Oceanside Vista Interceptor Access Road Project

Project-Level Environmental Checklist

City of Vista, California

August 2019

Prepared for:

City of Vista

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Contents

Tables

Figures

Appendix

Section 1. Project Description

Background

In November 2017, the City of Vista (City) certified the Supplemental Program Environmental Impact Report (SPEIR) for the 2017 Comprehensive Sewer Master Plan (2017 CSMP) (State Clearinghouse No. 2007091072). The 2017 CSMP identifies a set of recommended projects for inclusion in the City's Capital Improvement Program (CIP) and an operations and maintenance (O&M) Program. The SPEIR included a programmatic evaluation of the potential environmental impacts of the projects and associated O&M Program, as contemplated in the CSMP.

The O&M Program component of the 2017 CSMP provides a continuation of the City's existing condition assessment program consistent with the City's adopted Sanitary Sewer Management Plan (SSMP). The City maintains multiple easements to facilitate access to the conveyance and pumping facilities within and outside its service area. These easements range from 10 to 20 feet in width to accommodate maintenance equipment. The SPEIR for the 2017 CSMP included an environmental analysis for the O&M Program activities, which includes repair, upgrade, and/or rehabilitation of existing unpaved access roads that provide access to the City's trunk sewers.

The City's existing Oceanside-Vista, Reach 1, (OV1) trunk sewer line was constructed in 1989 and is located in the central portion of the City's service area in unincorporated San Diego County. OV1 consists of a 12-inch sewer line and is located within a narrow easement across multiple private properties with limited or no access. The City needs to develop improved sewer maintenance access to OV1 through the securing of multiple permanent easements and reconstruction of the existing access road.

The activities required to repair, upgrade, and/or rehabilitate access roads, including OV1, are similar in nature to the description of O&M activities considered and analyzed in the City's SPEIR. For this reason, the City is proposing to add OV1 to the list of improvements identified in the City's O&M Program and CSMP. This document evaluates whether the improvements identified for OV1 are covered within the scope of the SPEIR analysis and supporting mitigation monitoring and reporting program (MMRP).

Project Goals and Objectives

The City's goal for implementing the proposed project is to obtain the requirement easements to provide all weather access to the manholes for OV1, including during the 50-year storm event. The proposed project would improve sewer maintenance access by providing the City's O&M staff with reliable and safe access to the OV1 trunk sewer line via a dedicated easement. Improved and reliable access during large rainfall events is required for the City to clean and maintain the trunk sewer line consistent with the SSMP to minimize the potential for sanitary sewer overflows (SSOs) . Implementation of the project would support compliance with the City's SSMP in accordance with the State Water Resources Control Board's (SWRCB) Order No. 2006-003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems.

Proposed Project

The City is proposing to upgrade, realign, and rehabilitate the OV1 access road (proposed project). As a component of the O&M program, the proposed project would include limited grading, re-surfacing, vegetation trimming or removal, and limited drainage improvements to minimize erosion/sedimentation. Additionally, access improvements may also be implemented at entrance points from adjacent paved, roadways. This section presents a detailed description of the project location and associated components. Once constructed, the proposed project would be subject to long-term maintenance activities to maintain the roadway crown and drainage structures.

Project Location

The proposed project is located in an unincorporated island of San Diego County that borders the cities of Oceanside and Vista, California (Figure 1). As shown on Figure 2, the project area is generally located south of Navel Place, north of Fern Place, and between Mar Vista Drive, Buena Vista drive and South Melrose Drive. The project's is located on the San Luis Rey USGS 7.5-minute topographic quadrangles within Township 11 South, Range 4 West. The County Planning Area borders the southern portion of the project site. As shown on Figure 3, the project site is located fully within the SPEIR study area. The project may encompass portions of the following Assessor Parcel No. (APN) 169-180-28 and 169-190-02, 03, 04, 06, 07, 09, 10, 13, 14, 15, 16, 19, 20 (see Figure 2).

Description of the Proposed Project

The proposed project involves the upgrading, realigning, and rehabilitation of the existing OV1 access road to provide more reliable access to the OV1 pipeline and manholes (MH) for maintenance, including during up to the 50-year rainfall event. As part of the proposed project, the City will establish permanent easements to provide long-term access to 12 manholes connected to OV1 from the intersection of Buena Vista Drive and Mar Vista Drive to South Melrose Drive, where the City already has an established easement from the public ROW.

The proposed access road would follow the City's existing easement to the maximum extent practical as shown on Figure 4 and extends approximately 1,780 feet in length. As shown in Figure 4, five optional access routes, Access Options 1 through 5, are being considered that range from 215 to 520 feet in length. The City does not intend to pursue all the options considered, but rather those that function most efficiently together to provide long-term O&M access. Following construction, these easements and the new access roads would be maintained over the long term to allow for full access to the existing trunk sewer line and manholes.

The proposed access road would be constructed with an aggregate or crushed rock to provide a permeable roadway surface, approximately 15 feet in width. The roadway surface would be approximately six inches thick and selected materials will be determined during the final design of the roadway. The City expects that a larger crushed rock will be used for the roadway subgrade to improve the roadway's stability. As proposed, the alignment for the proposed roadway would adhere to the following standards:

- a maximum longitudinal slope of 15-percent
- a minimum vertical curve length of 100 feet
- a maximum horizontal curve radius of 30 feet
- a maximum access road cross fall of 4-percent

Figure 1. Regional Map

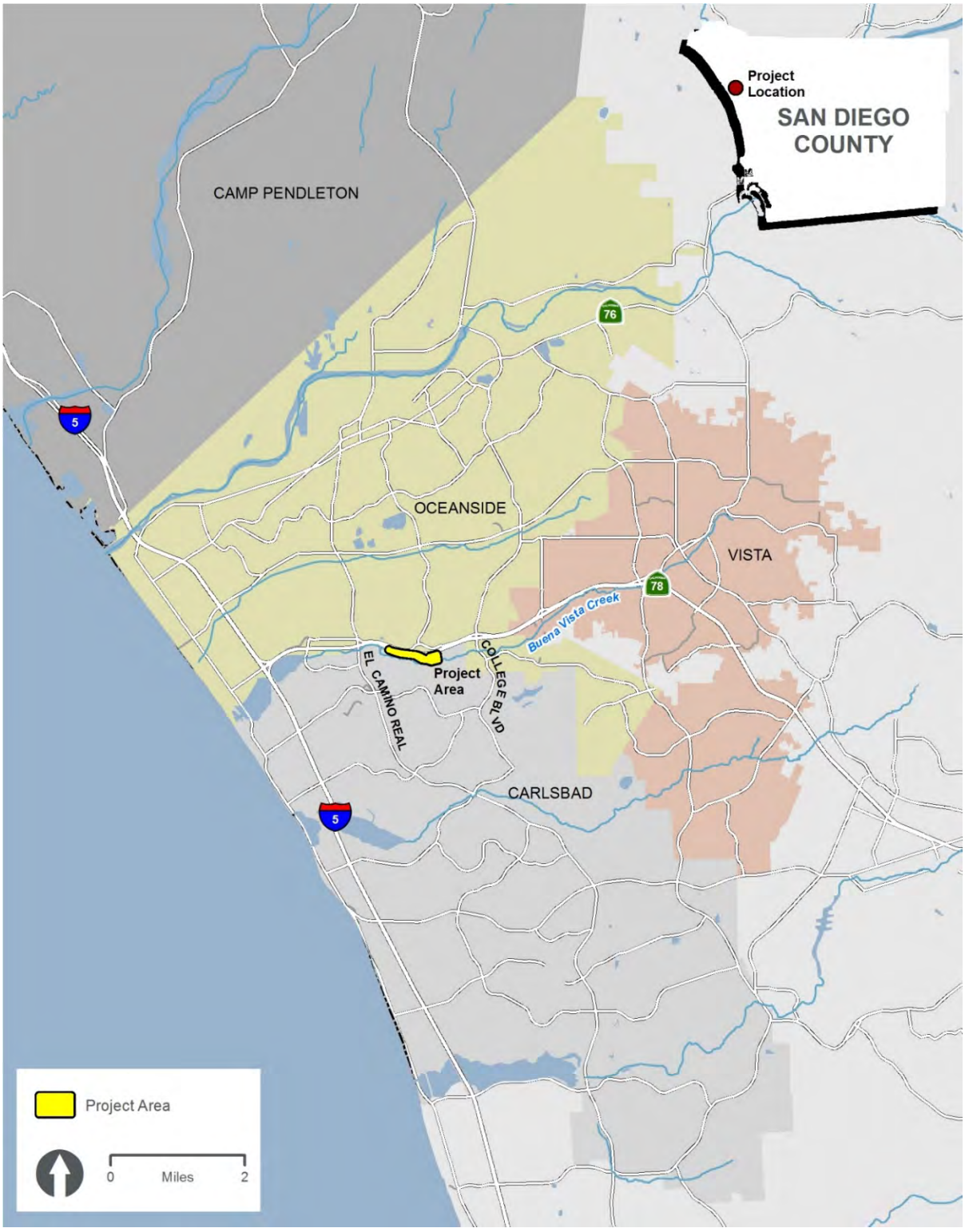


Figure 2. Project Area

Figure 3. SPEIR Study Area Map (Adapted from Figure 3-2 of the SPEIR)

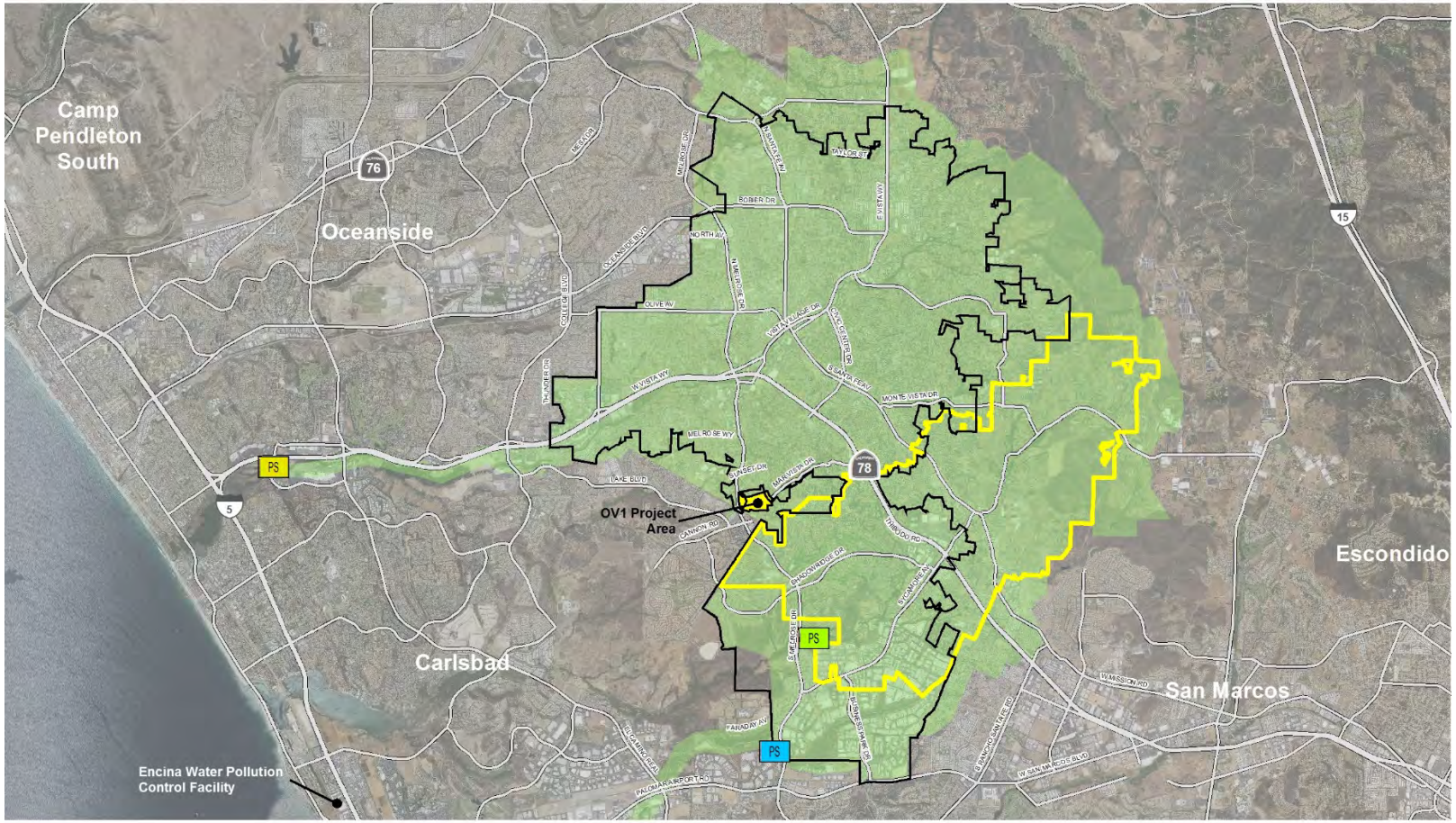
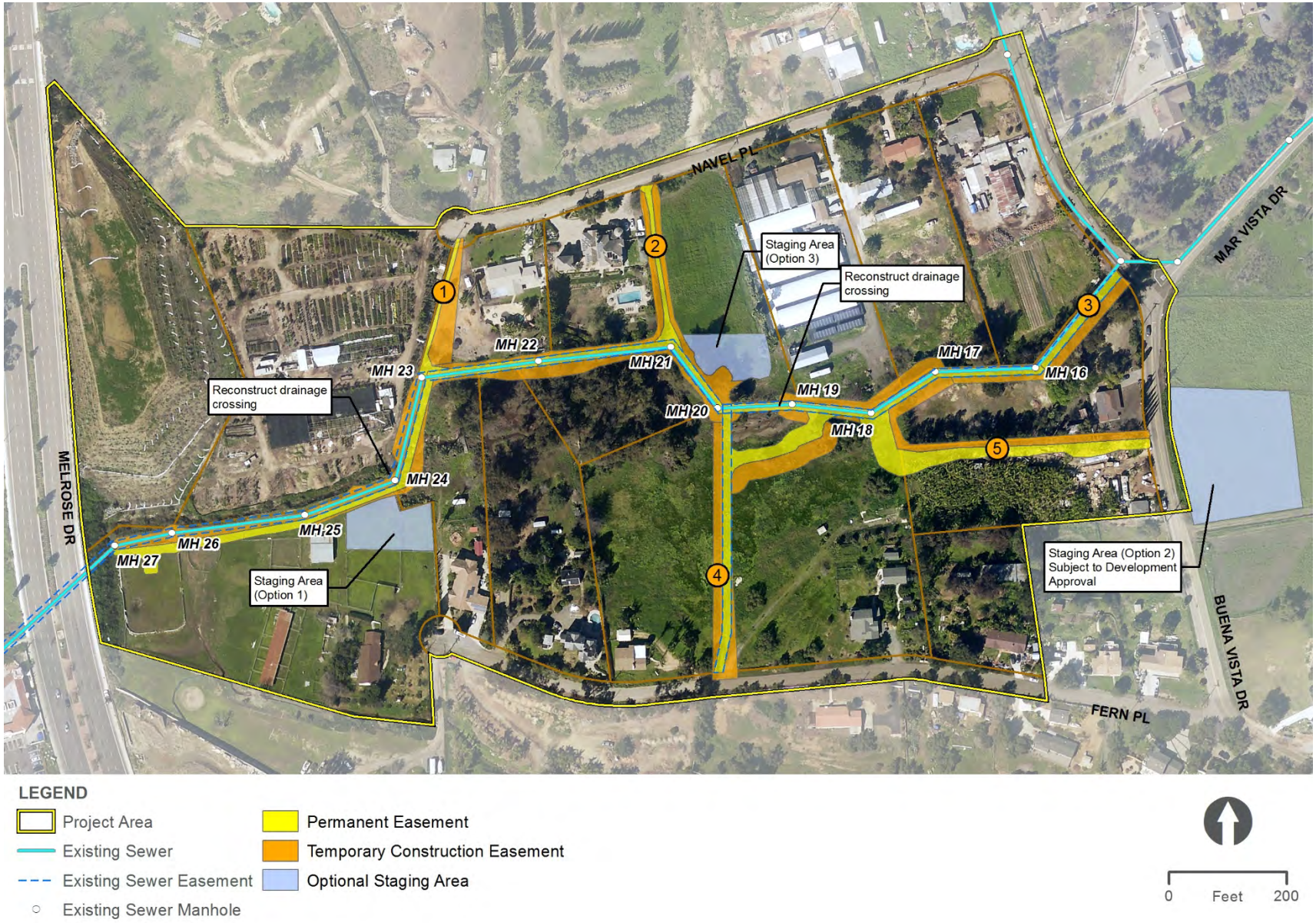


Figure 4. Proposed Access Road



A minimum 10-foot radius of crushed rock base would be provided around each manhole, where feasible. This 10-foot radius is measured from the center of manhole cover to the edge of the crushed rock base, which would be adjusted as required, to avoid located constraints (e.g. rocks, waterways, etc.). Where the manhole is located within the proposed road, the proposed concrete collar and cover would be flush with the crushed rock base surface to allow maintenance vehicles to drive over the manhole cover. When a manhole is adjacent to the sewer access road or within an area at risk of flooding due to its proximity to an existing creek, a raised concrete manhole collar is proposed per City Standard Drawing SWR-30A. Manholes that would be required to be raised would include MH 16 and 17.

The proposed project would include improvements at up to two drainage crossings to minimize degradation of the access road surface and roadway crown (Figure 4). At each drainage crossing, the City is considering a combination of low-flow (e.g. Arizona crossings) or culvert crossings to convey stormwater across the access road and away from the roadway crown. The final selection will be based on the quantity of flow during the 50-year event. Drainage ditches along the roadway may also be required to safely convey flows downstream.

Table 1 provides the quantity of flow for the main drainage feature bisecting the project site based on the rational method in accordance with the 2003 San Diego County Hydrology Manual (SDCHM) procedures and guidelines. Figure 5 illustrates the corresponding contributing drainage areas.

Table 1. Contributing Drainage Flows

Subarea	Drainage Area (acre)	50-year Intensity (inch/hour)	100-year Intensity (inch/hour)	50-year Q (cfs)	100-year Q (cfs)
North	461.8	2.5	2.76	530	587
South	127.0	2.84	3.15	166	184

Construction Details

The proposed project would require similar construction methods as described in Chapter 3 of the SPEIR for access improvements and structural facilities. These activities would include vegetation removal or trimming, grading, limited excavation, soil stockpiling, and roadway compaction. Project-related trip generation during construction would be consistent with that described in the SPEIR with less than 30 daily construction trips. Construction of the project would be completed within approximately three months.

Temporary construction easements of up to 50 feet in width may be required during construction, which would extend beyond the limits of the access road or drainage improvements to provide adequate space for construction and associated grading activities. In sensitive environmental areas, this easement would be restricted to 20 to 30 feet, where feasible. Parcels where temporary construction easements are proposed is shown on Table 2. These easements exclude the potential optional staging areas shown in Figure 4. As shown in Figure, three optional staging areas are under consideration. Option 1 is located south of the western end portion of the proposed access road and accessed from Fern Place. Option 2 is located to the east of the project area, directly off Buena Vista Drive, and would only be used if the timing of construction coincides with that of the approved development. Option 3 would be located at the southern end of Option 2 and accessed via Navel Place.

Table 2. Proposed Temporary Construction Easements

APN	Property Owner	Approximate Easement Requirements*
169-180-22-70	City of Vista	60 ft^2
169-180-07-00	Mary F. Flores	1,623 ft^2
169-180-28-00	Joyce Carol Franson Trust, Dated 04/30/1990	19,086 ft^2
169-190-16-00	Derek D. Weaver	6,438 ft^2
169-190-14-00	Theiss-Aird Family Trust	4,897 ft^2
169-190-13-00	James D. and Barbara W. Shanley	996 ft^2
169-190-15-00	David R and Julie E. Johnson	1,879 ft^2
169-190-20-00	Fred and Martha Clarke	6,740 ft^2
169-190-19-00	Meyer Family Trust	5,973 ft^2
169-190-02-00	Fred and Martha Clarke	13,973 ft^2
169-190-10-00	John F. and Claudia Webster	15,657 ft^2
169-190-03-00	Fred and Martha Clarke	2,454 ft^2
169-190-06-00	Fidel and Manuela H. Murillo	10,433 ft^2
169-190-04-00	Fred and Martha Clarke	1,873 ft^2
169-190-05-00	John P. Ursich	131 ft^2
169-190-07-00	Williams Andre Family Trust	7,008 ft^2

Source: HDR 2019
Notes:
*Approximation based on preliminary design
APN=assessor parcel number

Project construction is expected to last up to three months and would be scheduled to avoid coinciding with the nesting bird breeding season, which extends from February 15 through August 15 and January 15 through September 15 for raptors. Based on the anticipated construction disturbance area, the proposed project will require the preparation and implementation of a stormwater pollution prevention plan (SWPPP) per the requirements of Construction General Permit (CGP). The City will also require the contractor to prepare a waste management plan to manage construction related debris, including hazardous materials, to facilitate proper interim storage and offsite transport and disposal consistent with the Mitigation Monitoring and Reporting Program (MMRP) adopted for the CSMP (Appendix A).

Permanent easements for the proposed access road will also be required to facilitate long-term maintenance of the OV1 trunk sewer line. Parcels with proposed permanent easements along with approximate easement requirements are shown on Table 3.

Table 3. Proposed Permanent Easements

APN	Property Owner	Approximate Easement Requirements*
169-180-28-00	Joyce Carol Franson Trust	8,292 ft2
169-180-16-00	Derek D. Weaver	1,900 ft2
169-190-14-00	Theiss-Aird Family Trust	4,299 ft2
169-190-13-00	James D. and Barbara W. Shanley	885 ft2
169-190-20-00	Fred and Martha Clarke	9,999 ft^2
169-190-02-00	Fred and Martha Clarke	1,099 ft^2
169-190-03-00	Fred and Martha Clarke	414 ft^2
169-190-04-00	Fred and Martha Clarke	38 ft^2
169-190-15-00	David R Johnson	81 ft^2
169-190-19-00	Meyer Family Trust	137 ft^2
169-190-10-00	John F. and Claudia Webster	15,849 ft^2
169-190-06-00	Fidel and Manuela H. Murillo	7,055 ft^2
169-190-007-00	Williams Andre Family Trust	6,292 ft^2

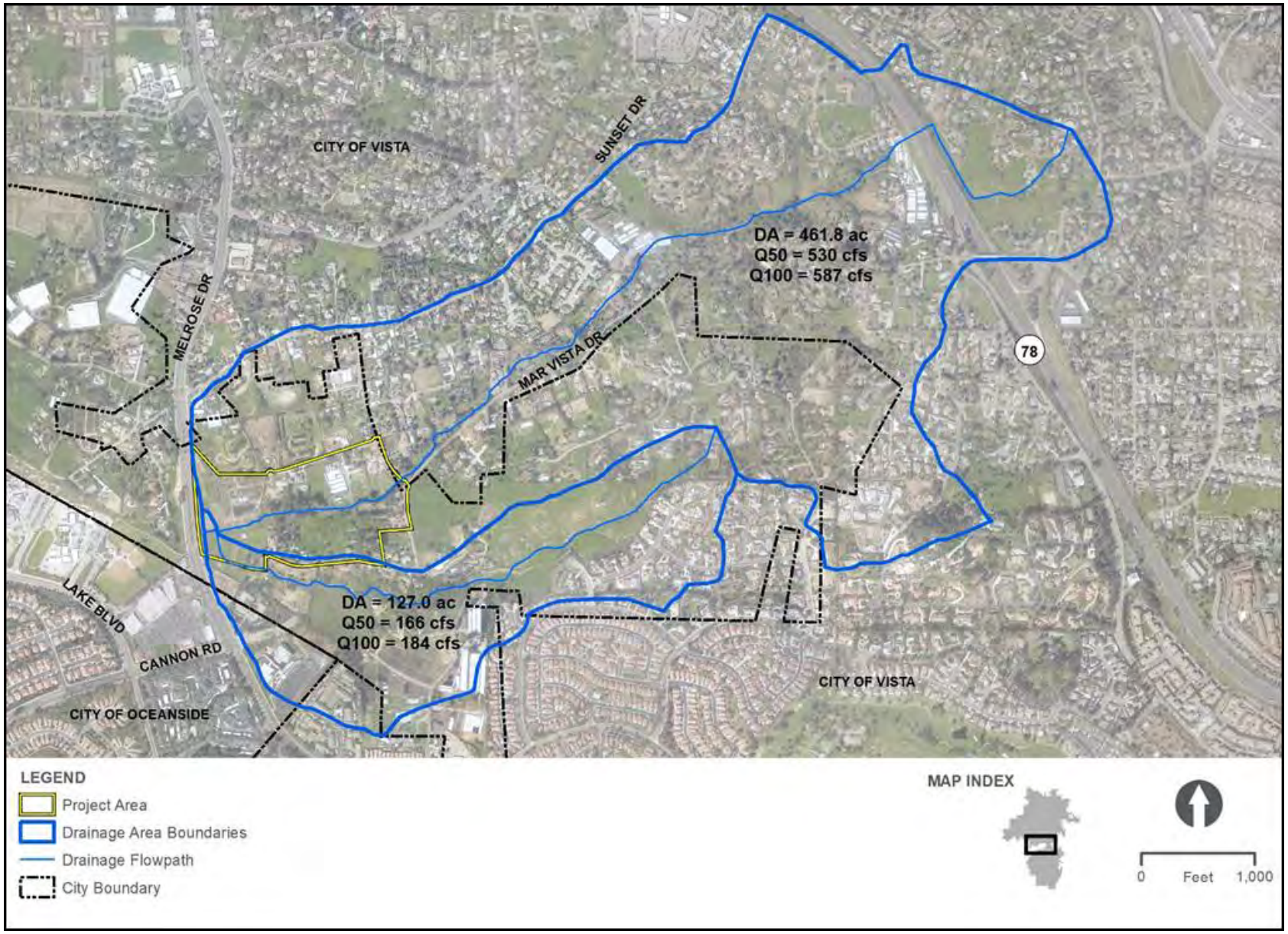
Source: HDR 2019
Notes:
*Approximation based on preliminary design
APN=assessor parcel number

Discretionary Actions and Approvals

Potential discretionary actions and approvals that may be required for the project include:

- U.S Army Corps of Engineers
  - Section 404 Nationwide Permit
- San Diego Regional Water Quality Control Board
  - Clean Water Act, Section 401, Water Quality Certification
  - NPDES, General Construction Permit
- California Department of Fish and Wildlife
  - Section 1602 Streambed Alteration Agreement
- County of San Diego
  - Encroachment and Grading Permits

Figure 5. Contributing Drainages



Section 2. Project-Level Environmental Checklist

This Environmental Checklist (Checklist) provides a mechanism for reviewing and assessing individual sanitary sewer improvement projects identified in the City's 2017 CSMP. The City prepared a Supplemental Program Environmental Impact Report (SPEIR) that considered the potential environmental impacts of these improvements, as contemplated in the CSMP, and proposed mitigation measures as contained in the MMRP. The Checklist follows the procedures provided in Section 15168(c) of the CEQA Guidelines. The MMRP is incorporated by reference and should be reviewed in conjunction with the completion of this Checklist (see Attachment A).

Comprehensive Sewer Master Plan Project Information

1. **Project title:** Oceanside-Vista Reach 1 (OV1) Access Road
2. **Contact person and phone number:** Elmer Alex, (760) 643-5416
3. **Project location:** The proposed project is located in an unincorporated island of San Diego County that borders the cities of Oceanside. The proposed project is generally located south of Navel Place, north of Fern Place, and between Mar Vista Drive, Buena Vista drive and South Melrose Drive. The project's is located on the San Luis Rey USGS 7.5-minute topographic quadrangles within Township 11 South, Range 4 West. The County Planning Area borders the southern portion of the project site. As shown on Figure 2, the project site is located fully within the SPEIR study area.
4. **Description of project (Describe the whole action involved, including but not limited to, later phases of the project, and any secondary, support, or off- site features necessary for its implementation. Attach additional sheets if necessary.):** The proposed project involves the upgrading, realigning, and rehabilitation of the existing OV1 access road to provide more reliable access to the OV1 pipeline and manholes (MH) for maintenance, including during up to the 50-year rainfall event. As part of the project, the City will establish permanent easements to provide long-term access to 12 manholes connected to the OV1 trunk sewer, including the upgrading of multiple drainage crossings
5. **Surrounding land uses and setting:** The project site is designated as Semi-Rural Agricultural by the County of San Diego General Plan. Navel Place borders the north, and Melrose Drive to the west of the project area with existing development located to the east and south. Parcels designated a Residential (R-4) may also be affected.
6. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):**
    - U. S. Army Corps of Engineers - Section 404 Nationwide Permit
    - San Diego Regional Water Quality Control Board - Clean Water Act, Section 401, Water Quality Certification and NPDES, General Construction Permit
    - California Department of Fish and Wildlife, Section 1602 Streambed Alteration Agreement
    - San Diego County – Grading and Encroachment Permits

Supplemental Program Environmental Impact Report Tiering Evaluation

1. **Is project identified in one of the four CSMP project categories identified in the SPEIR?**

   ☐ Category 1 - Conveyance (Capacity/Condition) Project (Hardscape Environs) – See Attachment A - SPEIR Tables 3-3 and 3-4 (Hardscape), Appendix B (Hardscape) and Figures 3-7 through 3-17)

   ☐ Category 2 - Conveyance (Capacity/Condition) Project (Cross County Environs) – See Attachment B - SPEIR, Tables 3-3 and 3-4 (Cross Country), Appendix B (Cross Country) and Figures 3-7 through 3-17)

   ☐ Category 3 - O&M Program – Attachment C - SPEIR Table 3-5 and Figure 3-18

   ☒ Category 4 - O&M Access

   Note: If the project is not identified as a Category 1, 2, 3, or 4 project, this checklist does not apply.

2. **Is the project similar in scope to that described in the SPEIR (CEQA Guidelines Section 15162(a))?**

   ☒ Yes – Proceed to #3

   ☐ No – Assess project change and determine if changes result in new or more significant impacts than described in the SPEIR:

      ☐ Changes are within the scope of the SPEIR?

         ☐ Yes – Proceed to #3

         ☐ No – Checklist not applicable

3. **Complete Project Review Checklist:**

   Note: This checklist is intended to assist the City of Vista (and Buena Sanitation District [District]) in assessing projects included under the 2017 CSMP according to the procedures provided in Section 15168(c) of the CEQA guidelines (amended December 28, 2018).

Environmental Factors Potentially Affected

The project could potentially result in one or more of the following environmental effects.

☐ Aesthetics	☐ Agriculture and Forestry	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☒ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☒ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☒ Transportation/Traffic	☐ Utilities/Service Systems	☐ Energy
☐ Tribal Cultural Resources	☐ Wildfires	☐ Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

☒ I find that the proposed project WOULD NOT have any significant effects on the environment that either have not already been analyzed in the prior SPEIR or that are more significant than previously analyzed. Pursuant to CEQA Guidelines Section 15168(c), CEQA does not apply to such effects. A Notice of Determination (Section 15094) will be filed.

☐ I find that the proposed project will have effects that either have not been analyzed in the prior SPEIR, or are more significant than described in the prior SPEIR. With respect to those effects that are subject to CEQA, I find that such effects WOULD NOT be significant and a NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project will have effects that either have not been analyzed in a prior EIR, or are more significant than described in the prior SPEIR. I find that although those effects could be significant, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project would have effects that either have not been analyzed in a prior SPEIR, or are more significant than described in the prior SPEIR. I find that those effects WOULD be significant, and an ENVIRONMENTAL IMPACT REPORT is required to analyze those effects that are subject to CEQA.

John Conley — Signature

9/12/19 — Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. For the purposes of this checklist, “prior SPEIR” means the environmental impact report certified for the 2017 CSMP.
4. Once the lead agency has determined that a particular physical impact may occur as a result of an improvement contemplated under the CSMP, then the checklist answers must indicate whether that impact has already been analyzed in the prior SPEIR. If the effect of the project is not more significant than what has already been analyzed, that effect of the project is not subject to CEQA. The brief explanation accompanying this determination should include page and section references to the portions of the prior SPEIR containing the analysis of that effect. The brief explanation shall also indicate whether the prior SPEIR included any mitigation measures to substantially lessen that effect and whether those measures have been incorporated into the project.
5. If all effects of an improvement contemplated under CSMP were analyzed in the prior SPEIR, CEQA does not apply to the project, and the lead agency shall file a Notice of Determination.
6. Effects of an improvement contemplated under CSMP that either has not been analyzed in a prior EIR are subject to CEQA. With respect to those effects of individual improvements contemplated under CSMP that are subject to CEQA, the checklist shall indicate whether those effects are significant, less than significant with mitigation, or less than significant. If there are one or more "Significant Impact" entries when the determination is made, an EIR is required. The EIR should be limited to analysis of those effects determined to be significant. (Section 15128).
7. "Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures will reduce an effect of a project that is subject to CEQA from "Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how those measures reduce the effect to a less than significant level. If the effects of a project that are subject to CEQA are less than significant with mitigation incorporated, the lead agency may prepare a Mitigated Negative Declaration or Addendum to the EIR. If all of the effects of the project that are subject to CEQA are less than significant, the lead agency may prepare a Negative Declaration or Addendum to the EIR

8. The explanation of each issue should identify:
   a. the significance criteria or threshold, if any, used to evaluate each question; and
   b. the mitigation measure identified, if any, to reduce the impact to less than significance.

I. Aesthetics

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Have a substantial adverse effect on a scenic vista?	☒	☐	☒	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☒	☐	☒	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☒	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☒	☐	☒	☐	☐

Would the project:

a) Have a substantial adverse effect on a scenic vista?

Less than Significant Impact. The potential impacts on scenic vistas were analyzed in the SPEIR (Section 5, Effects Determined Not to be Significant, page 5-1). The SPEIR determined that the CSMP, including the project improvements, would result in a less than significant impact on scenic vistas. The proposed project involves the realignment and improvement of the existing OV1 access road to provide more reliable access to the OV1 pipeline and manholes for maintenance. The proposed above-ground work would include minor cut and fill to achieve the desired road profile. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. While the OV1 access road was not included in the SPEIR, project impacts would be similar to those described in the SPEIR for Category 4 Projects. No new significant impacts were identified as part of the project-level evaluation. For these reasons, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The potential impacts on scenic resources within a state scenic highway were analyzed in the SPEIR (Section 5, Effects Determined Not to be Significant, page 5-1). There

are no designated state scenic highways located in the vicinity of the project site. The SPEIR determined that the CSMP and project would have no impact on scenic resources within a state scenic highway. The physical conditions in the project area as they relate to designated scenic highways have not changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

c) *Substantially degrade the existing visual character or quality of the site and its surroundings?*

Less than Significant Impact. The visual character of the Study Area and its surroundings would not be adversely affected once construction is completed and the disturbed surfaces are restored to pre-construction conditions.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

No Impact. The potential impacts associated with the creation of a new source of light or glare were analyzed in the SPEIR (Section 5, Effects Determined Not to be Significant, pages 5-1 through 5-2). The SPEIR determined that the CSMP, including the project, would not result in a significant impact associated with light and glare. No new permanent lighting fixtures would be installed as part of the project. Nighttime construction activities are not proposed.

