30:00
Leq	45.6
Lmax	64.2
Lmin	38.3
Other Lx?	L90, L50, L10
L90	40.1
L50	42.3

FORMS FIELD DATA REPORT

L10	46.4
Other Lx (Specify Metric)	L
Primary Noise Source	Traffic
Other Noise Sources (Background)	Birds, Distant Aircraft, Distant Conversations / Yelling, Distant Dog Barking, Distant Gardener / Landscape Noise, Rustling Leaves
Is the same instrument and calibrator being used as previously noted?	Yes
Are the meteorological conditions the same as previously noted?	Yes

Description / Photos

Site Photos

Photo



Comments / Description

Facing east

Site Photos

Photo



Comments / Description

Facing west

Site Photos

Photo



Comments / Description

Facing south

Monitoring	
Record #	2
Site ID	ST2
Site Location Lat/Long	33.490218, -117.713217
Begin (Time)	11:39:00
End (Time)	11:54:00
Leq	57.3
Lmax	66.1
Lmin	41.1
Other Lx?	L90, L50, L10
L90	45.5
L50	54.3
L10	60.1
Other Lx (Specify Metric)	L
Primary Noise Source	Traffic
Other Noise Sources (Background)	Birds, Distant Conversations / Yelling, Distant Traffic, Rustling Leaves
Is the same instrument and calibrator being used as previously noted?	Yes
Are the meteorological conditions the same as previously noted?	Yes

Site Photos	
Photo	
Comments / Description	Facing east

Site Photos	
Photo	

FORMS DUDEK FIELD DATA REPORT	
Comments / Description	Facing west

Site Photos	
Photo	
Comments / Description	Facing south

Monitoring	
Record #	3
Site ID	ST3
Site Location Lat/Long	33.490722, -117.714588
Begin (Time)	12:00:00
End (Time)	12:15:00
Leq	55.3
Lmax	72.7

FORMS FIELD DATA REPORT

Lmin	41.3
Other Lx?	L90, L50, L10
L90	42.7
L50	45.1
L10	53.4
Other Lx (Specify Metric)	L
Primary Noise Source	Traffic
Other Noise Sources (Background)	Birds, Distant Gardener / Landscape Noise, Rustling Leaves
Is the same instrument and calibrator being used as previously noted?	Yes
Are the meteorological conditions the same as previously noted?	Yes

Description / Photos

Site Photos

Photo

FORMS DUDEK FIELD DATA REPORT	
Comments / Description	Facing south

Site Photos	
Photo	
Comments / Description	Facing north

Site Photos	
Photo	

Comments / Description	Facing east
------------------------	-------------

Monitoring	
Record #	4
Site ID	ST4
Site Location Lat/Long	33.487629, -117.711185
Begin (Time)	12:27:00
End (Time)	12:42:00
Leq	47.5
Lmax	63.1
Lmin	39.2
Other Lx?	L90, L50, L10
L90	41.8
L50	44.7
L10	49.2
Other Lx (Specify Metric)	L
Primary Noise Source	Traffic
Other Noise Sources (Background)	Birds, Distant Conversations / Yelling, Distant Traffic, Rustling Leaves
Is the same instrument and calibrator being used as previously noted?	Yes
Are the meteorological conditions the same as previously noted?	Yes

Site Photos	
Photo	
Comments / Description	Facing north

Site Photos	
Photo	

FORMS DUDEK FIELD DATA REPORT	
Comments / Description	Facing south

Site Photos	
Photo	
Comments / Description	Facing west

Attachment B

Construction Noise Modeling Worksheets

To User: bordered cells are inputs, unbordered cells have formulae
enter "0" to turn off air or grnd absorption terms, "1" to turn on

air abs?

grnd abs?

magnitude of threshold (dBA) =

allowable hours over which Leq is to be averaged =

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)

= Barrier of input height inserted between source and receptor

Phase No.	Project Phase Description	Comparable FHWA RCNM Construction Equipment Type	Quantity	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Source to NSR Distance (ft.)	Temporary Barrier Insertion Loss (dB)	Additional Noise Reduction	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
1	Trenching (over an 8-hour period to cover 75' of alignment)	excavator	1	40	81	110	0		74.0	6	360	69	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		concrete saw	1	20	90	110	0		83.0	6	360	75	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		backhoe	1	40	78	110	0		71.0	6	360	66	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		dump truck	1	40	76	110	0		69.0	6	360	64	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		skidsteer*	1	40	80	110	0		73.0	6	360	68	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		Total Aggregate Noise Exposure from Trenching (over an 8-hour period to cover 75' of alignment) Phase											77.0															
2	Pipeline Installation (over an 8-hour period to cover 75' of alignment)	gradall	1	40	83	110	0		76.0	8	480	72	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		generator	1	50	72	110	0		65.0	8	480	62	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		backhoe	1	40	78	110	0		71.0	8	480	67	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		excavator	2	40	81	110	0		74.0	8	480	73	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		flat bed truck	1	40	74	110	0		67.0	8	480	63	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		Total Aggregate Noise Exposure from Pipeline Installation (over an 8-hour period to cover 75' of alignment) Phase											76.5															
3	Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment)	paver	1	50	77	110	0		70.0	8	480	67	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		roller	1	20	80	110	0		73.0	8	480	66	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		backhoe	1	40	78	110	0		71.0	8	480	67	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		dump truck	1	40	76	110	0		69.0	8	480	65	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		skidsteer*	1	40	80	110	0		73.0	8	480	69	5	30	7	105	5	110	105.0	23.5	112.8	0.00	0.1	24.5	17.5	0.3	0.4	0.0
		Total Aggregate Noise Exposure from Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment) Phase											74.1															

To User: bordered cells are inputs, unbordered cells have formulae
enter "0" to turn off air or grnd absorption terms, "1" to turn on

air abs?

grnd abs?

magnitude of threshold (dBA) =

allowable hours over which Leq is to be averaged =

80

8

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)

= Barrier of input height inserted between source and receptor

Phase No.	Project Phase Description	Comparable FHWA RCNM Construction Equipment Type	Quantity	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Source to NSR Distance (ft.)	Temporary Barrier Insertion Loss (dB)	Additional Noise Reduction	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
1	Trenching (over an 8-hour period to cover 75' of alignment)	excavator	1	40	81	150	0		71.3	8	480	67	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		concrete saw	1	20	90	150	0		80.3	8	480	73	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		backhoe	1	40	78	150	0		68.3	8	480	64	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		dump truck	1	40	76	150	0		66.3	8	480	62	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		skidsteer*	1	40	80	150	0		70.3	8	480	66	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
												75.5																
2	Pipeline Installation (over an 8-hour period to cover 75' of alignment)	gradall	1	40	83	150	0		73.3	8	480	69	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		generator	1	50	72	150	0		62.3	8	480	59	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		backhoe	1	40	78	150	0		68.3	8	480	64	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		excavator	2	40	81	150	0		71.3	8	480	70	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		flat bed truck	1	40	74	150	0		64.3	8	480	60	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
												73.8																
3	Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment)	paver	1	50	77	150	0		67.3	8	480	64	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		roller	1	20	80	150	0		70.3	8	480	63	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		backhoe	1	40	78	150	0		68.3	8	480	64	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		dump truck	1	40	76	150	0		66.3	8	480	62	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
		skidsteer*	1	40	80	150	0		70.3	8	480	66	5	38	7	145	5	150	145.0	31.4	153.6	0.00	0.1	28.5	21.5	0.2	0.4	0.0
												71.3																

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air abs?

grnd abs?

magnitude of threshold (dBA) =

allowable hours over which Leq is to be averaged =

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)

= Barrier of input height inserted between source and receptor

Phase No.	Project Phase Description	Comparable FHWA RCNM Construction Equipment Type	Quantity	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Source to NSR Distance (ft.)	Temporary Barrier Insertion Loss (dB)	Additional Noise Reduction	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
1	Trenching (over an 8-hour period to cover 75' of alignment)	excavator	1	40	81	215	0		68.1	8	480	64	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		concrete saw	1	20	90	215	0		77.1	8	480	70	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		backhoe	1	40	78	215	0		65.1	8	480	61	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		dump truck	1	40	76	215	0		63.1	8	480	59	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		skidsteer*	1	40	80	215	0		67.1	8	480	63	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
									Total Aggregate Noise Exposure from Trenching (over an 8-hour period to cover 75' of alignment) Phase			72.3																
2	Pipeline Installation (over an 8-hour period to cover 75' of alignment)	gradall	1	40	83	215	0		70.1	8	480	66	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		generator	1	50	72	215	0		59.1	8	480	56	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		backhoe	1	40	78	215	0		65.1	8	480	61	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		excavator	2	40	81	215	0		68.1	8	480	67	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		flat bed truck	1	40	74	215	0		61.1	8	480	57	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
									Total Aggregate Noise Exposure from Pipeline Installation (over an 8-hour period to cover 75' of alignment) Phase			70.6																
3	Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment)	paver	1	50	77	215	0		64.1	8	480	61	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		roller	1	20	80	215	0		67.1	8	480	60	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		backhoe	1	40	78	215	0		65.1	8	480	61	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		dump truck	1	40	76	215	0		63.1	8	480	59	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
		skidsteer*	1	40	80	215	0		67.1	8	480	63	5	50	7	210	5	215	210.0	43.3	219.7	0.00	0.1	34.5	27.5	0.1	0.3	0.0
									Total Aggregate Noise Exposure from Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment) Phase			68.1																

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air abs?

grnd abs?

magnitude of threshold (dBA) =

allowable hours over which Leq is to be averaged =

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)

= Barrier of input height inserted between source and receptor

Phase No.	Project Phase Description	Comparable FHWA RCNM Construction Equipment Type	Quantity	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Source to NSR Distance (ft.)	Temporary Barrier Insertion Loss (dB)	Additional Noise Reduction	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
1	Trenching (over an 8-hour period to cover 75' of alignment)	excavator	1	40	81	75	0		77.3	8	480	73	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		concrete saw	1	20	90	100	0		83.3	8	480	76	5	11	0	5	95	100	7.1	95.6	100.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		backhoe	1	40	78	75	0		74.3	8	480	70	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		dump truck	1	40	76	75	0		72.3	8	480	68	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		skidsteer*	1	40	80	75	0		76.3	8	480	72	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
									Total Aggregate Noise Exposure from Trenching (over an 8-hour period to cover 75' of alignment) Phase			80.0																
2	Pipeline Installation (over an 8-hour period to cover 75' of alignment)	gradall	1	40	83	75	0		79.3	8	480	75	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		generator	1	50	72	75	0		68.3	8	480	65	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		backhoe	1	40	78	75	0		74.3	8	480	70	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		excavator	2	40	81	75	0		77.3	8	480	76	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		flat bed truck	1	40	74	75	0		70.3	8	480	66	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
									Total Aggregate Noise Exposure from Pipeline Installation (over an 8-hour period to cover 75' of alignment) Phase			79.8																
3	Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment)	paver	1	50	77	75	0		73.3	8	480	70	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		roller	1	20	80	75	0		76.3	8	480	69	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		backhoe	1	40	78	75	0		74.3	8	480	70	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		dump truck	1	40	76	75	0		72.3	8	480	68	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
		skidsteer*	1	40	80	75	0		76.3	8	480	72	5	11	0	5	70	75	7.1	70.9	75.2	0.00	0.1	8.0	8.0	0.6	0.6	0.1
									Total Aggregate Noise Exposure from Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment) Phase			77.4																