Based on these circumstances, the operational characteristics of the proposed access road have not changed since the certification of the SPEIR. No substantial new information has been presented that shows more significant impacts than those originally analyzed in the SPEIR and there would be no new impacts. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

II. Agricultural Resources

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.					
Would the project:					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☒	☐	☒	☐	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☒	☐	☒	☐	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☒	☐	☒	☐	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☒	☐	☒	☐	☐

II. Agricultural Resources

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☒	☐	☒	☐	☐

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Less than Significant Impact. According to the State of California Department of Conservation (DOC), Division of Land Resource Protection's Farmland Mapping and Monitoring Program, portions of the project area are designated as "Farmland of Local Importance" (California DOC 2018). According to the Department of Conservation, Farmland of Local Importance is either currently producing, or has the capability of production, but does not meet the criteria of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland (California DOC 2017). In general, the project alignment(s) will follow existing property lines and/or access roads; therefore, impacts to adjacent farmland would be minimal and less than significant.

If Access Option 2 is selected, some indirect impacts to the adjacent farmland could occur from aggregate laid on the road spilling into the farmland. Additionally if Access Option 2 is chosen, the drainage would need to be designed so as to direct runoff away from the cultivated areas. In addition, the Farmland of Local Importance designation is not covered under the definition of "agricultural land" per CEQA Statute Section 21060.1(a). Based on these

circumstances, the conversion of Farmland of Local Importance is not considered significant under CEQA. A less than significant impact is identified for this issue area.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. According to the City of San Diego's Zoning Map, the project site is not zoned for agricultural use (County of San Diego 2012). According to the State of California DOC, Division of Land Resource Protection, the project site is not located on Williamson Act contracted land (California DOC 2013). Therefore, the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impact would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The project site is not zoned for forest land as defined in PRC Section 12220(g), timberland (as defined by PRC Section 4526), or timberland production (as defined by CGC Section 51104(g). There are no existing forest lands, timberlands, or timberland production zones either within the project site or in the immediate vicinity. Therefore, no impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. There are no existing forest lands either within the project site or in the immediate vicinity. Therefore, the proposed project would not result in the loss of forest land or conversion of forest land to non-forest use and no impact would occur.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Less than Significant Impact. The project site is adjacent to existing and active agricultural lands. If Access Option 2 is selected, a small amount of land would be converted to non-agricultural use. However, since the surrounding area is already developed and/or planned for development, the project's impacts to agricultural land uses are negligible. Therefore, a less than significant impact would occur.

III. Air Quality

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.					
Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☒	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☒	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☒	☐	☒	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☒	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☒	☐	☒	☐	☐

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Would the project:

a) *Conflict with or obstruct implementation of the applicable air quality plan?*

Less than Significant Impact. The potential impacts associated with conflicts with an applicable air quality plan were analyzed in the SPEIR (Section 4.1, Air Quality, page 4.1-9). The SPEIR determined that the access road improvements would not conflict with or obstruct implementation of the Regional Air Quality Strategy or State Implementation Plan (SIP) and a less than significant impact would occur. While the OV1 access road was not included in the SPEIR, project impacts would be similar to those described in the SPEIR for Category 4 projects.

The existing regulatory framework governing air quality planning in the project area has not change since the certification of the SPEIR. Furthermore, the construction and operational characteristics as described for the proposed access road have not changed since the certification of the SPEIR. No substantial new information has been presented that shows more significant impacts than those originally analyzed in the SPEIR and there would be no new significant impacts. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation?*

Less than Significant Impact. The potential impacts associated with violation of air quality standards were analyzed in the SPEIR (Section 4.1, Air Quality, pages 4.1-9 through 4.1-12). The SPEIR determined that the OV1 access road improvement along with other improvements covered under the CSMP would result in a less than significant impact associated with violation of air quality standards. While the OV1 access road was not included in the SPEIR, project impacts would be similar to those described in the SPEIR for Category 4 projects.

The SPEIR estimated the construction emissions for the overall CSMP using worst-case assumptions, which considered simultaneous construction of multiple projects covered under the CSMP. The construction parameters as described for the project would be contained within the worst-case scenario as described in Section 3.5.4, Construction Methods, of the SPEIR. Based on the fact that programmatic emissions for the CSMP were determined less than significant, it is reasonable conclude that the proposed project, as a sub-component of the CSMP, would not exceed SDPACD's significance thresholds and therefore less than significant. For this reason, no substantial new information has been presented that shows more significant impacts than those originally analyzed in the SPEIR and there would be no new significant impacts. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

The SPEIR concluded that access road improvements would result in no net increase in operational emissions once constructed. The operational characteristics of the proposed access road have not changed since the certification of the SPEIR. The operational emissions associated with the access road were captured in the SPEIR and were determined to be a less than significant impact. Therefore, no substantial new information has been presented that shows more significant impacts than those originally analyzed in the SPEIR and there would

be no new impacts. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

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

Less than Significant Impact. The potential impacts associated with a cumulatively considerable net increase of criteria pollutants were analyzed in the SPEIR (Section 4.1, Air Quality, pages 4.1-14 through 4.1-15). The SPEIR determined that the Category 4 access road improvements as a sub-component of the CSMP would result in a less than significant impact. While OV1 was not considered in the SPEIR, the project would result similar impacts as described for Category 4 projects.

The existing air quality conditions, including the local air basins attainment status, have not changed since the certification of the SPEIR. Furthermore, the construction and operational characteristics of the proposed access road have not changed since the certification of the SPEIR. No substantial new information has been presented that shows more significant impacts than those originally analyzed in the SPEIR and there would be no new significant impacts. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

d) *Expose sensitive receptors to substantial pollutant concentrations?*

Less than Significant Impact. The potential impacts associated with exposure of sensitive receptors to pollutant concentrations were analyzed in the SPEIR (Section 4.1, Air Quality, page 4.1-13). The SPEIR determined that the Category 4 access road improvements, as a sub-component of the CSMP, would not expose sensitive receptors to substantial pollutant concentrations and a less than significant impact would occur.

The physical conditions, as they relate to the location of sensitive receptors and proximity from construction, have not changed since the certification of the SPEIR. The proposed alignment of the access road roughly corresponds with the alignment contemplated in the SPEIR; albeit slight variations. Furthermore, the construction and operational characteristics of the proposed access road have not changed since the certification of the SPEIR. No substantial new information has been presented that shows more significant impacts than those originally analyzed in the SPEIR and there would be no new significant impacts. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 projects.

e) *Create objectionable odors affecting a substantial number of people?*

Less than Significant Impact. The potential impacts associated with odors were analyzed in the SPEIR (Section 4.1, Air Quality, pages 4.1-13 through 4.1-14). The SPEIR determined that the Category 4 access road improvements would not create objectionable odors and a less than significant impact would occur. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 projects.

The construction and operational characteristics of the proposed access road have not changed since the certification of the SPEIR. The project would improve access to the City's existing sewer infrastructure, which would provide desirable benefits in terms of minimizing and avoiding SSOs and any related odor complaints. No substantial new information has been

presented that shows more significant impacts than those originally analyzed in the SPEIR and there would be no new impacts. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

IV. Biological Resources

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☒	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☒	☐	☐	☒	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☒	☐

IV. Biological Resources

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☒	☐	☒	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☒	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☒	☐	☐	☒	☐

Would the project:

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

Less than Significant with Mitigation. The project would result in the following impacts, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS). The findings and determinations in this section are based on the project-focused biological surveys and mitigation recommendations as provided in Appendix B.

Direct Impacts (Special-status Plant Species). No federally and/or state-listed plant species have been observed in the project area. Based on the preliminary project design, no southern California black walnut trees would be directly impacted by the project. Therefore, the project would not have a substantial adverse effect, either directly or through habitat modifications, on this non-listed special-status plant species (Appendix B).

Direct Impacts (Special-status Wildlife Species). Potential impacts on special-status wildlife species from both construction and operations, including federally and state-listed species and nesting migratory birds are consistent with what was addressed in the SPEIR. Following a site-specific survey of the project site, no federally and state-listed species were observed nor suitable habitat (Appendix B).

As noted in Appendix B, birds that are protected under the MBTA were observed at the project site. Direct impacts to nesting birds, including yellow breasted chat, northern harrier, white-tailed kite, long-eared owl or yellow warbler, would be considered significant prior to implementation of mitigation. Implementation of Mitigation Measure BIO-1 (MBTA Nest Avoidance) in the SPEIR would avoid direct impacts on these species during the nesting season.

The project alignment is largely developed with the remaining vegetation generally composed of ornamentals species or exotic vegetation (e. g. eucalyptus). Based on the site's history of disturbance, absence of suitable habitat, and habitat fragmentation by development, no additional project-specific mitigation measures are recommended (Appendix B).

Indirect Impacts (Special-Status Plant Species). Implementation of the project would result in indirect impacts on special-status plant species, which may include temporary, construction-related dust effects on flowering of these species. However, standard dust control best management practices would minimize dust during construction and dust is not expected to substantially affect the small number of special-status plants observed at the project site. These impacts would be less than significant.

Indirect Impacts (Special-status Wildlife Species). Implementation of the project would result in indirect impacts on migratory birds and would generally be attributed to temporary, construction-related dust and water quality effects (e.g., hazardous materials leaks, such as fuel, hydraulic fluid, and/or lubricants) from equipment working in or around occupied habitat. In addition, construction-related noise levels have the potential to indirectly impact nesting birds. These impacts would be considered significant. Implementation of mitigation measure BIO-1 (MBTA Nest Avoidance) in the SPEIR would avoid indirect impacts on MBTA-covered species during the nesting season (Appendix B). No additional project-specific mitigation measures are recommended.

Operations and Maintenance Impacts (Special-Status Plant Species). Once constructed, ongoing operations and maintenance activities associated with the project would be conducted within the confines of the access road. Therefore, impacts on special-status plant species are unlikely and this impact would be considered less than significant.

Operations and Maintenance Impacts (Special-status Wildlife Species). Once constructed, ongoing operations and maintenance activities associated with the project would be conducted within the confines of the access road. Impacts on MBTA-protected species would be limited to indirect effects such as minor dust production and noise and would be considered less than significant.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Less than Significant with Mitigation. Based on the preliminary project design, construction of the project would result in direct impacts on vegetation communities and other land cover types, as indicated in for the access road backbone and optional routes and in Table 5 for the optional staging areas (Appendix B). Impacts on riparian and other sensitive natural communities would be considered significant. Because a discretionary permit from the San Diego County may be required for project implementation, the project would need to comply with the North County Plan Area, as applicable. The vegetation communities project in the project area do not provide suitable habitat for special-status species covered in the County's North County Plan Area (Appendix B). For this reason, project related impacts to sensitive vegetation communities would be less than significant.

Implementation of the project would result in indirect impacts on riparian habitats and other sensitive natural communities. These impacts could be significant in the absence of mitigation. Mitigation Measures HWQ-1 and HWQ-2 in the SPEIR are proposed to mitigate this impact to a level of less than significant.

Operations and maintenance activities associated with the project would be conducted within the confines of the access road. These activities would be conducted in accordance with issued permits. Therefore, impacts would be considered less than significant.

Table 4. Vegetation Impacts – Access Road Backbone and Options

Vegetation Community or Other Land Cover Type	Alliance level Vegetation Type	Riparian or Other Sensitive Natural Community ?	Backbone		Access Option 1		Access Option 2		Access Option 3		Access Option 4		Access Option 5	
			Perm. Impact (acres)	Temp. Impact (acres)	Perm. Impact (acres)	Temp. Impact (acres)	Perm. Impact (acres)	Temp. Impact (acres)	Perm. Impact (acres)	Temp. Impact (acres)	Perm. Impact (acres)	Temp. Impact (acres)	Perm. Impact (acres)	Temp. Impact (acres)
Willow riparian forest	Mixed willow riparian	Yes	--	0.007	--	--	--	--	--	--	--	--	--	--
Coast live oak woodland	Coast live oak woodland	Yes	--	--	--	--	--	--	--	--	0.007	0.008	--	--
Non-native woodland[1]	Eucalyptus woodland	No	0.148	0.177	--	--	--	--	0.120	0.127	--	--	0.00001	0.003
	Eucalyptus and palm trees	No	--	--	--	--	--	--	--	--	--	--	0.029	0.043
	Palm trees	No	--	--	--	--	--	--	--	--	--	--	0.010	0.030
	Pepper tree grove	No	0.008	0.005	--	--	--	--	--	--	0.005	0.038	--	0.002
Non-native shrubland	Non-native cactus scrub	No	0.018	0.016	--	--	--	--	--	--	--	--	--	--
Freshwater marsh	Mulefat thicket	Yes	0.008	0.016	--	--	--	--	--	--	--	--	--	--
	Curlydock stand	Yes	0.036	0.016	--	--	--	--	--	--	0.016	0.025	--	--

Vegetation Community or Other Land Cover Type	Alliance level Vegetation Type	Riparian or Other Sensitive Natural Community ?	Backbone		Access Option 1		Access Option 2		Access Option 3		Access Option 4		Access Option 5	
			Perm. Impact (acres)	Temp. Impact (acres)	Perm. Impact (acres)	Temp. Impact (acres)	Perm. Impact (acres)	Temp. Impact (acres)	Perm. Impact (acres)	Temp. Impact (acres)	Perm. Impact (acres)	Temp. Impact (acres)	Perm. Impact (acres)	Temp. Impact (acres)
Non-native grassland[1]	Annual brome grassland	No	0.060	0.044	--	--	--	--	--	--	0.195	0.283	0.032	0.086
	Non-native grassland	No	0.175	0.238	--	--	0.089	0.080	0.001	0.001	0.001	0.007	--	--
Non-native herbaceous stand	Herbaceous wetland	Yes	0.009	0.004	--	--	--	--	--	--	--	--	--	--
Unvegetated stream	Unvegetated stream	Yes	0.0001	0.017	--	--	--	--	--	--	--	--	--	--
Active agriculture	Active agriculture	No	--	0.023	--	--	--	--	--	--	--	--	--	--
Disturbed habitat	Disturbed habitat	No	0.159	0.183	0.006	0.001	--	--	--	--	0.002	0.004	--	--
Urban/developed	Urban/developed	No	0.004	0.046	0.041	0.121	0.0004	0.016	0.011	0.032	0.010	0.014	0.102	0.111
		Total	**0.625**	**0.792**	**0.047**	**0.122**	**0.089**	**0.096**	**0.131**	**0.160**	**0.236**	**0.380**	**0.173**	**0.276**

Table 5. Vegetation Impacts – Staging Areas[1]

Vegetation Community or Other Land Cover Type	Alliance level Vegetation Community Type	Riparian or Other Sensitive Natural Community?	Staging Area 1 Temporary Impacts (acres)	Staging Area 3 Temporary Impacts (acres)
Willow riparian forest	Mixed willow riparian	Yes	--	--
Non-native woodland	Eucalyptus woodland	No	--	0.048
	Palm trees	No	--	--
	Eucalyptus and palm trees	No	--	--
	Pepper tree grove	No	--	--
Non-native shrubland	Non-native cactus scrub	No	0.001	0.001
Freshwater marsh	Curlydock stand	Yes	--	--
	Mulefat thicket	Yes	--	--
Non-native grassland[1]	Annual brome grassland	No	--	--
	Non-native grassland	No	0.259	0.135
Non-native herbaceous stand	Herbaceous wetland	Yes	--	0.001
Unvegetated stream	Unvegetated stream	Yes	--	--
Active Agriculture	Active agriculture	Yes	--	--
Disturbed habitat	Disturbed habitat	No	--	0.027
Urban/developed	Urban/developed	No	--	--
		Total	**0.260**	**0.211**

Notes:
[1]: For the offsite Optional Staging Area 2 that occurs outside of the survey area boundary, site conditions are assumed to be developed or disturbed habitat.

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

Less than Significant with Mitigation. Implementation of the project would result in direct impacts on state or federally protected wetlands and other waters of the U.S. and state (Appendix B). Per the MHCP and regulatory requirements, the project has been designed to minimize impacts to wetland and riparian habitat to the maximum extent feasible by utilizing the existing access road alignment where crossing aquatic features and implementing alternative technologies, such a cellular concrete block where feasible. Based on the preliminary design, the project would result in up to 0.14 acre of impact to waters of the U.S./RWQCB waters of the State and up to 0.184 acre of CDFW riparian and unvegetated streambed. Estimated permanent impacts to these resources would include up to 0.073 acre of USACE waters of the U.S./RWQCB waters of the State, 0.052 acre of wetland waters of the U.S./RWQCB waters of the State, and up to 0.085 acre of CDFW riparian and unvegetated streambed. Consistent with the conclusion in the SPEIR, these impacts would be considered significant. Impacts to jurisdictional resources will be mitigated in accordance with Mitigation Measure BIO-3 of the SPEIR and Mitigation Measure BIO-5.

Implementation of the project would result in indirect impacts on state or federally protected wetlands. These impacts could be significant. Mitigation Measures HWQ-1 and HWQ-2 in the SPEIR are proposed to mitigate this impact. No other project-specific mitigation measures are recommended.

Operations and maintenance activities would be conducted in accordance with issued permits. Therefore, impacts on state or federally protected wetlands would be considered less than significant.

d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?*

Less than Significant Impact. Construction of the access road may have a temporary impact to the movements of some terrestrial wildlife during construction. However, construction of the project would not result in any permanent barriers to the movement of terrestrial species. In this context, impacts to migratory corridors are considered less than significant.

Implementation of the project would not result in new growth or secondary projects that could otherwise result in indirect impacts to wildlife corridors. For this reason, this impact would be less than significant.

Operations and maintenance activities associated with the project would be conducted within the confines of the access road. These activities would not interfere with the movement of any native wildlife species or wildlife corridors or nursery sites. In this context, the project would result in a less than significant impact to existing wildlife corridors.

Table 6. Jurisdictional Impacts - Access Road Backbone, Options, and Staging Areas[1]

Jurisdictional Type	Backbone		Access Option 3		Access Option 4		Staging Area 3
	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts(acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Temporary Impacts (acres)
USACE							
USACE Wetland Waters of the U.S.	0.036	0.036	--	--	0.016	0.025	0.0001
USACE Non-wetland Waters of the U.S.	0.011	0.016	0.026	0.011	--	--	0.0005
Total USACE	**0.047**	**0.052**	**0.026**	**0.011**	**0.016**	**0.025**	**0.0006**
CDFW							
CDFW Unvegetated Streambed	0.004	0.040	0.028	0.015	--	--	--
CDFW Riparian	0.053	0.044	--	--	0.016	0.025	0.001
Total CDFW	**0.057**	**0.084**	**0.028**	**0.015**	**0.016**	**0.025**	**0.001**

Notes:
[1] Options 1, 2, and 5, and Staging Area 1 would not impact USACE or CDFW jurisdictional areas.
CDFW = California Department of Fish and Wildlife
USACE = United States Corps of Engineers

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant Impact. Access road improvements associated with the project would be required to maintain conformance with applicable MHCP standards, including implementation of minimum buffer widths. Compliance with these requirements would be a condition of approval prior to the pruning or removal of protected trees. Based on these preexisting regulations, this impact is less than significant.

Implementation of the project would not result in secondary activities not otherwise considered in the SPEIR that could conflict with local plans and polices adopted for the purpose of protecting biological resources. For this reason, this impact would be less than significant.

Ongoing operations and maintenance activities would be conducted within the confines of the access road. Compliance with the MHCP requirements would be a condition of approval prior to the pruning or removal of protected trees, if required as part of ongoing operations and maintenance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less than Significant with Mitigation. The project site is located within the MHCP, although there is not an approved subarea plan that covers the project area. As noted above, the project would be implemented consistent with the MHCP through the incorporation of Mitigation Measure BIO-5. Implementation of the project would not result in land use changes or secondary effects that could otherwise result in conflicts with an adopted HCP or NCCP. For this reason, this impact would be less than significant with the incorporation of the proposed mitigation.

Ongoing operations and maintenance activities would be conducted within the confines of the access road and would be consistent with the requirements of the MHCP. Therefore, this impact would be less than significant.

V. Cultural Resources

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☒	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☒	☐	☐	☒	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☒	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☒	☐	☐	☒	☐

Would the project:

a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less than Significant with Mitigation. As provided in Section 4.3 of the SPEIR, project construction activities could include the use of equipment that could generate high levels of vibration. The highest vibration levels for construction identified in the SPEIR was that associated with the operation of a vibratory roller (0.210 peak particle velocity [PPV] at 25 feet). This assumption would remain accurate for the project in that no blasting is proposed to facilitate realignment of the roadway as proposed.

Based on criteria presented in the Federal Transit Administration's (FTA) Noise and Vibration Manual (2006), "fragile buildings" are subject to damage when vibration exceeds 0.20 PPV. As provided in the SPEIR, historic structures are often considered in this category due to their age of construction and the building codes enacted at the time of construction. As a result, construction activities within 25 feet of fragile structures could result in damaging vibration levels for historic structures, where present and eligible for the NRHP or CRHR. However, based on the proximity of the proposed project to adjacent structures combined with the relatively new construction, no significant vibration-related impacts would result.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than Significant with Mitigation. As described in Section 4.3 of the SPEIR, the City applied probable work limits for construction for the Category 4 improvements, including the project. This included approximating the area of direct impact for construction, adjacent staging areas, and/or other temporary work areas and averages 50 feet in width. These areas are now defined in Figure for OV1 at the project level.

Based on the results of the record search, no previously recorded sites have been recorded within the area of direct impact. No archaeological or historic sites were identified during the Project-Specific Archaeological Survey. Based on the results of the survey, which was completed per the requirements of Mitigation Measures CULT-2, the project does not have potential to cause significant impacts to cultural resources eligible for listing on the CRHR and NRHP. The implementation of Mitigation Measures

Compliance with Mitigation Measure CULT-3 would reduce any potential impacts associated with the accidental discovery of previously unrecorded archaeological resources. For this reason, the impact would be less than significant following the application of the proposed mitigation.

c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation. As provided in Section 4.3 of the SPEIR, construction of the improvements proposed under the 2017 CSMP, including the project, would occur at the vicinity of existing facility locations. However, during the construction of these facilities, the potential for the unexpected discovery of interred human remains, either prehistoric or historic, is a possibility. These direct impacts could be significant. Mitigation Measure CULT-4 is proposed to reduce these potential impacts to the unexpected discovery of interred human remains.

d) Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant with Mitigation. As provided in (b), the project would not result in direct impacts to any known archaeological sites. Implementation of Mitigation Measure CULT-5 is required to minimize this potential impact to a level of less than significant.

VI. Geology and Soils

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:	☒	☐	☒	☐	☐
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☒	☐	☒	☐	☐
ii. Strong seismic ground shaking?	☒	☐	☒	☐	☐
iii. Seismic-related ground failure, including liquefaction?	☒	☐	☒	☐	☐
iv. Landslides?	☒	☐	☒	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☒	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☒	☐	☒	☐	☐

VI. Geology and Soils

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☒	☐	☒	☐	☐

Would the project:

a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:*

i. *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

No Impact. The potential impacts associated with exposure of people or structures to potential substantial adverse effects involving rupture of an earthquake fault were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-2). The SPEIR determined that surface rupture as a result of seismic activity is unlikely and no impact would occur. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 projects.

The physical geologic conditions, as they relate to existing seismicity and earthquake faulting, have not changed in the project area since the certification of the SPEIR. No substantial new information has been presented that shows more significant impacts than those originally analyzed in the SPEIR and there would be no new impacts. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

ii. *Strong seismic ground shaking?*

Less than Significant Impact. The potential impacts associated with exposure of people or structures to potential substantial adverse effects involving strong seismic shaking were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-2). The SPEIR determined that the Category 4 access road improvements would not exacerbate

existing hazards related to strong seismic shaking. The project would be required to comply with the City's engineering standards and standard engineering practices, which will include the preparation of a project-specific geotechnical report. As a result, this impact would be less than significant. While OV1 was not considered in the SPEIR, the project would maintain similar impacts as the Category 4 projects.

The physical geologic conditions in the project area, including related faulting, have not changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. No new significant impacts were identified as part of the project level analysis. For these reason, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact. The potential impacts associated with exposure of people or structures to potential substantial adverse effects involving seismic-related ground failure were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-2). The SPEIR determined that the Category 4 access road improvements would result in a less than significant impact and would not exacerbate existing hazards related to seismic-related ground failure. The project would be required to comply with the City's standards and standard engineering practices, including the preparation of a project-specific geotechnical investigation. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

The physical geologic conditions, as they relate to exposure of people to seismic-related ground failure, have not substantially changed in the project area since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. No new significant impacts were identified as part of the project level analysis. For these reasons, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

iv. Landslides?

Less than Significant Impact. The potential impacts associated with exposure of people or structures to potential substantial adverse effects involving landslides were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-2). The SPEIR determined that the CSMP would result in a less than significant impact associated with landslides. The project would be required to comply with the City's engineering standards along with San Diego County's grading requirements, which would minimize any hazards related to cut and fill slopes and related landslide hazards. These requirements combined with the completion of a project specific geotechnical investigation and incorporation of any project-specific recommendations would minimize any impacts to less than significant.

The physical geologic and soil conditions in the project area have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows more significant impacts would occur than those originally analyzed in the SPEIR. No new significant impacts were identified as part of the project level analysis. For these reasons, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact with Mitigation. The potential impacts associated with soil erosion were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-2). The SPEIR determined that the Category 4 access road improvement would result in a less than significant impact associated with soil erosion. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

Project construction activities would be regulated under the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit, NPDES Order No. 2012-0006-DWQ). In addition, the City would comply with applicable grading ordinance(s) and/or erosion control requirements of the local jurisdiction and the requirements in Mitigation Measures HWQ-1 and 2. Compliance with existing regulations combined with the required mitigation would minimize the potential for erosion during construction such that the impact would be minimized to a level of less than significant.

The physical soil conditions in the project area have not substantially changed in the project area since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. No new significant impacts were identified as part of this analysis. For these reason, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less than Significant Impact. The potential impacts associated with unstable geologic units or soils were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-2). The SPEIR determined that the Category 4 access road improvements would result in a less than significant impact associated with unstable geologic units or soils. The project would be required to comply with City standards and standard engineering practices, which will include the preparation of a project-specific geotechnical investigation. Compliance with existing state and local regulations combined with the incorporation of any recommendations from the geotechnical investigation would minimize potential impact to less than significant. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

The physical geologic and soil conditions in the project area have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. No new significant impacts were identified as part of the project level analysis. For these reasons, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less than Significant Impact. The potential impacts associated with expansive soils were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-2). The SPEIR determined that the Category 4 access road improvements would result in a less than

significant impact associated with expansive soils. The project would be required to comply with the City's standards and standard engineering practices, which would include a project-specific geotechnical investigation. In addition to complying with existing state and local regulations, the city would incorporate any project-specific recommendations from the geotechnical investigation. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

The physical soil conditions in the project area have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. No new significant impacts were identified as part of the project level analysis. As a result, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. The potential impacts associated with septic tanks or alternative wastewater disposal systems were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-2). Similar to the CSMP, alternative wastewater disposal systems and septic tanks are not a component of the project and, therefore, no impact would result.

VII. Greenhouse Gas Emissions

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have an adverse effect on the environment?	☒	☐	☒	☐	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☒	☐	☐

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have an adverse effect on the environment?

Less than Significant Impact. The potential impacts associated with the generation of greenhouse gas (GHG) emissions were analyzed in the SPEIR for the City's CSMP (Section 4.4, GHG and Energy, pages 4.4-11 through 4.4-12). The SPEIR determined that the Category 4 access road improvements, a sub-component of the CSMP, would result in a less than significant impact associated with the generation of GHG emissions. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

The SPEIR estimated the approved project's combined GHG emissions from construction and operations using worst-case assumptions (consistent with the assumptions described in Section 4.1, Air Quality, of the SPEIR). Based on the worst-case maximum annual GHG emissions, the CSMP would not exceed the "Bright Line" threshold of 1,185 $MTCO_2e$. The GHG emissions associated with the construction and operation of the project were captured in the SPEIR for the overall CSMP and the impact was determined to be less than significant. Therefore, no substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. No new, significant impacts were identified as part of the project level analysis. As a result, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. The SPEIR included consideration of the CSMP and its potential to conflict with applicable GHG reduction plans, policies, and regulations (Section 4.4, GHG and Energy, pages 4.4-12 through 4.4-13). The SPEIR determined that the CSMP, including the Category 4 access road improvements, would not conflict with an applicable plan,

policy, or regulation designed to reduce the emissions of GHGs. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

Existing conditions, as they relate to plans and policies adopted for the purposes of reducing GHG emissions, have not substantially changed in the project area since the certification of the SPEIR. Furthermore, the proposed project would be constructed and operated in a manner consistent with the assumptions contained in the SPEIR for the overall CSMP. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. No new significant impacts were identified as part of the project level analysis. For these reasons, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

VIII. Hazards and Hazardous Materials

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☒	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☒	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☒	☐	☒	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☒	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☒	☐	☒	☐	☐

VIII. Hazards and Hazardous Materials

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☒	☐	☒	☐	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☒	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☒	☐	☐	☒	☐

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact. The potential impacts associated with the routine transport, use, or disposal of hazardous materials were analyzed in the SPEIR (Section 4.5, Hazards and Hazardous Materials, page 4.5-8). The SPEIR determined that the CSMP, including the project as a sub-component, would result in a less than significant impact associated with the routine transport, use, or disposal of hazardous materials. The project would be subject to federal, state, and local regulations and requirements regarding the transport, use, and disposal of hazardous materials.

The existing regulatory requirements governing the transport and use of hazardous materials have not substantially changed since the certification of the SPEIR. Furthermore, the construction and operational characteristics of the proposed access road have not changed since the certification of the SPEIR. Similar to the CSMP, the project would also be subject to federal, state, and local regulations regarding the transport and disposal of hazardous materials. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. No new significant impacts were identified as part of the project level analysis. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?

Less than Significant Impact with Mitigation. The potential impacts associated with the unforeseeable release of hazardous materials were analyzed in the SPEIR (Section 4.5, Hazards and Hazardous Materials, page 4.5-9 through 4.5-10). Access road reconstruction would involve excavation and grading activities, which could encounter documented and unreported contaminated soils and/or groundwater during excavation activities. The SPEIR determined that the CSMP, including the Category 4 access road improvements, could result in potentially significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. Implementation of the following mitigation measures were determined to reduce impacts to a level less than significant:

- Mitigation Measure HWQ-1: Assess Project Risk, Receiving Water Vulnerability, and Implement a Water Quality Protection Strategy
- Mitigation Measure HAZ-1: Halt Construction Work if Potentially Hazardous Materials are Encountered

Based on a review of the California Department of Toxic Substances Control's (DTSC) public database(s), the physical conditions within the project area have not changed since the certification of the SPEIR and no documented sources of contamination are identified in the immediate project area (DTSC 2019). Notwithstanding this circumstances, the construction of the proposed project has the potential to encounter unreported contaminated soils, hazardous waste (e.g. dumping), and/or groundwater during excavation activities. Mitigation Measure HWQ-1 and HAZ-1 remain applicable to the proposed project. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. No new significant impacts were identified as part of the project level analysis. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

No Impact. The potential impacts associated with emitting hazardous emissions or handling hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school were analyzed in the SPEIR (Section 4.5, Hazards and Hazardous Materials, pages 4.5-10 through 4.5-11). There are no schools located within 0.25 miles of the project. The SPEIR determined that the CSMP would have no impact associated with the generation of hazardous emissions within 0.25 mile of a school. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant Impact. The potential impacts associated with the disturbance of listed hazardous materials sites were analyzed in the SPEIR (Section 4.5 Hazards and Hazardous Materials, page 4.5-11). There are no listed hazardous materials sites within the project area (DTSC 2019). A search on the Envirostor website does not show any potentially hazardous sites along with any leaking underground storage tanks within 1000 feet of the project site. Therefore, construction of the access road would not encounter listed hazardous materials sites.

The project alignment roughly corresponds with the alignment contemplated in the SPEIR. The existing conditions in the project area have not changed in the project area since the certification of the SPEIR. No substantial new information has been presented that shows more significant impacts than those originally analyzed in the SPEIR. No new significant impacts were identified as part of the project level analysis. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*

No Impact. The potential impacts associated with airport safety hazards were analyzed in the SPEIR (Section 4.5, Hazards and Hazardous Materials, pages 4.5-12 through 4.5-13). There are no public airports within two miles of the project. The SPEIR determined that no impact would occur. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

f) *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

No impact. The potential impacts associated with safety hazards in the vicinity of a private airstrip were analyzed in the SPEIR (Section 4.5, Hazards and Hazardous Materials, pages 4.5-12 through 4.5-13). There are no private airstrips within two miles of the project. The SPEIR determined that no impact would occur. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

g) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Less than Significant Impact with Mitigation. The potential impacts associated with an adopted emergency response plan or emergency evacuation plan were analyzed in the SPEIR (Section 4.5 Hazards and Hazardous Materials, page 4.5-13). The SPEIR determined that the CSMP would result in potentially significant impacts associated with an adopted emergency response plan or emergency evacuation plan. Mitigation Measure TR-1 (Prepare and Implement a Traffic Control Plan) was proposed to reduce these impacts to a level less than significant.

The project alignment is generally located off the public roadway, thereby avoiding direct impacts to emergency response and access. However, a residence is located near the eastern end of the project alignment. To prevent access disruptions to this residence, including by emergency vehicles, Mitigation Measure TR-1 remains applicable to the proposed project. No

substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

h) *Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?*

Less than Significant Impact with Mitigation. The potential impacts associated with exposure of people or structures to significant risk of loss, injury, or death involving wildland fires were analyzed in the SPEIR (Section 4.5 Hazards and Hazardous Materials, pages 4.5-13 through 4.5-14). The project is located on undeveloped land containing potentially flammable materials such as brush, grass, or trees that could pose a risk to wildland fires during construction. The SPEIR determined that the risk of wildfire was a potentially significant impact and proposed Mitigation Measures HAZ-3 (Keep Construction Area Clear of Combustible Materials) and HAZ-4 (Provide Accessible Fire Suppression Equipment) to reduce this impact to a level less than significant.