To User: bordered cells are inputs, unbordered cells have formulae
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air abs?

grnd abs?

magnitude of threshold (dBA) =

80

allowable hours over which Leq is to be averaged =

8

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)

= Barrier of input height inserted between source and receptor

Phase No.	Project Phase Description	Comparable FHWA RCNM Construction Equipment Type	Quantity	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Source to NSR Distance (ft.)	Temporary Barrier Insertion Loss (dB)	Additional Noise Reduction	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
1	Trenching (over an 8-hour period to cover 75' of alignment)	excavator	1	40	81	185	8		59.9	8	480	56	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		concrete saw	1	20	90	185	8		68.9	8	480	62	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		backhoe	1	40	78	185	8		56.9	8	480	53	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		dump truck	1	40	76	185	8		54.9	8	480	51	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		skidsteer*	1	40	80	185	8		58.9	8	480	55	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
									Total Aggregate Noise Exposure from Trenching (over an 8-hour period to cover 75' of alignment) Phase			64.1																
2	Pipeline Installation (over an 8-hour period to cover 75' of alignment)	gradall	1	40	83	185	8		61.9	8	480	58	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		generator	1	50	72	185	8		50.9	8	480	48	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		backhoe	1	40	78	185	8		56.9	8	480	53	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		excavator	2	40	81	185	8		59.9	8	480	59	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		flat bed truck	1	40	74	185	8		52.9	8	480	49	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
									Total Aggregate Noise Exposure from Pipeline Installation (over an 8-hour period to cover 75' of alignment) Phase			62.4																
3	Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment)	paver	1	50	77	185	8		55.9	8	480	53	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		roller	1	20	80	185	8		58.9	8	480	52	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		backhoe	1	40	78	185	8		56.9	8	480	53	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		dump truck	1	40	76	185	8		54.9	8	480	51	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
		skidsteer*	1	40	80	185	8		58.9	8	480	55	5	25	27	180	5	185	181.3	5.4	186.1	0.65	11.1	42.0	15.0	0.0	0.5	8.4
									Total Aggregate Noise Exposure from Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment) Phase			59.9																

To User: bordered cells are inputs, unbordered cells have formulae
enter "0" to turn off air or grnd absorption terms, "1" to turn on

air abs?

grnd abs?

magnitude of threshold (dBA) =

80

allowable hours over which Leq is to be averaged =

8

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)

= Barrier of input height inserted between source and receptor

Phase No.	Project Phase Description	Comparable FHWA RCNM Construction Equipment Type	Quantity	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Source to NSR Distance (ft.)	Temporary Barrier Insertion Loss (dB)	Additional Noise Reduction	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
1	Trenching (over an 8-hour period to cover 75' of alignment)	excavator	1	40	81	185	0		69.4	8	480	65	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		concrete saw	1	20	90	185	0		78.4	8	480	71	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		backhoe	1	40	78	185	0		66.4	8	480	62	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		dump truck	1	40	76	185	0		64.4	8	480	60	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		skidsteer*	1	40	80	185	0		68.4	8	480	64	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
									Total Aggregate Noise Exposure from Trenching (over an 8-hour period to cover 75' of alignment) Phase			73.6																
2	Pipeline Installation (over an 8-hour period to cover 75' of alignment)	gradall	1	40	83	185	0		71.4	8	480	67	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		generator	1	50	72	185	0		60.4	8	480	57	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		backhoe	1	40	78	185	0		66.4	8	480	62	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		excavator	2	40	81	185	0		69.4	8	480	68	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		flat bed truck	1	40	74	185	0		62.4	8	480	58	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
									Total Aggregate Noise Exposure from Pipeline Installation (over an 8-hour period to cover 75' of alignment) Phase			71.9																
3	Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment)	paver	1	50	77	185	0		65.4	8	480	62	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		roller	1	20	80	185	0		68.4	8	480	61	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		backhoe	1	40	78	185	0		66.4	8	480	62	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		dump truck	1	40	76	185	0		64.4	8	480	60	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
		skidsteer*	1	40	80	185	0		68.4	8	480	64	5	34	27	180	5	185	181.3	8.6	187.3	0.00	0.1	46.5	19.5	0.0	0.4	0.0
									Total Aggregate Noise Exposure from Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment) Phase			69.4																

To User: bordered cells are inputs, unbordered cells have formulae
enter "0" to turn off air or grnd absorption terms, "1" to turn on

air abs?

grnd abs?

magnitude of threshold (dBA) =

allowable hours over which Leq is to be averaged =

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)

= Barrier of input height inserted between source and receptor

Phase No.	Project Phase Description	Comparable FHWA RCNM Construction Equipment Type	Quantity	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Source to NSR Distance (ft.)	Temporary Barrier Insertion Loss (dB)	Additional Noise Reduction	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
1	Trenching (over an 8-hour period to cover 75' of alignment)	excavator	1	40	81	230	9		57.6	8	480	54	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		concrete saw	1	20	90	230	9		66.6	8	480	60	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		backhoe	1	40	78	230	9		54.6	8	480	51	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		dump truck	1	40	76	230	9		52.6	8	480	49	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		skidsteer*	1	40	80	230	9		56.6	8	480	53	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
									Total Aggregate Noise Exposure from Trenching (over an 8-hour period to cover 75' of alignment) Phase			61.8																
2	Pipeline Installation (over an 8-hour period to cover 75' of alignment)	gradall	1	40	83	230	9		59.6	8	480	56	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		generator	1	50	72	230	9		48.6	8	480	46	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		backhoe	1	40	78	230	9		54.6	8	480	51	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		excavator	2	40	81	230	9		57.6	8	480	57	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		flat bed truck	1	40	74	230	9		50.6	8	480	47	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
									Total Aggregate Noise Exposure from Pipeline Installation (over an 8-hour period to cover 75' of alignment) Phase			60.1																
3	Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment)	paver	1	50	77	230	9		53.6	8	480	51	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		roller	1	20	80	230	9		56.6	8	480	50	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		backhoe	1	40	78	230	9		54.6	8	480	51	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		dump truck	1	40	76	230	9		52.6	8	480	49	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
		skidsteer*	1	40	80	230	9		56.6	8	480	53	5	35	37	225	5	230	227.3	5.4	231.9	0.70	11.5	57.0	20.0	0.0	0.4	8.9
									Total Aggregate Noise Exposure from Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment) Phase			57.6																

To User: bordered cells are inputs, unbordered cells have formulae
enter "0" to turn off air or grnd absorption terms, "1" to turn on

air abs?

grnd abs?

magnitude of threshold (dBA) =

allowable hours over which Leq is to be averaged =

Source, receptor, and barrier all share same reference grade elevation; unless otherwise noted)

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Phase No.	Project Phase Description	Comparable FHWA RCNM Construction Equipment Type	Quantity	AUF % (from FHWA RCNM)	Reference Lmax @ 50 ft. from FHWA RCNM	Source to NSR Distance (ft.)	Temporary Barrier Insertion Loss (dB)	Additional Noise Reduction	Distance-Adjusted Lmax	Allowable Operation Time (hours)	Allowable Operation Time (minutes)	Predicted 8-hour Leq	Source Elevation (ft)	Receiver Elevation (ft)	Barrier Height (ft)	Source to Barr. ("A") Horiz. (ft)	Rcvr. to Barr. ("B") Horiz. (ft)	Source to Rcvr. ("C") Horiz. (ft)	"A" (ft)	"B" (ft)	"C" (ft)	Path Length Diff. "P" (ft)	Abarr (dB)	Heff (with barrier)	Heff (wout barrier)	G (with barrier)	G (without barrier)	ILbarr (dB)
1	Trenching (over an 8-hour period to cover 75' of alignment)	excavator	1	40	81	260	0		65.5	8	480	62	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		concrete saw	1	20	90	260	0		74.5	8	480	68	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		backhoe	1	40	78	260	0		62.5	8	480	59	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		dump truck	1	40	76	260	0		60.5	8	480	57	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		skidsteer*	1	40	80	260	0		64.5	8	480	61	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
									Total Aggregate Noise Exposure from Trenching (over an 8-hour period to cover 75' of alignment) Phase			69.7																
2	Pipeline Installation (over an 8-hour period to cover 75' of alignment)	gradall	1	40	83	260	0		67.5	8	480	64	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		generator	1	50	72	260	0		56.5	8	480	54	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		backhoe	1	40	78	260	0		62.5	8	480	59	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		excavator	2	40	81	260	0		65.5	8	480	65	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		flat bed truck	1	40	74	260	0		58.5	8	480	55	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
									Total Aggregate Noise Exposure from Pipeline Installation (over an 8-hour period to cover 75' of alignment) Phase			68.0																
3	Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment)	paver	1	50	77	260	0		61.5	8	480	59	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		roller	1	20	80	260	0		64.5	8	480	58	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		backhoe	1	40	78	260	0		62.5	8	480	59	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		dump truck	1	40	76	260	0		60.5	8	480	57	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
		skidsteer*	1	40	80	260	0		64.5	8	480	61	5	44	37	255	5	260	257.0	8.6	262.9	0.00	0.1	61.5	24.5	0.0	0.3	0.0
									Total Aggregate Noise Exposure from Road Resurface and Clean-up (over an 8-hour period to cover 75' of alignment) Phase			65.5																

January 27, 2025

16812

Vernon Weisman, P.E., Principal Engineer
South Coast Water District
31592 West Street
Laguna Beach, CA 92651

Subject: Biological Resources Letter Report for RFTOP 25-0017 Joint Regional Water Supply System Joint Transmission Main Unit 3 Reach 6 Relocation along Camino Del Avion between Ritz Pointe Drive to Niguel Road

Dear Mr. Weisman:

South Coast Water District (SCWD or District), the contract operator for the Joint Regional Water Supply System (JRWSS), is proposing to relocate an approximately 650-foot-long segment of the existing 36-inch-wide potable water Joint Transmission Main (JTM) from an easement in a ravine south of Camino Del Avion. Apart from this segment, the remainder of the JTM along Camino Del Avion has already been relocated over the previous 40 years. The existing JTM in the current easement established in the 1960's lies within a steep and overgrown ravine and is difficult to access for pipeline maintenance.

This letter report details the methodology and results of Dudek's field reconnaissance survey and analysis of biological resources along the proposed JRWSS JTM Unit 3 Reach 6 Relocation Project (project) on the border between the cities of Dana Point and Laguna Niguel, California (Attachment A: Figure 1, Project Location).

For the purposes of this report, the project site is defined as the utility easement located along the northeastern extent of the Ritz Pointe residential development in addition to the right-of-way (ROW) located within Camino Del Avion. This approximately 3.46-acre footprint includes the existing water main as well as the proposed water main within the road; however, project activities involving the construction of the new potable water transmission main, connection points to the existing pipeline, an isolation valve and vault, an air/vacuum valve assembly, a blowoff drain assembly, access points into the new pipeline, and pavement and landscaping repairs will primarily occur at the top of the ravine slope and within the Camino Del Avion road alignment. This report also reviews potential biological constraints within a 100-foot buffer around the project site, encompassing an 8.46-acre study area.

1 Project Location

As mentioned above, the project site straddles the boundary between Dana Point and Laguna Niguel in south Orange County, California (Figure 1), and is situated on the Dana Point U.S. Geological Survey (USGS) 7.5-minute quadrangle map within Section 09 of Township 8 South, Range 8 West of the U.S. Public Land Survey System. The project site is bounded by Niguel Road to the east, Ritz Pointe Drive to the west, the northern sidewalk of Camino del Avion to the north, and the Ritz Pointe residential development to the south, approximately 0.7-mile northeast of California State Route 1.

2 Methodology

2.1 Literature Review

Prior to conducting the field investigation, a literature search and database review was conducted by Dudek biologists to evaluate the natural resources found or potentially occurring within the study area. The database review included queries of the most recent versions of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) and the California Native Plant Society (CNPS) Rare Plant Inventory (CDFW 2025a; CNPS 2025a). These databases were reviewed to identify sensitive biological resources present or potentially present for the USGS 7.5-minute quadrangle on which the study area is located (i.e., Dana Point) and the five surrounding quadrangles (i.e., Laguna Beach, San Clemente, San Onofre Bluff, Canada Gobernadora, San Juan Capistrano). The review also includes the resource list returned in the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) tool query for the study area (USFWS 2025a).

Other literature reviewed included U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2025a); CDFW Biogeographic Information and Observation System (CDFW 2025b); A Manual of California Vegetation, Online Edition (CNPS 2025b); the CDFW California Natural Community list (CDFW 2023); State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2025c); State and Federally Listed Endangered and Threatened Animals of California (CDFW 2025d); and the CDFW California Wildlife Habitat Relationships (CWHR) Life History Accounts and Range Maps (CDFW 2025e).

The following available resources were reviewed to assess the potential for jurisdictional waters: aerial photographs (Google Earth 2025; NETR 2025); the subject USGS 7.5-minute topographic quadrangle map (USGS 2022); the National Hydrography Dataset and Watershed Boundary Dataset (USGS 2025); and the USFWS National Wetland Inventory (USFWS 2025b).

2.2 Special-Status Definitions

Special-Status Plant Species

Endangered, rare, or threatened plant species as defined in Section 15380(b) of the California Environmental Quality Act (CEQA) Guidelines (14 CCR 15000 et seq.) are referred to as “special-status plant species” and, as used in this report, include (1) plant species listed as endangered or threatened under the California Endangered Species Act (CESA) and/or the Federal Endangered Species Act (FESA) (CDFW 2025c); (2) plant species that are candidates for listing under CESA; and (3) plant species with a California Rare Plant Rank (CRPR) 1 or 2 as designated by the CNPS (2025a).

Special-Status Wildlife Species

Endangered, rare, or threatened wildlife species as defined in CEQA Guidelines, Section 15380(b) (14 CCR 15000 et seq.), are referred to as “special-status wildlife species” and, as used in this report, include (1) wildlife species listed as endangered or threatened under CESA and/or FESA (CDFW 2025d); (2) wildlife species that are candidates for listing under CESA; (3) California Species of Special Concern as designated by CDFW (2025f); and/or (4)

mammals and birds that are fully protected species as described in the California Fish and Game Code, Sections 4700 and 3511 (CDFW 2025g).

Special-Status Vegetation Communities

Special-status vegetation communities are those communities identified as high priority for inventory in the California Natural Communities List (CDFW 2023) by a state rarity ranking of S1, S2, S3, or have been separately identified in the list as sensitive. In addition, communities that are regulated by CDFW under California Fish and Game Code Sections 1600–1616, and/or that provide suitable habitat for special-status species may also be considered special status under CEQA.

2.3 Field Reconnaissance Survey

Dudek biologist Tracy Park performed the field survey on November 20, 2024. Temperatures during the survey were between 67- and 70-degrees Fahrenheit (°F), clear skies, and wind speeds ranging between 0 and 2 miles per hour. The biological survey included vegetation mapping, the mapping of sensitive biological resources, if present, within the project site, and an evaluation of the potential for special-status species to occur.

2.3.1 Vegetation Community and Land Cover Mapping

Methods for vegetation mapping followed CDFW's "Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities" (CDFW 2018) and the Survey of California Vegetation Classification and Mapping Standards (CDFW 2024). Where feasible, vegetation communities within the study area were mapped using CDFW's List of Vegetation Alliances and Associations (or California Natural Community List) (CDFW 2023), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) and A Manual of California Vegetation, Online Edition (CNPS 2025b). Vegetation communities and land covers were delineated to the vegetation association level. In cases where the vegetation classification standards from the CDFW Natural Communities List did not apply, classification standards from *Draft Vegetation Communities of San Diego County* (Oberbauer et al. 2008) or *Methods Used to Survey the Vegetation of Orange County Parks and Open Space Areas and The Irvine Company Property* (Jones and Stokes 1993) were incorporated to accommodate the lack of conformity of conditions observed on site (e.g., developed/disturbed land cover types).

Vegetation communities and other land cover types within the study area were mapped in the field using the Esri Field Maps, a mobile data collection application, on a digital aerial-based background (Esri 2025). Communities were classified based on dominant species and associated cover classes, site factors, stand descriptions (e.g., slope aspect, canopy structure), geographic setting, and characteristic species present within an area. Following completion of the fieldwork, all vegetation linework was finalized using Esri ArcGIS software and geographic information system coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover type within the study area was determined.

2.3.2 Plants

All native and naturalized plant species encountered within the study area during the survey were identified and recorded to the extent feasible given the available plant phenology. Latin and common names for plant species with a CRPR follow the names provided in the CNPS Rare Plant Inventory (CNPS 2025a). For plant species without

a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2025), and common names follow the USDA NRCS Plants Database (USDA 2025b).

2.3.3 Wildlife

A Dudek biologist walked portions of the study area to identify and record all wildlife species as detected during field surveys by sight, calls, tracks, scat, or other signs. In addition to species observed, expected wildlife usage of the site was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. No trapping or focused surveys for nocturnal species were conducted. Latin and common names of animals follow Crother (2012) for reptiles and amphibians, American Ornithological Society (AOS 2025) for birds, Wilson and Reeder (2005) for mammals, North American Butterfly Association (NABA 2025) for butterflies, and Moyle (2002) for fish.

2.3.4 Jurisdictional Aquatic Resources

A formal delineation of aquatic resources following the methodology described in U.S. Army Corps of Engineers (USACE) A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (USACE 2008a), 1987 Wetlands Delineation Manual (USACE 1987), and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008b) was not included within the scope of work for this survey effort and therefore not conducted during the field survey. However, the study area was evaluated for the potential to support jurisdictional aquatic resources regulated under the federal Clean Water Act, California Fish and Game Code, and Porter-Cologne Water Quality Act.

2.4 Special-Status Species Assessment

Dudek biologists performed a review of literature, existing documentation, geographic information system (GIS) data, and site specific information collected during the field reconnaissance survey to evaluate the potential for special-status plant or wildlife species to occur within the study area. Each special-status plant or wildlife species was assigned a rating of “not expected,” “low,” “moderate,” or “high” potential to occur based on relative location to known occurrences, vegetation communities and soils present, current site conditions, and each species’ known range, habitat associations, and/or elevation. Descriptions each rating is provided below:

- **Observed:** Species was documented within the study area during field survey efforts
- **High:** Habitat within the study area is suitable and species has been documented either within the study area or immediately adjacent to project boundary in recent records (i.e., within 20 years).
- **Moderate:** Habitat within the study area is suitable and species has been documented within 5 miles of study area in recent records (i.e., within 20 years).
- **Low:** Habitat within the study area is marginal, documented occurrences of species are historical (i.e., over 20 years old), and/or recent species occurrences are more than 5 miles of the study area.
- **Not expected:** Habitat within the study area is unsuitable, study area is outside of the known geographic range of the species, or the species was confirmed absent from the study area during protocol surveys for the species.

3 Environmental Setting

3.1 Climate

The study area is located in south Orange County, approximately 0.8-mile northeast of the Pacific Ocean. Orange County has a Mediterranean climate with cool, wet winters and warm, dry summers. Based on climate summaries from the nearest climate weather station, August is the average warmest month with an average maximum temperature of 78.1°F and January is the coolest month with an average minimum of 43°F (WRCC [Western Regional Climate Center] 2025). Rainfall occurs primarily between November and April, with the maximum average precipitation occurring in January (WRCC 2025). The mean annual rainfall for the region is 12.52 inches of rain per year (WRCC 2025).

3.2 Topography

The topography of the study area varies between the ravine portion of the project site and the developed or actively landscaped areas. The topography within the ravine consists of very steep and densely vegetated slopes that create a basin-like landform. The remainder of the study area consists generally flat areas that gently slope in a southeasterly direction. The residential development along the southern extent of the study area sits above the project site on a terraced slope. Elevations on site range between 172 feet above mean sea level (AMSL) and 240 feet AMSL (Google 2025).

3.3 Surrounding Land Use

The study area is located within a suburban residential neighborhood typical of Orange County. Residential housing tracts and associated landscaping are prevalent throughout the vicinity of the project site. Additionally, a commercial gas station occurs immediately southeast of the project area and a commercial strip mall is located across Niguel Road (Google 2025).

3.4 Soils

According to the USDA NRCS Web Soil Survey (USDA 2025a), three soil map unit types were identified within the study area: Calleguas clay loam, 50% to 75% slopes, eroded; Yorba cobbly sandy loam, 9% to 30% slopes, eroded; and Alo Clay, 15% to 30% slopes, dry. Calleguas clay loam is the only soil mapping unit that occurs within the unpaved portion of the project site. None of these map units are included in the U.S. Department of Agriculture NRCS hydric soils list (USDA 2025c). Based on historic aerial imagery (NETR 2024), the study area underwent substantial earthwork in the 1980s, which is expected to have eliminated or substantially altered the soils present.

Calleguas Clay Loam, 50% to 75% Slopes, Eroded

This soil map unit type is characterized by shallow, well-drained soils on steep uplands. These soils consist of clay loamy material weathered in place from calcareous shale bedrock. Typical vegetation includes annual grasses and forbs. This soil map unit exhibits an extreme amount of erosion, with a loss of up to 75% of the surface soils due to sheet, rill, or gully erosion (USDA 1978).

Yorba Cobbly Sandy Loam, 9% to 30% Slopes, Eroded

This soil map unit type is composed of well-drained soils on terraces. These soils consist of gravelly, sandy loam derived from mixed sources. Vegetation is primarily made up of annual grasses and forbs, but also includes some sagebrush and cactus. This soil map unit exhibits a severe amount of erosion, with a loss of up to 50% of the surface soils frequently due to gully erosion (USDA 1978).