The physical conditions, as they relate to wildland fires, have not changed in the project area since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. Mitigation Measures HAZ-3 and HAZ-4 remain applicable to the proposed project. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

IX. Hydrology and Water Quality

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☒	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?	☒	☐	☒	☐	☐
c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☒	☐	☐	☒	☐
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	☒	☐	☐	☒	☐
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☒	☐	☐	☒	☐

IX. Hydrology and Water Quality

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
f) Otherwise substantially degrade water quality?	☒	☐	☐	☒	☐
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☒	☐	☒	☐	☐
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	☒	☐	☐	☒	☐
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☒	☐	☒	☐	☐
j) Inundation by seiche, tsunami, or mudflow?	☒	☐	☒	☐	☐

Would the project:

a) Violate any water quality standards or waste discharge requirements?

Less than Significant Impact with Mitigation. The potential impacts associated with the CSMP improvements to result in a violation of water quality standards or waste discharge requirements were analyzed in the SPEIR (Section 4.6, Hydrology and Water Quality, pages 4.6-7 through 4.6-9).. The SPEIR determined that the CSMP would result in potentially significant water quality impacts and Mitigation Measure HWQ-1 was proposed to reduce these impacts to a level less than significant.

The physical watershed conditions in the project area and regulations governing water quality have not changed since the certification of the SPEIR. The construction and operational characteristics of the proposed access road have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows more significant impacts than those originally analyzed in the SPEIR and there would be no new impacts. Mitigation Measure HWQ-1 remains applicable to the proposed project. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local

groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?

Less than Significant Impact. The potential impacts associated with the CSMP improvements to result in depletion of groundwater supplies were analyzed in the SPEIR (Section 4.6, Hydrology and Water Quality, page 4.6-9). Construction activities associated with the CSMP, including the project, may require temporary dewatering; however, no long-term groundwater pumping is proposed. The SPEIR determined that the CSMP would result in a less than significant impact associated with depletion of groundwater supplies. The construction and operational characteristics of the project have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

c) *Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

Less than Significant Impact with Mitigation. The potential impacts associated with the CSMP improvements potential to result in alteration of existing drainage patterns and flood hazards were analyzed in the SPEIR (Section 4.6, Hydrology and Water Quality, pages 4.6-10 through 4.6-11). Access road and drainage improvements would involve grading, re-surfacing, and/or vegetation trimming or removal activities, and could result in temporary changes to existing drainage patterns during construction. The SPEIR determined that the CSMP, including the project, would result in potentially significant impacts associated with the alteration of existing drainage patterns and could be subjected to flood hazards. Mitigation Measures HWQ-1 and HWQ-2 were proposed to reduce impacts to a level less than significant. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements, including requiring in-channel construction activties.

The existing drainage patterns and flood hazards in the project area have not changed since the certification of the SPEIR. The construction and operational characteristics of the project have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. Mitigation Measures HWQ-1 and HWQ-2 remain applicable to the proposed project and, therefore, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?*

Less than Significant Impact with Mitigation. The potential impacts associated with CSMP improvements potential to result in alteration of existing drainage patterns and flood hazards were analyzed in the SPEIR (Section 4.6, Hydrology and Water Quality, pages 4.6-10 through 4.6-11). Access road and drainage improvements would involve grading, re-surfacing, and/or vegetation trimming or removal activities, and could result in temporary changes to existing drainage patterns during construction. The SPEIR determined that the CSMP, including the project, would result in potentially significant impacts associated with the alteration of existing

drainage patterns and could be subjected to flood hazards. Mitigation Measures HWQ-1 and HWQ-2 were proposed to reduce impacts to a level less than significant. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

The existing drainage patterns and flood hazards in the project area have not changed since the certification of the SPEIR. The construction and operational characteristics of the project have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. Mitigation Measures HWQ-1 and HWQ-2 remain applicable to the proposed project and, therefore, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

e) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Less than Significant Impact with Mitigation. The potential impacts associated with water quality and storm water drainage system capacities were analyzed in the SPEIR (Section 4.6, Hydrology and Water Quality, page 4.6-12). The SPEIR determined that the CSMP, including the project, would result in potentially significant water quality impacts and proposed Mitigation Measure HWQ-1 to reduce impacts to a level less than significant. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

The existing watershed conditions, as they relate to water quality and storm water drainage system capacities, have not substantially changed in the project area since the certification of the SPEIR. The construction and operational characteristics of the project have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. Mitigation Measure HWQ-1 remains applicable to the proposed project and the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

f) *Otherwise substantially degrade water quality?*

Less than Significant Impact with Mitigation. The potential impacts associated with water quality and storm water drainage system capacities were analyzed in the SPEIR (Section 4.6, Hydrology and Water Quality, page 4.6-12). The SPEIR determined that the CSMP, including the project, would result in potentially significant water quality impacts and proposed Mitigation Measure HWQ-1 to reduce impacts to a level less than significant. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

The existing watershed conditions, as they relate to water quality and storm water drainage system capacities, have not substantially changed in the project area since the certification of the SPEIR. The construction and operational characteristics of the project have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. Mitigation Measure HWQ-1 remains applicable to the proposed project and the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact. The potential impact associated with placement of housing within a 100-year flood hazard area was analyzed in the SPEIR (Section 4.6, Hydrology and Water Quality, page 4.6-7). The CSMP, including the project, does not include new structures for human occupation. Therefore, the SPEIR determined no impact would occur. Additionally, no FEMA designated 100-year flood hazard zones is identified in the project area. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project. The project has not been mapped by any current FEMA floodplain mapping. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?

Less than Significant Impact with Mitigation. The potential impacts associated with alteration of existing drainage patterns and flood hazards were analyzed in the SPEIR (Section 4.6, Hydrology and Water Quality, pages 4.6-10 through 4.6-11). Access road and drainage improvements would involve grading, re-surfacing, and/or vegetation trimming or removal activities, and could result in temporary changes to existing drainage patterns during construction. The SPEIR determined that the CSMP, including the project, would result in potentially significant impacts associated with the alteration of existing drainage patterns and could be subjected to flood hazards. Mitigation Measures HWQ-1 and HWQ-2 were proposed to reduce impacts to a level less than significant. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

The existing drainage patterns and flood hazards in the project area have not changed since the certification of the SPEIR. The construction and operational characteristics of the project have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. Mitigation Measures HWQ-1 and HWQ-2 remain applicable to the proposed project and, therefore, the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Less than Significant Impact. The potential impacts associated with exposure of people or structures to significant risk of loss, injury or death involving flooding were analyzed in the SPEIR (Section 4.6, Hydrology and Water Quality, page 4.6-12). The SPEIR determined that the CSMP, including the project, would result in a less than significant impact associated with exposure of people or structures to significant risk of loss, injury or death involving flooding. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements and the impact would be less than significant.

The physical watershed and geologic conditions have not changed in the project area since the certification of the SPEIR. The project features do not include large areas of impervious surfaces that could otherwise the timing and duration of peak flows to large rainfall events. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR and there would be no new impacts. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

j) Inundation by seiche, tsunami, or mudflow?

No Impact. The potential impacts associated with inundation by seiche, tsunami, or mudflow were analyzed in the SPEIR (Section 4.6, Hydrology and Water Quality, page 4.6-7). The project is in an elevated and distant from the Pacific Ocean and associated lagoons to avoid tsunami or seiche inundation. No impact would result and the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

X. Land Use and Planning

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Physically divide an established community?	☒	☐	☒	☐	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☒	☐	☒	☐	☐
c) Conflict with any applicable habitat conservation plan or natural communities' conservation plan?	☒	☐	☐	☐	☐

Would the project:

a) *Physically divide an established community?*

No Impact. The potential impacts associated with division of an established community were analyzed in the SPEIR (Section 4.7, Land Use and Planning, pages 4.7-14 through 4.7-15). The SPEIR determined that the CSMP, including the project, would not divide an established community. The project would be constructed on within the County of San Diego and parallel to existing sanitary sewer infrastructure. These land use conditions remain unchanged with the project. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?*

No Impact. The potential conflicts with applicable land use plans, policies, and regulations adopted for the purpose of avoiding or mitigating adverse environmental impacts were analyzed in the SPEIR (Section 4.7, Land Use and Planning, pages 4.7-15 through 4.7-17). The SPEIR determined that the CSMP would not conflict with an applicable land use plan, policy or regulation. The project would be constructed within the County of San Diego and

adhere to the County's local requirements and is required to maintain consistency with the City's SSMP.

The proposed 2017 CSMP was determined consistent with the stated County General Plan goals (Goal LU-12 and LU-14) by providing adequate public infrastructure and wastewater disposal. The 2017 CSMP would also improve sewer service within the urban area and, therefore, not conflict with the North County Metro Subregional Plan (Policy 13). Likewise, the 2017 CSMP would facilitate the provision of adequate sewer services in local jurisdictions outside the City, but within the Study Area. Therefore, it would not conflict with the General Plans of Carlsbad (Policy 2-P.58), Oceanside (the Water and Sewer Systems Objective), or San Marcos (Goal LU-14).

The SPEIR also contemplated future improvement projects might also require discretionary permits if new easements are required, or if permit authorizations are required by one or more agencies, such as the RWQCB. The new easements for OV1 are evaluated in this checklist and consistent with the County's Semi-Rural Residential General Plan Designation. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR of less than significant remains accurate and applicable to the proposed project.

c) *Conflict with any applicable habitat conservation plan or natural communities' conservation plan?*

Less than Significant Impact. The potential impacts associated with conflict with an applicable habitat conservation plan or natural communities conservation plan were analyzed in the SPEIR (Section 4.7, Land Use and Planning, pages 4.7-17 through 4.7-18). The SPEIR determined that the CSMP would not conflict with an applicable habitat conservation plan or natural communities conservation plan. The project would be constructed on lands administered by CDFW as contemplated in the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

XI. Mineral Resources

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☒	☐	☒	☐	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☒	☐	☒	☐	☐

Would the project:

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

No Impact. The potential impacts associated with mineral resources were analyzed in the SPEIR (Section 5.0 Effects Determined Not to be Significant, pages 5-2 through 5-3). The SPEIR determined that the CSMP, including the project, would not result in the loss of availability of known mineral resources and no impact would occur. The physical geological conditions and landownership context in the project area have not changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) *Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

No Impact. The potential impacts associated with mineral resources were analyzed in the SPEIR (Section 5.0 Effects Determined Not to be Significant, pages 5-2 through 5-3). The SPEIR determined that the CSMP, including the project, would not result in the loss of availability of known mineral resources and no impact would occur. The physical geological conditions and landownership context in the project area have not changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

XII. Noise

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project result in:					
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☒	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☒	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☒	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☒	☐	☒	☐	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☒	☐	☒	☐	☐

Would the project result in:

a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Less than Significant Impact with Mitigation. The potential impacts associated with exposure of persons to or generation of noise levels in excess of established standards were analyzed in the SPEIR (Section 4.8, Noise and Vibration, pages 4.8-9 through 4.8-10). The SPEIR determined that construction activities associated with the CSMP, including the project, may result in temporary increases in ambient noise levels above existing conditions. Mitigation Measure NV-1 (Construction Noise Reduction Measures) was proposed to reduce these impacts to a level less than significant.

No new sensitive receptors relocated to the project area since the certification of the SPEIR. The construction characteristics for the project would be the same as those described for the CSMP and the local noise standards within the project area have not changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. Mitigation Measure NV-1 would remain effective in minimize noise-related impacts during construction. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Less than Significant Impact. The potential impacts associated with excessive ground borne vibration were analyzed in the SPEIR (Section 4.8, Noise and Vibration, page 4.8-11). Although the SPEIR determined that the CSMP could result in vibration-related impact during construction, the SPEIR concluded that the O&M Program including the project improvements would result in a less than significant impact. Based on the absence of structures and buildings adjacent to the project alignment, the physical conditions in the project area have not substantially changed since the certification of the SPEIR. Furthermore, construction would be setback a minimum of 120 feet from the nearby residential structure, which remains unchanged since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?*

Less than Significant Impact. The potential impacts associated with a permanent increase in ambient noise levels in the project vicinity were analyzed in the SPEIR (Section 4.8, Noise and Vibration, pages 4.8-9 through 4.8-10). The SPEIR determined that following construction, ongoing maintenance activities along the access road would be similar to existing activities and would generate similar noise levels. For this reason, long-term operational noise impacts for the O&M Program, including the project, were determined less than significant.

The physical conditions within the project area and operational characteristics for the project have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts

than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less than Significant Impact with Mitigation. The potential impacts associated with exposure of persons to or generation of noise levels in excess of established standards were analyzed in the SPEIR (Section 4.8, Noise and Vibration, pages 4.8-9 through 4.8-10). The SPEIR determined that construction activities associated with the CSMP, including the project, may result in temporary increases in ambient noise levels above existing conditions. Mitigation Measure NV-1 (Construction Noise Reduction Measures) was proposed to reduce these impacts to a level less than significant.

No new sensitive receptors relocated to the project area since the certification of the SPEIR. The construction characteristics for the project would be the same as those described for the CSMP and the local noise standards within the project area have not changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. Mitigation Measure NV-1 would remain effective in minimize noise-related impacts during construction. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The potential impacts associated with exposure of people to excessive noise levels near public or private aircraft were analyzed in the SPEIR (Section 4.8, Noise and Vibration, pages 4.8-11 through 4.8-12). Based on the actions described in the CSMP, the SPEIR determined the CSMP would result in no significant impact associated with exposure of people to excessive noise levels near public or private aircraft. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The potential impacts associated with exposure of people to excessive noise levels near public or private aircraft were analyzed in the SPEIR (Section 4.8, Noise and Vibration, pages 4.8-11 through 4.8-12). Based on the actions described in the CSMP, the SPEIR determined the CSMP would result in no significant impact associated with exposure of people to excessive noise levels near public or private aircraft. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

XIII. Population and Housing

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☒	☐	☒	☐	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☒	☐	☒	☐	☐
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	☒	☐	☒	☐	☐

Would the project:

a) *Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?*

No Impact. The proposed project involves creation of an access road for the OV1 pipeline and manholes for maintenance. The proposed project would not directly or indirectly induce growth, but rather minimize risk of SSOs while accommodating the demands of the population, consistent with the City of Vista's SSMP and adjacent jurisdictions General Plans and zoning requirements. Based on these considerations, not impact would result.

b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The proposed project involves creation of the OV1 access road to provide more reliable access to the OV1 pipeline and manholes for maintenance. The proposed project would not displace existing housing or people necessitating the construction of replacement housing elsewhere. No impact would occur.

c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?

No Impact. The proposed project involves the creation of the OV1 access road to provide more reliable access to the OV1 pipeline and manholes for maintenance. The proposed project would not displace existing housing or people necessitating the construction of replacement housing elsewhere. No impact would occur.

XIV. Public Services

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:					
a) Fire Protection?	☒	☐	☒	☐	☐
b) Police Protection?	☒	☐	☒	☐	☐
c) Schools?	☒	☐	☒	☐	☐
d) Parks?	☒	☐	☒	☐	☐
e) Other public facilities?	☒	☐	☒	☐	☐

Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

a) Fire Protection?

Less than Significant Impact. The potential impacts to fire protection services as a result of implementing the CSMP were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-3). The SPEIR determined that the CSMP, including the project, would not require new services for fire protection. The physical conditions within the project area and actions proposed in conjunction with the project have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) Police Protection?

Less than Significant Impact. See response (a). Implementation of the project would result in a less than significant impact to police protection services.

c) Schools?

Less than Significant Impact. See response (a). Implementation of the project would result in a less than significant impact to schools and education services.

d) Parks?

Less than Significant Impact. See response (a). Implementation of the project would result in a less than significant impact to parks and recreational facilities.

e) Other public facilities?

Less than Significant Impact. The potential impacts associated with public services were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-3). The SPEIR determined that the CSMP, including the project, would not require new services for fire protection, police protection, schools, and parks. The physical conditions within the project area and actions proposed in conjunction with the project have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

XV. Recreation

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☒	☐	☒	☐	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☒	☐	☒	☐	☐

Would the project:

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

No Impact. The potential impacts associated with increase use of existing recreational facilities were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-3). As provided, the CSMP would not result in new residential or commercial growth that could otherwise lead to substantial physical deterioration of local parks and recreational facilities. This circumstance would remain unchanged under the project and no impact would result.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?*

No Impact. The potential impacts associated with recreational facilities were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-3). The project does not propose the construction of new or expanded recreational facilities, which could result in adverse physical effects to the environment. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

XVI. Transportation/Traffic

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☒	☐	☒	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☒	☐	☒	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that result in substantial safety risks?	☒	☐	☒	☐	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☒	☐
e) Result in inadequate emergency access?	☒	☐	☒	☐	☐

XVI. Transportation/Traffic

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☒	☐	☒	☐	☐

Would the project:

a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*

Less than Significant. The potential impacts associated with the performance of the circulation system were analyzed in the SPEIR (Section 4.9, Transportation and Circulation, page 4.9-7). The SPEIR determined that the O&M Program component of the CSMP, including the project, would not result in significant impacts to roadway operations or capacity. This conclusion is based on the project's location, which is off the public roadway right-of-way. This basis remains unchanged since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) *Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

No Impact. The potential impacts associated with conflict with an applicable congestion management plan were analyzed in the SPEIR (Section 4.9, Transportation and Circulation, page 4.9-6). The SPEIR determined that the CSMP, including the project, would not conflict with an applicable congestion management plan and no impact would occur. The basis for this conclusion remain unchanged since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

c) *Result in a change in air traffic patterns, including either an increase in traffic levels or change in location that result in substantial safety risks?*

No Impact. The potential impacts associated with air traffic patterns were analyzed in the SPEIR (Section 4.9, Transportation and Circulation, pages 4.9-7). The SPEIR determined that the CSMP would have no effect or changes in local air traffic patterns and no impact would occur. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Less than Significant Impact with Mitigation. The potential impacts associated with hazards due to a design feature were analyzed in the SPEIR (Section 4.9, Transportation and Circulation, pages 4.9-8 through 4.9-9). The SPEIR determined that impacts associated with the CSMP would be locally significant in certain circumstances. Mitigation Measure TR-1 (Prepare and Implement a Traffic Control Plan) is proposed to reduce impacts related to temporary traffic related hazards and local driveway access along Buena Vista Road and other local roadways to a level less than significant. The project and conditions in the project area have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

e) *Result in inadequate emergency access?*

Less than Significant Impact. The potential impacts associated with emergency access were analyzed in the SPEIR (Section 4.9, Transportation and Circulation, pages 4.9-9 through 4.9-10). The project would be located within an undeveloped area and outside the public roadway right-of-way. In this context, impacts to emergency access would be considered less than significant. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

f) *Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?*

Less than Significant Impact. The potential impacts associated with conflict with adopted policies, plans, or programs regarding alternative transportation were analyzed in the SPEIR (Section 4.9, Transportation and Circulation, page 4.9-10). The project would be located outside the public roadway right-of-way. Due to the nature of the project, construction activities would be short-term and would not disrupt access for non-motorized form of transportation. This impact would be less than significant and the conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

XVII. Utilities and Service Systems

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☒	☐	☒	☐	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☒	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☒	☐	☒	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☒	☐	☒	☐	☐
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☒	☐	☒	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☒	☐	☒	☐	☐

XVII. Utilities and Service Systems

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☒	☐	☒	☐	☐

Would the project:

a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

No Impact. The potential impacts associated with wastewater treatment requirements were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, pages 5-3 through 5-4). The SPEIR determined that the CSMP would not exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board and no impact would occur. The project features and conditions in which they were considered have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

No Impact. The potential impacts associated with water or wastewater facilities were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-4). The SPEIR determined that the CSMP would not require the expansion or construction of new water treatment facilities which could otherwise cause significant environmental effects. This circumstance has not changed since the certification of the SPEIR and, therefore, no impact would occur. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

c) *Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*

Less than Significant Impact. The potential impacts associated with storm water facilities were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-4). The SPEIR determined that the CSMP would not require the expansion or construction of stormwater drainage facilities which could otherwise cause significant environmental effects. The project would not alter these existing facilities or significantly change the timing of runoff to and from the local creek. In this content, this impact is less than significant.

The drainage conditions in the project area and anticipated project features have not substantially changed since the certification of the SPEIR. No substantial new information has

been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?*

Less than Significant Impact. The proposed project involves the realignment and improvement of the existing OV1 access road. Minimal water would be required to support project-related construction for dust control. This impact is considered less than significant. While OV1 was not considered in the SPEIR, the project would result in similar impacts as the Category 4 improvements.

e) *Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

No Impact. The potential impacts associated with wastewater treatment capacity were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, pages 5-3 through 5-4). The SPEIR determined that the wastewater treatment provider, Encina Wastewater Authority, has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. This circumstance has not changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?*

Significant Impact. The potential impacts associated with solid waste were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-4). The SPEIR determined that the CSMP, including the project, would be served by a landfill with sufficient permitted capacity and would comply with solid waste regulations. The project is not expected to generate substantial amounts of solid waste and construction debris would be recycled per City ordinance. Solid waste disposal capacity within the project area has not changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

g) *Comply with federal, state, and local statutes and regulations related to solid waste?*

Less than Significant Impact. The potential impacts associated with solid waste were analyzed in the SPEIR (Section 5.0, Effects Determined Not to be Significant, page 5-4). The SPEIR determined that the CSMP, including the project, would be served by a landfill with sufficient permitted capacity and would comply with solid waste regulations. The project is not expected to generate substantial amounts of solid waste and construction debris would be recycled per City ordinance. Solid waste disposal capacity within the project area has not changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally

analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

XVIII. Energy

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☒	☐	☒	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☒	☐	☒	☐	☐

Would the project:

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact. The potential impacts associated with energy consumption and efficiency were analyzed in the SPEIR (Section 4.4, Greenhouse Gases and Energy, pages 4.4-13 through 4.4-14). The SPEIR determined that the CSMP would not result in the wasteful, inefficient, or unnecessary consumption of energy and concluded a less than significant impact. The construction and operational characteristics of the project have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less than Significant Impact. The potential impacts associated with energy consumption and efficiency were analyzed in the SPEIR (Section 4.4, Greenhouse Gases and Energy, pages 4.4-13 through 4.4-14). The SPEIR determined that the CSMP would not result in the wasteful, inefficient, or unnecessary consumption of energy and concluded a less than significant impact. The construction and operational characteristics of the project have not substantially changed since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

XIX. Tribal Cultural Resources

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project cause a substantial adverse change in the significance of a tribal cultural resource defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	☒	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	☒	☐	☐	☒	☐

Would the project cause a substantial adverse change in the significance of a tribal cultural resource defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

Less than Significant Impact with Mitigation. California Native American tribes traditionally and culturally affiliated with the area containing the site of the proposed project requested consultation pursuant to PRC Section 21080.3.1, and consultation was initiated by the City. As provided in IV(b), the project would result in direct impacts to CA-SDI-5652, which is a multi-component site consisting of the Marrón-Hayes Adobes Historic District, and includes historic and prehistoric artifact scatter. This impact could include a substantial adverse change in the significance of a Tribal Cultural Resource pending further consultation with interested tribes. Implementation of Mitigation Measure CULT-2 is required.

b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than Significant Impact with Mitigation. See response to (a).

XX. Wildfire

Environmental Issue Area	Impact Analyzed in the PEIR or SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐	☐

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. According to the California Department of Forestry and Fire Protection and as depicted in Figure 4.5-1 of the SPEIR, the project site is not located within a state responsibility area or in an area classified as a very high fire hazard severity zone (California Department of Forestry and Fire Protection 2007). Therefore, the proposed project would not result in a significant impact associated with wildfire.

b) *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

No Impact. According to the California Department of Forestry and Fire Protection and as depicted in Figure 4.5-1 of the SPEIR, the project site is not located within a state responsibility area or in an area classified as a very high fire hazard severity zone (California Department of Forestry and Fire Protection 2007). No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. Mitigation Measures HAZ-3 and HAZ-4 remain applicable to the proposed project. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

c) *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

No Impact. According to the California Department of Forestry and Fire Protection and as depicted in Figure 4.5-1 of the SPEIR, the project site is not located within a state responsibility area or in an area classified as a very high fire hazard severity zone (California Department of Forestry and Fire Protection 2007). Therefore, the proposed project would not result in a significant impact associated with wildfire.

The physical conditions, as they relate to wildland fires, have not changed in the project area since the certification of the SPEIR. No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. Mitigation Measures HAZ-3 and HAZ-4 remain applicable to the proposed project. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

d) *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

No Impact. According to the California Department of Forestry and Fire Protection and as depicted in Figure 4.5-1 of the SPEIR, the project site is not located within a state responsibility area or in an area classified as a very high fire hazard severity zone (California Department of Forestry and Fire Protection 2007). Therefore, the proposed project would not result in a significant impact associated with wildfire.

XXI. Mandatory Findings of Significance

Environmental Issue Area	Impact Analyzed in the SPEIR	New Significant Impact due to Unusual Circumstances or Substantial New Information	No Impact or Less than Significant Impact	Less Than Significant with Mitigation - SPEIR Mitigation Measure(s) Applicable	Less Than Significant with Mitigation - New Mitigation Measure(s) Required
Would the project:					
• Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☒	☐
• Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☒	☐	☐	☒	☐
• Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☒	☐	☐

Authority: Public Resources Code 21083

Would the project:

a) *Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?*

Less than Significant with Mitigation. Sections 4.2 and 4.3 of the SPEIR included consideration of potential cumulative impacts to biological and cultural resources.

The physical improvements proposed with OV1 are consistent with the types O&M Program improvements evaluated in the SPEIR, including cumulative effects to biological and cultural resources. As provided in the Section 4.2 of the SPEIR, development within Vista and unincorporated portions of San Diego County would extend urban land uses and related infrastructure into vacant or rural areas containing natural vegetation communities and wildlife consistent with adopted plans. The project would not result in any changes to these existing plans. In addition, similar to the project, other cumulative projects in the project area would be subject to the regulatory framework promulgated by USACE, RWQCB, CDFW and USFWS to limit impacts to the special status species and their habitats. Through compliance with Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-4 and BIO-5 and all applicable regulations that protect plant, fish, and animal species, the cumulative effects of the project would be less than significant after mitigation.

As provided in Section 4.3 of the SPEIR, cumulative effects to cultural and paleontological resources are localized and generally unique to each project site. As provided in Appendix C, no significant archaeological or historic resources are identified within the project APE. In addition, existing laws such as the State CEQA Guidelines Section 15064.5 and the State of California Health and Safety Code Section 7050.5, the PRC 5097.98 require the City to consider and mitigate for the potential of uncovering sensitive cultural resources. For these reason, no significant cumulative effects to cultural resources would result.

No substantial new information has been presented that shows the project would result in more significant impacts than those originally analyzed in the SPEIR. No new significant impacts were identified as part of the project level analysis. As a result, the conclusion identified in the SPEIR remains accurate and applicable to the project.

b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)*

Less than Significant with Mitigation. The project's potential cumulative impacts as a component of the City's O&M Program were generally analyzed in the SPEIR (Section 4.1 through Section 4.9). The SPEIR determined that no unavoidable significant environmental impacts would occur with implementation of the proposed project. All impacts would be mitigated to a level less than significant. Compliance with the proposed mitigation measures would minimize the likelihood for residual, significant impacts to result from the project either directly or indirectly. In the absence of residually significant impacts, the incremental accumulation of effects resulting from the proposed project would not be cumulatively considerable.

No substantial new information has been presented that shows more significant impacts than those originally analyzed in the SPEIR and there would be no new significant impacts. The conclusion identified in the SPEIR remains accurate and applicable to the proposed project.

c) *Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?*

Less than Significant Impact. The project would require some construction in riparian and unvegetated streams that fall under CDFW jurisdiction. No substantial adverse impacts would result to human beings by the project. By implementing the project, the City would be able to continue to comply with its adopted SSMP and protect public health and safety. A less than significant impact would result.

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Appendix A. Mitigation Monitoring and Reporting Program

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Mitigation, Monitoring, and Reporting Program

1. Introduction

The California Environmental Quality Act (CEQA) requires a lead or responsible agency to adopt a mitigation monitoring and reporting program (MMRP) when approving or carrying out a project (Section 21081.6 of the California Public Resources Code). The purpose of this program is to ensure that the mitigation measures identified in an Environmental Impact Report (EIR) or a mitigated negative declaration are implemented as detailed in the environmental document. As lead agency for the Comprehensive Sewer Master Plan (CSMP) Update, the City of Vista (City) is responsible for implementation of this MMRP per the requirements of the (CEQA).

In this context, this MMRP was prepared to provide a monitoring guide to facilitate the implementation of the adopted mitigation measures and related compliance reporting. Once the City adopts the MMRP, the mitigation monitoring/reporting requirements will be incorporated into the appropriate permits and construction documents (i.e., engineering specifications, engineering and construction plans, etc.). In accordance with the aforementioned requirements, this MMRP lists each mitigation measure, describes the methods for implementation and verification, and identifies the responsible party or parties as detailed below in Section 3.

2. Monitoring and Reporting Procedures

This MMRP was developed for each of the improvement categories identified for the City's CSMP (State Clearinghouse Number 2007091072). The MMRP will be in place through all phases of the CSMP, including design, construction, and operation of individual improvements, and will facilitate the implementation of mitigation measures proposed to avoid, minimize, or reduce significant environmental effects.

The City will be responsible for administering the MMRP and ensuring that all parties, including its contractors, comply with its provisions. The City may delegate implementation and monitoring activities to staff, consultants, or contractors. The City will require that its construction contractors submit an environmental compliance plan for approval by the City and construction manager prior to the beginning construction activities.

This plan shall document how the contractor intends to comply with all measures applicable to the contract, including the application of best management practices (BMPs) in accordance with instructions listed in the construction specifications. The City also will ensure that monitoring is documented through systematic compliance verification and reporting and that deficiencies are promptly corrected.

3. Mitigation Monitoring and Reporting Program Implementation

This MMRP was prepared to verify compliance with individual mitigation measures proposed in the Final SPEIR for the 2017 CSMP. Table 1 of this MMRP identifies each mitigation measure by discipline, the entity responsible for its implementation, and the improvement category in which the measure applies. Certain inspections and reports may require preparation by qualified individuals

and these are specified as needed. The timing and method of verification for each measure are also specified.