Alo Clay, 15% to 30% Slopes, Dry

This soil map unit type is composed of well-drained soils on broad ridges and in foothills. These soils consist of a light clay weathered in place from sedimentary rocks such as sandstone and shale. Vegetation is primarily made up of annual grasses, mustards, and other forbs (USDA 1978).

4 Results

4.1 Vegetation Communities and Land Covers

Two vegetation communities and two land cover types were identified within the study area during the survey: pampas grass patches (*Cortaderia [jubata, selloana]* association), pepper tree or myoporum groves (*Schinus molle* association), urban/developed land, and ornamental plantings. These vegetation communities and land cover types are described below, their acreages are presented in Table 1, and their spatial distributions are presented in Figure 2, Biological Resources (Attachment A). Representative photos of the study area are included in Attachment B, Site Photographs.

Table 1. Vegetation Communities and Land Cover Types in the Study Area

Vegetation Community/ Land Cover Type	Alliance	Association	Acreage within the Project Site	Acreage within the Study Area (Project Site plus 100- foot buffer)
Pampas Grass Patches	<i>Cortaderia (jubata, selloana)</i> herbaceous semi-natural ¹	<i>Cortaderia (jubata, selloana)</i>	1.07	1.07
Pepper Tree or Myoporum Groves	<i>Schinus (molle, terebinthifolius)</i> – <i>Myoporum laetum</i> forest and woodland semi-natural ¹	<i>Schinus molle</i>	0.29	0.46
Urban/Developed	N/A	N/A	1.63	5.14
Ornamental Plantings	N/A	N/A	0.47	1.79
Total			3.46	8.46

Note: N/A = not applicable. ¹ Semi-natural alliances do not have conservation status rankings and are not considered sensitive.

4.1.1 Pampas Grass Patches

Pampas grass patches (*Cortaderia (jubata, selloana)* herbaceous semi-natural alliance) includes either purple pampas grass (*Cortaderia jubata*) or Uruguayan pampas grass (*Cortaderia selloana*) as the dominant species in the herbaceous layer or shrub canopy. Emergent trees and shrubs may be present at low cover (CNPS 2025b). The pampas grass patches vegetation community within the study area is dominated by purple pampas grass and was therefore mapped as the *Cortaderia (jubata, selloana)* association. The pampas grass patches alliance is ranked by CDFW (2023) as GNA and SNA, which indicates that a global or state rank is not applicable. Within the study area, this vegetation community was mapped within the ravine feature on site (Figure 2).

4.1.2 Pepper Tree or Myoporum Groves

Pepper tree or myoporum groves (*Schinus (molle, terebinthifolius)* – *Myoporum laetum* forest and woodland semi-natural alliance) includes either myoporum (*Myoporum laetum*), Peruvian peppertree (*Schinus molle*), or Brazilian peppertree (*Schinus terebinthifolius*) as the dominant species in the tree canopy. Shrubs may be present at lower cover with a variable herbaceous layer (CNPS 2025b). The pepper tree or myoporum groves vegetation community within the study area is dominated by Peruvian peppertree and was therefore mapped as the *Schinus molle* association. The pepper tree or myoporum groves alliance is ranked by CDFW (2023) as GNA and SNA, which indicates that a global or state rank is not applicable. Within the study area, this vegetation community was mapped on the slope located between the Ritz Pointe residential development and the ravine feature on site (Figure 2).

4.1.3 Urban/Developed Land

Although not recognized by the Manual of California Vegetation (CNPS 2025b) or the CDFW California Natural Community List (CDFW 2023), the urban/developed land cover type is described in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). According to Oberbauer et al. (2008), urban/developed land represents areas that have been constructed upon or otherwise physically altered to an extent that native vegetation communities are not supported. This land cover type generally includes permanent or semi-permanent structures, pavement or hardscape, landscaped areas, and areas with a large accumulation of debris or other materials (Oberbauer et al. 2008). Typically, this land cover type is unvegetated or only supports a variety of ornamental plants and landscaping. Paved ROWs, the gas station, and residential properties were mapped as urban/developed land within the study area.

4.1.4 Ornamental Plantings

Although not recognized by the Manual of California Vegetation (CNPS 2025b) or the CDFW California Natural Community List (CDFW 2023), the parks and ornamental plantings (or ornamental vegetation) land cover type is described in Methods Used to Survey the Vegetation of Orange County Parks and Open Space Areas and The Irvine Company Property (Jones and Stokes 1993). This mapping unit is described as vegetation comprised of non-native trees, shrubs, flowers, and turf grass introduced for landscaping purposes. This mapping unit type typically occurs in greenbelts, parks, and horticultural plantings (Jones and Stokes 1993). Ornamental plantings were mapped where non-native ornamental plant species were present at a cover of 75% or higher and did not occur in an assemblage described in the California Natural Community List. This land cover type was found on slopes adjacent to the roadways and in areas intervening housing and commercial developments (Figure 2).

4.2 Plants

A total of 28 plant species, three native (11%) and 25 non-native (89%), were recorded on the site. Plant species observed within the study area were predominantly composed of ornamental non-native species, indicative of the manicured nature of the site. The vegetation classified within the study area can be found in the vegetation community descriptions above and a list of plant species observed during the field survey is available in Attachment C, Species Compendium.

4.2.1 Special-Status Plant Species Assessment

Sixty-four plant species that meet the special-status definition in Section 2.2 above have recorded occurrences in the USGS Dana Point 7.5-minute quadrangle and five surrounding quadrangles (CDFW 2025a, CNPS 2025a) or are included in the IPaC report for the study area (USFWS 2025a). Each special-status plant species is assessed in Attachment D, Special-Status Plant Species Potential to Occur. The study area is not within any designated critical habitat (USFWS 2025c).

One southern California walnut tree (*Juglans californica*; CRPR 4.2) was observed on the north-facing slope of the ravine but is not located where project activities would occur (i.e., within 20 feet of the existing or proposed pipeline footprint). As discussed in Section 2.2, these trees are not considered special-status in this report pursuant to CEQA. However, plant species ranked CRPR 4 are considered to be on a watch list; therefore, the locations of these individuals were recorded and are provided in Figure 2 for project planning purposes. No other special-status plant species were observed in the study area during the survey, and no other special-status plant species are expected to occur within the study area.

4.3 Wildlife

Eight species of wildlife were observed during the survey. Wildlife species observed within the study area consisted solely of bird species. No amphibian species were observed. No reptile species were observed; however, western fence lizard (*Sceloporus occidentalis*) and common side-blotched lizard (*Uta stansburiana*) are common reptile species that could occur within the study area. No mammal species were observed but coyote (*Canis latrans*), common raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and Virginia opossum (*Didelphis virginiana*) are common mammal species that would be expected to occasionally pass through within the study area. A comprehensive list of wildlife species observed during the field survey is available in Attachment C.

4.3.1 Special-Status Wildlife Species Assessment

Thirty-seven wildlife species that meet the special-status definition in Section 2.2 above have recorded occurrences in the USGS Dana Point 7.5-minute quadrangle and eight surrounding quadrangles (CDFW 2025a) or are included in the IPaC report for the study area (USFWS 2025a). Each special-status wildlife species is assessed in Attachment E, Special-Status Wildlife Species Potential to Occur. The study area is not within any designated critical habitat (USFWS 2025c). No state- or federally-listed wildlife species were determined to have a potential to occur, and no non-listed special-status wildlife species were determined to have a moderate or high potential to occur within the study area due to lack of suitable habitat and microhabitat conditions.

4.4 Potential Jurisdictional Aquatic Resources

Although a formal jurisdictional delineation was not conducted during the field reconnaissance survey, the study area was evaluated for the potential to support jurisdictional waters regulated under the federal Clean Water Act, California Fish and Game Code, and the Porter-Cologne Water Quality Act (Porter-Cologne).

Potential waters of the state regulated by the Regional Water Quality Control Board (RWQCB) were identified along the bottom of the ravine on site. Specifically, an ordinary high watermark was observed within concrete v-ditches and the basin-like feature in the ravine bottom (Figure 2). These features likely collect and convey flows from landscaping irrigation and stormwater runoff into an underground stormwater drain system. Based on a review of current and historic aerial photographs and USGS topographic maps, these features observed on site are not remnant of a natural watercourse such as a river, stream, or lake, and lack hydrologic nexus with a Traditional Navigable Water. As such, these features would not fall under jurisdiction of the USACE or CDFW. The RWQCB, however, does regulate discharging waste within any region that could affect the quality of any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code, Section 13260[a]; California Water Code, Section 13050[e]) pursuant to provisions of Porter-Cologne. Under Porter-Cologne, the RWQCB regulates activities that result in the dredging, filling, or discharging materials into waters of the state that are not regulated by the USACE.

Compliance with Porter-Cologne Water Quality Act

The proposed project will be conducted in compliance with all applicable regulations, including the Porter-Cologne Water Quality Act regarding waters of the state. The project likely will not require disturbance or impacts to any aquatic features under RWQCB jurisdiction. Although the existing water main occurs within the ravine, all project activities are anticipated to occur at the top of the ravine slope and within the Camino Del Avion road alignment on each end of the existing line where connections to the new pipeline are proposed to be built. The existing pipeline will be filled with cellular concrete as a part of pipeline abandonment. During this process, there is a minor possibility that some work may be required within the ravine bottom. However, should dredging, filling, or discharging materials occur within the potential RWQCB-jurisdictional features mapped on site, a Wastewater Discharge Requirement (WDR) permit will be obtained with the local RWQCB (Santa Ana Regional Board).

4.5 Wildlife Movement, Wildlife Corridors, and Wildlife Nursery Sites

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Corridors can also be aquatic resources that provide passage for fish. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as steppingstones for wildlife dispersal.

On a regional level, the study area does not occur within any designated wildlife corridors or habitat linkages identified in the South Coast Missing Linkages analysis conducted by South Coast Wildlands (2008) or CDFW's California Essential Habitat Connectivity Project (Spenser et al. 2010), as shown in the CDFW BIOS (CDFW 2025b). The Project site provides no habitat connectivity with anything documented by the sources. Although the project site may provide live-in habitat for birds, reptiles, and small to medium mammals, the project site is isolated by

surrounding urban development and does not provide connectivity to significant open space areas or to natural features. The study area is isolated from streams that do support habitat, and therefore does not support fish movement.

Trees within the study area do not contain suitable cavities for bat maternities or overwintering roosts and are exposed to noise disturbance from traffic and urban development. In addition, no diagnostic signs of bird rookeries (e.g., numerous nests, whitewash) or large maternal or overwintering bat roosts (e.g., large concentrations of guano or guano odors) were identified in the study area. Therefore, it is unlikely for the study area to support wildlife nursery sites. The study area does contain vegetation that could provide nesting habitat for birds protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code Sections 3503, 3503.5, and 3513.

Compliance with Migratory Bird Treaty Act and California Fish and Game Code

The proposed project will be conducted in compliance with all applicable regulations, including the MBTA and California Fish and Game Code regarding migratory birds. Pursuant to MBTA and California Fish and Game Code, a qualified biologist will conduct a pre-construction survey for nesting birds and raptors within the project site and a 500-foot buffer no more than three days prior to any vegetation disturbance during the general avian breeding season (February 1–September 30). The project will avoid take of nesting birds protected under the MBTA and California Fish and Game Code by establishing appropriate no-construction buffer zones around any nests identified during the surveys. If the biologist does not find any active nests within or immediately adjacent to the impact areas, the vegetation clearing/construction work would be allowed to proceed. If the biologist finds an active nest within or immediately adjacent to the vegetation removal area and determines that the nest may be impacted or breeding activities substantially disrupted, the Biologist will delineate an appropriate no-work buffer zone around the nest depending on the sensitivity of the species, location of the nest, and the nature of the construction activity at their discretion. Construction personnel would be instructed on the sensitivity of nest areas and no-work buffers would remain in place until the nest is vacated, juveniles have fledged, and there is no evidence of a second attempt at nesting. Limits of construction to avoid an active nest would be established in the field with flagging or fencing, and construction personnel shall be instructed on the sensitivity of nest areas.

4.6 Habitat Conservation Plans/Natural Community Conservation Plans

The study area occurs within the County of Orange Central/Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan (OC Central/Coastal NCCP/HCP) (CDFW 2019). Construction of the project will not result in impacts to covered habitats or species. As such, the project would be in compliance with the biological goals and policies set forth in the OC Central/Coastal Subarea NCCP/HCP. The project is not within any other habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan (CDFW 2019).

4.7 Local Ordinances

The project would not conflict with local policies or ordinances protecting biological resources.

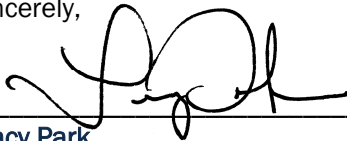
5 Conclusions

No sensitive vegetation communities, special-status plant species, and special-status wildlife species were identified within the study area. Additionally, no special-status or listed plant species are expected to occur, and no non-listed special-status wildlife have a moderate or higher potential to occur. The project site also is not within a designated wildlife corridor or habitat linkage and is not expected to be used as a wildlife corridor, habitat linkage, or native wildlife nursery site. As noted above in Section 4.5, the project will comply with regulations under the MBTA and the California Fish and Game Code. Furthermore, the project would not conflict with local policies or ordinances protecting biological resources.

Potential waters of the state regulated by the RWQCB were identified within concrete v-ditches and basin in the ravine bottom (Figure 2). The project likely will not result in impacts to any aquatic features under RWQCB jurisdiction as project activities are anticipated to occur at the top of the ravine slope and within the Camino Del Avion road alignment. Should dredging, filling, or discharging of materials occur within these potential RWQCB-jurisdictional features as part of project implementation, the proposed project will maintain compliance with the Porter-Cologne Water Quality Act and obtain a WDR permit with the Santa Ana RWQCB.

Therefore, no impacts are expected to occur to sensitive or special-status biological resources as a result of project implementation, and the project site has no value as habitat for endangered, rare, or threatened species.

Sincerely,



Tracy Park
Biologist

Att.: A – Figures
B – Photo Exhibit
C – Species Compendium
D – Special-Status Plant Species Potential to Occur
E – Special-Status Wildlife Species Potential to Occur
cc: Rachel Struglia, Dudek
Neil Harper, Dudek

6 References

AOS (American Ornithological Society). 2025. American Ornithological Society Checklist of North and Middle American Birds (Online). American Ornithological Society. Accessed January 2025.
<https://checklist.americanornithology.org/taxa/>.

CDFW (California Department of Fish and Wildlife. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. March 20, 2018. Accessed January 2025. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959>.

- CDFW. 2019. California Natural Community Conservation Plans. April 2019. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=68626&inline>.
- CDFW. 2023. California Natural Community List, June 1, 2023. Accessed January 2025. <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities>.
- CDFW. 2024. Survey of California Vegetation Classification and Mapping Standards, March 6, 2024. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=102342&inline>.
- CDFW. 2025a. California Natural Diversity Database (CNDDDB). RareFind 5.3.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed January 2025. <https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx>.
- CDFW. 2025b. Biogeographic Information and Observation System; online database viewer. Accessed January 2025. <https://apps.wildlife.ca.gov/bios6/>.
- CDFW. 2025c. State and Federally Listed Endangered, Threatened, and Rare Plants of California, January 2025. Accessed January 2025. <https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.
- CDFW. 2025d. State & Federally Listed Endangered & Threatened Animals of California, January 2025. Accessed January 2025. <https://wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.
- CDFW. 2025e. California Wildlife Habitat Relationships Life History Accounts and Range Maps (online). Accessed January 2025. <https://wildlife.ca.gov/Data/CWHR/Life-History-and-Range>.
- CDFW. 2025f. Species of Special Concern. <https://www.wildlife.ca.gov/Conservation/SSC>.
- CDFW. 2025g. Fully Protected Animals. <https://wildlife.ca.gov/Conservation/Fully-Protected>.
- CNPS. 2025a. Rare Plant Inventory, online ed. Version 9.5.1. California Native Plant Society, Rare Plant Program. Accessed January 2025. <http://www.rareplants.cnps.org>.
- CNPS. 2025b. A Manual of California Vegetation Online. Accessed January 2025. <https://vegetation.cnps.org>.
- Crother, B.I. 2012. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in our Understanding, edited by J.J. Moriarty. 7th ed. Society for the Study of Amphibians and Reptiles; Herpetological Circular, no. 39. August 2012.
- Esri. 2025. "World Imagery" [basemap]. Accessed January 2025. <https://www.arcgis.com/home/item.html?id=10df2279f9684e4a9f6a7f08febac2a9>.
- Google. 2025. Google Earth; desktop application; centered on the project sites. Accessed January 2025. <https://www.google.com/earth/>.
- Jepson Flora Project. 2025. Jepson eFlora. Berkeley, California: University of California. Accessed January 2025. <https://ucjeps.berkeley.edu/eflora/>.

Jones & Stokes Inc. 1993. *Methods Used to Survey the Vegetation of Orange County Parks and Open Space Areas and The Irvine Company Property*. JSA 92-032. February 10, 1993.

Moyle, P.B. 2002. *Inland Fishes of California*. Berkeley and Los Angeles, California: University of California Press.

NABA (North American Butterfly Association). 2025. NABA Checklist and English Names of North American Butterflies. Edited by Braby, M., Cassie, B., Edwards, A., Epstein, M., Glassberg, J., Hall, P.W., Heath, F., Hsu, Y.-F., Larsen, T., Lohman, D., Pierce, N., Scoble, M., Springer, J., Swengel, A., Tennent, J., Tudor, G., Vane-Wright, D., Vilorio, A., West, J. and Yen, S.-H. Edition 2.6. North American Butterfly Association. Morristown, New Jersey. <https://naba.org/butterfly-names-checklist/>.

NETR (National Environmental Title Research LLC). 2025. Historical Aerials Viewer. NETR Online. Accessed January 2025. <https://www.historicaerials.com/viewer>.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. Draft Vegetation Communities of San Diego County. Based on "Preliminary Descriptions of the Terrestrial Natural Communities of California", Robert F. Holland, Ph.D., October 1986.

Sawyer, J., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*. 2nd ed. Sacramento, California: California Native Plant Society.

South Coast Wildlands. 2008. South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion. Produced in cooperation with partners in the South Coast Missing Linkages Initiative. <http://www.scwildlands.org/reports/scmlregionalreport.pdf>.

Spenser, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. California Essential Habitat Connectivity (CEHC) Project: A Strategy for Conserving a Connected California. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18504>.

USACE (U.S. Army Corps of Engineers). 1987. Corps of Engineers Wetland Delineation Manual. Online ed. Environmental Laboratory, Wetlands Research Program Technical Report Y-87-1. Vicksburg, Mississippi: U.S. Army Engineer Waterways Experiment Station. January 1987. https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/.

USACE. 2008a. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual. Cold Region Research and Environmental Laboratory, ERDC/CRREL TR-08-12. Hanover, New Hampshire: U.S. Army Engineer Research and Development Center. August 2008.

USACE. 2008b. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). Environmental Laboratory, ERDC/EL TR-08-28. Vicksburg, Mississippi: U.S. Army Engineer Research and Development Center, September 2008. <https://www.spk.usace.army.mil/Portals/12/documents/regulatory/pdf/trel08-28.pdf>.

USDA (U.S. Department of Agriculture). 1978. Soil Survey of Orange County and Western Part of Riverside County, California. Issued September 1978. United States Department of Agriculture, Soil Conservation Service and Forest Service, in cooperation with University of California Agricultural Experiment Station.

USDA. 2025a. Natural Resources Conservation Service Web Soil Survey. Accessed January 2025.
<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>.

USDA. 2025b. Natural Resources Conservation Service PLANTS Database. Accessed January 2025.
<https://plants.usda.gov/>.

USDA. 2025c. "Soil Survey Area Soil Data Access (SDA) Hydric Soils Rating by Map Unit" Accessed January 2025.
<https://www.nrcs.usda.gov/publications/Hydric%20Soils%20Rating%20by%20Map%20Unit%205%20class.html>.

USFWS. 2025a. Information, Planning, and Conservation System (IPaC). Accessed January 2025.
<https://ecos.fws.gov/ipac/>.

USFWS. 2025b. Wetlands Mapper. Accessed January 2025. <https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper>.

USFWS. 2025c. USFWS Threatened & Endangered Species Active Critical Habitat Report. Accessed January 2025.
<https://ecos.fws.gov/ecp/report/table/critical-habitat.html>.

USGS (U.S. Geologic Survey). 2022. Dana Point, California Quadrangle [map]. 1:24,000. 7.5-minute Series. Washington D.C.

USGS. 2025. National Hydrography and Watershed Boundary Dataset. USGS National Hydrography Products. Accessed January 2025. <https://www.usgs.gov/national-hydrography/about-national-hydrography-products>.

Wilson, D.E., and D.M. Reeder, eds. 2005. Mammal Species of the World: A Taxonomic and Geographic Reference. 3rd ed. Baltimore, Maryland: Johns Hopkins University Press. Accessed January 2025.
<http://www.departments.bucknell.edu/biology/resources/msw3/browse.asp>.

WRCC (Western Regional Climate Center). 2025. Period of record monthly climate summary for "Laguna Beach, California (044647)". Accessed January 2025. <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca4647>.



SOURCE: Bing Maps (Accessed: 2025)

FIGURE 1
Project Location



SOURCE: Bing Maps (Accessed: 2025)



Photo 1. Facing southeast from northwestern portion of the project site. View of vegetation mapped as the *Cortaderia (jubata, selloana)* association.



Photo 2. Facing northwest from central-west boundary of the project site. View of vegetation mapped as the *Cortaderia (jubata, selloana)* association to the right and *Schinus molle* association straight ahead.