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
BIOLOGICAL RESOURCES					
BIO-1 - MBTA Nest Avoidance. If construction activities occur between January 15 and September 15, a preconstruction survey (within seven days prior to construction activities) shall be conducted by a qualified biologist to determine if active nests are present within or adjacent to the area proposed for development in order to avoid the nesting activities of breeding birds/raptors. The results of the surveys shall be submitted to the City (and made available to the Wildlife Agencies, upon request) prior to initiation of any construction activities. If nesting activities within 200 feet of the proposed work area are not detected, construction activities may proceed. If nesting activities are confirmed, construction activities shall be delayed within an appropriate buffer (e.g., 300-feet to 500 feet contingent on the species observed) from the active nest until the young birds have fledged and left the nest or until the nest is no longer active as determined by a qualified biologist. The size of the appropriate buffer shall be determined by a qualified biologist based on field conditions. The results of all biological monitoring shall be submitted to the City (and made available to the Wildlife Agencies, upon request).	Prior to and during construction	1, 2, 3, 4	City of Vista Engineering Department	California Deportment of Fish and Wildlife (CDFW), U. S. Fish and Wildlife Service (USFWS)	
BIO-2 - Habitat Assessment and Focused Surveys for Special-Status Species and Sensitive Habitats. Prior to the issuance of project-specific construction documents for CIP Capacity and Condition Projects (Cross-County) and Out-of-Service Access Roads, a habitat assessment shall be conducted by a qualified biologist to determine the potential for special-status species to occur within the anticipated construction area. If the habitat assessment identifies potentially suitable habitat for threatened and endangered species, focused surveys shall be conducted by a qualified biologist to determine their presence or absence. Sensitive vegetation communities shall be documented as part of the habitat assessment. If threatened and endangered species are observed/detected, project specific mitigation measures shall be developed to	Prior to and during construction; post-construction if compensatory mitigation is proposed	2, 4	City of Vista Engineering Department	CDFW, USFWS; City of Carlsbad	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
mitigate impacts on threatened and endangered species to below a level of significance. Specific measures shall include, but are not limited to: • Early consultation with the wildlife agencies (i.e., USFWS, CDFW) for ESA- and CESA-listed species to ensure avoidance to the greatest extent feasible and appropriate "take" authorization. • Provision of a qualified biological monitor on site during all earth disturbing activities to ensure avoidance of impacts on listed species. • The use of fencing or flagging to identify sensitive areas that support the listed species and to ensure that the areas are protected from direct and indirect impacts. • Implementation of noise reduction measures (e.g., noise attenuation structures) within habitats occupied by listed avian species, and noise monitoring during the breeding season. • Identification and transplantation of listed plant species populations in accordance with best practices. • Impacts to federally listed species covered by the City of Carlsbad's HMP will be required to be consistent with those authorized under the HMP and coordinated with the City of Carlsbad and USFWS. • Avoidance of the breeding seasons for listed species such as: o Arroyo toad—March 1 to September 30 o Least Bell's vireo—March 1 to September 30 o Willow flycatcher (all subspecies)—March 1 to September 30 o Coastal California gnatcatcher—March 1 to September 30					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
If no threatened or endangered species are observed or detected during focused surveys, but potentially suitable habitat for non-threatened and non-endangered plant or wildlife species is present, a site-specific determination shall be made as to whether the potential impacts are significant based on the degree of threat and the size of the population/occupied habitat to be impacted.					
BIO-3 - Formal Wetland Delineation and Permit Acquisition. If the habitat assessment identifies potential federal and/or state jurisdictional wetlands, a formal jurisdictional delineation shall be prepared. This document shall map the jurisdictional wetlands present and overlay it on the grading footprint of the project, thereby allowing a calculation of the total impacts. If jurisdictional wetlands would be impacted, mitigation shall be required at a minimum 1:1 ratio; however, coordination with USACE (through the 404 process) and CDFW (through the Section 1602 Streambed Alteration Agreement process) may determine a higher ratio is required. Mitigation shall be achieved through a combination of in-kind creation, restoration, and/or enhancement as determined to be appropriate for each site through consultation with the Resource Agencies. Mitigation shall first be considered on-site, then with an approved mitigation bank, and thirdly through offsite mitigation. The appropriate permit applications shall be submitted to state and federal regulatory agencies. The permits issued by these agencies would finalize the mitigation requirements.	Prior to and during construction; post-construction if compensatory mitigation is proposed	2, 4	City of Vista Engineering Department	CDFW, USFWS	
BIO-4 – Avoid and Minimize Direct and Indirect Impacts to Least Bell's Vireo and Southwestern Willow Flycatcher. Consistent with the HMP, the City shall adhere to the following measures to avoid or reduce impacts: a) The removal of native vegetation and habitat shall be avoided and minimized to the maximum extent practicable. Determination of adequate avoidance and minimization of impacts shall be consistent with Sections 0-6 of the HMP. Deviations from these guidelines shall require written concurrence of USFWS and CDFW. For temporary impacts,	Prior to and during construction; post-construction if compensatory mitigation is proposed	4 (VC1)	City of Vista Engineering Department	CDFW, USFWS	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
the work site shall be returned to pre-existing contours and revegetation with appropriate native species. All revegetation for temporary and permanent impacts shall occur at the ratios specified in applicable permits (e.g., 404 or 1603). Revegetation specifications shall ensure creation and restoration of riparian woodland vegetation to vireo quality. All revegetation plans shall be prepared and implemented consistent with Section F-2 (Habitat Restoration and Revegetation) of the HMP and shall require written concurrence of USFWS and CDFW. If written objections are not provided by the wildlife agencies within 30 days of receipt of written request for concurrence by the local jurisdiction, then the deviation may proceed as approved by the local agency. The wildlife agencies shall provide written comments specifying wildlife agency concerns.					
b) Contractor shall to the maximum extent practicable avoid impacts during the breeding season of least Bell's vireo (generally March 15 - September 15). Projects that cannot be conducted without placing equipment or personnel in or adjacent to sensitive habitats shall be timed to ensure that habitat is removed prior to the initiation of the breeding season (generally before March 15).					
c) Construction noise levels at the riparian canopy edge shall be kept below 60 dBA Leq (Measured as Equivalent Sound Level) from 5 a.m. to 11 a.m. during the peak nesting period of March 15 to July 15. For the balance of the day/season, the noise levels shall not exceed 60 decibels, averaged over a one-hour period on an A-weighted decibel (dBA) (i.e., 1 hour Leq/dBA). Noise levels shall be monitored and monitoring reports shall be provided to the jurisdictional city, USFWS, and CDFW. Noise levels in excess of this threshold shall require written concurrence from USFWS and CDFW and may require additional minimization/mitigation measures.					
d) Brown-headed cowbirds and other exotic species which prey upon least Bell's vireo shall be removed from the site. For new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds, jurisdictions					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
shall require monitoring and control of cowbirds. e) Biological buffers of at least 100 feet shall be maintained adjacent to occupied least Bell's vireo habitat, measured from the outer edge of riparian vegetation. Within this 100-foot buffer, no new development shall be allowed, and the area shall be managed for natural biological values as part of the preserve system. Buffers less than 100 feet shall require written concurrence of the USFWS and CDFW within 30 days of receipt of written request for concurrence by the local jurisdiction.					
BIO-5 – Implement Biological Resource Protection Measures During Construction. The City will implement the following best management practices (BMPs), which are consistent with BMPs in the HMP, during construction to minimize direct and indirect impacts on special-status species. a) Prior to the commencement of construction, the City shall designate a Project Biologist (a person with, at minimum, a bachelor's degree in biology, ecology, or environmental studies with familiarity with federally and/or state listed plant and wildlife species and other, non-listed special-status plant and wildlife species with the potential to be impacted by the project) who shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, and shall maintain communications with the contractor to ensure that issues relating to biological resources are appropriately and lawfully managed. The Project Biologist may designate qualified biologists or biological monitors to help oversee project compliance or conduct pre-construction surveys for special-status species. These biologists shall have familiarity with the species for which they would be conducting pre-construction surveys or monitoring construction activities. b) The Project Biologist or designated qualified biologist shall	Prior to and during construction; post-construction if compensatory mitigation is proposed	4 (VC1)	City of Vista Engineering Department	CDFW, USFWS	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
review final plans, designate areas that need temporary fencing (e.g., environmentally sensitive area [ESA] fencing), and monitor construction activities within and adjacent to areas with native vegetation communities or special-status plant and wildlife species. The qualified biologist shall monitor activities within designated areas during critical times such as vegetation removal, initial ground-disturbing activities, and the installation of BMPs and fencing to protect native species, and shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed. The qualified biologist shall check construction barriers or exclusion fencing and shall provide corrective measures to the contractor to ensure that the barriers or fencing are maintained throughout construction. The qualified biologist shall have the authority to stop work if a special-status wildlife species is encountered within the project area during construction. Construction activities shall cease until the Project Biologist or qualified biologist determine(s) that the animal will not be harmed or that it has left the construction area on its own. The appropriate regulatory agency(ies) shall be notified within 24 hours of sighting of a special-status wildlife species.					
c) Prior to the start of construction, all project personnel and contractors who will be on site during construction shall complete mandatory training conducted by the Project Biologist or a designated qualified biologist. Any new project personnel or contractors that come on board after the initiation of construction shall also be required to complete the mandatory WEAP training before they commence with work. The training shall advise workers of potential impacts to sensitive habitat and federally and/or state-listed and other special-status species, and the potential penalties for impacts to such habitat and species. At a minimum, the training shall include the following topics: (1) occurrences of the special-status species and sensitive vegetation communities in the project area (including vegetation communities subject to USACE, CDFW, and RWQCB jurisdiction), (2) the purpose					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
for resource protection; (3) a physical description, life history, and habitat requirements of least Bell's vireo, southwestern willow flycatcher, and coastal California gnatcatcher; (4) sensitivity of the species to human activities; (5) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project site by fencing); (6) environmentally responsible construction practices; (7) the protocol to resolve conflicts that may arise at any time during the construction process; and (8) the general provisions of the federal or state ESA, the need to adhere to the provisions of federal and state laws, and the penalties associated with violating federal or state laws; (9) reporting requirements and procedures to follow should a federally and/or state-listed species be encountered during construction; and, (10) avoidance and minimization measures designed to reduce the impacts to federally and/or state-listed and other special-status species. d) The training program shall include color photos of federally and/or state-listed species and sensitive vegetation communities. Following the education program, the photos shall be posted in the contractor and resident engineer's office, where the photos shall remain throughout the duration of project construction. Photos of the habitat in which sensitive species are found shall be posted onsite. The contractor shall be required to provide the City with evidence of the employee training (e.g., a sign-in sheet) on request. Project personnel and contractors shall be instructed to immediately notify the Project Biologist or designated biologist of any incidents that could affect sensitive vegetation communities or special-status species. Incidents could include fuel leaks or injury to any wildlife. The Project Biologist shall notify the City of any incident and the City shall notify the USFWS within 24 hours of being noticed. e) The Project Biologist shall request that the resident engineer halt work, if necessary, and confer with the City prior to					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
contacting the Carlsbad Fish and Wildlife Office (CFWO) and CDFW to ensure the proper implementation of species and habitat protection measures. The Project Biologist shall report any non-compliance issue to the City and the City will notify the CFWO and CDFW within 24 hours of its occurrence. f) The Project Biologist shall monitor the Project site immediately prior to and during construction to identify the presence of invasive weeds and shall recommend measures to avoid their inadvertent spread in association with the project. Such measures may include inspection and cleaning of construction equipment and use of eradication strategies. All heavy equipment shall be washed and cleaned of debris prior to entering sensitive habitat areas to minimize the spread of invasive weeds. g) ESA fencing shall be placed along the perimeter of the identified work area. Work areas shall be clearly marked in the field and shall be confirmed by the Project Biologist or designated biologist prior to any clearing, and the marked boundaries shall be maintained throughout the duration of the work. Staging areas, including lay down areas and equipment storage areas, shall be flagged and fenced with ESA fencing. h) All native or sensitive habitat areas outside of and adjacent to the designated project limits of disturbance shall be designated as Environmentally Sensitive Areas (ESAs) on project maps. Prior to construction, the Contractor shall delineate the project limits, including construction, staging, lay-down, and equipment storage areas, and erect the construction boundary, with fencing or flagging, along the perimeter of the identified construction area to protect adjacent sensitive habitats and sensitive plant populations. ESAs shall be clearly delineated with fencing or flagging or other BMPs prior to construction to inform construction personnel where the ESAs are located. ESAs fencing may include orange plastic snow fence, orange silt fencing, or stakes and flagging in areas of flowing water. No personnel,					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
equipment, or debris shall be allowed within the ESAs. Fences and flagging shall be installed by Contractor in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot and operating heavy equipment. Ten days prior to initiating construction, the Contractor shall submit to the City final plans for initial clearing and grubbing of habitat and project construction. At least five days prior to initiating construction (except for impacts resulting from clearing to install temporary fencing), The City shall submit to the CFWO and CDFW for approval, , the final plans for initial clearing and grubbing of habitat and project construction. These final plans shall include photographs that show the fenced and flagged ESA limits and all areas to be impacted or avoided. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of the City, the CFWO, and CDFW. Temporary construction fences and markers shall be maintained in good repair by the Contractor and shall be removed upon completion of project construction. i) No work activities, materials or equipment storage or access shall be permitted outside the project limits without permission from the City. All parking and equipment storage by the contractor related to the Project shall be confined to the project limits. Undisturbed areas and sensitive habitat outside and adjacent to the project limits shall not be used for parking or equipment storage. Project-related vehicle traffic shall be restricted to the project limits and established roads and construction access points. j) Construction activities shall be limited to daylight hours to the extent feasible. If nighttime activities are unavoidable, then workers shall direct all lights for nighttime lighting into the work area and shall minimize the lighting of natural habitat areas adjacent to the work area. The contractor shall use light glare shields to reduce the extent of illumination into sensitive habitats. If the work area is located near surface waters, the lighting shall be shielded such that it does not					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
shine directly into the water. k) Clearing shall be confined to the minimal area necessary to facilitate construction activities. Cleared vegetation and spoils shall be disposed of daily at a permanent offsite spoils location or at a temporary onsite location that will not create habitat for special-status wildlife species. Spoils and dredged material shall be disposed of at an approved site or facility in accordance with all applicable federal, state, and local regulations. l) Food-related and other garbage shall be disposed of in wildlife-proof containers and shall be removed from the project area daily during the construction period. Vehicles carrying trash shall be required to have loads covered and secured to prevent trash and debris from falling onto roads and adjacent properties. m) All construction equipment used for the Project shall be maintained in accordance with manufacturer's recommendations and requirements and shall be maintained to comply with noise standards (e.g., exhaust mufflers, acoustically attenuating shields, shrouds, or enclosures). n) The Contractor shall implement noise reduction measures (e.g., noise attenuation structures) within habitats occupied by federally and/or state-listed bird species, and shall conduct noise monitoring during the bird breeding season per BIO-4. o) The Contractor shall store all construction-related vehicles and equipment in the designated staging areas. These areas shall not contain native or sensitive vegetation communities and shall not support sensitive plant or wildlife species. p) The Contractor shall avoid wildlife entrapment by completely covering or providing escape ramps for all excavated steep-walled holes or trenches more than 1 foot deep at the end of each construction work day. The qualified biologist shall inspect open trenches and holes and shall remove or release any trapped wildlife found in the trenches or holes prior to					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
filling by the construction contractor. q) Special-status wildlife can be attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar features; construction equipment; or construction debris left overnight in areas that may be occupied by special-status species that could occupy such structures shall be inspected by a qualified biologist prior to being used for construction. Such inspections shall occur at the beginning of each day's activities for those materials to be used or moved that day. If necessary, and under the direct supervision of the biologist, the structure may be moved up to one time to isolate it from construction activities, until the special-status species has moved from the structure of their own volition, has been captured and relocated, or has otherwise been removed from the structure. r) Capture and relocation of trapped or injured wildlife listed under ESA or CESA can only be performed by personnel with appropriate state and/or federal permits. Any sightings and any incidental take shall be reported to the City via email within one working day of the discovery. A follow-up report shall be sent to the regulatory agencies, including dates, locations, habitat description, and any corrective measures taken to protect special-status species encountered. For each special-status species encountered, the biologist shall submit a completed California Natural Diversity Data Base field survey form (or equivalent) to CDFW no more than 90 days after completing the last field visit to the project site. s) The City shall be notified within one working day of the discovery of, injury to, or mortality of a special-status species that results from project-related construction activities or is observed at the project site. Notification shall include the date, time, and location of the incident or of the discovery of an individual special-status species that is dead or injured. For a special-status species that is injured, general information on the type or extent of injury shall be included. The location of the incident shall be clearly indicated on a					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
USGS 7.5-minute quadrangle and/or similar map at a scale that will allow others to find the location in the field, or as requested by the City. The biologist is encouraged to include any other pertinent information in the notification.					
t) The spread of dust from work sites to sensitive natural communities or sensitive species habitats on adjacent lands shall be minimized by use of a water truck. Dirt access roads, haul roads, and spoils areas shall be watered at least twice each day when being used during construction dry periods.					
u) The Contractor shall strictly limit their activities, vehicles, equipment, and construction materials to established roads and the project disturbance limits. Posted speed limit signs on local roads and a 15 mile-per-hour speed limit along ingress and egress routes shall be observed. Extra caution shall be used when special-status reptile species may be basking on roads.					
v) To avoid injury or death to wildlife, no firearms shall be allowed on the Project site except for those carried by authorized security personnel or local, state, or federal law enforcement officials.					
w) To prevent harassment, injury, or mortality of sensitive wildlife by dogs or cats, no canine or feline pets shall be permitted in the active construction area.					
x) Plastic monofilament netting or similar material shall not be used for erosion control because smaller wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds. This limitation shall be communicated to the contractor through specifications or special provisions included in the construction bid solicitation package.					
y) Rodenticides and herbicides shall be used in accordance with the manufacturer recommended uses and applications and in such a manner as to prevent primary or secondary poisoning of special-status fish, wildlife, and plant species and depletion of prey populations upon which they depend.					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, the California Department of Pesticide Regulation, and other appropriate state and federal regulations, as well as additional project-related restrictions imposed by the City.					
z) Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water to the fullest extent practicable. Secondary containment shall consist of a ring of sand bags around each piece of stored equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials (HazMat) secondary containment unit shall be used by the Contractor.					
aa) The Contractor shall be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. or state and in areas that do not have potential to support federally and/or state-listed species. Any fuel containers, repair materials including creosote-treated wood, and/or stockpiled material that is left onsite overnight shall be secured in secondary containment within the work area and staging/assembly area, and covered with plastic at the end of each work day.					
bb) In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are removed from the Project site.					
cc) Equipment and containers will be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan (SWPPP), Materials Safety Data Sheets, and any specifications required by other permits issued for the Project.					
dd) The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
equipment. ee) If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment shall be used to capture spills/leaks within all areas. Where feasible, maintenance of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. or state and in areas that do not have potential to support federally and/or state-listed species.					
CULTURAL RESOURCES					
CULT-1 Construction-Related Vibration. Prior to the issuance of project-specific construction documents for CIP Capacity and Condition Projects (Hardscape Environs), the City Engineer shall determine whether construction activities would occur within 25 feet of a NRHP or CRHR eligible or listed historic structure. For structures that have not been previously evaluated, the City Engineer shall consult with a qualified Architectural Historian approved by the City to conduct an evaluation of the structure. If the structure is determined eligible or already eligible or listed in the NRHP or CRHR, a structural evaluation shall be conducted by a Professional Structural Engineer to identify maximum allowable levels of vibration during construction. If a historic determination is required, the engineer shall provide recommendations on approaches to stabilization in conjunction with vibration monitoring. Permanent stabilization measures shall follow the Secretary of the Interior's guidelines for the treatment of historic properties. If the buildings are temporarily stabilized for the duration of construction activities, when removed, the buildings shall be restored to their pre-construction condition when the stabilization measures are removed.	Prior to and following construction	1, 2	City of Vista Engineering Department	Native American Heritage Commission (NAHC)	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
CULT-2 - Project-Specific Archaeological Survey. Prior to the issuance of project-specific construction documents for CIP Capacity and Condition Projects (Hardscape and Cross County Environs), Pump Station Rehabilitations, and Out-of-Service Area Projects, a Qualified Archaeologist approved by the City shall contact the NAHC regarding a Sacred Lands File Search for the project area. In addition, the City shall request a written response from the San Luis Rey Band of Mission Indians (SLR Band) (a tribe traditionally and culturally affiliated with the site) regarding whether the site of the 2017 CSMP improvement project may potentially affect Native American resources. If the NAHC and/or the SLR Band confirms potential known resources, a pedestrian survey (i.e., physical walk over) shall first be conducted by the Qualified Archaeologist and a TCA (traditionally and culturally affiliated) Native American Monitor. Should the pedestrian survey identify Native American cultural resources, the Qualified Archeologist shall, in consultation with the TCA Native American monitor and the SLR Band, make an immediate written evaluation of the significance and appropriate treatment of the resource, including any avoidance measures, additional testing and evaluations, or data recovery plans, and Pre-Excavation Agreements with the Tribe. If the SLR Band confirms, in consultation with the Qualified Archaeologist, that there is a potential for unknown resources to be uncovered during construction activities, then Mitigation Measure CULT-3, Archaeological Monitoring, shall be implemented.	Prior to construction	1, 2, 3, 4	City of Vista Engineering Department	NAHC	
CULT-3 Archaeological Monitoring. Cultural resource mitigation monitoring shall be conducted to provide for the identification, evaluation, treatment, and protection of any cultural resources that are affected by or may be discovered during the construction of the proposed project. The monitoring shall consist of the full-time presence of a Qualified Archaeologist and a TCA (traditionally and culturally affiliated) Native American Monitor, and the monitoring activities shall be identified and defined in a Pre-Excavation Agreement between the City's Engineering Department and the San Luis Rey Band. The purpose of this agreement shall be to formalize protocols and procedures for the	During construction	1, 2, 3, 4	City of Vista Engineering Department	NAHC	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
protection, treatment, and disposition of, but not limited to, such items as Native American human remains, funerary objects, cultural and religious landscapes, ceremonial items, traditional gathering areas and cultural items, located and/or discovered through the cultural resource mitigation monitoring program in conjunction with the construction of the proposed project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, soil surveys, grading, or any other ground disturbing activities. Other tasks of the monitoring program shall include the following: • The requirement for cultural resource mitigation monitoring shall be noted on all applicable construction documents, including demolition plans, grading plans, etc. • The Qualified Archaeologist and TCA Native American Monitor shall attend all applicable pre-construction meetings with the Contractor and/or associated Subcontractors. • The Qualified Archaeologist shall maintain ongoing collaborative consultation with the TCA Native American Monitor during all ground disturbing or altering activities, as identified above. • The Qualified Archaeologist and/or TCA Native American Monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground-disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the Qualified Archaeologist and the TCA Native American Monitor, in consultation with the San Luis Rey Band. Ground disturbing activities shall not resume until the Qualified Archaeologist, in consultation with the TCA Native American Monitor, deems the cultural resource or feature has been appropriately documented and/or protected. At the Qualified Archaeologist's discretion, the location of ground disturbing activities may be relocated elsewhere on the project site to avoid further disturbance of cultural resources.					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
• The Qualified Archaeologist and/or TCA Native American Monitor may also halt ground disturbing activities around known archaeological artifact deposits or cultural features if, in their respective opinions, there is the possibility that they could be damaged or destroyed. • The avoidance and protection of discovered unknown and significant cultural resources and/or unique archaeological resources is the preferable mitigation for the proposed project. If avoidance is not feasible, a Data Recovery Plan may be authorized by the City as the Lead Agency under CEQA. If data recovery is required, then the San Luis Rey Band shall be notified and consulted in drafting and finalizing any such recovery plan. • Prior to the release of any Bonds associated with the construction of improvements noted in the 2017 CSMP, a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the cultural resource mitigation monitoring efforts (such as, but not limited to, a Data Recovery Program) shall be submitted by the Qualified Archaeologist, along with the TCA Native American Monitor's notes and comments, to the City's Director of Community Development for approval.					
CULT-4 Paleontological Monitoring. Monitoring during construction grading or trenching shall be required for all CIP conveyance projects (Hardscape and Cross-Country Environs) that would excavate to a depth of ten feet or more. Prior to the issuance of project specific construction documents, the City Engineer shall retain a Professional Paleontologist to observe all earth-disturbing activities. All fossil materials recovered during mitigation monitoring shall be cleaned, identified, cataloged, and analyzed in accordance with standard professional practices. The results of the field work and laboratory analysis shall be submitted in a technical report and the entire collection transferred to an approved facility.	During constriction	1, 2, 3, 4	City of Vista Engineering Department	NAHC	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
CULT-5 Disturbance to Human Remains. As specified by California Health and Safety Code Section 7050.5, if human remains are found on the project site during construction or during archaeological work, the person responsible for the excavation, or his or her authorized representative, shall immediately notify the San Diego County Coroner's office by telephone. No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie adjacent remains (as determined by the Qualified Archaeologist and/or the TCA (traditionally and culturally affiliated) Native American Monitor) shall occur until the Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.98. If such a discovery occurs, a temporary construction exclusion zone shall be established surrounding the area of the discovery so that the area would be protected (as determined by the Qualified Archaeologist and/or the TCA Native American Monitor), and consultation and treatment could occur as prescribed by law. As further defined by State law, the Coroner would determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC would make a determination as to the Most Likely Descendent. If Native American remains are discovered, the remains shall be kept "in situ" ("in place"), or in a secure location in close proximity to where they were found, and the analysis of the remains shall only occur on-site in the presence of the TCA Native American Monitor.	During construction	1, 2, 3, 4	City of Vista Engineering Department	NAHC, San Diego County	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
HAZARDS AND HAZARDOUS MATERIALS					
HAZ-1 - Halt Construction Work if Potentially Hazardous Materials are Encountered. All construction contractors shall immediately stop all surface or subsurface activities in the event that potentially hazardous materials are encountered, an odor is identified, or considerably stained soil is visible. Contractors shall follow all applicable local, state, and federal regulations regarding discovery, response, disposal, and remediation for hazardous materials encountered during the construction process. These requirements shall be included in the contractor specifications. If any hazardous materials, waste sites, or vapor intrusion risks are identified prior to or during construction, a qualified professional, in consultation with appropriate regulatory agencies, will develop and implement a plan to remediate the contamination and properly dispose of the contaminated material. If material imports are proposed, the contractor shall furnish the City will appropriate documentation certifying that the imported materials are free of contamination.	During construction	1, 2, 3, 4	City of Vista Engineering Department		
HAZ-2 - Hazardous Materials Surveys. Prior to the issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or rehabilitation activities, a Hazardous Materials Assessment (surveys) would be performed to determine the presence or absence of ACMs/LBP located in the structure(s) to be demolished. Suspect materials that would be disturbed by the demolition or rehabilitation activities would be sampled and analyzed for asbestos content, or assumed to be asbestos containing. All lead containing materials scheduled for demolition must comply with applicable regulations for demolition methods and dust suppression. Lead containing materials shall be managed in accordance with applicable regulations. The ACM survey would be conducted by a person certified by the California Division of Occupational Safety and Health (Cal/OSHA). The LBP survey would be conducted by a person certified by the California Department of Health Services. Copies of the surveys would be provided to SDCDEH and SDCAPCD once completed.	Prior to construction	1, 2, 4	City of Vista Engineering Department		

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
HAZ-3 - Keep Construction Area Clear of Combustible Materials. During construction, construction contractors shall ensure that staging areas, welding areas, or areas slated for construction using spark-producing equipment shall be cleared of combustible vegetation or other materials that could serve as fire fuel. All vegetation clearing shall be coordinated with a qualified biologist and any required permits prior to removal. The contractor shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.	During construction	1, 2, 4	City of Vista Engineering Department		
HAZ-4 - Provide Accessible Fire Suppression Equipment. Work crews shall be required to have sufficient fire suppression equipment readily available to ensure that any fire resulting from construction activities is immediately extinguished. All off-road equipment using internal combustion engines shall be equipped with spark arrestors.	During construction	1, 2, 4	City of Vista Engineering Department		
HYDROLOGY AND WATER QUALITY					
HWQ-1 - Assess Project Risk, Receiving Water Vulnerability, and Implement a Water Quality Protection Strategy. The construction contractor will assess the receiving water vulnerability and develop a SWPPP that complies with the requirements of the NPDES General Construction Permit (Order 2009-0009-DWQ as amended by 2010 0014-DWQ and 2012-006-DWQ) based on the project-specific risk level subject to the City Engineer's approval. The SWPPP shall identify specific actions and BMPs relating to the prevention of stormwater pollution from project-related construction sources by identifying a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall reflect localized surface hydrological conditions, local jurisdictional requirements. and shall be reviewed and approved by the City Engineer prior to commencement of	Prior to, during, and following construction	1, 2, 3, 4	City of Vista Engineering Department	Cities of Carlsbad, San Marcos, Oceanside; San Diego County; Regional Water Quality Control Board (RWQCB), Region 9	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
work. The SWPPP shall be prepared by a qualified SWPPP developer with BMPs selected to achieve maximum pollutant removal and that represent the best available technology that is economically achievable. BMPs for soil stabilization and erosion control practices and sediment control practices will also be required. Performance and effectiveness of these BMPs shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination, (e.g., inadvertent petroleum release) is required to determine adequacy of the measure. The SWPPP shall also address other project-specific water quality threats, as required for individual improvements including but not limited to, temporary dewatering, hydrostatic testing, and other resources permits as required under the Federal Clean Water Act, County Grading Ordnance, and State Fish and Game Code, as applicable. Construction and post-construction BMPs will be designed to avoid the creation of standing water and potential mosquito breeding habitat.					
HWQ-2 - Prepare and Implement a Flow Diversion Plan For Construction. The construction contractor shall develop a Flow Diversion Plan(s) for in-channel construction activities. The contractor shall incorporate measures to minimize changes to flood flow elevation(s) during construction, address accumulation of floating debris, provide measures that minimize sedimentation to surface waters, and include contingency measures in the event of substantial rainfall.	Prior to and during construction	1, 4	City of Vista Engineering Department	RWQCB	
NOISE AND VIBRATION					
NV-1 - Construction Noise Reduction Measures. The Construction Contractor shall demonstrate to the satisfaction of the City Engineer that the following noise control techniques are implemented during the clearing, demolition, grading and construction phases of projects identified in the 2017 CSMP	Prior to and during construction	1, 2, 3, 4	City of Vista Engineering Department	Cities of Carlsbad, San Marcos, Oceanside; San Diego County	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
within 200 feet of noise-sensitive land uses. • Heavy equipment repair and contractor staging shall be conducted at sites as far as practical from nearby residences. • Construction equipment, including vehicles, generators and compressors, shall be maintained in proper operating condition and shall be equipped with manufacturers' standard noise control devices or better (e.g., mufflers, acoustical lagging, and/or engine enclosures). • Temporary sound barriers (or curtains), stockpiles of excavated materials, or other effective shielding or enclosure techniques shall be used where construction noise would exceed 90 dBA within less than 50 feet from a noise sensitive receptor. • Construction work, including on-site equipment maintenance and repair, shall be limited to the hours specified in the noise ordinance of the affected jurisdiction(s). • Electrical power shall be supplied from commercial power supply, wherever feasible, in order to avoid or minimize the use of engine-driven generators. • Electrically powered equipment shall be used instead of pneumatic or internal-combustion powered equipment, where feasible. • Unnecessary idling of internal combustion engines (i.e., in excess of 5 minutes) shall be prohibited. • Operating equipment shall be designed to comply with all applicable local, state, and federal noise regulations. • Construction site and access road speed limits shall be established and enforced during the construction period. • If lighted traffic control devices are to be located within 500 feet of residences, the devices shall be powered by batteries, solar power, or similar sources, and not by an internal combustion engine.					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
• The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. • No project-related public address or music system shall be audible at any adjacent sensitive receptor. • The construction contractors shall provide advance notice, between 2 and 4 weeks prior to construction, by mail to all residents or property owners within 200 feet of the alignment. The announcement shall state specifically where and when construction will occur in the area. If construction delays of more than 7 days occur, an additional notice shall be made, either in person or by mail. The City shall publish a notice of impending construction on the City website, stating when and where construction will occur. • The construction contractors shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring residents about noise and other construction disturbance. The construction contractors shall also establish a program for receiving questions or complaints during construction and develop procedures for responding to callers. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public in accordance with the information above.					
TRANSPORTATION AND CIRCULATION					
Mitigation Measure TR-1 - Prepare and Implement a Traffic Control Plan. The construction contractor shall prepare a Traffic Control Plan for roadways and intersections affected by individual 2017 CSMP improvements for approval by the City Engineer. The Traffic Control Plan will comply with local agency requirements (e.g., Vista, Carlsbad, Caltrans, etc.) with jurisdiction over project construction. The Traffic Control Plan will include, but not be limited to, the following elements based on local site and roadway conditions:	Prior to and during construction	1, 2, 4	City of Vista Engineering Department	Cities of Carlsbad, San Marcos, Oceanside; San Diego County	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
• Provide street layout showing location of construction activity and surrounding streets to be used as detour routes, including "special signage." Post a minimum 72-hour advance warning of construction activities within affected roadways to allow motorists to select alternative routes. • Restrict delivery of construction materials to non-peak travel periods (9 a.m. – 3 p.m.) as appropriate. Weekend and night work shifts will be allowed in non-residential areas only. • Maintain the maximum travel-lane capacity during non-construction periods and provide flagger-control at construction sites to manage traffic control and flows. • Limit the construction work zone in each block to a width that, at a minimum, maintains alternate one-way traffic flow past the construction zone. • Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners will be notified. • Require temporary steel-plate trench crossings, as needed, to maintain reasonable access to homes, businesses, and streets. When required by the applicable encroachment permit, maintain the existing lane configuration during nonworking hours by covering the trench or jack pit with steel plates or by using temporary backfill. • Require appropriate warning signage and safety lighting for construction zones. • Access for emergency vehicles shall be maintained at all times. Police, fire, and emergency services shall be notified of the timing, location, and duration of construction activities that could hinder and/or delay emergency access through the construction period. • Coordinate with NCTD to plan, as needed, for the temporary relocation of bus stops and/or detour of transit routes on affected pipeline alignments.					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
• Identify detours, where available, for bicyclists and pedestrians in areas potentially affected by project construction. • Provide adequate off-street parking locations for workers' vehicles and construction equipment in those areas where on-street parking availability is insufficient. • Repair or restore the roadway ROW to its original condition or better upon completion of work.					

[1] Project categories identified in the CSMP SPEIR include:

Category 1: CIP Capacity and Condition Projects (Hardscape Environs). Tables 3-3 and 3 4 in Chapter 3 identify the near-term and build out CIP capacity-related projects included within this category. Figures 3-7 and 3-8 illustrate the locations of the capacity improvements. Table 1 in Appendix B of this SPEIR includes a list of CIP condition Projects included within this category. Figures 3-9 through 3-17 illustrate the location of the condition relate improvements.

Category 2: CIP Capacity and Condition Projects (Cross-Country Environs). Tables 3-3 and 3-4 identify the near-term and build out CIP capacity-related projects included within this category. Figures 3-7 and 3-8 illustrate the locations of the capacity improvements. Table 2 in Appendix B of this SPEIR includes a list of CIP condition projects included in this category. Figures 3-9 through 3-17 illustrate the location of the condition-relate improvements.

Category 3: O&M Program Operations and Pump Station Rehabilitation. Table 3-5 in Chapter 3 of this SPEIR includes a list of the O&M Program improvements included within this category.

Category 4: Out-of-Service Area Projects. Figures 3-19 and 3-20 illustrate the out-of-service area project(s) improvements included within this category.

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Appendix B. Biological Resources Letter

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August 29, 2019

Elmer Alex, Sewer Engineering Division Manager

City of Vista Engineering Dept.

200 Civic Center Drive

Vista, CA 92084

Re: Biological Letter Addressing the Oceanside-Vista Interceptor Reach 1 Access Road Project

Dear Mr. Alex,

Introduction

In November 2017, the City of Vista (City) certified the Supplemental Program Environmental Impact Report (SPEIR) for the 2017 Comprehensive Sewer Master Plan (2017 CSMP) (State Clearinghouse No. 2007091072). The 2017 CSMP identifies a set of recommended projects for inclusion in the City of Vista's (City) Capital Improvement Program (CIP) and an operations and maintenance (O&M) Program. The SPEIR included a programmatic evaluation of the potential environmental impacts of the projects and associated O&M Program, as contemplated in the CSMP.

The O&M Program component of the 2017 CSMP provides a continuation of the City's existing condition assessment program consistent with the City's adopted Sanitary Sewer Management Plan (SSMP). The City maintains multiple easements to facilitate access to the conveyance and pumping facilities within and outside its service area. These easements range from 10 to 20 feet in width to accommodate maintenance equipment. The SPEIR for the 2017 CSMP included an environmental analysis for the O&M Program activities, which includes repair, upgrade, and/or rehabilitation of existing unpaved access roads that provide access to the City's trunk sewers.

The City's existing Oceanside-Vista, Reach 1 (OV1) trunk sewer line was constructed in 1989 and is located in the central portion of the City's service area in unincorporated San Diego County. OV1 consists of a 12-inch sewer line and is located within a narrow easement across multiple private properties with limited or no access. The City needs to develop improved sewer maintenance access to OV1 through the securing of multiple permanent easements and reconstruction of the existing access road.

The activities required to repair, upgrade, and/or rehabilitate access roads, including OV1, are similar in nature to the description of O&M activities considered and analyzed in the City's SPEIR. For this reason, the City is proposing to add OV1 to the list of improvements identified in the City's O&M Program and CSMP. This document evaluates whether the improvements identified for OV1 are covered within the scope of the SPEIR analysis and supporting mitigation monitoring and reporting program (MMRP, Attachment A).

Project Location

The proposed project is located in an unincorporated island of San Diego County that borders the cities of Oceanside and Vista, California (Figure 1). The proposed project is generally located south of Navel Place, north of Fern Place, and between Mar Vista Drive, Buena Vista Drive, and South Melrose Drive (Figure 2). The OV1 site ranges from 320 to 421 feet above mean sea level. The project is located on the San Luis Rey USGS 7.5-minute topographic quadrangle within Township 11 South, Range 4 West. The County Planning Area borders the southern portion of the project site. As shown on Figure 3, the project site is located fully within the SPEIR study area.

Proposed Project

The proposed project involves the upgrading, realigning, and rehabilitation of the existing OV1 access road to provide more reliable access to the OV1 pipeline and manholes (MH) for maintenance, including during up to the 50-year rainfall event. As part of the proposed project, the City will establish permanent easements to provide long-term access to 12 manholes connected to OV1 from the intersection of Buena Vista Drive and Mar Vista Drive to South Melrose Drive, where the City already has an established easement from the public ROW.

The proposed access road is shown on Figure 4 and is approximately 1,780 feet in length. As shown on Figure 4, five optional access routes are being considered that range from 215 to 520 feet in length. The City does not intend to pursue all the options considered, but rather those that function most efficiently together. The permanent easements and the new access roads would be maintained over the long term to allow for full access to the existing trunk sewer line and manholes.

The proposed access road would be constructed with an aggregate or crushed rock to provide a permeable roadway surface, approximately 12 feet in width. The roadway surface would be approximately six inches thick and selected materials will be determined during the final design in coordination with local land owners. The City expects that a larger crushed rock will be used for the roadway subgrade to improve the roadway's stability. As proposed, the alignment for the proposed roadway would adhere to the following standards:

- a maximum longitudinal slope of 15-percent
- a minimum vertical curve length of 100 feet
- a maximum horizontal curve radius of 30 feet
- a maximum access road cross fall of 4-percent

A minimum 10-foot radius of crushed rock base would be provided around each manhole. This 10-foot radius is measured from the center of manhole cover to the edge of the crushed rock base. Where the manhole is located within the proposed road, the proposed concrete collar and cover would be flush with the crushed rock base surface to allow

maintenance vehicles to drive over the manhole cover. When a manhole is adjacent to the sewer access road or within an area at risk of flooding due to its proximity to an existing creek, a raised concrete manhole collar is proposed per City Standard Drawing SWR-30A. Manholes that would be required to be raised would include MH 16 and 17.