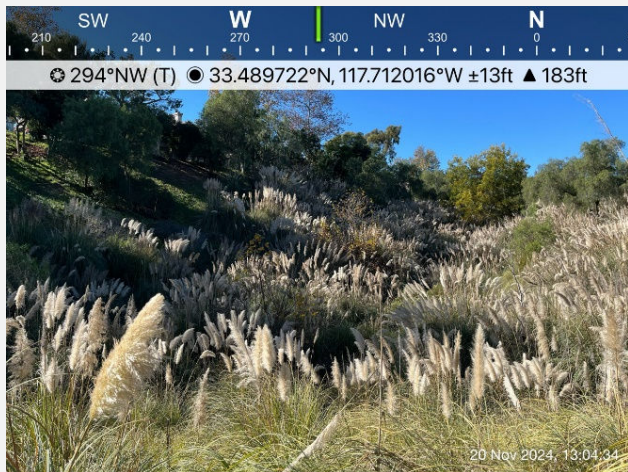


Photo 3. Facing west-northwest from southeastern portion of the project site. View from within the ravine feature.



Photo 4. Facing northwest from eastern portion of the project site. View of Camino Del Avion and ornamental plantings across the street.



Photo 5. Facing west from center of the project site. View of the ravine feature with residential homes above on the slope.

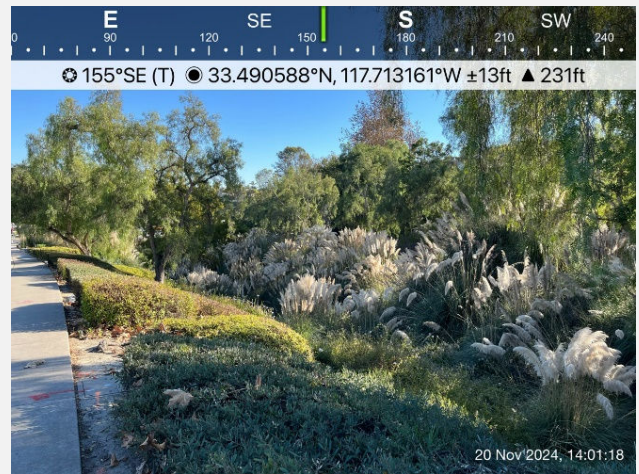


Photo 6. Facing south-southeast from northwestern portion of the project site. View overlooking the ravine feature from the street.

Plant Species

Angiosperms (Dicots)

ANACARDIACEAE – SUMAC FAMILY

- * *Schinus molle* – Peruvian pepper tree

APOCYNACEAE—DOGBANE FAMILY

- * *Vinca major* – bigleaf periwinkle

ASTERACEAE – SUNFLOWER FAMILY

- Baccharis pilularis* – coyote brush
- * *Erigeron bonariensis* – asthmaweed
- * *Helminthotheca echioides* – bristly oxtongue
- * *Pseudognaphalium luteoalbum* – Jersey cudweed
- * *Sonchus asper* ssp. *asper* – spiny sowthistle
- * *Taraxacum officinale* – common dandelion

BORAGINACEAE – BORAGE FAMILY

- * *Echium candicans* – pride of Madeira

BRASSICACEAE – MUSTARD FAMILY

- * *Diplotaxis muralis* – annual wallrocket
- * *Rosmarinus officinalis* – rosemary

CAPRIFOLIACEAE – HONEYSUCKLE FAMILY

- * *Lonicera japonica* – Japanese honeysuckle

FABACEAE – LEGUME FAMILY

- * *Acacia redolens* – bank catclaw
- * *Ceratonia siliqua* – St. John's bread

JUGLANDACEAE – WALNUT FAMILY

- Juglans californica* – Southern California black walnut

MYRTACEAE – MYRTLE FAMILY

- * *Eucalyptus camaldulensis* – river redgum
- * *Melaleuca nesophila* – pink melaleuca

NYCTAGINACEAE – FOUR O'CLOCK FAMILY

- * *Bougainvillea spectabilis* – great bougainvillea

PLATANACEAE – PLANE TREE, SYCAMORE FAMILY

Platanus racemosa – California sycamore

PLUMBAGINACEAE – LEADWORT FAMILY

* *Plumbago auriculata* – Cape leadwort

POLYGONACEAE – BUCKWHEAT FAMILY

Eriogonum fasciculatum – California buckwheat

Gymnosperms and Gnetophytes

PINACEAE – PINE FAMILY

* *Pinus pinea* – Italian stone pine

Monocots

ARECACEAE – PALM FAMILY

* *Phoenix canariensis* – Canary Island date palm

* *Phoenix dactylifera* – date palm

* *Washingtonia robusta* – Washington fan palm

ASPARAGACEAE – ASPARAGUS FAMILY

* *Asparagus aethiopicus* – Sprenger's asparagus fern

POACEAE – GRASS FAMILY

* *Cortaderia jubata* – purple pampas grass

* *Stenotaphrum secundatum* – St. Augustine grass

Wildlife Species – Vertebrates

Birds

FRINGILLIDAE – FINCHES

Carduelis psaltria – lesser goldfinch

PARULIDAE—WOOD-WARBLERS

Geothlypis trichas – common yellowthroat

Setophaga coronata – yellow-rumped warbler

Leiothlypis celata – orange-crowned warbler

PASSERELLIDAE—NEW WORLD SPARROWS

Melospiza melodia – song sparrow

SYLVIIDAE—SYLVIID WARBLERS

Chamaea fasciata – wrenit

TROGLODYTIDAE—WRENS

Troglodytes aedon – northern house wren

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans – black phoebe

* signifies introduced (non-native) species

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Aphanisma blitoides</i>	aphanisma	None/None/1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub; Gravelly (sometimes), Sandy (sometimes)/annual herb/Feb–June/5–1,000	Not expected to occur. The study area lacks suitable habitat.
<i>Artemisia palmeri</i>	San Diego sagewort	None/None/4.2	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; Mesic, Sandy/perennial deciduous shrub/(Feb)May–Sep/15–3,000	Not expected to occur. The study area lacks suitable habitat.
<i>Asplenium vespertinum</i>	western spleenwort	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub; Rocky/perennial rhizomatous herb/Feb–June/590–3,280	Not expected to occur. The study area is located outside of the species' known elevation range.
<i>Atriplex coulteri</i>	Coulter's saltbush	None/None/1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; Alkaline (sometimes), Clay (sometimes)/perennial herb/Mar–Oct/10–1,510	Not expected to occur. The study area lacks suitable habitat.
<i>Atriplex pacifica</i>	south coast saltscale	None/None/1B.2	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/annual herb/Mar–Oct/0–460	Not expected to occur. The study area lacks suitable habitat.
<i>Atriplex parishii</i>	Parish's brittlescale	None/None/1B.1	Chenopod scrub, Playas, Vernal pools; Alkaline/annual herb/June–Oct/80–6,235	Not expected to occur. The study area lacks suitable habitat.
<i>Atriplex serenana</i> var. <i>davidsonii</i>	Davidson's saltscale	None/None/1B.2	Coastal bluff scrub, Coastal scrub; Alkaline/annual herb/Apr–Oct/35–655	Not expected to occur. The study area lacks suitable habitat.
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	FT/SE/1B.1	Playas, Valley and foothill grassland; Vernal pools, clay (often)/perennial bulbiferous herb/Mar–June/80–3,675	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Calochortus catalinae</i>	Catalina mariposa lily	None/None/4.2	Coastal scrub (openings), Valley and foothill grassland; heavy soils/perennial bulbiferous herb/(Feb)Mar–June/50–2295	Not expected to occur. The study area lacks suitable habitat.
<i>Calochortus weedii</i> var. <i>intermedius</i>	intermediate mariposa-lily	None/None/1B.2	Chaparral, Coastal scrub, Valley and foothill grassland; Rocky/perennial bulbiferous herb/May–July/345–2,805	Not expected to occur. The study area is located outside of the species' known elevation range.
<i>Caulanthus simulans</i>	Payson's jewelflower	None/None/4.2	Chaparral, Coastal scrub; Granitic, Sandy/annual herb/(Feb)Mar–May (June)/295–7,220	Not expected to occur. The study area lacks suitable habitat.
<i>Centromadia parryi</i> ssp. <i>australis</i>	southern tarplant	None/None/1B.1	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools/annual herb/May–Nov/0–1575	Not expected to occur. The study area lacks suitable habitat.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	None/None/1B.1	Coastal bluff scrub (sandy), Coastal dunes/annual herb/Jan–Aug/0–330	Not expected to occur. The study area lacks suitable habitat.
<i>Chorizanthe leptotheca</i>	Peninsular spineflower	None/None/4.2	Chaparral, Coastal scrub, Lower montane coniferous forest; Granitic/annual herb/May–Aug/985–6,235	Not expected to occur. The study area is located outside of the species' known elevation range and geographic range (i.e., Peninsular Ranges).
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	long-spined spineflower	None/None/1B.2	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; Clay (often)/annual herb/Apr–July/100–5,020	Not expected to occur. The study area lacks suitable habitat. Additionally, the study area is located outside of the species' known geographic range (i.e., Peninsular Ranges, San Jacinto Mountains).
<i>Cistanthe maritima</i>	seaside cistanthe	None/None/4.2	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; Sandy/annual herb/(Feb)Mar–June (Aug)/15–985	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Clinopodium chandleri</i>	San Miguel savory	None/None/1B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland; Gabbroic (sometimes), Rocky (sometimes)/perennial shrub/Mar–July/395–3,525	Not expected to occur. The study area is located outside of the species' known elevation range and geographic range (i.e., Peninsular Ranges, San Jacinto Mountains).
<i>Comarostaphylis diversifolia</i> ssp. <i>diversifolia</i>	summer holly	None/None/1B.2	Chaparral/perennial evergreen shrub/Apr–June/100–2590	Not expected to occur. The study area lacks suitable habitat. Additionally, this species is a conspicuous evergreen shrub that would have been observed if present within the study area.
<i>Convolvulus simulans</i>	small-flowered morning-glory	None/None/4.2	Chaparral (openings), Coastal scrub, Valley and foothill grassland; Clay, Seeps, Serpentinite/annual herb/Mar–July/100–2,430	Not expected to occur. The study area lacks suitable habitat.
<i>Deinandra paniculata</i>	paniculate tarplant	None/None/4.2	Coastal scrub, Valley and foothill grassland, Vernal pools; Sandy (sometimes), Vernal Mesic (usually)/annual herb/(Mar)Apr–Nov/80–3,085	Not expected to occur. The study area lacks suitable habitat.
<i>Dichondra occidentalis</i>	western dichondra	None/None/4.2	Chaparral, Oak woodland, Coastal scrub; rocky (often)/perennial rhizomatous herb/(Jan)Mar–July/165–1640	Not expected to occur. The study area lacks suitable habitat.
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	Blochman's dudleya	None/None/1B.1	Chaparral, Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; open rocky slopes, often clay or serpentinite/perennial herb/Apr–June/15–1,475	Not expected to occur. The study area lacks suitable habitat.
<i>Dudleya multicaulis</i>	many-stemmed dudleya	None/None/1B.2	Chaparral, Coastal scrub, Valley and foothill grassland; Clay (often)/perennial herb/Apr–July/50–2,590	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Dudleya stolonifera</i>	Laguna Beach dudleya	FT/ST/1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland; Rocky/perennial stoloniferous herb/May–July/35–855	Not expected to occur. The study area lacks suitable habitat.
<i>Dudleya viscida</i>	sticky dudleya	None/None/1B.2	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub; bluff, rocky cliffs/perennial herb/May–June/35–1,805	Not expected to occur. The study area lacks suitable habitat.
<i>Eryngium pendletonense</i>	Pendleton button-celery	None/None/1B.1	Coastal bluff scrub, Valley and foothill grassland, Vernal pools; Clay, Vernal Mesic/perennial herb/Apr–June (July)/50–360	Not expected to occur. The study area lacks suitable habitat.
<i>Erythranthe diffusa</i>	Palomar monkeyflower	None/None/4.3	Openings in chaparral, meadows in oak woodland or lower montane coniferous forest; granitic soils/annual herb/Apr–June/4,005–6,005	Not expected to occur. The study area is located outside of the species' known elevation range and geographic range (i.e., Outer South Coast Ranges, Peninsular Ranges, San Jacinto Mountains).
<i>Euphorbia misera</i>	cliff spurge	None/None/2B.2	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; Rocky/perennial shrub/(Oct)Dec–Aug/35–1,640	Not expected to occur. The study area lacks suitable habitat.
<i>Harpagonella palmeri</i>	Palmer's grapplinghook	None/None/4.2	Chaparral, Coastal scrub, Valley and foothill grassland; Clay, Openings/annual herb/Mar–May/65–3,135	Not expected to occur. The study area lacks suitable habitat.
<i>Holocarpha virgata</i> ssp. <i>elongata</i>	graceful tarplant	None/None/4.2	Valley and foothill grassland/annual herb/May–Nov/195–3610	Not expected to occur. The study area lacks suitable habitat.
<i>Hordeum intercedens</i>	vernal barley	None/None/3.2	Coastal dunes, Coastal scrub, Valley and foothill grassland (depressions, saline flats), Vernal pools/annual herb/Mar–June/15–3280	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	None/None/1B.1	Chaparral (maritime), Cismontane woodland, Coastal scrub; Gravelly (sometimes), Sandy (sometimes)/perennial herb/Feb–July (Sep)/230–2,660	Not expected to occur. The study area lacks suitable habitat.
<i>Hulsea californica</i>	San Diego sunflower	None/None/1B.3	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest; Burned areas, Openings/perennial herb/Apr–June/3,000–9,565	Not expected to occur. The study area is located outside of the species' known elevation range and geographic range (i.e., Peninsular Ranges).
<i>Imperata brevifolia</i>	California satintail	None/None/2B.1	Chaparral, Coastal scrub, Meadows and seeps (often alkali), Mojavean desert scrub, Riparian scrub; Mesic/perennial rhizomatous herb/Sep–May/0–3,985	Not expected to occur. The study area lacks suitable habitat.
<i>Isocoma menziesii</i> var. <i>decumbens</i>	decumbent goldenbush	None/None/1B.2	Chaparral, Coastal scrub (often disturbed areas, sandy)/perennial shrub/Apr–Nov/35–820	Not expected to occur. The study area lacks suitable habitat. Additionally, this species is a conspicuous shrub that would have been observed if present within the study area.
<i>Juglans californica</i>	Southern California black walnut	None/None/4.2	Hillsides and canyons/perennial deciduous tree/Mar–Aug/165–2955	Observed. One mature walnut tree was observed within the project site on the north-facing slope of the ravine.
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	southwestern spiny rush	None/None/4.2	Coastal dunes (mesic), Coastal scrub, Marshes and swamps (coastal salt), Meadows and seeps (alkaline seeps)/perennial rhizomatous herb/(Mar)May–June/10–2955	Not expected to occur. The study area lacks suitable habitat. Additionally, this species is a conspicuous shrub-like herb that would have been observed if present within the study area.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	None/None/1B.1	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/Feb–June/5–4005	Not expected to occur. The study area lacks suitable habitat.
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	None/None/4.3	Chaparral, Coastal scrub/annual herb/Jan–July/5–2905	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Lessingia hololeuca</i>	woolly-headed lessingia	None/None/3	Broadleaved upland forest, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland; Clay, Serpentine/annual herb/June–Oct/50–1,000	Not expected to occur. The study area lacks suitable habitat. Additionally, the study area is located outside of the species' known geographic range (i.e., North Coast Ranges, Sacramento Valley, San Francisco Bay Area, South Coast Ranges).
<i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	ocellated Humboldt lily	None/None/4.2	Oak canyons, chaparral, yellow-pine forest; Openings/perennial bulbiferous herb/Mar–July (Aug)/100–5,905	Not expected to occur. The study area lacks suitable habitat.
<i>Lycium brevipes</i> var. <i>hassei</i>	Santa Catalina Island desert-thorn	None/None/3.1	Coastal bluff scrub, Coastal scrub/perennial deciduous shrub/June (Aug)/215–985	Not expected to occur. The study area lacks suitable habitat. Additionally, the study area is located outside of the species' known geographic range (i.e., Channel Islands).
<i>Lycium californicum</i>	California box-thorn	None/None/4.2	Coastal bluff scrub, Coastal scrub/perennial shrub/Mar–Aug (Dec)/15–490	Not expected to occur. The study area lacks suitable habitat. Additionally, this species is a conspicuous shrub that would have been observed if present within the study area.
<i>Malacothrix saxatilis</i> var. <i>saxatilis</i>	cliff malacothrix	None/None/4.2	Coastal bluff scrub, Coastal scrub; coastal bluffs/perennial rhizomatous herb/Mar–Sep/10–655	Not expected to occur. The study area lacks suitable habitat.
<i>Microseris douglasii</i> ssp. <i>platycarpa</i>	small-flowered microseris	None/None/4.2	Valley and foothill grassland; Clay soils near vernal pools or serpentine outcrops/annual herb/Mar–May/50–3,510	Not expected to occur. The study area lacks suitable habitat.
<i>Monardella hypoleuca</i> ssp. <i>intermedia</i>	intermediate monardella	None/None/1B.3	Chaparral, Oak woodland, Lower montane coniferous forest (sometimes)/perennial rhizomatous herb/Apr–Sep/1310–4100	Not expected to occur. The study area is located outside of the species' known elevation range and geographic range (i.e., Peninsular Ranges).

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Myosurus minimus</i> ssp. <i>apus</i>	little mousetail	None/None/3.1	Valley and foothill grassland, Vernal pools (alkaline)/annual herb/Mar–June/65–2100	Not expected to occur. The study area lacks suitable habitat.
<i>Nama stenocarpa</i>	mud nama	None/None/2B.2	Marshes and swamps (lake margins, riverbanks)/annual/perennial herb/Jan–July/15–1640	Not expected to occur. The study area lacks suitable habitat.
<i>Navarretia prostrata</i>	prostrate vernal pool navarretia	None/None/1B.2	Alkaline floodplains, Vernal pools; Mesic/annual herb/Apr–July/10–3,970	Not expected to occur. The study area lacks suitable habitat.
<i>Nolina cismontana</i>	chaparral nolina	None/None/1B.2	Chaparral or coastal scrub in mountainous settings; Gabbroic (sometimes), Sandstone (sometimes)/perennial evergreen shrub/(Mar)May–July/460–4,185	Not expected to occur. The study area is located outside of the species' known elevation range.
<i>Pentachaeta aurea</i> ssp. <i>allenii</i>	Allen's pentachaeta	None/None/1B.1	Coastal scrub (openings), Valley and foothill grassland/annual herb/Mar–June/245–1705	Not expected to occur. The study area lacks suitable habitat.
<i>Pentachaeta aurea</i> ssp. <i>aurea</i>	golden-rayed pentachaeta	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/annual herb/Mar–July/260–6070	Not expected to occur. The study area lacks suitable habitat. Woodland habitat on site is a landscaped area that is vegetated with ornamental trees. Furthermore, the nearest documented population is over 20 miles from the study area (CCH 2025).
<i>Phacelia ramosissima</i> var. <i>austrolitoralis</i>	south coast branching phacelia	None/None/3.2	Chaparral, Coastal dunes, Coastal scrub, Marshes and swamps (coastal salt); Rocky (sometimes), Sandy/perennial herb/Mar–Aug/15–985	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Piperia cooperi</i>	chaparral rein orchid	None/None/4.2	Chaparral, Cismontane woodland, Valley and foothill grassland/perennial herb/Mar–June/50–5200	Not expected to occur. The study area lacks suitable habitat. Woodland habitat on site is a landscaped area that is vegetated with ornamental plantings. The study area is too disturbed to support this species.
<i>Pseudognaphalium leucocephalum</i>	white rabbit-tobacco	None/None/2B.2	Sandy or gravelly benches, dry stream bottoms, canyon bottoms; Gravelly, Sandy/perennial herb/(July)Aug–Nov (Dec)/0–6,890	Not expected to occur. The study area lacks suitable habitat.
<i>Quercus dumosa</i>	Nuttall's scrub oak	None/None/1B.1	Chaparral, Closed-cone coniferous forest, Coastal scrub; Clay, Loam, Sandy/perennial evergreen shrub/Feb–Apr (May–Aug)/50–1,310	Not expected to occur. The study area lacks suitable habitat. Additionally, this species is a conspicuous evergreen shrub that would have been observed if present within the study area.
<i>Rhinotropis cornuta</i> var. <i>fishiae</i>	Fish's milkwort	None/None/4.3	Chaparral, Oak woodland/perennial deciduous shrub/May–Aug/330–3280	Not expected to occur. The study area is located outside of the species' known elevation range and geographic range (i.e., South Coast Ranges, Western Transverse Ranges, San Gabriel Mountains, Peninsular Ranges, San Jacinto Mountains).
<i>Romneya coulteri</i>	Coulter's matilija poppy	None/None/4.2	Dry washes and canyons/perennial rhizomatous herb/Mar–July (Aug)/65–3,935	Not expected to occur. The study area lacks suitable habitat.
<i>Selaginella cinerascens</i>	ashy spike-moss	None/None/4.1	Chaparral, Coastal scrub/perennial rhizomatous herb/N.A./65–2100	Not expected to occur. The study area lacks suitable habitat.
<i>Senecio aphanactis</i>	chaparral ragwort	None/None/2B.2	Alkaline flats, Dry open rocky areas/annual herb/Jan–Apr (May)/50–2,625	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
<i>Sidalcea neomexicana</i>	salt spring checkerbloom	None/None/2B.2	Alkaline springs, Marshes/perennial herb/Mar–June/50–5,020	Not expected to occur. The study area lacks suitable habitat.
<i>Suaeda esteroa</i>	estuary seablite	None/None/1B.2	Marshes and swamps (coastal salt)/perennial herb/(Jan–May) July–Oct/0–15	Not expected to occur. The study area lacks suitable habitat and is located outside of the species' known elevation range.
<i>Suaeda taxifolia</i>	woolly seablite	None/None/4.2	Coastal bluffs, Coastal salt marshes/perennial evergreen shrub/Jan–Dec/0–165	Not expected to occur. The study area lacks suitable habitat. Additionally, this species is a conspicuous evergreen shrub that would have been observed if present within the study area.
<i>Verbesina dissita</i>	big-leaved crownbeard	FT/ST/1B.1	Chaparral (maritime), Coastal scrub/perennial herb/(Mar)Apr–July/150–675	Not expected to occur. The study area lacks suitable habitat.