Figure 1. Regional Map

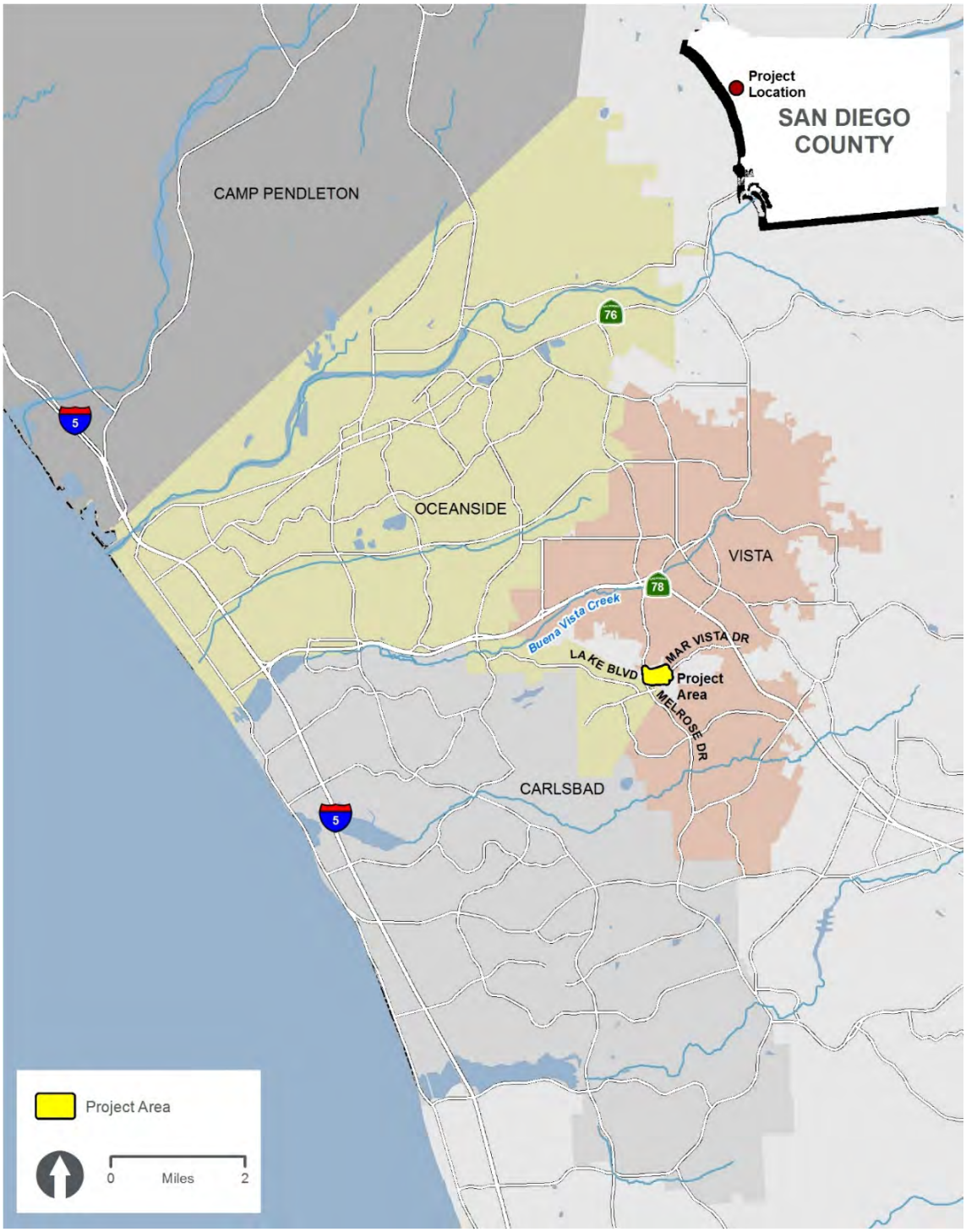


Figure 2. Project Area

Figure 3. SPEIR Study Area Map (Adapted from Figure 3-2 of the SPEIR)

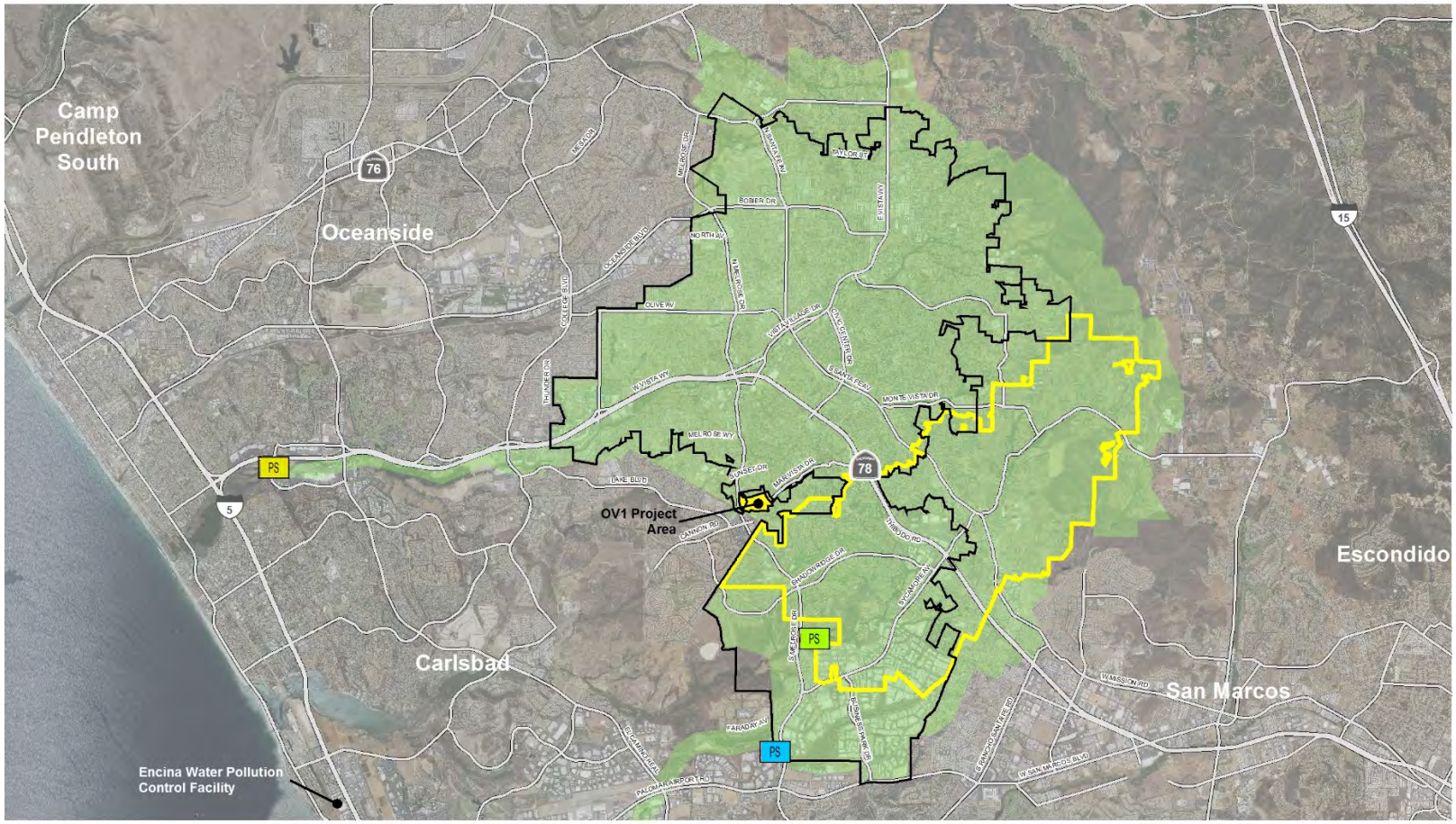
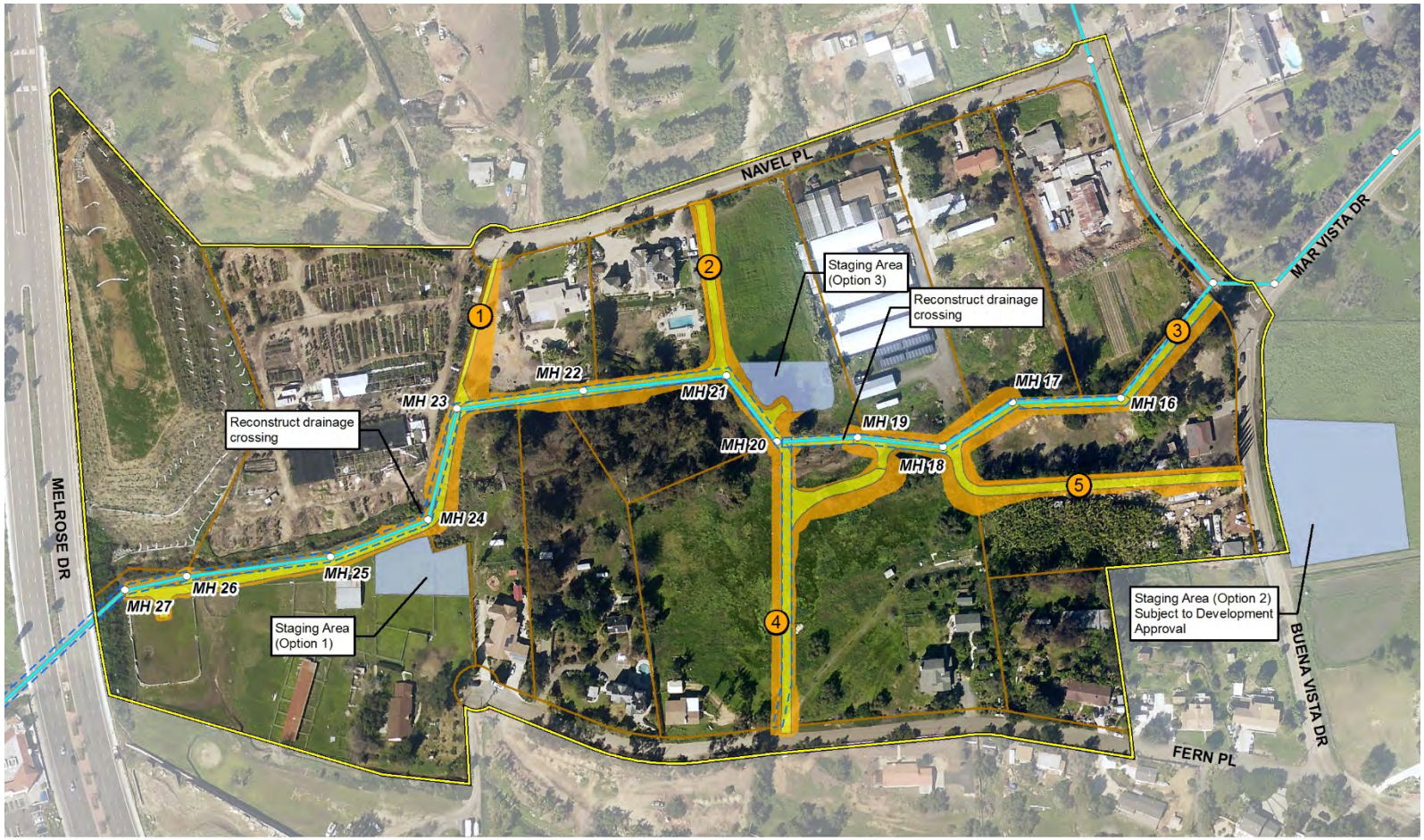


Figure 4. Proposed Access Road



The proposed project would include improvements at two drainage crossings to minimize degradation of the access road surface and roadway crown. At each drainage crossing, the City is considering a combination of low-flow (e.g. Arizona crossings) or culvert crossings to convey stormwater across the access road and away from the roadway crown. The final selection will be based on the quantity of flow during the 50-year event. Drainage ditches along the roadway may also be required to safely convey flows downstream.

Two optional construction staging areas are under consideration. Option 1 is located onsite and near the western end of the alignment (Figure 4). Option 2 is located offsite and to the east of Buena Vista Road. Option 2 would only be used if the adjacent property is approved for development and does not conflict with the timing of project construction.

Methods

Literature Review

A list of special-status species that have the potential to occur within the SPEIR study area, which includes the vicinity of the project area, was provided in Tables 4.2-1 and 4.2-2 of the SPEIR (Attachment B). An updated list of special-status species that have the potential to occur within the vicinity of the project area was prepared using information provided by the USFWS species list from the online Information for Planning and Conservation Environmental Conservation Online System (USFWS 2019), the CDFW's California Natural Diversity Database RareFind program (CDFW 2019), and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2019) as these database searches are only good for a period of six to nine months. Attachment C provides the updated lists based on the literature review. In addition to a review of special-status species databases, aerial photographs and topographic mapping (1-foot contours) of the project area at a scale of 1:2,400 were reviewed prior to the field survey.

Field Surveys

HDR biologists conducted vegetation mapping and a habitat assessment for federally and/or state-listed plant and wildlife species on April 12 and 19, 2019. Vegetation communities were mapped using the classification system methodology and associations described in the *Vegetation Classification Manual for Western San Diego County* (SANDAG 2011), adapted from *A Manual of California Vegetation* (Sawyer et al. 2009). This updated classification system was used to provide consistency with the National Vegetation Classification System and is currently the state-wide standard for vegetation mapping (Section 1900 of the Fish and Game Code). A jurisdictional delineation of the site was also conducted in compliance with SPEIR Mitigation Measure BIO-3. Detailed information regarding the methodology is provided under separate cover.

The results of the vegetation mapping and habitat assessment indicate there is no potential for federally and/or state-listed plant or wildlife species to occur onsite. Therefore, no focused surveys for federally and/or state-listed plant or wildlife species are required.

Results

Existing Environmental Conditions

The existing environmental conditions, including vegetation communities, jurisdictional areas, and special-status species with the potential to occur in the SPEIR study area, is described in the 2017 SPEIR and incorporated herein by reference. Any differences from what was noted in the 2017 SPEIR are described below based on additional site specific investigations.

Vegetation Communities and other Land Cover Types

Vegetation communities and other land cover types in the project area are provided on Figure 5. Acreages of vegetation communities and other land cover types in the OV1 project area are provided in Table 1.

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

Vegetation Community or Other Land Cover Type (SPEIR)	Alliance Level Vegetation Community Type	Area (acres)
Tree-dominated habitats		
Coast live oak woodland	Coast live oak woodland	0.02
Willow riparian forest	Mixed willow riparian	0.07
Eucalyptus woodland	Eucalyptus woodland	2.22
Ornamental (planted)	Eucalyptus and palm trees	0.17
	Bottlebrush trees	0.09
	Other ornamental	0.08
Orchard	Palm tree orchard	0.67
Non-native woodland	Pepper tree grove	0.22
Shrub-dominated habitats		
Riparian scrub	Mulefat thicket	0.11
Coastal sage scrub	California brittlebush scrub	2.00
	Disturbed California buckwheat scrub	0.23
Non-native shrubland	Non-native cactus scrub	0.13
Herbaceous-dominated habitats		
Freshwater marsh	Cattail marsh	0.01
Disturbed wetland	Herbaceous wetland	0.06
Non-native grassland	Annual brome grassland	3.28
	Non-native grassland	6.09
Non-native herbaceous stand	Curly dock stand	0.27

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

Vegetation Community or Other Land Cover Type (SPEIR)	Alliance Level Vegetation Community Type	Area (acres)
	Giant reed stand	0.01
Agriculture	Active agriculture	3.65
	Fallow agriculture	0.69
Other land cover types		
Unvegetated streambed	Unvegetated streambed	0.02
Disturbed habitat	Disturbed habitat	2.05
Urban/developed	Urban/developed	14.35
	Total	**36.49**

Figure 5. Vegetation Communities, Other Land Cover Types, and Special-status Plant Species

Wetlands and Waters of the U.S. and State

Based on the results of a jurisdictional delineation conducted at the project site, the study area includes waters of the U.S., including wetlands, subject to USACE jurisdiction pursuant to the Clean Water Act, waters of the state subject to Regional Water Quality Board jurisdiction, and streambed and riparian areas subject to jurisdiction by CDFW (Table 2; Figure 6 and Figure 7). Detailed information on the existing site conditions related to jurisdictional areas is provided under separate cover.

Table 2. Jurisdictional Resources in the Study Area

Jurisdictional Type	Acreage
USACE	
USACE Wetland Waters of the U.S.	0.254
USACE Non-wetland Waters of the U.S.	0.197
Total USACE	**0.451**
CFDFW	
CDFW Unvegetated Streambed	0.248
CDFW Riparian	0.415
Total CDFW	**0.664**

Notes:
CDFW=California Department of Fish and Wildlife; USACE=United States Army Corps of Engineers

Figure 6. USACE Jurisdictional Resources in the Study Area

Figure 7. CDFW Jurisdictional Resources in the Study Area

Special-status Plant Species

Special-status plant species and their potential to occur in the CSMP SPEIR study area were provided as Table 4.2-1 in the SPEIR (Attachment B). Based on the results of the updated literature review search described in Section 2.1 and field reconnaissance of the project area, no additional special-status plant species beyond what was already presented in the SPEIR were determined to have the potential to occur in the project area.

One special-status plant species that is not federally or state-listed, but that is considered sensitive by CNPS was observed on the project site: southern California black walnut (*Juglans californica*) (Figure 3-1). This species is included as a California Rare Plant Rank List 4[1] plant, indicating that it is a plant of limited distribution and is on a watch list. Three individual trees were observed on the project site, which would not be considered a locally significant population. A California native plant survey field form documenting the occurrence of this species will be submitted to CDFW for inclusion in their California Natural Diversity Data Base (CNDDB) and is included as Attachment D.

No other special-status plant species were found on the project site.

A list of all plant species observed at the project site is provided as Attachment E.

Special-status Wildlife Species

Special-status wildlife species and their potential to occur in the Comprehensive Sewer Master Plan project area were provided as Table 4.2-2 in the SPEIR (Attachment C). Based on the results of the updated literature review search described in Section 2.1 and the project-specific habitat assessments, the following special-status wildlife species were determined to also have the potential to occur in the project area (Table 3). Additionally, suitable habitat was determined to be absent for many of the special-status species including all federally or state-listed species.

In summary, due to the developed and fragmented nature of the project area, it has potential to support only the following special-status species: loggerhead shrike, western red bat, pallid bat, red-diamond rattlesnake, two-striped garter snake, south coast garter snake and American badger.

[1] CNPS recommends that California Rare Plant Rank List 4 plants be evaluated for impact significance during preparation of environmental documents relating to CEQA. Locally significant populations may include those at the periphery of a species' range, areas where the taxon is particularly uncommon, areas where the taxon has sustained heavy losses, or populations exhibiting unusual morphology or occurring on unusual substrates.

Table 3. Additional Special-status Wildlife Species with the Potential to Occur in the Project Area

Scientific Name	Common Name	Status	Species Summary	Potential to Occur
		Birds		
Lanius ludovicianus	Loggerhead shrike	SSC	Breeds in shrublands or open woodlands with a fair amount of grass cover and areas of bare ground.	Potential
		Mammals		
Lasiurus blossevilli	Western red bat	SSC	Ranges in the western half of California. Generally occurs in most habitats. Roosts in trees, sometimes shrubs, and typically at the margins of habitats.	Potential

Source: CNDDB 2019

Notes:
SSC=Species of Special Concern

As noted in the SPEIR, migratory birds are protected under the Migratory Bird Treaty Act (MBTA). Suitable habitat that would support breeding, roosting, and foraging migratory birds occurs throughout the project site. Birds that are protected under the MBTA were observed at the project site.

A list of all wildlife species observed at the project site is provided as Attachment F.

Regulatory Background

The description of the federal, state, and local regulatory framework as provided in Section 3.3 of the SPEIR is incorporated by reference.

Impact Analysis

The impact analysis provided below is based on the thresholds of significance for biological resources as defined in Appendix G of the 2019 updated CEQA Guidelines. Specifically, project impacts to biological resources would be considered significant if the project was determined to:

A. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified in as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.
B. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.
C. Have a substantial adverse effect on state or federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
D. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
E. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
F. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation plan, or other approved local, regional, or state habitat conservation plan.

IMPACT A

IMPACT A.	Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS?

Direct Construction Impacts

SPECIAL-STATUS PLANT SPECIES

As noted in Section 3.1, no federally and/or state-listed plant species were observed in the project area. Based on the preliminary project design, no southern California black walnut trees would be directly impacted by the project (Figure 8). Therefore, the project would not have a substantial adverse effect, either directly or through habitat modifications, on this non-listed special-status plant species.

SPECIAL-STATUS WILDLIFE SPECIES

Potential impacts on special-status wildlife species from both construction and operations, including federally and state-listed species and nesting migratory birds are consistent with what was addressed in the SPEIR. Following a site-specific survey of the project site, no federally and state-listed species were observed nor suitable habitat that would support federally and state-listed species exists on the project site.

As noted in Section 3.1, birds that are protected under the MBTA were observed at the project site. Direct impacts to nesting birds, including yellow breasted chat, northern harrier, white-tailed kite, long-eared owl, or yellow warbler, would be considered significant prior to implementation of mitigation. Implementation of Mitigation Measure BIO-1 (MBTA Nest Avoidance) in the SPEIR would avoid direct impacts on these species during the nesting season.

As noted in Section 3.1, the project alignment is largely developed with the remaining vegetation generally composed of ornamental species or exotic vegetation (e. g. eucalyptus). Based on the site's history of disturbance, absence of suitable habitat, and habitat fragmentation by development, no additional project-specific mitigation measures are recommended.

Indirect Construction Impacts

SPECIAL-STATUS PLANT SPECIES

Implementation of the project would result in indirect impacts on special-status plant species, which may include temporary, construction-related dust effects on flowering of southern California black walnut. However, standard dust control best management practices would minimize dust during construction and dust is not expected to substantially affect the small number of special-status plants observed at the project site. These impacts would not be considered significant.

SPECIAL-STATUS WILDLIFE SPECIES

Implementation of the project would result in indirect impacts on migratory birds and would generally be attributed to temporary, construction-related dust and water quality effects (e.g., hazardous materials leaks, such as fuel, hydraulic fluid, and/or lubricants) from equipment working in or around occupied habitat. In addition, construction-related noise levels have the potential to indirectly impact nesting birds. These impacts would be considered significant. Implementation of Mitigation Measure BIO-1 (MBTA Nest Avoidance) in the SPEIR would avoid indirect impacts on MBTA-covered species during the nesting season. No additional project-specific mitigation measures are recommended.

Operations and Maintenance Impacts

SPECIAL-STATUS PLANT SPECIES

Once constructed, ongoing operations and maintenance activities associated with the project would be conducted within the confines of the access road. Therefore, impacts on special-status plant species are unlikely and this impact would be considered less than significant.

SPECIAL-STATUS WILDLIFE SPECIES

Once constructed, ongoing operations and maintenance activities associated with the project would be conducted within the confines of the access road. Impacts on MBTA-protected species would be limited to indirect effects such as minor dust production and noise and would be considered less than significant.

IMPACT B

IMPACT B.	Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS?

Direct Construction Impacts

VEGETATION COMMUNITIES AND OTHER LAND COVER TYPES

Based on the preliminary project design, construction of the project would result in direct impacts on vegetation communities and other land cover types, as indicated in Table 4 for the access road backbone and optional routes, Table 5 for the staging areas, and on Figure 8. Impacts on riparian and other sensitive natural communities would be considered significant. Because a discretionary permit from San Diego County may be required for project implementation, the project would need to comply with the North County Plan Area, as applicable. As provided in Section 3.1, the vegetation communities project in the project area do not provide suitable habitat for special-status species covered in the County's North County Plan Area. For this reason, project related impacts to sensitive vegetation communities would be less than significant.

Table 4. OV1 Vegetation Impacts – Access Road Backbone and Options

Vegetation Community or Other Land Cover Type	Alliance level Vegetation Community Type	Riparian or Other Sensitive Natural Community?	Backbone		Access Option 1		Access Option 2		Access Option 3		Access Option 4		Access Option 5	
			Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impacts (acres)
Willow riparian forest	Mixed willow riparian	Yes	--	0.007	--	--	--	--	--	--	--	--	--	--
Coast live oak woodland	Coast live oak woodland	Yes	--	--	--	--	--	--	--	--	0.007	0.008	--	--
Non-native woodland[1]	Eucalyptus woodland	No	0.148	0.177	--	--	--	--	0.120	0.127	--	--	0.00001	0.003
	Eucalyptus and palm trees	No	--	--	--	--	--	--	--	--	--	--	0.029	0.043
	Palm trees	No	--	--	--	--	--	--	--	--	--	--	0.010	0.030
	Pepper tree grove	No	0.008	0.005	--	--	--	--	--	--	0.005	0.038	--	0.002
Non-native shrubland	Non-native cactus scrub	No	0.018	0.016	--	--	--	--	--	--	--	--	--	--
Freshwater marsh	Mulefat thicket	Yes	0.008	0.016	--	--	--	--	--	--	--	--	--	--
	Curlydock stand	Yes	0.036	0.016	--	--	--	--	--	--	0.016	0.025	--	--
Non-native grassland[1]	Annual brome grassland	No	0.060	0.044	--	--	--	--	--	--	0.195	0.283	0.032	0.086
	Non-native grassland	No	0.175	0.238	--	--	0.089	0.080	0.001	0.001	0.001	0.007	--	--
Non-native herbaceous stand	Herbaceous wetland	Yes	0.009	0.004	--	--	--	--	--	--	--	--	--	--
Unvegetated stream	Unvegetated stream	Yes	0.0001	0.017	--	--	--	--	--	--	--	--	--	--
Active agriculture	Active agriculture	No	--	0.023	--	--	--	--	--	--	--	--	--	--
Disturbed habitat	Disturbed habitat	No	0.159	0.183	0.006	0.001	--	--	--	--	0.002	0.004	--	--
Urban/developed	Urban/developed	No	0.004	0.046	0.041	0.121	0.0004	0.016	0.011	0.032	0.010	0.014	0.102	0.111
		Total	**0.625**	**0.792**	**0.047**	**0.122**	**0.089**	**0.096**	**0.131**	**0.160**	**0.236**	**0.380**	**0.173**	**0.276**

Table 5. OV1 Vegetation Impacts – Staging Areas[1]

Vegetation Community or Other Land Cover Type	Alliance level Vegetation Community Type	Riparian or Other Sensitive Natural Community?	Staging Area 1 Temporary Impacts (acres)	Staging Area 3 Temporary Impacts (acres)
Willow riparian forest	Mixed willow riparian	Yes	--	--
Non-native woodland	Eucalyptus woodland	No	--	0.048
	Palm trees	No	--	--
	Eucalyptus and palm trees	No	--	--
	Pepper tree grove	No	--	--
Non-native shrubland	Non-native cactus scrub	No	0.001	0.001
Freshwater marsh	Curlydock stand	Yes	--	--
	Mulefat thicket	Yes	--	--
Non-native grassland[1]	Annual brome grassland	No	--	--
	Non-native grassland	No	0.259	0.135
Non-native herbaceous stand	Herbaceous wetland	Yes	--	0.001
Unvegetated stream	Unvegetated stream	Yes	--	--
Active Agriculture	Active agriculture	Yes	--	--
Disturbed habitat	Disturbed habitat	No	--	0.027
Urban/developed	Urban/developed	No	--	--
		Total	**0.260**	**0.211**

Notes:
[1]: For the offsite staging area that occurs outside of the survey area boundary, site conditions are assumed to be developed or disturbed habitat.

Figure 8. Vegetation Community and Other Land Cover Type Impacts

Indirect Construction Impacts

Implementation of the project would result in indirect impacts on riparian habitats and other sensitive natural communities. These impacts could be significant. Mitigation Measures HWQ-1 and HWQ-2 in the SPEIR are proposed to mitigate this impact. No other project-specific mitigation measures are recommended.

Operations and Maintenance Impacts

Operations and maintenance activities associated with the project would be conducted within the confines of the access road. These activities would be conducted in accordance with issued permits. Therefore, impacts would be considered less than significant.

IMPACT C

IMPACT C.	Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Direct Construction Impacts

Implementation of the project would result in direct impacts on state and federally protected wetlands and other waters of the U.S. and state (Table 6; Figure 9; Figure 10). Per the MHCP and regulatory requirements, the project has been designed to minimize impacts to wetland and riparian habitat to the maximum extent feasible by utilizing the existing access road alignment where crossing aquatic features and implementing alternative technologies, such a cellular concrete block where feasible. Based on the preliminary design, unavoidable impacts to these resources would include up to 0.14 acre of USACE waters of the U.S./RWQCB waters of the State, including up to 0.052 acre of wetland waters of the U.S./RWQCB waters of the State, and up to 0.184 acre of CDFW riparian and unvegetated streambed, which are less than with the impacts identified in the SPEIR. These impacts would be considered significant. Impacts to jurisdictional resources will be mitigated in accordance with SPEIR Mitigation Measure BIO-3 and Mitigation Measure BIO-5.

Table 6. OV1 Jurisdictional Impacts - Access Road Backbone, Options, and Staging Areas[1]

Jurisdictional Type	Backbone		Access Option 3		Access Option 4		Staging Area 3
	Permanent Impacts (acres)	Temporary Impacts (acres)	Permanent Impacts (acres)	Temporary Impact s(acres)	Permanent Impacts (acres)	Temporary Impacts (acres)	Temporary Impacts (acres)
USACE							
USACE Wetland Waters of the U.S.	0.036	0.036	--	--	0.016	0.025	0.0001
USACE Non-wetland Waters of the U.S.	0.011	0.016	0.026	0.011	--	--	0.0005
Total USACE	**0.047**	**0.052**	**0.026**	**0.011**	**0.016**	**0.025**	**0.0006**
CDFW							
CDFW Unvegetated Streambed	0.004	0.040	0.028	0.015	--	--	--
CDFW Riparian	0.053	0.044	--	--	0.016	0.025	0.001
Total CDFW	**0.057**	**0.084**	**0.028**	**0.015**	**0.016**	**0.025**	**0.001**

Notes:
[1] Options 1, 2, and 5, and Staging Area 1 would not impact USACE or CDFW jurisdictional areas.
CDFW = California Department of Fish and Wildlife
USACE = United States Corps of Engineers

Figure 9. USACE Jurisdictional Resource Impacts

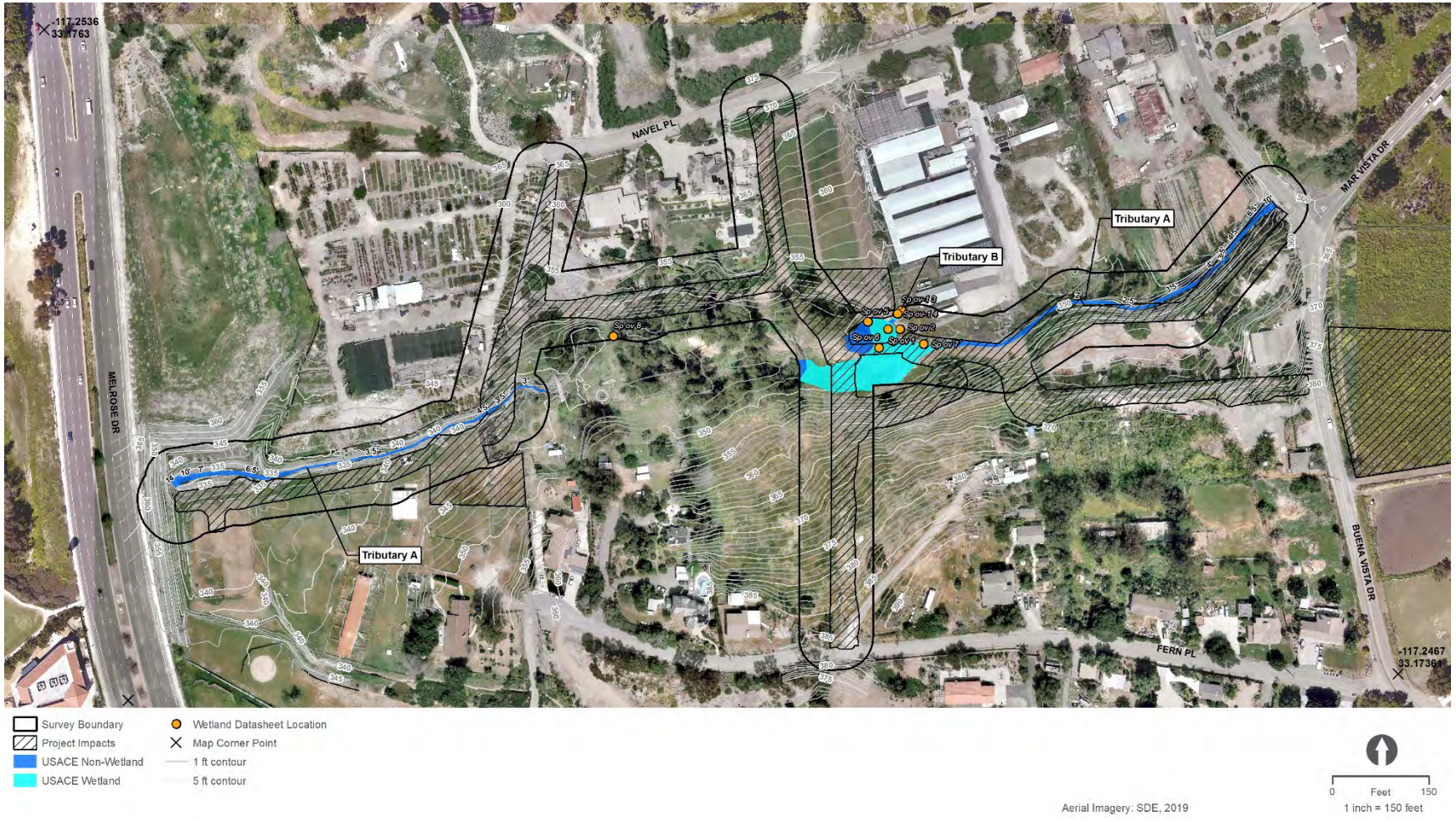
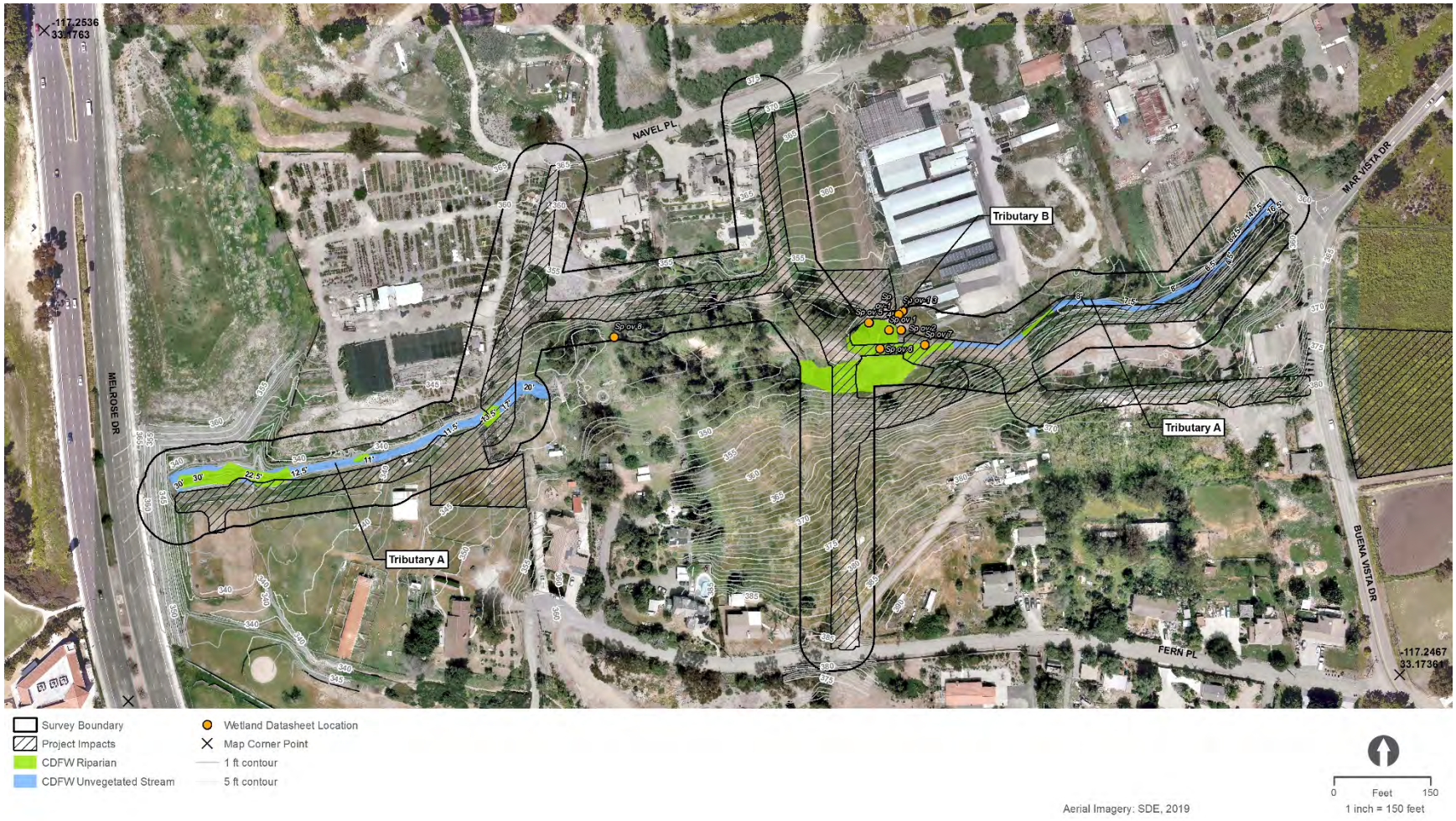


Figure 10. CDFW Jurisdictional Resource Impacts



Indirect Construction Impacts
Implementation of the project would result in indirect impacts on state or federally protected wetlands. These impacts could be significant. Mitigation Measures HWQ-1 and HWQ-2 in the SPEIR are proposed to mitigate this impact. No other project-specific mitigation measures are recommended.