Status Legend:**Federal Designations**

FE Federally listed as Endangered

FT Federally listed as Threatened

State Designations

SE State listed as Endangered

ST State listed as Threatened

SR State Rare

California Rare Plant Ranking (CRPR)

CRPR List 1A Plants presumed extinct in California

CRPR List 1B Plants rare, threatened, or endangered in California and elsewhere

CRPR List 2A Plants rare, threatened, or endangered in California but common elsewhere

CRPR List 2B Plants rare, threatened, or endangered in California but more common elsewhere

CRPR List 3 Plants about which more Information is needed - a review list

CRPR List 4 Plants of limited distribution - a watch list

.1 Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)

.2 Fairly endangered in California (20% to 80% of occurrences threatened)

.3 Not very endangered in California (less than 20% of occurrences threatened or no current threats known)

References

- Calflora. 2025. The Calflora Database: Information on California plants for education, research and conservation [web application]. Berkeley, California. Accessed January 2025. <https://www.calflora.org/>.
- CCH (Consortium of California Herbaria). 2025. CCH2 Data Portal: Specimen data from the Consortium of California Herbaria. Accessed January 2025. <https://www.cch2.org/portal/index.php>.
- CDFW (California Department of Fish and Wildlife). 2025. California Natural Diversity Database (CNDDDB). RareFind 5.3.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed January 2025. <https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx>.
- CNPS (California Native Plant Society). 2025. Rare Plant Inventory, online ed. Version 9.5.1. California Native Plant Society, Rare Plant Program. Accessed January 2025. <http://www.rareplants.cnps.org>.
- iNaturalist. 2025. iNaturalist (Webpage). Available from <https://www.inaturalist.org/>. Accessed January 2025.
- Jepson Flora Project. 2025. Jepson eFlora. Berkeley, California: University of California. Accessed January 2025. <https://ucjeps.berkeley.edu/eflora/>.

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Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Amphibians				
<i>Anaxyrus californicus</i>	arroyo toad	FE/SSC	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. The study area lacks suitable habitat.
<i>Spea hammondi</i>	western spadefoot	FPT/SSC	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley-foothill woodlands, pastures, and other agriculture	Low potential to occur. The basin within the ravine feature on site may occasionally collect water; however, soils within the ravine are too compacted and disturbed to support burrowing required by the species. Additionally, the terrain surrounding the basin is too steep, densely vegetated, and isolated by urban development to allow for recruitment.
<i>Taricha torosa</i> (Monterey Co. south only)	California newt	None/SSC	Wet forests, oak forests, chaparral, and rolling grassland	Not expected to occur. The study area lacks suitable habitat.
Birds				
<i>Agelaius tricolor</i> (nesting colony)	tricolored blackbird	None/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Not expected to occur. The study area lacks suitable habitat.
<i>Ammodramus savannarum</i> (nesting)	grasshopper sparrow	None/SSC	Nests and forages in moderately open grassland with tall forbs or scattered shrubs used for perches	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Aquila chrysaetos</i> (nesting & wintering)	golden eagle	None/FP	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	Not expected to occur. The study area lacks suitable habitat.
<i>Asio otus</i> (nesting)	long-eared owl	None/SSC	Nests in riparian habitat, live oak thickets, other dense stands of trees, edges of coniferous forest; forages in nearby open habitats	Not expected to occur. The study area lacks suitable habitat.
<i>Athene cunicularia</i> (burrow sites & some wintering sites)	burrowing owl	None/SSC, SC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Not expected to occur. The study area lacks suitable habitat.
<i>Campylorhynchus brunneicapillus sandiegensis</i> (San Diego & Orange Counties only)	coastal cactus wren	None/SSC	Southern cactus scrub patches	Not expected to occur. The study area lacks suitable habitat.
<i>Circus hudsonius</i> (nesting)	northern harrier	None/SSC	Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	Not expected to nest. The study area lacks suitable habitat.
<i>Contopus cooperi</i> (nesting)	olive-sided flycatcher	None/SSC	Nests in mixed-conifer, montane hardwood-conifer, Douglas-fir, redwood, red fir, and lodgepole pine habitats; usually close to water	Not expected to nest. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Coturnicops noveboracensis</i>	yellow rail	None/SSC	Nesting requires wet marsh/sedge meadows or coastal marshes with wet soil and shallow, standing water	Not expected to occur. The study area lacks suitable habitat.
<i>Elanus leucurus</i> (nesting)	white-tailed kite	None/FP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Not expected to nest. The study area lacks suitable habitat.
<i>Empidonax traillii extimus</i> (nesting)	southwestern willow flycatcher	FE/SE	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. The study area lacks suitable habitat.
<i>Icteria virens</i> (nesting)	yellow-breasted chat	None/SSC	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Not expected to occur. The study area lacks suitable habitat.
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	None/SE	Nests and forages in coastal saltmarsh dominated by pickleweed (<i>Salicornia</i> spp.)	Not expected to occur. The study area lacks suitable habitat.
<i>Polioptila californica californica</i>	coastal California gnatcatcher	FT/SSC	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Not expected to occur. The study area lacks suitable habitat.
<i>Rynchops niger</i> (nesting colony)	black skimmer	None/SSC	Nests on barrier beaches, shell banks, spoil islands, and saltmarsh; forages over open water; roosts on sandy beaches and gravel bars	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Setophaga petechia</i> (nesting)	yellow warbler	None/SSC	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Not expected to nest. The study area lacks suitable habitat.
<i>Sternula antillarum browni</i> (nesting colony)	California least tern	FE/FP, SE	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. The study area lacks suitable habitat.
<i>Synthliboramphus scrippsi</i> (nesting colony)	Scripps's murrelet	None/ST	Nests on steep sea slopes, canyons, and cliffs with sparse vegetation	Not expected to occur. The study area lacks suitable habitat.
<i>Vireo bellii pusillus</i> (nesting)	least Bell's vireo	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to occur. The study area lacks suitable habitat.
Fishes				
<i>Eucyclogobius newberryi</i>	tidewater goby	FE/SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County, to the mouth of the Smith River	Not expected to occur. The study area lacks suitable habitat.
<i>Gila orcuttii</i>	arroyo chub	None/SSC	Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud	Not expected to occur. The study area lacks suitable habitat.
<i>Oncorhynchus mykiss irideus</i> pop. 10	southern steelhead - southern California DPS	FE/SCE	Clean, clear, cool, well-oxygenated streams; needs relatively deep pools in migration and gravelly substrate to spawn	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Invertebrates				
<i>Bombus crotchii</i>	Crotch's bumble bee	None/SC	Open grassland and scrub communities supporting suitable floral resources.	Not expected to occur. The study area lacks suitable foraging resources and nesting habitat for this species.
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	FE/None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. The study area lacks suitable habitat.
<i>Danaus plexippus plexippus</i> pop. 1	monarch - California overwintering population	FC/None	Wind-protected tree groves with nectar sources and nearby water sources	Not expected to occur. The study area lacks suitable habitat.
<i>Streptocephalus woottoni</i>	Riverside fairy shrimp	FE/None	Vernal pools, non-vegetated ephemeral pools	Not expected to occur. The study area lacks suitable habitat.
Mammals				
<i>Antrozous pallidus</i>	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Not expected to occur. This species is highly intolerant of urban development (Miner and Stokes 2005). The study area lacks suitable habitat for maternity colonies.
<i>Choeronycteris mexicana</i>	Mexican long-tongued bat	None/SSC	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland; roosts in caves, mines, and buildings	Not expected to occur. The study area lacks suitable habitat for foraging and maternity colonies.
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	FT/ST	Annual and perennial grassland habitats, coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Eumops perotis californicus</i>	western mastiff bat	None/SSC	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Not expected to occur. The study area lacks suitable habitat.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	None/SSC	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Not expected to occur. The study area lacks suitable habitat.
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	None/SSC	Pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	Not expected to occur. The study area lacks suitable habitat.
<i>Nyctinomops macrotis</i>	big free-tailed bat	None/SSC	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Not expected to occur. The study area lacks suitable habitat.
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	FE/SSC	fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Not expected to occur. The study area lacks suitable habitat.
<i>Taxidea taxus</i>	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected to occur. The study area lacks suitable habitat.
Reptiles				
<i>Actinemys pallida</i>	southwestern pond turtle	FPT/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. The study area lacks suitable habitat.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
<i>Anniella stebbinsi</i>	southern California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley-foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Not expected to occur. The study area is too densely vegetated and lacks suitable loose soils to support this species.
<i>Aspidoscelis tigris stejnegeri</i>	San Diegan tiger whiptail	None/SSC	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.	Not expected to occur. The study area is too densely vegetated and steep to support this species.
<i>Crotalus ruber</i>	red diamondback rattlesnake	None/SSC	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Not expected to occur. The study area lacks suitable habitat.
<i>Thamnophis hammondi</i>	two-striped gartersnake	None/SSC	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Not expected to occur. The study area lacks suitable habitat.
<i>Thamnophis sirtalis</i> ssp. (Southern California coastal plain from Ventura County to San Diego County)	south coast garter snake	None/SSC	Marsh and upland habitats near permanent water and riparian vegetation (sea level to approx. 850m AMSL)	Not expected to occur. The study area lacks suitable habitat.

Status Legend:**Federal Designations**

FC: Federal candidate species (former Category 1 candidates)

FE Federally listed as endangered

FPT Federally proposed for listing as Threatened

FT Federally listed as threatened

State Designations

SE State listed as endangered

ST State listed as threatened

SC State candidate for listing as threatened or endangered

FP California Fully Protected species

SSC California Species of Special Concern

References

- CDFW (California Department of Fish and Wildlife). 2025a. California Natural Diversity Database (CNDDDB). RareFind 5.3.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed January 2025. <https://apps.wildlife.ca.gov/rarefind/view/RareFind.aspx>.
- CDFW. 2025b. CWHR Life History Accounts and Range Maps. Accessed January 2025. <https://www.wildlife.ca.gov/Data/CWHR/Life-History-and-Range>.
- iNaturalist. 2025. iNaturalist (Webpage). Available from <https://www.inaturalist.org/>. Accessed January 2025.
- Miner, K.L., and D.C. Stokes. 2005. "Bats in the South Coast Ecoregion: Status, Conservation Issues, and Research Needs." USDA Forest Service Gen. Tech. Rep. PSW-GTR-195:211-277.
- Nafis, G. 2025. California Herps - A Guide to the Amphibians and Reptiles of California. <http://www.californiaherps.com>. Accessed January 2025.

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