Operations and Maintenance Impacts
Operations and maintenance activities would be conducted in accordance with issued permits. Therefore, impacts on state or federally protected wetlands would be considered less than significant.

IMPACT D

IMPACT D.	Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Direct Construction Impacts
Construction of the access road may have a temporary impact to the movements of some terrestrial wildlife during construction. However, construction of the project would not result in any permanent barriers to the movement of terrestrial species. In this context, impacts to migratory corridors are considered less than significant.

Indirect Construction Impacts
Implementation of the project would not result in new growth or secondary projects that could otherwise result in indirect impacts to wildlife corridors. For this reason, this impact would be less than significant.

Operations and Maintenance Impacts

Operations and maintenance activities associated with the project would be conducted within the confines of the access road. These activities would not interfere with the movement of any native wildlife species or wildlife corridors or nursery sites. In this context, the project would result in a less than significant impact to existing wildlife corridors.

IMPACT E

IMPACT E.	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Direct Construction Impacts
Access road improvements associated with the project would be required to maintain conformance with applicable MHCP standards, including implementation of minimum buffer widths. Compliance with these requirements would be a condition of approval prior to the pruning or removal of protected trees. Based on these preexisting regulations, this impact is less than significant.

Indirect Construction Impacts
Implementation of the project would not result in secondary activities not otherwise considered in the SPEIR that could conflict with local plans and polices adopted for the

purpose of protecting biological resources. For this reason, this impact would be less than significant.

Operations and Maintenance Impacts

Ongoing operations and maintenance activities would be conducted within the confines of the access road. As a project requirement, compliance with the MHCP requirements would be implemented prior to the pruning or removal of protected trees, if required as part of ongoing operations and maintenance.

IMPACT F

IMPACT F.	Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation plan, or other approved local, regional, or state habitat conservation plan?

Direct Impacts

The project site is located within the MHCP, although there is not an approved subarea plan that covers the project area. However, the project would be implemented consistent with the MHCP. Therefore, all impacts to biological resources will be mitigated in compliance with the requirements identified in the MHCP.

Indirect Impacts

As noted above, the project would be implemented consistent with the MHCP. Implementation of the project would not result in land use changes or secondary effects that could otherwise result in conflicts with an adopted HCP or NCCP. For this reason, this impact would be less than significant.

Operations and Maintenance Impacts

Ongoing operations and maintenance activities would be conducted within the confines of the access road and would be consistent with the requirements of the MHCP. Therefore, this impact would be less than significant.

Project-Specific Mitigation Measures

As previously noted, the project will be mitigated in compliance with the measures adopted in the MMRP prepared in conjunction with the City's SPEIR and San Diego County's MHCP. The SPEIR MMRP is included as Attachment A. Based on the results of this analysis and to address the project's direct and indirect impacts to waters of the U. S. and State, including sensitive habitats for Federal and State listed bird species, the following mitigation is required.

BIO-1 **MBTA Nest Avoidance.** If construction activities occur between January 15 and September 15, a preconstruction survey (within seven days prior to construction activities) shall be conducted by a qualified biologist to determine if active nests are present within or adjacent to the area proposed for development in order to avoid the nesting activities of breeding birds/raptors. The results of the surveys shall be submitted to the City (and made available to the Wildlife Agencies, upon request) prior to initiation of any construction activities.

If nesting activities within 200 feet of the proposed work area are not detected, construction activities may proceed. If nesting activities are confirmed, construction activities shall be delayed within an appropriate buffer (e.g., 300-feet to 500 feet contingent on the species observed) from the active nest until the young birds have fledged and left the nest or until the nest is no longer active as determined by a qualified biologist. The size of the appropriate buffer shall be determined by a qualified biologist based on field conditions. The results of all biological monitoring shall be submitted to the City (and made available to the Wildlife Agencies, upon request).

BIO-2 **Habitat Assessment and Focused Surveys for Special-Status Species and Sensitive Habitats:** Prior to the issuance of project-specific construction documents for CIP Capacity and Conditions Projects (Cross-County) and Out-of-Service Access Roads, a habitat assessment shall be conducted by a qualified biologist to determine the potential for special-status species to occur within the anticipated construction area. If the habitat assessment identifies potentially suitable habitat for threatened and endangered species, focused surveys shall be conducted by a qualified biologist to determine their presence or absence. Sensitive vegetation communities shall be documented as part of the habitat assessment.

- If threatened and endangered species are observed/detected, project specific mitigation measures shall be developed to mitigate impacts on threatened and endangered species to below a level of significance. Specific measures shall include, but are not limited to:
- Early consultation with the wildlife agencies (i.e., U.S. Fish and Wildlife Service [USFWS] and California Department of Fish and Wildlife [CDFW]) for ESA- and CESA-listed species to ensure avoidance to the greatest extent feasible and appropriate "take" authorization.
- Provision of a qualified biological monitor on site during all earth disturbing activities to ensure avoidance of impacts on listed species.

- The use of fencing or flagging to identify sensitive areas that support the listed species and to ensure that the areas are protected from direct and indirect impacts.
- Implementation of noise reduction measures (e.g., noise attenuation structures) within habitats occupied by listed avian species, and noise monitoring during the breeding season.
- Identification and transplantation of listed plant species populations in accordance with best practices.
- Avoidance of the breeding seasons for listed species such as:

    - Arroyo toad – March 1 to September 30
    - Least bell's vireo – March 15 to September 15
    - Willow flycatcher (all subspecies) – May 1 to September 15
    - Coastal California gnatcatcher – February 15 to August 15

If no threatened or endangered species are observed or detected during focused surveys, but potentially suitable habitat for non-threatened and non-endangered plant or wildlife species is present, a site-specific determination shall be made as to whether the potential impacts are significant based on the degree of threat and the size of the population/occupied habitat to be impacted.

BIO-3 **Formal Wetland Delineation and Permit Acquisition.** If the habitat assessment identifies potential federal and/or state jurisdictional wetlands, a formal jurisdictional delineation shall be prepared. This document shall map the jurisdictional wetlands present and overlay it on the grading footprint of the project, thereby allowing a calculation of the total impacts. If jurisdictional wetlands would be impacted, mitigation shall be required at a minimum 1:1 ratio; however, coordination with USACE (through the 404 process) and CDFW (through the Section 1602 Streambed Alteration Agreement process) may determine a higher ratio is required. Mitigation shall be achieved through a combination of in-kind creation, restoration, and/or enhancement as determined to be appropriate for each site through consultation with the Resource Agencies. Mitigation shall first be considered on-site, then with an approved mitigation bank, and thirdly through offsite mitigation. The appropriate permit applications shall be submitted to state and federal regulatory agencies. The permits issued by these agencies would finalize the mitigation requirements.

To maintain compliance with the MHCP, the following project-specific Mitigation Measure BIO-5 is recommended to reduce impacts on these species to a level of less than significant. These measures will also provide additional protections to other species with the potential to occur during construction.

BIO-5 **Implement Biological Resource Protection Measures During Construction.** The City will implement the following best management practices (BMPs), which are consistent with BMPs in the HMP, during construction to minimize direct and indirect impacts on special-status species.

a) Prior to the commencement of construction, the City shall designate a Project Biologist (a person with, at minimum, a bachelor's degree in biology, ecology, or environmental studies with familiarity with federally and/or state listed plant and wildlife species and other, non-listed special-status plant and

wildlife species with the potential to be impacted by the project) who shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, and shall maintain communications with the contractor to ensure that issues relating to biological resources are appropriately and lawfully managed. The Project Biologist may designate qualified biologists or biological monitors to help oversee project compliance or conduct pre-construction surveys for special-status species. These biologists shall have familiarity with the species for which they would be conducting pre-construction surveys or monitoring construction activities.

b) The Project Biologist or designated qualified biologist shall review final plans, designate areas that need temporary fencing (e.g., environmentally sensitive area [ESA] fencing), and monitor construction activities within and adjacent to areas with native vegetation communities or special-status plant and wildlife species. The qualified biologist shall monitor activities within designated areas during critical times such as vegetation removal, initial ground-disturbing activities, and the installation of BMPs and fencing to protect native species, and shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed. The qualified biologist shall check construction barriers or exclusion fencing and shall provide corrective measures to the contractor to ensure that the barriers or fencing are maintained throughout construction. The qualified biologist shall have the authority to stop work if a special-status wildlife species is encountered within the project area during construction. Construction activities shall cease until the Project Biologist or qualified biologist determine(s) that the animal will not be harmed or that it has left the construction area on its own. The appropriate regulatory agency(ies) shall be notified within 24 hours of sighting of a special-status wildlife species.

c) Prior to the start of construction, all project personnel and contractors who will be on site during construction shall complete mandatory training conducted by the Project Biologist or a designated qualified biologist. Any new project personnel or contractors that come on board after the initiation of construction shall also be required to complete the mandatory WEAP training before they commence with work. The training shall advise workers of potential impacts to sensitive habitat and federally and/or state-listed and other special-status species, and the potential penalties for impacts to such habitat and species. At a minimum, the training shall include the following topics: (1) occurrences of the special-status species and sensitive vegetation communities in the project area (including vegetation communities subject to USACE, CDFW, and RWQCB jurisdiction), (2) the purpose for resource protection; (3) a physical description, life history, and habitat requirements of least Bell's vireo, southwestern willow flycatcher, and coastal California gnatcatcher; (4) sensitivity of the species to human activities; (5) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project site by fencing); (6) environmentally responsible construction practices; (7) the protocol to resolve conflicts that

may arise at any time during the construction process; and (8) the general provisions of the federal or state ESA, the need to adhere to the provisions of federal and state laws, and the penalties associated with violating federal or state laws; (9) reporting requirements and procedures to follow should a federally and/or state-listed species be encountered during construction; and, (10) avoidance and minimization measures designed to reduce the impacts to federally and/or state-listed and other special-status species.

d) The training program shall include color photos of federally and/or state-listed species and sensitive vegetation communities. Following the education program, the photos shall be posted in the contractor and resident engineer's office, where the photos shall remain throughout the duration of project construction. Photos of the habitat in which sensitive species are found shall be posted onsite. The contractor shall be required to provide the City with evidence of the employee training (e.g., a sign-in sheet) on request. Project personnel and contractors shall be instructed to immediately notify the Project Biologist or designated biologist of any incidents that could affect sensitive vegetation communities or special-status species. Incidents could include fuel leaks or injury to any wildlife. The Project Biologist shall notify the City of any incident and the City shall notify the USFWS within 24 hours of being noticed.
e) The Project Biologist shall request that the resident engineer halt work, if necessary, and confer with the City prior to contacting the Carlsbad Fish and Wildlife Office (CFWO) and CDFW to ensure the proper implementation of species and habitat protection measures. The Project Biologist shall report any non-compliance issue to the City and the City will notify the CFWO and CDFW within 24 hours of its occurrence.
f) The Project Biologist shall monitor the Project site immediately prior to and during construction to identify the presence of invasive weeds and shall recommend measures to avoid their inadvertent spread in association with the project. Such measures may include inspection and cleaning of construction equipment and use of eradication strategies. All heavy equipment shall be washed and cleaned of debris prior to entering sensitive habitat areas to minimize the spread of invasive weeds.
g) ESA fencing shall be placed along the perimeter of the identified work area. Work areas shall be clearly marked in the field and shall be confirmed by the Project Biologist or designated biologist prior to any clearing, and the marked boundaries shall be maintained throughout the duration of the work. Staging areas, including lay down areas and equipment storage areas, shall be flagged and fenced with ESA fencing.
h) All native or sensitive habitat areas outside of and adjacent to the designated project limits of disturbance shall be designated as Environmentally Sensitive Areas (ESAs) on project maps. Prior to construction, the Contractor shall delineate the project limits, including construction, staging, lay-down, and equipment storage areas, and erect the construction boundary, with fencing or flagging, along the perimeter of the identified construction area to protect adjacent sensitive habitats and sensitive plant populations. ESAs shall be clearly delineated with fencing or flagging or other BMPs prior to construction to inform construction personnel where the ESAs are located. ESAs fencing may include orange plastic snow fence, orange silt fencing, or stakes and flagging in areas of flowing water. No

personnel, equipment, or debris shall be allowed within the ESAs. Fences and flagging shall be installed by Contractor in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot and operating heavy equipment. Ten days prior to initiating construction, the Contractor shall submit to the City final plans for initial clearing and grubbing of habitat and project construction. At least five days prior to initiating construction (except for impacts resulting from clearing to install temporary fencing), The City shall submit to the CFWO and CDFW for approval, the final plans for initial clearing and grubbing of habitat and project construction. These final plans shall include photographs that show the fenced and flagged ESA limits and all areas to be impacted or avoided. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of the City, the CFWO, and CDFW. Temporary construction fences and markers shall be maintained in good repair by the Contractor and shall be removed upon completion of project construction.

i) No work activities, materials or equipment storage or access shall be permitted outside the project limits without permission from the City. All parking and equipment storage by the contractor related to the Project shall be confined to the project limits. Undisturbed areas and sensitive habitat outside and adjacent to the project limits shall not be used for parking or equipment storage. Project-related vehicle traffic shall be restricted to the project limits and established roads and construction access points.

j) Construction activities shall be limited to daylight hours to the extent feasible. If nighttime activities are unavoidable, then workers shall direct all lights for nighttime lighting into the work area and shall minimize the lighting of natural habitat areas adjacent to the work area. The contractor shall use light glare shields to reduce the extent of illumination into sensitive habitats. If the work area is located near surface waters, the lighting shall be shielded such that it does not shine directly into the water.

k) Clearing shall be confined to the minimal area necessary to facilitate construction activities. Cleared vegetation and spoils shall be disposed of daily at a permanent offsite spoils location or at a temporary onsite location that will not create habitat for special-status wildlife species. Spoils and dredged material shall be disposed of at an approved site or facility in accordance with all applicable federal, state, and local regulations.

l) Food-related and other garbage shall be disposed of in wildlife-proof containers and shall be removed from the project area daily during the construction period. Vehicles carrying trash shall be required to have loads covered and secured to prevent trash and debris from falling onto roads and adjacent properties.

m) All construction equipment used for the Project shall be maintained in accordance with manufacturer's recommendations and requirements and shall be maintained to comply with noise standards (e.g., exhaust mufflers, acoustically attenuating shields, shrouds, or enclosures).

n) The Contractor shall implement noise reduction measures (e.g., noise attenuation structures) within habitats occupied by federally and/or state-listed bird species, and shall conduct noise monitoring during the bird breeding season per BIO-4.

o) The Contractor shall store all construction-related vehicles and equipment in the designated staging areas. These areas shall not contain native or sensitive vegetation communities and shall not support sensitive plant or wildlife species.

p) The Contractor shall avoid wildlife entrapment by completely covering or providing escape ramps for all excavated steep-walled holes or trenches more than 1 foot deep at the end of each construction work day. The qualified biologist shall inspect open trenches and holes and shall remove or release any trapped wildlife found in the trenches or holes prior to filling by the construction contractor.

q) Special-status wildlife can be attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar features; construction equipment; or construction debris left overnight in areas that may be occupied by special-status species that could occupy such structures shall be inspected by a qualified biologist prior to being used for construction. Such inspections shall occur at the beginning of each day's activities for those materials to be used or moved that day. If necessary, and under the direct supervision of the biologist, the structure may be moved up to one time to isolate it from construction activities, until the special-status species has moved from the structure of their own volition, has been captured and relocated, or has otherwise been removed from the structure.

r) Capture and relocation of trapped or injured wildlife listed under ESA or CESA can only be performed by personnel with appropriate state and/or federal permits. Any sightings and any incidental take shall be reported to the City via email within one working day of the discovery. A follow-up report shall be sent to the regulatory agencies, including dates, locations, habitat description, and any corrective measures taken to protect special-status species encountered. For each special-status species encountered, the biologist shall submit a completed California Natural Diversity Data Base field survey form (or equivalent) to CDFW no more than 90 days after completing the last field visit to the project site.

s) The City shall be notified within one working day of the discovery of, injury to, or mortality of a special-status species that results from project-related construction activities or is observed at the project site. Notification shall include the date, time, and location of the incident or of the discovery of an individual special-status species that is dead or injured. For a special-status species that is injured, general information on the type or extent of injury shall be included. The location of the incident shall be clearly indicated on a USGS 7.5-minute quadrangle and/or similar map at a scale that will allow others to find the location in the field, or as requested by the City. The biologist is encouraged to include any other pertinent information in the notification.

t) The spread of dust from work sites to sensitive natural communities or sensitive species habitats on adjacent lands shall be minimized by use of a water truck. Dirt access roads, haul roads, and spoils areas shall be watered at least twice each day when being used during construction dry periods.

u) The Contractor shall strictly limit their activities, vehicles, equipment, and construction materials to established roads and the project disturbance limits. Posted speed limit signs on local roads and a 15 mile-per-hour speed

limit along ingress and egress routes shall be observed. Extra caution shall be used when special-status reptile species may be basking on roads.

v) To avoid injury or death to wildlife, no firearms shall be allowed on the Project site except for those carried by authorized security personnel or local, state, or federal law enforcement officials.

w) To prevent harassment, injury, or mortality of sensitive wildlife by dogs or cats, no canine or feline pets shall be permitted in the active construction area.

x) Plastic monofilament netting or similar material shall not be used for erosion control because smaller wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds. This limitation shall be communicated to the contractor through specifications or special provisions included in the construction bid solicitation package.

y) Rodenticides and herbicides shall be used in accordance with the manufacturer recommended uses and applications and in such a manner as to prevent primary or secondary poisoning of special-status fish, wildlife, and plant species and depletion of prey populations upon which they depend. All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, the California Department of Pesticide Regulation, and other appropriate state and federal regulations, as well as additional project-related restrictions imposed by the City.

z) Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water to the fullest extent practicable. Secondary containment shall consist of a ring of sand bags around each piece of stored equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials (HazMat) secondary containment unit shall be used by the Contractor.

aa) The Contractor shall be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. or state and in areas that do not have potential to support federally and/or state-listed species. Any fuel containers, repair materials including creosote-treated wood, and/or stockpiled material that is left onsite overnight shall be secured in secondary containment within the work area and staging/assembly area, and covered with plastic at the end of each work day.

bb) In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are removed from the Project site.

cc) Equipment and containers will be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan (SWPPP), Materials Safety Data Sheets, and any specifications required by other permits issued for the Project.

dd) The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of equipment.

ee) If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment shall be used to capture spills/leaks within all areas. Where feasible, maintenance of equipment shall occur in upland

areas where fuel cannot enter waters of the U.S. or state and in areas that do not have potential to support federally and/or state-listed species.

References

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USFWS. 2019. *Information for Planning and Consultation*. Carlsbad Fish and Wildlife office. Accessed March 6, 2019. https://ecos.fws.gov/ipac/.

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Attachment A. Mitigation Monitoring and Reporting Program (Updated 2019)

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Mitigation, Monitoring, and Reporting Program

1. Introduction

The California Environmental Quality Act (CEQA) requires a lead or responsible agency to adopt a mitigation monitoring and reporting program (MMRP) when approving or carrying out a project (Section 21081.6 of the California Public Resources Code). The purpose of this program is to ensure that the mitigation measures identified in an Environmental Impact Report (EIR) or a mitigated negative declaration are implemented as detailed in the environmental document. As lead agency for the Comprehensive Sewer Master Plan (CSMP) Update, the City of Vista (City) is responsible for implementation of this MMRP per the requirements of the (CEQA).

In this context, this MMRP was prepared to provide a monitoring guide to facilitate the implementation of the adopted mitigation measures and related compliance reporting. Once the City adopts the MMRP, the mitigation monitoring/reporting requirements will be incorporated into the appropriate permits and construction documents (i.e., engineering specifications, engineering and construction plans, etc.). In accordance with the aforementioned requirements, this MMRP lists each mitigation measure, describes the methods for implementation and verification, and identifies the responsible party or parties as detailed below in Section 3.

2. Monitoring and Reporting Procedures

This MMRP was developed for each of the improvement categories identified for the City's CSMP (State Clearinghouse Number 2007091072). The MMRP will be in place through all phases of the CSMP, including design, construction, and operation of individual improvements, and will facilitate the implementation of mitigation measures proposed to avoid, minimize, or reduce significant environmental effects.

The City will be responsible for administering the MMRP and ensuring that all parties, including its contractors, comply with its provisions. The City may delegate implementation and monitoring activities to staff, consultants, or contractors. The City will require that its construction contractors submit an environmental compliance plan for approval by the City and construction manager prior to the beginning construction activities.

This plan shall document how the contractor intends to comply with all measures applicable to the contract, including the application of best management practices (BMPs) in accordance with instructions listed in the construction specifications. The City also will ensure that monitoring is documented through systematic compliance verification and reporting and that deficiencies are promptly corrected.

3. Mitigation Monitoring and Reporting Program Implementation

This MMRP was prepared to verify compliance with individual mitigation measures proposed in the Final SPEIR for the 2017 CSMP. Table 1 of this MMRP identifies each mitigation measure by discipline, the entity responsible for its implementation, and the improvement category in which the measure applies. Certain inspections and reports may require preparation by qualified individuals

and these are specified as needed. The timing and method of verification for each measure are also specified.

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
BIOLOGICAL RESOURCES					
BIO-1 - MBTA Nest Avoidance. If construction activities occur between January 15 and September 15, a preconstruction survey (within seven days prior to construction activities) shall be conducted by a qualified biologist to determine if active nests are present within or adjacent to the area proposed for development in order to avoid the nesting activities of breeding birds/raptors. The results of the surveys shall be submitted to the City (and made available to the Wildlife Agencies, upon request) prior to initiation of any construction activities. If nesting activities within 200 feet of the proposed work area are not detected, construction activities may proceed. If nesting activities are confirmed, construction activities shall be delayed within an appropriate buffer (e.g., 300-feet to 500 feet contingent on the species observed) from the active nest until the young birds have fledged and left the nest or until the nest is no longer active as determined by a qualified biologist. The size of the appropriate buffer shall be determined by a qualified biologist based on field conditions. The results of all biological monitoring shall be submitted to the City (and made available to the Wildlife Agencies, upon request).	Prior to and during construction	1, 2, 3, 4	City of Vista Engineering Department	California Deportment of Fish and Wildlife (CDFW), U. S. Fish and Wildlife Service (USFWS)	
BIO-2 - Habitat Assessment and Focused Surveys for Special-Status Species and Sensitive Habitats. Prior to the issuance of project-specific construction documents for CIP Capacity and Condition Projects (Cross-County) and Out-of-Service Access Roads, a habitat assessment shall be conducted by a qualified biologist to determine the potential for special-status species to occur within the anticipated construction area. If the habitat assessment identifies potentially suitable habitat for threatened and endangered species, focused surveys shall be conducted by a qualified biologist to determine their presence or absence. Sensitive vegetation communities shall be documented as part of the habitat assessment. If threatened and endangered species are observed/detected, project specific mitigation measures shall be developed to	Prior to and during construction; post-construction if compensatory mitigation is proposed	2, 4	City of Vista Engineering Department	CDFW, USFWS; City of Carlsbad	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
mitigate impacts on threatened and endangered species to below a level of significance. Specific measures shall include, but are not limited to: • Early consultation with the wildlife agencies (i.e., USFWS, CDFW) for ESA- and CESA-listed species to ensure avoidance to the greatest extent feasible and appropriate "take" authorization. • Provision of a qualified biological monitor on site during all earth disturbing activities to ensure avoidance of impacts on listed species. • The use of fencing or flagging to identify sensitive areas that support the listed species and to ensure that the areas are protected from direct and indirect impacts. • Implementation of noise reduction measures (e.g., noise attenuation structures) within habitats occupied by listed avian species, and noise monitoring during the breeding season. • Identification and transplantation of listed plant species populations in accordance with best practices. • Impacts to federally listed species covered by the City of Carlsbad's HMP will be required to be consistent with those authorized under the HMP and coordinated with the City of Carlsbad and USFWS. • Avoidance of the breeding seasons for listed species such as: o Arroyo toad—March 1 to September 30 o Least Bell's vireo—March 1 to September 30 o Willow flycatcher (all subspecies)—March 1 to September 30 o Coastal California gnatcatcher—March 1 to September 30					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
If no threatened or endangered species are observed or detected during focused surveys, but potentially suitable habitat for non-threatened and non-endangered plant or wildlife species is present, a site-specific determination shall be made as to whether the potential impacts are significant based on the degree of threat and the size of the population/occupied habitat to be impacted.					
BIO-3 - Formal Wetland Delineation and Permit Acquisition. If the habitat assessment identifies potential federal and/or state jurisdictional wetlands, a formal jurisdictional delineation shall be prepared. This document shall map the jurisdictional wetlands present and overlay it on the grading footprint of the project, thereby allowing a calculation of the total impacts. If jurisdictional wetlands would be impacted, mitigation shall be required at a minimum 1:1 ratio; however, coordination with USACE (through the 404 process) and CDFW (through the Section 1602 Streambed Alteration Agreement process) may determine a higher ratio is required. Mitigation shall be achieved through a combination of in-kind creation, restoration, and/or enhancement as determined to be appropriate for each site through consultation with the Resource Agencies. Mitigation shall first be considered on-site, then with an approved mitigation bank, and thirdly through offsite mitigation. The appropriate permit applications shall be submitted to state and federal regulatory agencies. The permits issued by these agencies would finalize the mitigation requirements.	Prior to and during construction; post-construction if compensatory mitigation is proposed	2, 4	City of Vista Engineering Department	CDFW, USFWS	
BIO-4 – Avoid and Minimize Direct and Indirect Impacts to Least Bell's Vireo and Southwestern Willow Flycatcher. Consistent with the HMP, the City shall adhere to the following measures to avoid or reduce impacts: a) The removal of native vegetation and habitat shall be avoided and minimized to the maximum extent practicable. Determination of adequate avoidance and minimization of impacts shall be consistent with Sections 0-6 of the HMP. Deviations from these guidelines shall require written concurrence of USFWS and CDFW. For temporary impacts,	Prior to and during construction; post-construction if compensatory mitigation is proposed	4 (VC1)	City of Vista Engineering Department	CDFW, USFWS	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
the work site shall be returned to pre-existing contours and revegetation with appropriate native species. All revegetation for temporary and permanent impacts shall occur at the ratios specified in applicable permits (e.g., 404 or 1603). Revegetation specifications shall ensure creation and restoration of riparian woodland vegetation to vireo quality. All revegetation plans shall be prepared and implemented consistent with Section F-2 (Habitat Restoration and Revegetation) of the HMP and shall require written concurrence of USFWS and CDFW. If written objections are not provided by the wildlife agencies within 30 days of receipt of written request for concurrence by the local jurisdiction, then the deviation may proceed as approved by the local agency. The wildlife agencies shall provide written comments specifying wildlife agency concerns.					
b) Contractor shall to the maximum extent practicable avoid impacts during the breeding season of least Bell's vireo (generally March 15 - September 15). Projects that cannot be conducted without placing equipment or personnel in or adjacent to sensitive habitats shall be timed to ensure that habitat is removed prior to the initiation of the breeding season (generally before March 15).					
c) Construction noise levels at the riparian canopy edge shall be kept below 60 dBA Leq (Measured as Equivalent Sound Level) from 5 a.m. to 11 a.m. during the peak nesting period of March 15 to July 15. For the balance of the day/season, the noise levels shall not exceed 60 decibels, averaged over a one-hour period on an A-weighted decibel (dBA) (i.e., 1 hour Leq/dBA). Noise levels shall be monitored and monitoring reports shall be provided to the jurisdictional city, USFWS, and CDFW. Noise levels in excess of this threshold shall require written concurrence from USFWS and CDFW and may require additional minimization/mitigation measures.					
d) Brown-headed cowbirds and other exotic species which prey upon least Bell's vireo shall be removed from the site. For new developments adjacent to preserve areas that create conditions attractive to brown-headed cowbirds, jurisdictions					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
shall require monitoring and control of cowbirds. e) Biological buffers of at least 100 feet shall be maintained adjacent to occupied least Bell's vireo habitat, measured from the outer edge of riparian vegetation. Within this 100-foot buffer, no new development shall be allowed, and the area shall be managed for natural biological values as part of the preserve system. Buffers less than 100 feet shall require written concurrence of the USFWS and CDFW within 30 days of receipt of written request for concurrence by the local jurisdiction.					
BIO-5 – Implement Biological Resource Protection Measures During Construction. The City will implement the following best management practices (BMPs), which are consistent with BMPs in the HMP, during construction to minimize direct and indirect impacts on special-status species. a) Prior to the commencement of construction, the City shall designate a Project Biologist (a person with, at minimum, a bachelor's degree in biology, ecology, or environmental studies with familiarity with federally and/or state listed plant and wildlife species and other, non-listed special-status plant and wildlife species with the potential to be impacted by the project) who shall be responsible for overseeing compliance with protective measures for biological resources during vegetation clearing and work activities within and adjacent to areas of native habitat. The Project Biologist shall be familiar with the local habitats, plants, and wildlife, and shall maintain communications with the contractor to ensure that issues relating to biological resources are appropriately and lawfully managed. The Project Biologist may designate qualified biologists or biological monitors to help oversee project compliance or conduct pre-construction surveys for special-status species. These biologists shall have familiarity with the species for which they would be conducting pre-construction surveys or monitoring construction activities. b) The Project Biologist or designated qualified biologist shall	Prior to and during construction; post-construction if compensatory mitigation is proposed	4 (VC1)	City of Vista Engineering Department	CDFW, USFWS	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
review final plans, designate areas that need temporary fencing (e.g., environmentally sensitive area [ESA] fencing), and monitor construction activities within and adjacent to areas with native vegetation communities or special-status plant and wildlife species. The qualified biologist shall monitor activities within designated areas during critical times such as vegetation removal, initial ground-disturbing activities, and the installation of BMPs and fencing to protect native species, and shall ensure that all wildlife and regulatory agency permit requirements, conservation measures, and general avoidance and minimization measures are properly implemented and followed. The qualified biologist shall check construction barriers or exclusion fencing and shall provide corrective measures to the contractor to ensure that the barriers or fencing are maintained throughout construction. The qualified biologist shall have the authority to stop work if a special-status wildlife species is encountered within the project area during construction. Construction activities shall cease until the Project Biologist or qualified biologist determine(s) that the animal will not be harmed or that it has left the construction area on its own. The appropriate regulatory agency(ies) shall be notified within 24 hours of sighting of a special-status wildlife species.					
c) Prior to the start of construction, all project personnel and contractors who will be on site during construction shall complete mandatory training conducted by the Project Biologist or a designated qualified biologist. Any new project personnel or contractors that come on board after the initiation of construction shall also be required to complete the mandatory WEAP training before they commence with work. The training shall advise workers of potential impacts to sensitive habitat and federally and/or state-listed and other special-status species, and the potential penalties for impacts to such habitat and species. At a minimum, the training shall include the following topics: (1) occurrences of the special-status species and sensitive vegetation communities in the project area (including vegetation communities subject to USACE, CDFW, and RWQCB jurisdiction), (2) the purpose					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
for resource protection; (3) a physical description, life history, and habitat requirements of least Bell's vireo, southwestern willow flycatcher, and coastal California gnatcatcher; (4) sensitivity of the species to human activities; (5) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced to avoid sensitive resource areas in the field (i.e., avoided areas delineated on maps or on the project site by fencing); (6) environmentally responsible construction practices; (7) the protocol to resolve conflicts that may arise at any time during the construction process; and (8) the general provisions of the federal or state ESA, the need to adhere to the provisions of federal and state laws, and the penalties associated with violating federal or state laws; (9) reporting requirements and procedures to follow should a federally and/or state-listed species be encountered during construction; and, (10) avoidance and minimization measures designed to reduce the impacts to federally and/or state-listed and other special-status species. d) The training program shall include color photos of federally and/or state-listed species and sensitive vegetation communities. Following the education program, the photos shall be posted in the contractor and resident engineer's office, where the photos shall remain throughout the duration of project construction. Photos of the habitat in which sensitive species are found shall be posted onsite. The contractor shall be required to provide the City with evidence of the employee training (e.g., a sign-in sheet) on request. Project personnel and contractors shall be instructed to immediately notify the Project Biologist or designated biologist of any incidents that could affect sensitive vegetation communities or special-status species. Incidents could include fuel leaks or injury to any wildlife. The Project Biologist shall notify the City of any incident and the City shall notify the USFWS within 24 hours of being noticed. e) The Project Biologist shall request that the resident engineer halt work, if necessary, and confer with the City prior to					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
contacting the Carlsbad Fish and Wildlife Office (CFWO) and CDFW to ensure the proper implementation of species and habitat protection measures. The Project Biologist shall report any non-compliance issue to the City and the City will notify the CFWO and CDFW within 24 hours of its occurrence. f) The Project Biologist shall monitor the Project site immediately prior to and during construction to identify the presence of invasive weeds and shall recommend measures to avoid their inadvertent spread in association with the project. Such measures may include inspection and cleaning of construction equipment and use of eradication strategies. All heavy equipment shall be washed and cleaned of debris prior to entering sensitive habitat areas to minimize the spread of invasive weeds. g) ESA fencing shall be placed along the perimeter of the identified work area. Work areas shall be clearly marked in the field and shall be confirmed by the Project Biologist or designated biologist prior to any clearing, and the marked boundaries shall be maintained throughout the duration of the work. Staging areas, including lay down areas and equipment storage areas, shall be flagged and fenced with ESA fencing. h) All native or sensitive habitat areas outside of and adjacent to the designated project limits of disturbance shall be designated as Environmentally Sensitive Areas (ESAs) on project maps. Prior to construction, the Contractor shall delineate the project limits, including construction, staging, lay-down, and equipment storage areas, and erect the construction boundary, with fencing or flagging, along the perimeter of the identified construction area to protect adjacent sensitive habitats and sensitive plant populations. ESAs shall be clearly delineated with fencing or flagging or other BMPs prior to construction to inform construction personnel where the ESAs are located. ESAs fencing may include orange plastic snow fence, orange silt fencing, or stakes and flagging in areas of flowing water. No personnel,					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
equipment, or debris shall be allowed within the ESAs. Fences and flagging shall be installed by Contractor in a manner that does not impact habitats to be avoided and such that it is clearly visible to personnel on foot and operating heavy equipment. Ten days prior to initiating construction, the Contractor shall submit to the City final plans for initial clearing and grubbing of habitat and project construction. At least five days prior to initiating construction (except for impacts resulting from clearing to install temporary fencing), The City shall submit to the CFWO and CDFW for approval, , the final plans for initial clearing and grubbing of habitat and project construction. These final plans shall include photographs that show the fenced and flagged ESA limits and all areas to be impacted or avoided. If work occurs beyond the fenced or demarcated limits of impact, all work shall cease until the problem has been remedied to the satisfaction of the City, the CFWO, and CDFW. Temporary construction fences and markers shall be maintained in good repair by the Contractor and shall be removed upon completion of project construction.					
i) No work activities, materials or equipment storage or access shall be permitted outside the project limits without permission from the City. All parking and equipment storage by the contractor related to the Project shall be confined to the project limits. Undisturbed areas and sensitive habitat outside and adjacent to the project limits shall not be used for parking or equipment storage. Project-related vehicle traffic shall be restricted to the project limits and established roads and construction access points.					
j) Construction activities shall be limited to daylight hours to the extent feasible. If nighttime activities are unavoidable, then workers shall direct all lights for nighttime lighting into the work area and shall minimize the lighting of natural habitat areas adjacent to the work area. The contractor shall use light glare shields to reduce the extent of illumination into sensitive habitats. If the work area is located near surface waters, the lighting shall be shielded such that it does not					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
shine directly into the water. k) Clearing shall be confined to the minimal area necessary to facilitate construction activities. Cleared vegetation and spoils shall be disposed of daily at a permanent offsite spoils location or at a temporary onsite location that will not create habitat for special-status wildlife species. Spoils and dredged material shall be disposed of at an approved site or facility in accordance with all applicable federal, state, and local regulations. l) Food-related and other garbage shall be disposed of in wildlife-proof containers and shall be removed from the project area daily during the construction period. Vehicles carrying trash shall be required to have loads covered and secured to prevent trash and debris from falling onto roads and adjacent properties. m) All construction equipment used for the Project shall be maintained in accordance with manufacturer's recommendations and requirements and shall be maintained to comply with noise standards (e.g., exhaust mufflers, acoustically attenuating shields, shrouds, or enclosures). n) The Contractor shall implement noise reduction measures (e.g., noise attenuation structures) within habitats occupied by federally and/or state-listed bird species, and shall conduct noise monitoring during the bird breeding season per BIO-4. o) The Contractor shall store all construction-related vehicles and equipment in the designated staging areas. These areas shall not contain native or sensitive vegetation communities and shall not support sensitive plant or wildlife species. p) The Contractor shall avoid wildlife entrapment by completely covering or providing escape ramps for all excavated steep-walled holes or trenches more than 1 foot deep at the end of each construction work day. The qualified biologist shall inspect open trenches and holes and shall remove or release any trapped wildlife found in the trenches or holes prior to					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
filling by the construction contractor. q) Special-status wildlife can be attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar features; construction equipment; or construction debris left overnight in areas that may be occupied by special-status species that could occupy such structures shall be inspected by a qualified biologist prior to being used for construction. Such inspections shall occur at the beginning of each day's activities for those materials to be used or moved that day. If necessary, and under the direct supervision of the biologist, the structure may be moved up to one time to isolate it from construction activities, until the special-status species has moved from the structure of their own volition, has been captured and relocated, or has otherwise been removed from the structure. r) Capture and relocation of trapped or injured wildlife listed under ESA or CESA can only be performed by personnel with appropriate state and/or federal permits. Any sightings and any incidental take shall be reported to the City via email within one working day of the discovery. A follow-up report shall be sent to the regulatory agencies, including dates, locations, habitat description, and any corrective measures taken to protect special-status species encountered. For each special-status species encountered, the biologist shall submit a completed California Natural Diversity Data Base field survey form (or equivalent) to CDFW no more than 90 days after completing the last field visit to the project site. s) The City shall be notified within one working day of the discovery of, injury to, or mortality of a special-status species that results from project-related construction activities or is observed at the project site. Notification shall include the date, time, and location of the incident or of the discovery of an individual special-status species that is dead or injured. For a special-status species that is injured, general information on the type or extent of injury shall be included. The location of the incident shall be clearly indicated on a					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
USGS 7.5-minute quadrangle and/or similar map at a scale that will allow others to find the location in the field, or as requested by the City. The biologist is encouraged to include any other pertinent information in the notification.					
t) The spread of dust from work sites to sensitive natural communities or sensitive species habitats on adjacent lands shall be minimized by use of a water truck. Dirt access roads, haul roads, and spoils areas shall be watered at least twice each day when being used during construction dry periods.					
u) The Contractor shall strictly limit their activities, vehicles, equipment, and construction materials to established roads and the project disturbance limits. Posted speed limit signs on local roads and a 15 mile-per-hour speed limit along ingress and egress routes shall be observed. Extra caution shall be used when special-status reptile species may be basking on roads.					
v) To avoid injury or death to wildlife, no firearms shall be allowed on the Project site except for those carried by authorized security personnel or local, state, or federal law enforcement officials.					
w) To prevent harassment, injury, or mortality of sensitive wildlife by dogs or cats, no canine or feline pets shall be permitted in the active construction area.					
x) Plastic monofilament netting or similar material shall not be used for erosion control because smaller wildlife may become entangled or trapped in it. Acceptable substitutes include coconut coir matting or tackifier hydroseeding compounds. This limitation shall be communicated to the contractor through specifications or special provisions included in the construction bid solicitation package.					
y) Rodenticides and herbicides shall be used in accordance with the manufacturer recommended uses and applications and in such a manner as to prevent primary or secondary poisoning of special-status fish, wildlife, and plant species and depletion of prey populations upon which they depend.					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
All uses of such compounds shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, the California Department of Pesticide Regulation, and other appropriate state and federal regulations, as well as additional project-related restrictions imposed by the City.					
z) Hazardous materials and equipment stored overnight, including small amounts of fuel to refuel hand-held equipment, shall be stored within secondary containment when within 50 feet of open water to the fullest extent practicable. Secondary containment shall consist of a ring of sand bags around each piece of stored equipment/structure. A plastic tarp/visqueen lining with no seams shall be placed under the equipment and over the edges of the sandbags, or a plastic hazardous materials (HazMat) secondary containment unit shall be used by the Contractor.					
aa) The Contractor shall be required to conduct vehicle refueling in upland areas where fuel cannot enter waters of the U.S. or state and in areas that do not have potential to support federally and/or state-listed species. Any fuel containers, repair materials including creosote-treated wood, and/or stockpiled material that is left onsite overnight shall be secured in secondary containment within the work area and staging/assembly area, and covered with plastic at the end of each work day.					
bb) In the event that no activity is to occur in the work area for the weekend and/or a period of time greater than 48 hours, the Contractor shall ensure that all portable fuel containers are removed from the Project site.					
cc) Equipment and containers will be inspected daily for leaks. Should a leak occur, contaminated soils and surfaces will be cleaned up and disposed of following the guidelines identified in the Stormwater Pollution Prevention Plan (SWPPP), Materials Safety Data Sheets, and any specifications required by other permits issued for the Project.					
dd) The Contractor shall utilize off-site maintenance and repair shops as much as possible for maintenance and repair of					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
equipment. ee) If maintenance of equipment must occur onsite, fuel/oil pans, absorbent pads, or appropriate containment shall be used to capture spills/leaks within all areas. Where feasible, maintenance of equipment shall occur in upland areas where fuel cannot enter waters of the U.S. or state and in areas that do not have potential to support federally and/or state-listed species.					
CULTURAL RESOURCES					
CULT-1 Construction-Related Vibration. Prior to the issuance of project-specific construction documents for CIP Capacity and Condition Projects (Hardscape Environs), the City Engineer shall determine whether construction activities would occur within 25 feet of a NRHP or CRHR eligible or listed historic structure. For structures that have not been previously evaluated, the City Engineer shall consult with a qualified Architectural Historian approved by the City to conduct an evaluation of the structure. If the structure is determined eligible or already eligible or listed in the NRHP or CRHR, a structural evaluation shall be conducted by a Professional Structural Engineer to identify maximum allowable levels of vibration during construction. If a historic determination is required, the engineer shall provide recommendations on approaches to stabilization in conjunction with vibration monitoring. Permanent stabilization measures shall follow the Secretary of the Interior's guidelines for the treatment of historic properties. If the buildings are temporarily stabilized for the duration of construction activities, when removed, the buildings shall be restored to their pre-construction condition when the stabilization measures are removed.	Prior to and following construction	1, 2	City of Vista Engineering Department	Native American Heritage Commission (NAHC)	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
CULT-2 - Project-Specific Archaeological Survey. Prior to the issuance of project-specific construction documents for CIP Capacity and Condition Projects (Hardscape and Cross County Environs), Pump Station Rehabilitations, and Out-of-Service Area Projects, a Qualified Archaeologist approved by the City shall contact the NAHC regarding a Sacred Lands File Search for the project area. In addition, the City shall request a written response from the San Luis Rey Band of Mission Indians (SLR Band) (a tribe traditionally and culturally affiliated with the site) regarding whether the site of the 2017 CSMP improvement project may potentially affect Native American resources. If the NAHC and/or the SLR Band confirms potential known resources, a pedestrian survey (i.e., physical walk over) shall first be conducted by the Qualified Archaeologist and a TCA (traditionally and culturally affiliated) Native American Monitor. Should the pedestrian survey identify Native American cultural resources, the Qualified Archeologist shall, in consultation with the TCA Native American monitor and the SLR Band, make an immediate written evaluation of the significance and appropriate treatment of the resource, including any avoidance measures, additional testing and evaluations, or data recovery plans, and Pre-Excavation Agreements with the Tribe. If the SLR Band confirms, in consultation with the Qualified Archaeologist, that there is a potential for unknown resources to be uncovered during construction activities, then Mitigation Measure CULT-3, Archaeological Monitoring, shall be implemented.	Prior to construction	1, 2, 3, 4	City of Vista Engineering Department	NAHC	
CULT-3 Archaeological Monitoring. Cultural resource mitigation monitoring shall be conducted to provide for the identification, evaluation, treatment, and protection of any cultural resources that are affected by or may be discovered during the construction of the proposed project. The monitoring shall consist of the full-time presence of a Qualified Archaeologist and a TCA (traditionally and culturally affiliated) Native American Monitor, and the monitoring activities shall be identified and defined in a Pre-Excavation Agreement between the City's Engineering Department and the San Luis Rey Band. The purpose of this agreement shall be to formalize protocols and procedures for the	During construction	1, 2, 3, 4	City of Vista Engineering Department	NAHC	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
protection, treatment, and disposition of, but not limited to, such items as Native American human remains, funerary objects, cultural and religious landscapes, ceremonial items, traditional gathering areas and cultural items, located and/or discovered through the cultural resource mitigation monitoring program in conjunction with the construction of the proposed project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, soil surveys, grading, or any other ground disturbing activities. Other tasks of the monitoring program shall include the following: • The requirement for cultural resource mitigation monitoring shall be noted on all applicable construction documents, including demolition plans, grading plans, etc. • The Qualified Archaeologist and TCA Native American Monitor shall attend all applicable pre-construction meetings with the Contractor and/or associated Subcontractors. • The Qualified Archaeologist shall maintain ongoing collaborative consultation with the TCA Native American Monitor during all ground disturbing or altering activities, as identified above. • The Qualified Archaeologist and/or TCA Native American Monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground-disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the Qualified Archaeologist and the TCA Native American Monitor, in consultation with the San Luis Rey Band. Ground disturbing activities shall not resume until the Qualified Archaeologist, in consultation with the TCA Native American Monitor, deems the cultural resource or feature has been appropriately documented and/or protected. At the Qualified Archaeologist's discretion, the location of ground disturbing activities may be relocated elsewhere on the project site to avoid further disturbance of cultural resources.					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
• The Qualified Archaeologist and/or TCA Native American Monitor may also halt ground disturbing activities around known archaeological artifact deposits or cultural features if, in their respective opinions, there is the possibility that they could be damaged or destroyed. • The avoidance and protection of discovered unknown and significant cultural resources and/or unique archaeological resources is the preferable mitigation for the proposed project. If avoidance is not feasible, a Data Recovery Plan may be authorized by the City as the Lead Agency under CEQA. If data recovery is required, then the San Luis Rey Band shall be notified and consulted in drafting and finalizing any such recovery plan. • Prior to the release of any Bonds associated with the construction of improvements noted in the 2017 CSMP, a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the cultural resource mitigation monitoring efforts (such as, but not limited to, a Data Recovery Program) shall be submitted by the Qualified Archaeologist, along with the TCA Native American Monitor's notes and comments, to the City's Director of Community Development for approval.					
CULT-4 Paleontological Monitoring. Monitoring during construction grading or trenching shall be required for all CIP conveyance projects (Hardscape and Cross-Country Environs) that would excavate to a depth of ten feet or more. Prior to the issuance of project specific construction documents, the City Engineer shall retain a Professional Paleontologist to observe all earth-disturbing activities. All fossil materials recovered during mitigation monitoring shall be cleaned, identified, cataloged, and analyzed in accordance with standard professional practices. The results of the field work and laboratory analysis shall be submitted in a technical report and the entire collection transferred to an approved facility.	During constriction	1, 2, 3, 4	City of Vista Engineering Department	NAHC	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
CULT-5 Disturbance to Human Remains. As specified by California Health and Safety Code Section 7050.5, if human remains are found on the project site during construction or during archaeological work, the person responsible for the excavation, or his or her authorized representative, shall immediately notify the San Diego County Coroner's office by telephone. No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie adjacent remains (as determined by the Qualified Archaeologist and/or the TCA (traditionally and culturally affiliated) Native American Monitor) shall occur until the Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.98. If such a discovery occurs, a temporary construction exclusion zone shall be established surrounding the area of the discovery so that the area would be protected (as determined by the Qualified Archaeologist and/or the TCA Native American Monitor), and consultation and treatment could occur as prescribed by law. As further defined by State law, the Coroner would determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC would make a determination as to the Most Likely Descendent. If Native American remains are discovered, the remains shall be kept "in situ" ("in place"), or in a secure location in close proximity to where they were found, and the analysis of the remains shall only occur on-site in the presence of the TCA Native American Monitor.	During construction	1, 2, 3, 4	City of Vista Engineering Department	NAHC, San Diego County	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
HAZARDS AND HAZARDOUS MATERIALS					
HAZ-1 - Halt Construction Work if Potentially Hazardous Materials are Encountered. All construction contractors shall immediately stop all surface or subsurface activities in the event that potentially hazardous materials are encountered, an odor is identified, or considerably stained soil is visible. Contractors shall follow all applicable local, state, and federal regulations regarding discovery, response, disposal, and remediation for hazardous materials encountered during the construction process. These requirements shall be included in the contractor specifications. If any hazardous materials, waste sites, or vapor intrusion risks are identified prior to or during construction, a qualified professional, in consultation with appropriate regulatory agencies, will develop and implement a plan to remediate the contamination and properly dispose of the contaminated material. If material imports are proposed, the contractor shall furnish the City will appropriate documentation certifying that the imported materials are free of contamination.	During construction	1, 2, 3, 4	City of Vista Engineering Department		
HAZ-2 - Hazardous Materials Surveys. Prior to the issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or rehabilitation activities, a Hazardous Materials Assessment (surveys) would be performed to determine the presence or absence of ACMs/LBP located in the structure(s) to be demolished. Suspect materials that would be disturbed by the demolition or rehabilitation activities would be sampled and analyzed for asbestos content, or assumed to be asbestos containing. All lead containing materials scheduled for demolition must comply with applicable regulations for demolition methods and dust suppression. Lead containing materials shall be managed in accordance with applicable regulations. The ACM survey would be conducted by a person certified by the California Division of Occupational Safety and Health (Cal/OSHA). The LBP survey would be conducted by a person certified by the California Department of Health Services. Copies of the surveys would be provided to SDCDEH and SDCAPCD once completed.	Prior to construction	1, 2, 4	City of Vista Engineering Department		

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
HAZ-3 - Keep Construction Area Clear of Combustible Materials. During construction, construction contractors shall ensure that staging areas, welding areas, or areas slated for construction using spark-producing equipment shall be cleared of combustible vegetation or other materials that could serve as fire fuel. All vegetation clearing shall be coordinated with a qualified biologist and any required permits prior to removal. The contractor shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles, heavy equipment, and chainsaws.	During construction	1, 2, 4	City of Vista Engineering Department		
HAZ-4 - Provide Accessible Fire Suppression Equipment. Work crews shall be required to have sufficient fire suppression equipment readily available to ensure that any fire resulting from construction activities is immediately extinguished. All off-road equipment using internal combustion engines shall be equipped with spark arrestors.	During construction	1, 2, 4	City of Vista Engineering Department		
HYDROLOGY AND WATER QUALITY					
HWQ-1 - Assess Project Risk, Receiving Water Vulnerability, and Implement a Water Quality Protection Strategy. The construction contractor will assess the receiving water vulnerability and develop a SWPPP that complies with the requirements of the NPDES General Construction Permit (Order 2009-0009-DWQ as amended by 2010 0014-DWQ and 2012-006-DWQ) based on the project-specific risk level subject to the City Engineer's approval. The SWPPP shall identify specific actions and BMPs relating to the prevention of stormwater pollution from project-related construction sources by identifying a practical sequence for site restoration, BMP implementation, contingency measures, responsible parties, and agency contacts. The SWPPP shall reflect localized surface hydrological conditions, local jurisdictional requirements. and shall be reviewed and approved by the City Engineer prior to commencement of	Prior to, during, and following construction	1, 2, 3, 4	City of Vista Engineering Department	Cities of Carlsbad, San Marcos, Oceanside; San Diego County; Regional Water Quality Control Board (RWQCB), Region 9	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
work. The SWPPP shall be prepared by a qualified SWPPP developer with BMPs selected to achieve maximum pollutant removal and that represent the best available technology that is economically achievable. BMPs for soil stabilization and erosion control practices and sediment control practices will also be required. Performance and effectiveness of these BMPs shall be determined either by visual means where applicable (i.e., observation of above-normal sediment release), or by actual water sampling in cases where verification of contaminant reduction or elimination, (e.g., inadvertent petroleum release) is required to determine adequacy of the measure. The SWPPP shall also address other project-specific water quality threats, as required for individual improvements including but not limited to, temporary dewatering, hydrostatic testing, and other resources permits as required under the Federal Clean Water Act, County Grading Ordnance, and State Fish and Game Code, as applicable. Construction and post-construction BMPs will be designed to avoid the creation of standing water and potential mosquito breeding habitat.					
HWQ-2 - Prepare and Implement a Flow Diversion Plan For Construction. The construction contractor shall develop a Flow Diversion Plan(s) for in-channel construction activities. The contractor shall incorporate measures to minimize changes to flood flow elevation(s) during construction, address accumulation of floating debris, provide measures that minimize sedimentation to surface waters, and include contingency measures in the event of substantial rainfall.	Prior to and during construction	1, 4	City of Vista Engineering Department	RWQCB	
NOISE AND VIBRATION					
NV-1 - Construction Noise Reduction Measures. The Construction Contractor shall demonstrate to the satisfaction of the City Engineer that the following noise control techniques are implemented during the clearing, demolition, grading and construction phases of projects identified in the 2017 CSMP	Prior to and during construction	1, 2, 3, 4	City of Vista Engineering Department	Cities of Carlsbad, San Marcos, Oceanside; San Diego County	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
within 200 feet of noise-sensitive land uses. • Heavy equipment repair and contractor staging shall be conducted at sites as far as practical from nearby residences. • Construction equipment, including vehicles, generators and compressors, shall be maintained in proper operating condition and shall be equipped with manufacturers' standard noise control devices or better (e.g., mufflers, acoustical lagging, and/or engine enclosures). • Temporary sound barriers (or curtains), stockpiles of excavated materials, or other effective shielding or enclosure techniques shall be used where construction noise would exceed 90 dBA within less than 50 feet from a noise sensitive receptor. • Construction work, including on-site equipment maintenance and repair, shall be limited to the hours specified in the noise ordinance of the affected jurisdiction(s). • Electrical power shall be supplied from commercial power supply, wherever feasible, in order to avoid or minimize the use of engine-driven generators. • Electrically powered equipment shall be used instead of pneumatic or internal-combustion powered equipment, where feasible. • Unnecessary idling of internal combustion engines (i.e., in excess of 5 minutes) shall be prohibited. • Operating equipment shall be designed to comply with all applicable local, state, and federal noise regulations. • Construction site and access road speed limits shall be established and enforced during the construction period. • If lighted traffic control devices are to be located within 500 feet of residences, the devices shall be powered by batteries, solar power, or similar sources, and not by an internal combustion engine.					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
• The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. • No project-related public address or music system shall be audible at any adjacent sensitive receptor. • The construction contractors shall provide advance notice, between 2 and 4 weeks prior to construction, by mail to all residents or property owners within 200 feet of the alignment. The announcement shall state specifically where and when construction will occur in the area. If construction delays of more than 7 days occur, an additional notice shall be made, either in person or by mail. The City shall publish a notice of impending construction on the City website, stating when and where construction will occur. • The construction contractors shall identify and provide a public liaison person before and during construction to respond to concerns of neighboring residents about noise and other construction disturbance. The construction contractors shall also establish a program for receiving questions or complaints during construction and develop procedures for responding to callers. Procedures for reaching the public liaison officer via telephone or in person shall be included in notices distributed to the public in accordance with the information above.					
TRANSPORTATION AND CIRCULATION					
Mitigation Measure TR-1 - Prepare and Implement a Traffic Control Plan. The construction contractor shall prepare a Traffic Control Plan for roadways and intersections affected by individual 2017 CSMP improvements for approval by the City Engineer. The Traffic Control Plan will comply with local agency requirements (e.g., Vista, Carlsbad, Caltrans, etc.) with jurisdiction over project construction. The Traffic Control Plan will include, but not be limited to, the following elements based on local site and roadway conditions:	Prior to and during construction	1, 2, 4	City of Vista Engineering Department	Cities of Carlsbad, San Marcos, Oceanside; San Diego County	

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
• Provide street layout showing location of construction activity and surrounding streets to be used as detour routes, including "special signage." Post a minimum 72-hour advance warning of construction activities within affected roadways to allow motorists to select alternative routes. • Restrict delivery of construction materials to non-peak travel periods (9 a.m. – 3 p.m.) as appropriate. Weekend and night work shifts will be allowed in non-residential areas only. • Maintain the maximum travel-lane capacity during non-construction periods and provide flagger-control at construction sites to manage traffic control and flows. • Limit the construction work zone in each block to a width that, at a minimum, maintains alternate one-way traffic flow past the construction zone. • Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners will be notified. • Require temporary steel-plate trench crossings, as needed, to maintain reasonable access to homes, businesses, and streets. When required by the applicable encroachment permit, maintain the existing lane configuration during nonworking hours by covering the trench or jack pit with steel plates or by using temporary backfill. • Require appropriate warning signage and safety lighting for construction zones. • Access for emergency vehicles shall be maintained at all times. Police, fire, and emergency services shall be notified of the timing, location, and duration of construction activities that could hinder and/or delay emergency access through the construction period. • Coordinate with NCTD to plan, as needed, for the temporary relocation of bus stops and/or detour of transit routes on affected pipeline alignments.					

Table 1. MMRP Mitigation Measures

Mitigation Measure	Timing	Project Category[1]	Primary Responsible Party	Secondary Responsible Party	Verification
• Identify detours, where available, for bicyclists and pedestrians in areas potentially affected by project construction. • Provide adequate off-street parking locations for workers' vehicles and construction equipment in those areas where on-street parking availability is insufficient. • Repair or restore the roadway ROW to its original condition or better upon completion of work.					

[1] Project categories identified in the CSMP SPEIR include:

Category 1: CIP Capacity and Condition Projects (Hardscape Environs). Tables 3-3 and 3 4 in Chapter 3 identify the near-term and build out CIP capacity-related projects included within this category. Figures 3-7 and 3-8 illustrate the locations of the capacity improvements. Table 1 in Appendix B of this SPEIR includes a list of CIP condition Projects included within this category. Figures 3-9 through 3-17 illustrate the location of the condition relate improvements.

Category 2: CIP Capacity and Condition Projects (Cross-Country Environs). Tables 3-3 and 3-4 identify the near-term and build out CIP capacity-related projects included within this category. Figures 3-7 and 3-8 illustrate the locations of the capacity improvements. Table 2 in Appendix B of this SPEIR includes a list of CIP condition projects included in this category. Figures 3-9 through 3-17 illustrate the location of the condition-relate improvements.

Category 3: O&M Program Operations and Pump Station Rehabilitation. Table 3-5 in Chapter 3 of this SPEIR includes a list of the O&M Program improvements included within this category.

Category 4: Out-of-Service Area Projects. Figures 3-19 and 3-20 illustrate the out-of-service area project(s) improvements included within this category.

Attachment B. Tables 4.2-1 and 4.2-2 from the SPEIR (2017), Special Status Species Tables

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Table 4.2-1. Potential of Special Status Plant Species to Occur Within Study Area

Scientific Name	Common Name	Federal Status	Species Summary	2008 SMPU Inclusion	2017 CSMP Occurrence
APIACEAE (Carrot Family)					
Eryngium aristulatum var. *parishii*	San Diego buttoncelery	Federal: FE State: SE CRPR: 1B.1	Annual/perennial herb. Mesic soils in coastal scrub, valley and foothill grassland, and vernal pools from 66-2,034 ft. (20-620 m) AMSL. Blooms April-June.	Yes	Moderate Potential
Eryngium pendletonense	Pendleton button-celery	Federal: None State: None CRPR: 1B.1	Perennial herb. Occurs in clay, vernally mesic soils in coastal bluff scrub, valley and foothill grassland, and vernal pools from 49 to 360 ft. (15 to 110 m) AMSL. Blooms April-July.	No	Moderate Potential
ASTERACEAE (Sunflower Family)					
Ambrosia pumila	San Diego ambrosia	Federal: FE State: None CRPR: 1B.1	Perennial rhizomatous herb. Occurs in sandy loam or clay, often in disturbed areas, sometimes alkaline in chaparral, coastal scrub, valley and foothill grassland, and vernal pools from 65-1,361ft. (20 to 415 m) AMSL. Blooms from April-October.	Yes	Moderate potential
Baccharis vanessae	Encinitas baccharis	Federal: FT State: SE CRPR: 1B.1	Perennial deciduous shrub. Sandstone soils in chaparral (maritime) and cismontane woodland from 197-2,362 ft. (60-720 m) AMSL. Blooms August-November.	Yes	Moderate Potential in southern Maritime Chaparral only
Centromadia parryi ssp. *australis*	southern tarplant	Federal: None State: None CRPR: 1B.1	Annual herb. Margins of salt marshes, in vernally mesic grasslands, and vernal pools below 1,575 ft. (480 m) AMSL. Blooms May-November.	Yes	Moderate Potential (lagoon and drainage areas only)
Centromadia pungens ssp. *laevis*	smooth tarplant	Federal: None State: None CRPR: 1B.1	Annual herb. Per the MSHCP, suitable habitat for smooth tarplant includes alkali scrub, alkali playas, and grasslands with alkaline affinities below 2,099 ft. (640 m) AMSL. Blooms April-November.	Yes	Moderate Potential (drainage areas only)
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	Federal: None State: None CRPR: 1B.1	Annual herb. Occurs in sandy coastal bluff scrub and coastal dunes below 328 ft. (100 m) AMSL. Blooms January-August.	No	Low Potential based on lack of suitable habitat

Table 4.2-1. Potential of Special Status Plant Species to Occur Within Study Area

Scientific Name	Common Name	Federal Status	Species Summary	2008 SMPU Inclusion	2017 CSMP Occurrence
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	Federal: None State: None CRPR: 1B.1	Perennial herb. Occurs in coastal bluff scrub, chaparral, and coastal scrub from 9 to 377 ft. (3 to 115 m) AMSL. Blooms June-September.	No	Moderate Potential
Corethrogyne filaginifolia var. *linifolia*	Del Mar Mesa sand aster	Federal: None State: None CRPR: 1B.1	Perennial herb. Occurs sandy soils in coastal bluff scrub, chaparral (maritime, openings), and coastal scrub from 49 to 492 ft. (15 to 150 m) AMSL. Blooms May-September.	Yes	Moderate Potential
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	Federal: None State: None CRPR: 1B.1	Perennial evergreen shrub. Occurs in mesic soils in chaparral and coastal scrub from 98 to 1,968 ft. (30 to 600 m) AMSL. Blooms July-November.	No	Moderate Potential
Hazardia orcuttii	Orcutt's hazardia	Federal: None State: ST CRPR: 1B.1	Perennial evergreen shrub. Occurs in clay soils in maritime chaparral and coastal scrub from 262 to 279 ft. (80 to 85 m). Blooms August- October.	Yes	Moderate Potential
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	Federal: None State: None CRPR: 1B.1	Perennial herb. Occurs in chaparral (coastal), coastal dunes, and coastal scrub below 4,019 ft. (1,225 m) AMSL. Blooms March-December.	No	Moderate Potential
Isocoma menziesii var. *decumbens*	Decumbent goldenbush	Federal: None State: None CNPS: 1B.2	Shrub. Occurs in sandy soils, often in disturbed areas in coastal scrub and chaparral from 30 to 440 ft. (10 to 135 m) AMSL. Blooms April-November.	Yes	Known to occur in Study Area
Iva hayesiana	San Diego marsh-elder	Federal: None State: None CNPS: 2B.2	Perennial herb. Occurs in marshes and playas from 30 to 1,600 ft. (10 to 500 m) AMSL. Blooms April-October.	Yes	Moderate Potential (drainage areas only)
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	Federal: None State: None CNPS: 1B.1	Annual herb. Occurs in alkaline soils in marshes, playas, vernal pools, and valley and foothill grasslands below 4,600 ft. (1,400 m) AMSL. Blooms February-June.	Yes	Moderate Potential (drainage areas only)

Table 4.2-1. Potential of Special Status Plant Species to Occur Within Study Area

Scientific Name	Common Name	Federal Status	Species Summary	2008 SMPU Inclusion	2017 CSMP Occurrence
Leptosyne maritima	sea dahlia	Federal: None State: None CNPS: 2B.2	Occurs in a variety of soil types, including sandstone, within coastal scrub and coastal bluff scrub from coastal San Diego County and Baja California from 15 to 500 ft. (5 to 150 m) AMSL. Blooms March-May.	No	Moderate Potential
Pseudognaphalium leucocephalum	white rabbit-tobacco	Federal: None State: None CRPR: 2B.2	Perennial herb. Occurs in sandy and gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland below 6,889 ft. (below 2,100 m) AMSL. Blooms July- December.	No	Low Potential – based on known distribution of species
BORAGINACEAE (Borage Family)					
Cryptantha wigginsii	Wiggins' cryptantha	Federal: None State: None CRPR: 1B.2	Annual herb. Often occurs in clay soils in coastal scrub from 65 to 902 ft. (20 to 275 m) AMSL. Blooms February-June.	No	Moderate Potential
Nama stenocarpa	mud nama	Federal: None State: None CRPR: 2B.2	Annual/perennial herb. Occurs in marshes and swamps along lake margins, riverbanks and seasonal ponds from 16 to 1,640 ft. (5 to 500 m) AMSL. Blooms January-July.	No	Moderate Potential
CACTACEAE (Cactus Family)					
Ferocactus viridescens	San Diego barrel cactus	Federal: None State: None CRPR: 2B.1	Perennial stem succulent. Often on exposed, level or south-facing slopes within chaparral, coastal scrub, and grasslands below 1,500 ft. (460 m) AMSL. Blooms May- June.	Yes	Moderate Potential (common in sage scrub)
CHENOPODIACEAE (Goosefoot Family)					
Atriplex coulteri	Coulter's saltbush	Federal: None State: None CRPR: 1B.2	Perennial herb. Occurs in alkaline or clay soils in open sites, coastal bluff scrub, coastal scrub, and valley and foothill grassland from 10 to 1,509 ft. (3 to 460 m) AMSL. Blooms March-October.	No	Moderate Potential

Table 4.2-1. Potential of Special Status Plant Species to Occur Within Study Area

Scientific Name	Common Name	Federal Status	Species Summary	2008 SMPU Inclusion	2017 CSMP Occurrence
Atriplex pacifica	south coast saltscale	Federal: None State: None CRPR: 1B.2	Annual herb. Occurs in alkaline soils in coastal sage scrub, playas, coastal bluff scrub, coastal dunes, and chenopod scrub from 600 to 1,400 ft. (200 to 430 m) AMSL. Blooms March-October.	Yes	Moderate Potential
Atriplex parishii	Parish's brittlescale	Federal: None State: None CRPR: 1B.1	Annual herb. Occurs in alkaline or clay soils in chenopod scrub, playas, and vernal pools from 82 to 6,232 ft. (25 to 1,900 m) AMSL. Blooms June-October.	No	Low Potential – based on known distribution of species
Suaeda esteroa	estuary seablite	Federal: None State: None CRPR: 1B.2	Perennial herb. Occurs in coastal salt marshes and swamps below 16 ft. (5 m) AMSL. Blooms May-January.	No	Low Potential – based on lack of suitable habitat
CRASSULACEAE (Stonecrop Family)					
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	Federal: None State: None CRPR: 1B.1	Perennial herb. Occurs in dry rocky places, often on clay or serpentine soils, in chaparral, coastal sage scrub, or grassland below 1,500 ft. (450 m) AMSL. Blooms May- June.	Yes	Known to occur in Study Area
Dudleya multicaulis	Many stemmed dudleya	Federal: None State: None CRPR: 1B.2	Perennial herb. Occurs in heavy often clay soils around granitic outcrops in chaparral, coastal sage scrub and grasslands below 2,600 ft. (790 m) AMSL. Blooms April- July.	Yes	Moderate Potential
Dudleya variegate	variegated dudleya	Federal: None State: None CRPR: 1B.2	Perennial herb. Occurs in clay soils in chaparral, coastal scrub, vernal pools, valley and foothill grassland and cismontane woodlands from 10 to 1903 ft. (3 to 580 m) AMSL. Blooms April- June.	Yes	Moderate Potential
Dudleya viscida	sticky dudleya	Federal: None State: None CRPR: 1B.2	Perennial herb. Occurs in rocky soils in coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub from 32 to 1,804 ft. (10 to 550 m) AMSL. Blooms May – June.	Yes	Known to occur in Study Area

Table 4.2-1. Potential of Special Status Plant Species to Occur Within Study Area

Scientific Name	Common Name	Federal Status	Species Summary	2008 SMPU Inclusion	2017 CSMP Occurrence
ERICACEAE (Heath Family)					
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	Federal: FE State: None CRPR: 1B.1	Perennial evergreen shrub. Occurs in sandy areas in maritime chaparral and coniferous forest, typically on coastal mesas and ocean bluffs below 1,200 ft. (365 m) AMSL. Blooms December-June.	Yes	Known to occur in Study Area
Arctostaphylos rainbowensis	rainbow manzanita	Federal: None State: None CRPR: 1B.1	Perennial evergreen shrub. Occurs in chaparral from 672 to 2,198 ft. (205 to 670 m) AMSL. Blooms December-March.	No	Moderate Potential
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	Federal: None State: None CRPR: 1B.2	Perennial evergreen. Occurs in chaparral and cismontane woodland from 98 to 2,591 ft. (30 to 790 m) AMSL. Blooms April-June.	Yes	Known to occur in Study Area
EUPHORBIACEAE (Spurge Family)					
Euphorbia misera	cliff spurge	Federal: None State: None CRPR: 2B.2	Perennial shrub. Occurs in rocky soils in coastal bluff scrub, coastal scrub, and Mojavean desert scrub from 32 to 1,640 ft. (10 to 500 m) AMSL. Blooms December-October.	Yes	Known to occur in Study Area
FABACEAE (Pea Family)					
Acmispon prostratus	Nuttall's acmispon	Federal: None State: None CRPR: 1B.1	Annual herb. Occurs in coastal dunes and sandy coastal scrub below 32 ft. (10m) AMSL. Blooms March-July.	No	Not expected. No suitable habitat below 32 ft in elevation
FAGACEAE (Oak and Beech Family)					
Quercus dumosa	Nuttall's scrub oak	Federal: None State: None CRPR: 1B.1	Perennial evergreen shrub. Sandy and clay load soils in closed-cone coniferous forest, chaparral, and coastal scrub from 45 to 1,312 ft. (15 to 400 m) AMSL. Blooms January-April.	Yes	Known to occur in Study Area

Table 4.2-1. Potential of Special Status Plant Species to Occur Within Study Area

Scientific Name	Common Name	Federal Status	Species Summary	2008 SMPU Inclusion	2017 CSMP Occurrence
LAMIACEAE (Mint Family)					
Acanthomintha ilicifolia	San Diego thorn-mint	Federal: FT State: SE CRPR: 1B.1	Annual herb. Occurs is vertisol clay soils of mesas and valleys within grasslands, chaparral, coastal scrub and vernal pool communities from 20 to 3,200 ft. (10 to 960 m) AMSL. Blooms April- June.	Yes	Known to occur in Study Area
Lepechinia cardiophylla	heart-leaved pitcher sage	Federal: None State: None CRPR: 1B.2	Perennial herb. Occurs in closed-cone coniferous forest, chaparral, and cismontane woodland from 1,706 to 4,494 ft. (520 to 1,370 m) AMSL. Blooms April-July.	No	Low Potential – Based on elevation range of the Study Area
Monardella hypoleuca ssp. *intermedia*	intermediate monardella		Perennial rhizomatous herb. Occurs in the understory of chaparral, cismontane woodland, and lower montane coniferous forest from 1,312 to 4,101 ft. (400 to 1,250 m) AMSL. Blooms April-September.	No	Low Potential – based on known distribution of the species
Monardella hypoleuca ssp. *lanata*	Felt-leaved monardella	Federal: None State: None CRPR: 1B.2	Occurs in chaparral and cismontane woodlands from 1,000 to 5,200 ft. (300 to 1,575 m) AMSL. Blooms June- August.	Yes	Known to occur in Study Area
Salvia munzii	Munz's sage	Federal: None State: None CRPR: 2B.2	Perennial evergreen shrub. Occurs in chaparral and coastal scrub from 377 to 3,494 ft. (115 to 1,065 m) AMSL. Blooms February-April.	No	Moderate Potential
LILIACEAE (Lily Family)					
Calochortus dunnii	Dunn's mariposa lily	Federal: None State: None CRPR: 1B.2	Perennial bulbiferous herb. Occurs in gabbroic, metavolcanic, and rocky soils in closed-cone coniferous forest, chaparral, and valley and foothill grasslands from 606 to 6,003 ft. (185 to 1,830 m) AMSL. Blooms February-June.	No	Low Potential – based on known distribution of species

Table 4.2-1. Potential of Special Status Plant Species to Occur Within Study Area

Scientific Name	Common Name	Federal Status	Species Summary	2008 SMPU Inclusion	2017 CSMP Occurrence
MALVACEAE (Mallow Family)					
Sidalcea neomexicana	salt spring checkbloom	Federal: None State: None CRPR: 2B.2	Perennial herb. Occurs in alkaline and mesic soils in chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas from 49 to 5,019 ft. (15 to 1,530 m) AMSL. Blooms March-June.	No	Moderate Potential in wet areas with alkaline soil
NYCTAGINACEAE (Four o'clock Family)					
Abronia villosa var. *aurita*	chaparral sand-verbena	Federal: None State: None CRPR: 1B.1	Annual herb. Occurs in sandy areas typically with flats and benches along washes in chaparral and coastal sage scrub, and improbably in desert dunes or other sandy areas below 5,300 ft. (1,600 m) AMSL. Blooms March-August.	Yes	Moderate Potential (adjacent to lagoon areas only)
ONAGRACEAE (Willowherb Family)					
Clarkia delicate	delicate clarkia	Federal: None State: None CRPR: 1B.2		Yes	Low Potential – based on known distribution of the species
PICRODENDRACEAE					
Tetracoccus dioicus	Parry's tetracoccus	Federal: None State: None CRPR: 1B.2	Perennial deciduous shrub. Occurs in chaparral and coastal scrub from 541 to 3,281 ft. (165 to 1,000 m) AMSL. Blooms April-May.	Yes	Known to occur in the Study Area
PLANTAGINACEAE (Plantain Family)					
Stemodia durantifolia	purple stemodia	Federal: None State: None CRPR: 2B.1	Perennial herb. Occurs in Sonoran desert scrub (often mesic, sandy soils) from 590 to 984 ft. (180 to 300 m) AMSL. Blooms January-December.	No	Low Potential – based on lack of suitable habitat

Table 4.2-1. Potential of Special Status Plant Species to Occur Within Study Area

Scientific Name	Common Name	Federal Status	Species Summary	2008 SMPU Inclusion	2017 CSMP Occurrence
POACEAE (Grass Family)					
Orcuttia californica	California Orcutt's grass	Federal: FE State: FE CRPR: 1B.1	Annual grass. Occurs in vernal pools from 50 to 2,200 ft. (15 to 660 m) AMSL. Blooms April- August.	Yes	Moderate Potential
POLEMONIACEAE (Jacob's-ladder or Phlox Family)					
Navarretia fossalis	Spreading navarretia	Federal: FT State: None CRPR: 1B.1	Annual herb. Occurs in vernal pools, playas, shallow freshwater marshes and similar areas from 100 to 4,300 ft. (30 to 1,310 m) AMSL. Blooms April- June.	Yes	Moderate Potential
POLYGONACEAE (Buckwheat Family)					
Chorizanthe orcuttiana	Orcutt's spineflower	Federal: None State: None CRPR: 1B.1	Annual herb. Occurs in sandy soils in coastal scrub, chaparral, and closed-cone coniferous forests from 10 to 410 ft. (3 to 125 m) AMSL. Blooms March- May.	Yes	Moderate Potential
Chorizanthe polygonoides var. *longispina*	Long-spined spineflower	Federal: None State: None CRPR: 1B.2	Annual herb. Occurs in clay soils in chaparral, coastal scrub, or woodlands from 100 to 5,600 ft. (40 to 1,705 m) AMSL. Blooms April- July.	Yes	Moderate Potential
Nemacaulis denudata var. *denudate*	Coast woolly-heads	Federal: None State: None CRPR: 1B.2	Annual herb. Occurs in sandy places such as coastal dunes below 300 ft. (100 m) AMSL. Blooms April-September.	Yes	Low Potential – based on lack of suitable habitat
Nemacaulis denudata var. *gracilis*	slender cottonheads	Federal: None State: None CRPR: 2B.2	Annual herb. Occurs in coastal dunes, desert dunes, and Sonoran desert scrub from -164 to 1,312 ft. (-50 to 400 m) AMSL. Blooms March-May.	No	Low Potential – based on lack of suitable habitat
RANUNCULACEAE (Buttlecup or Crowfoot Family)					
Myosurus minimus ssp. *apus*	Little mousetail	Federal: None State: None CRPR: 3.1	Annual herb. Occurs in alkaline areas in vernal pools from 70 to 2,100 ft. (20 to 640 m) AMSL. Blooms March- June.	Yes	Moderate Potential

Table 4.2-1. Potential of Special Status Plant Species to Occur Within Study Area

Scientific Name	Common Name	Federal Status	Species Summary	2008 SMPU Inclusion	2017 CSMP Occurrence
RHAMNACEAE (Buckthorn Family)					
Adolphia californica	California adolphia	Federal: None State: None CRPR: 2B.1	Perennial deciduous shrub. Occurs in clay soils in grasslands, coastal sage scrub, and chaparral communities from 33 to 2,400 ft. (10 to 740 m) AMSL. Blooms December- May.	Yes	Known to occur in Study Area
Ceanothus verrucosus	wart-stemmed ceanothus	Federal: None State: None CRPR: 2B.2	Shrub. Occurs in chaparral below 1,250 ft. (380 m) AMSL. Blooms December- May.	Yes	Known to occur in Study Area
ROSACEAE (Rose Family)					
Horkelia cuneata ssp. *puberula*	Mesa horkelia	Federal: None State: None CRPR: 1B.1	Perennial herb. Occurs typically in sandy and gravelly soils in chaparral and rarely in cismontane woodland or coastal scrub from 200 to 2,700 ft. (70 to 825 m) AMSL. Blooms February-July occasionally till September.	Yes	Low Potential
Horkelia truncata	Ramona horkelia	Federal: None State: None CRPR: 1B.3	Occurs in clay soils in chaparral and woodland from 1,000 to 4,900 ft. (300 to 1,500 m) AMSL. Blooms May-June.	Yes	Moderate Potential
RUSCACEAE (Butcher's Broom Family)					
Nolina cismontana	Chaparral nolina	Federal: None State: None CRPR: 1B.2	Perennial shrub. Occurs in sandstone or gabbro soils in chaparral and coastal sage scrub from 1,150 to 5,600 ft. (350 to 1,700 m) AMSL. Blooms May- July.	Yes	Moderate Potential
THEMIDACEAE (Brodiaea Family)					
Bloomeria clevelandii	San Diego goldenstar	Federal: None State: None CRPR: 1B.1	Perennial bulbiferous herb. Occurs in clay soils in chaparral, coastal scrub, valley and foothill grassland, and vernal pools from 164 to 1,525 ft. (50 to 465 m) AMSL. Blooms April-May.	No	Known to occur in Study Area

Table 4.2-1. Potential of Special Status Plant Species to Occur Within Study Area

Scientific Name	Common Name	Federal Status	Species Summary	2008 SMPU Inclusion	2017 CSMP Occurrence
Brodiaea filifolia	thread-leaved brodiaea	Federal: FT State: SE CRPR: 1B.1	Perennial herb. Occurs on clay soils associated with vernal pools or alkaline flats. Occasionally in vernally moist sites in fine soils including clay loam, silt loam, fine sandy loam, loam, loamy fine sand. Typically associated with needlegrass or alkali grassland or vernal pools from 80 to 3,700 ft. (25 to 1,120 m) AMSL. Blooms March- June.	Yes	Known to occur in Study Area
Brodiaea orcuttii	Orcutt's brodiaea	Federal: None State: None CRPR: 1B.1	Perennial herb. Clay and some serpentine soils, usually associated with streams and vernal pools from 100 to 5,600 ft. (30 to 1,700 m) AMSL. Blooms May- July.	Yes	Known to occur in Study Area

Source: CNDDB 2017; USFWS 2017

FE = Federally Endangered.

FT = Federally Threatened

SE = State Endangered

ST = State Threatened

CRPR = California Rare Plant Ranking

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

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

List 3 = more information needed about this plant (Review List)

List 4 = Plants of limited distribution (Watch List)

0.1 Seriously endangered in California

0.2 Fairly endangered in California

0.3 Not very endangered in California

[1] CNPS, Rare Plant Program. 2017. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website http://www.rareplants.cnps.org [accessed 8 March 2017].

[2] Calflora: Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria. [web application]. 2016. Berkeley, California: The Calflora Database [a non-profit organization]. Available: http://www.calflora.org/ (accessed: March 8, 2017).

Table 4.2-2. Potential of Special Status Wildlife Species to Occur on Project Site

Scientific Name	Common Name	Status	Species Summary	2008 SMPU Inclusion	Potential to Occur
INVERTEBRATES					
Branchinecta lynchi	vernal pool fairy shrimp	Federal: FT State: None	Vernal pools and swales in grassland areas. Known from the Central Valley, the central coast and south coast mountains as far south as Ventura County, and from the Santa Rosa Plateau, Skunk Hollow, and the Stowe Road vernal pool near Salt Creek just west of Hemet in Riverside County.	No	Known to occur in the Study Area
Branchinecta sandiegonensis	San Diego fairy shrimp	Federal: FE State: None	Vernal pools; cool water seasonal pools with low to moderate dissolved solids.	Yes	Moderate Potential
Streptocephalus wootoni	Riverside fairy shrimp	Federal: FE State: None	Vernal pools; deep cool water seasonal pools. Pools with low to moderate dissolved solids.	Yes	Low Potential – project site south of known range for the species
FISH					
Eucyclogobius newberryi	tidewater goby	Federal: FE State: SSC	Endemic to California inhabits coastal lagoons, estuaries, and marshes. Generally found in brackish water in shallow lagoons and in lower stream reaches where water is still but not stagnant. They prefer a sandy substrate for breeding. Favors sparse vegetation containing submerged or emergent aquatic plants such as widgeongrass (Ruppia maritima), bullrushes (Scirpus sp.), and pondweed (Potamogeton sp.).Historically found from the mouth of the Smith River, Del Norte County to Agua Hedionda Lagoon in Northern San Diego County.	No	Low Potential based on lack of suitable brackish habitat (critical habitat located west of the Study Area)
Gila orcuttii	arroyo chub	Federal: None State: SSC	Perennial streams or intermittent streams with permanent pools; slow water sections of streams with mud or sand substrates; spawning occurs in pools. Native to Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita River systems; introduced in Santa Ynez, Santa Maria, Cuyama, and Mojave River systems and smaller coastal streams.	No	Moderate Potential

Table 4.2-2. Potential of Special Status Wildlife Species to Occur on Project Site

Scientific Name	Common Name	Status	Species Summary	2008 SMPU Inclusion	Potential to Occur
AMPHIBIANS & REPTILES					
Anaxyrus californicus	arroyo toad	Federal: FE State: SSC	Inhabits washes, arroyos, sandy riverbanks, riparian areas with willow, sycamores, oaks, and cottonwoods. Requires exposed sandy streamsides with stable terraces for burrowing with scattered vegetation for shelter, and areas of quiet water or pools free of predatory fishes with sandy or gravel bottoms without silt for breeding. Coastal and a few desert streams from Santa Barbara County to Baja California.	Yes	Moderate Potential
Spea hammondii	western spadefoot	Federal: None State: SSC	Found in grasslands, but occasionally populations also occur in valley-foothill hardwood woodlands. Some populations persist in orchard or vineyard habitats. Occurs in the Central valley and adjacent foothills. In the Coast Ranges, it is found from Santa Barbara County south to the Mexican border. Elevation from sea level to 1,363m (4,460 ft) in the southern Sierra foothills.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Arizona elegans occidentalis	California glossy snake	Federal: None State: SSC	Inhabits arid scrub, rocky washes, grasslands, and chaparral. Nocturnal. In underground burrows in daytime. Lays eggs in June and July, juveniles hatch in late summer and early fall. Found from eastern part of the San Francisco Bay area south to northwestern Baja California.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Aspidoscelis hyperythra	orange-throated whiptail	Federal: None State: SSC	Inhabits semi-arid brushy areas typically with loose soils and rock, including washes, streamsides, rocky hillsides, coastal scrub, chamise-redshank chaparral, mixed chaparral, coastal chaparral, and valley-foothill hardwood habitats. Occurs in Orange, riverside, and San Diego Counties west of the crest of the Peninsular Ranges. Also in southwestern San Bernardino County near Colton. Elevation ranges from sea level to 3410 ft. (1040 m).	Yes	Known to occur in Study Area

Table 4.2-2. Potential of Special Status Wildlife Species to Occur on Project Site

Scientific Name	Common Name	Status	Species Summary	2008 SMPU Inclusion	Potential to Occur
Aspidoscelis tigris stejnegeri	Coastal whiptail	Federal: None State: SSC	Wide variety of ecosystems, primarily hot and dry open areas with sparse foliage, including coastal sage scrub, sparse grassland, and riparian woodland; coastal and inland valleys and foothills; Ventura County to Baja California.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Crotalus ruber	red-diamond rattlesnake	Federal: None State: SSC	Inhabits arid scrub, coastal chaparral, oak and pine woodlands, rocky grassland, and cultivated areas. On the desert slopes of mountains, it ranges into rocky desert flats. From Morongo Valley west to the coast and south along the peninsular ranges to mid Baja California.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Emys marmorata	western pond turtle	Federal: None State: SSC	Inhabits permanent or nearly permanent water, in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with abundant vegetation, and either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater. San Francisco Bay south to Baja California, including Mojave River.	Yes	Moderate Potential
Phrynosoma blainvillii	coast horned lizard	Federal: None State: SSC	Inhabits open areas of sandy soils and low vegetation in valleys, foothills, and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills. Along Pacific coast from Baja California border west of the deserts and the Sierra Nevada, north to the Bay Area, and inland as far north as Shasta Reservoir, and south into Baja California.	Yes	Known to occur in the Study Area

Table 4.2-2. Potential of Special Status Wildlife Species to Occur on Project Site

Scientific Name	Common Name	Status	Species Summary	2008 SMPU Inclusion	Potential to Occur
Salvadora hexalepis virgultea	Coast patch-nosed snake	Federal: None State: SSC	Inhabits semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. Widely distributed throughout lowlands, up to 2,130 meters (7,000 feet) elevation. Ranges from San Luis Obispo County, south through coastal zone, south and west of the deserts, into coastal northern Baja California.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Thamnophis hammondii	two-striped gartersnake	Federal: None State: SSC	Highly aquatic. Found around pools, creeks, cattle tanks, and other water sources, often in rocky areas in oak woodland, chaparral, brushland, and coniferous forest. From Monterey County to northwest Baja California.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Thamnophis sirtalis ssp. *infernalis*	south coast gartersnake	Federal: None State: SSC	Inhabits forests, mixed woodlands, grassland, chaparral, farmlands, and often near ponds, marshes, or streams. Active during daylight and often escapes into water when threatened. Endemic to California, ranging from Humboldt County south along the coast ranges into San Diego County.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
BIRDS					
Agelaius tricolor	tricolored blackbird	Federal: None State: CE	Forages in agricultural areas, particularly where livestock are present and grass is short. Breeds in freshwater marshes with tall emergent vegetation, in upland habitats (especially thickets of non-native blackberry), and in silage fields. Breeds April-July, in large congregations.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Aquila chrysaetos	golden eagle	Federal: None State: Protected	Open and semi-open country featuring native vegetation. Found primarily in mountains up to 12,000 feet, canyonlands, rimrock terrain, and riverside cliffs and bluffs. Nests on cliffs and steep escarpments in grassland, chaparral, shrubland, forest, and other vegetated areas.	Yes	Low Potential based on lack of suitable breeding habitat

Table 4.2-2. Potential of Special Status Wildlife Species to Occur on Project Site

Scientific Name	Common Name	Status	Species Summary	2008 SMPU Inclusion	Potential to Occur
Buteo swainsoni	Swainson's hawk	Federal: None State: ST	Favor open habitats such as native prairie and grassland habitats, will forage in agricultural fields, pastures, grain crops, and row crops. Nests in scattered stands of trees near agricultural fields and grasslands for nesting.	Yes	Moderate Potential for foraging/ Low Potential for breeding
Campylorhynchus brunneicapillus sandiegensis	San Diego cactus wren	Federal: None State: SSC	Resident in arid and semi-arid regions from southern California, Baja California, Utah, Nevada, New Mexico, Texas, and Mexico. Favors coastal lowlands and coastal sage scrub with thickets of chollas or prickly-pear cacti tall enough to support and protect the birds' nests. Can nest in relict stands of cactus or even spiny ornamental garden plants.	Yes	Moderate Potential
Charadrius alexandrinus nivosus	western snowy plover	Federal: FT State: SSC	Barren to sparsely vegetated sand beaches, dry salt flats in lagoons, dredge spoils deposited on beach or dune habitat, levees and flats at salt-evaporation ponds, river bars, along alkaline or saline lakes, reservoirs, and ponds. Breeds from Washington state south to Baja California, Mexico.	Yes	Moderate Potential (lagoon areas only)
Circus cyaneus	northern harrier	Federal: None State: SCC	Common in large, undisturbed tracts of wetlands and grasslands with low, thick vegetation. Breed in freshwater and brackish marshes, lightly grazed meadows, old fields, tundra, dry upland prairies, drained marshlands, high-desert shrubsteppe, and riverside woodlands.	Yes	Moderate Potential (suitable foraging habitat is located in the Study Area)
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Federal: FT State: SE	Nests in extensive stands of low to moderate elevation native forests such as dense cottonwood/willow riparian forests and require relatively large (>20 hectares) of contiguous patches of multilayered riparian habitat. Also know to nest in early to mid-successional native riparian habitat.	No	Moderate Potential (suitable habitat is located in the Study Area)

Table 4.2-2. Potential of Special Status Wildlife Species to Occur on Project Site

Scientific Name	Common Name	Status	Species Summary	2008 SMPU Inclusion	Potential to Occur
Elanus leucurus	White-tailed kite	Federal: None State: Protected	Found in open groves, river valleys, marshes, grasslands, oak grasslands, desert grasslands, and farm country. Often nests in live oaks with open ground and high populations of rodents.	Yes	Known to occur in the Study Area
Empidonax traillii extimus	southwestern willow flycatcher	Federal: FE State: SE	Breeds in southern California, Arizona, New Mexico, Nevada, Utah, and Texas in relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands including lakes and reservoirs. The dense vegetation occurs within the first 10 to 13 feet above the ground. Habitat patches must be at least 0.25 ac in size and at least 30 feet wide. Prefers nesting in native vegetation but will use thickets dominated by non-native tamarisk or mixed native non-native stands.	Yes	Known to occur in the Study Area
Icteria virens	yellow–breasted chat	Federal: None State: SCC	Nests in areas of dense shrubbery such as brushy tangles, briars, stream thickets, and willow thickets often along streams and at the edges of swamps or ponds. Sometimes in dry overgrown pastures and upland thickets along margins of woods. Migrates to Mexico and central America.	Yes	Known to occur in the Study Area
Ixobrychius exilis	least bittern	Federal: None State: SCC	Nest and forages in dense tall emergent freshwater or brackish marsh vegetation. May be over fairly deep water, it mostly climbs in reeds rather than wading. Southern California populations are non-migratory.	Yes	Low Potential

Table 4.2-2. Potential of Special Status Wildlife Species to Occur on Project Site

Scientific Name	Common Name	Status	Species Summary	2008 SMPU Inclusion	Potential to Occur
Laterallus jamaicensis coturniculus	California black rail	Federal: None State: ST	Requires fresh, brackish, and pickleweed-dominated salt marshes. Appear to prefer tidal salt marshes with a heavy canopy of pickleweed and an open structure below the canopy for nesting and accessibility. Known from coastal California, San Francisco Bay south to Baja California, Colorado River, and isolated populations in the Sierra foothills. Begins nesting in February, in stands of pickleweed and tall grasses, near the upper limits of tidal flooding zone.	Yes	Low Potential based on lack of suitable habitat
Passerculus sandwichensis beldingi	Belding's savannah sparrow	Federal: None State: SE	Resident in coastal salt marshes from Santa barbara County south to Mexico. Nests in pickleweed from January to August. Also found in mudflats, sandflats, and rock jetties.	Yes	Low Potential based on lack of suitable habitat
Polioptila californica californica	Coastal California gnatcatcher	Federal: FT State: SSC	Prefers open sage scrub with California sagebrush as a dominant or co-dominant species. More abundant near sage scrub-grassland interface than where sage scrub grades into chaparral.	Yes	Known to occur in the Study Area
Rallus obsoletus levipes	light-footed clapper rail	Federal: FE State: SE	Inhabits coastal marshes and lagoons in southern California south to northern Baja California. Require shallow water and mudlfats for foraging, with adjacent higher vegetation for cover during high water. Prefers tidal marshes dominated by cordgrass.	Yes	Low Potential based on the lack of suitable habitat
Riparia riparia	bank swallow	Federal: None State: ST	Found near water in fields, marshes, streams, and lakes. Typically seen feeding in flight over water at all seasons. Nests in colonies in vertical banks of dirt or sand, usually along rivers or ponds, seldom away from water.	No	Moderate Potential (suitable habitat is located in the Study Area)
Setophaga petechia	yellow warbler	Federal: None State: SSC	Nests in riparian and wetland habitats, thickets, and other disturbed or regrowing habitats. Three subspecies breed in California: morcomi, brewsteri, and sonorana. (Sonoran yellow warbler nests along the Colorado River.)	No	Known to occur in the Study Area

Table 4.2-2. Potential of Special Status Wildlife Species to Occur on Project Site

Scientific Name	Common Name	Status	Species Summary	2008 SMPU Inclusion	Potential to Occur
Sternula antillarum browni	California least tern	Federal: FE State: SE	Found on sea costs, beaches, bays, estuaries, lagoons, lakes, and rivers. Nests on sandy or gravelly beaches and banks of rivers or lakes.	Yes	Low Potential for nesting based on lack of suitable habitat; may forage in areas of open water
Vireo bellii pusillus	Least Bell's vireo	Federal: FE State: SE	Inhabits lowland riparian forests and willow thickets. Also found in foothill streams and scattered location in the Mojave Desert. Ranges from Santa Barbara south to San Diego County.	Yes	Known to occur in the Study Area
MAMMALS					
Antrozous pallidus	Pallid bat	Federal: None State: SSC	Inhabits a wide variety of habitats including grasslands, shrublands, woodlands, and forests from sea level up through mixed conifer forests. Most common in open, dry habitats with rocky areas for roosting. Breeds October -February, young born April-June, juveniles independent July-August	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Chaetodipus californicus femoralis	Dulzura pocket mouse	Federal: None State: SSC	Inhabits Diegan and Riversidean upland sage scrub, alluvial fan sage scrub, sagescrub/grassland ecotones, chaparral, and desert scrubs below 2,600 feet. Found in Orange, Riverside, San Diego, Tulare, and Ventura Counties.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	Federal: None State: SSC	Inhabits coastal scrub, chamise-redshank chaparral, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon-juniper, and annual grassland. Found in San Diego, Riverside, and San Bernardino Counties below 4,500 feet. Favors rocky, gravelly, or sandy ground.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Choeronycteris mexicana	Mexican long-tongued bat	Federal: None State: SSC	Known to only occur in San Diego county in California as a summer resident. Occupies caves, mines, buildings, desert and montane riparian, desert succulent shrub, and pinyon-juniper habitats. Primarily nectar feeder.	Yes	Low Potential based on lack of suitable habitat

Table 4.2-2. Potential of Special Status Wildlife Species to Occur on Project Site

Scientific Name	Common Name	Status	Species Summary	2008 SMPU Inclusion	Potential to Occur
Corynorhinus townsendii	Townsend's big-eared bat	Federal: None State: SSC	Found throughout California in all but subalpine and alpine habitats, and any season throughout its range. Most abundant in mesic habitats. Requires caves, mines, tunnels, buildings, or other human-made structures for roosting. May use separate sites for night, day, hibernation, or maternity roosts. Roosting sites are the most important limiting resource. Feeds primarily on small moths, beetles, and a variety of soft-bodied insects.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Dipodomys stephensi	Stephens' kangaroo rat	Federal: FE State: ST	Inhabits annual and perennial grassland habitats but may occur in coastal scrub or sagebrush with sparse canopy cover, or in disturbed areas such as abandoned agricultural fields. Preferred perennials are buckwheat and chamise, preferred annuals are brome grass and filaree. Found in San Jacinto valley, southwestern San Bernardino County, and northern San Diego between 55 and 1,250 meters elevation.	Yes	Moderate Potential
Eumops perotis californicus	western mastiff bat	Federal: None State: SCC	Occurs near significant rock features offering suitable roosting habitat. Found in a variety of habitats including desert scrub, chaparral, oak woodland, dry desert washes, flood plains, coastal sage scrub, grasslands, agricultural areas, and ponderosa pine. Primarily a crevice dwelling species, often found under large exfoliating slabs of granite, sandstone slabs or in columnar basalt, on cliff faces or in large boulders. Rossts are generally high above the ground with a clear vertical drop. Primarily feeds on moths, but also includes beetles and crickets.	Yes	Moderate Potential (suitable habitat is located in the Study Area)

Table 4.2-2. Potential of Special Status Wildlife Species to Occur on Project Site

Scientific Name	Common Name	Status	Species Summary	2008 SMPU Inclusion	Potential to Occur
Lasiurus xanthinus	Western yellow bat	Federal: None State: SSC	Found in Los Angeles and San Bernardino Counties, south to the Mexican border. Inhabits foothill riparian, desert riparian, desert wash, and palm oasis habitats below 2000'. Roosts in trees, including palm trees. Feeds on flying insects, forages over water and among trees.	No	Known to occur in the Study Area
Leptonycteris curasoae yerbabuenae	lesser long-nosed bat	Federal: FE State: None	Occurs in the Sonoran desert with columnar cacti and agaves. Requires columnar cacti and agaves for roosting and food. Day roosts include caves, mines, rock crevices, trees and shrubs, and occasionally abandoned buildings. Very sensitive to human disturbance. Requires columnar cactus flowers and fruits; agave flowers represent the core diet. Also important are nectar, pollen, and fruit produced by a variety of columnar cacti.	No	Low Potential – Study Area not within typical range for species
Lepus californicus bennettii	San Diego black-tailed jackrabbit	Federal: None State: SSC	Inhabits a variety of open and semi-open habitats, primarily grasslands, Riversidean sage scrub, Riversidean alluvial fan sage scrub, Great Basin sagebrush, desert scrub, agricultural fields, and juniper and oak woodlands.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Neotoma lepida intermedia	San Diego desert woodrat	Federal: None State: SSC	Found in desert scrub and coastal sage scrub habitat, especially in association with cactus patches. Builds stick nests around cacti, or on rocky crevices. Occurs along the Pacific slope from San Luis Obispo County to northwest Baja California.	Yes	Moderate Potential (suitable habitat is located in the Study Area)
Nyctinomops femorosaccus	pocketed free-tailed bat	Federal: None State: SSC	Found in Riverside, San Diego, and Imperial Counties in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis. Feeds on flying insects, primarily large moths. Roosts in rock crevices in cliffs, rock outcrops, caverns, or buildings.	Yes	Moderate Potential (suitable habitat is located in the Study Area)

Table 4.2-2. Potential of Special Status Wildlife Species to Occur on Project Site

Scientific Name	Common Name	Status	Species Summary	2008 SMPU Inclusion	Potential to Occur
Nyctinomops macrotis	big free-tailed bat	Federal: None State: SSC	Inhabits crevices in high cliffs, rock outcrops, and other rugged rocky terrain below 2,500 m in elevation. Roosts in buildings, caves, and occasionally in holes in trees.	Yes	Low Potential – based on lack of suitable roosting habitat
Perognathus longimembris pacificus	Pacific pocket mouse	Federal: FE State: SSC	Inhabits shrublands with firm sandy soils. Fine-grain, sandy substrates in the immediate vicinity of the ocean; coastal dunes, river alluvium, and coastal sage scrub growing on marine terraces. Has been found on flats, often submerged by high tides at the mouth of the Tijuana River.	Yes	Low Potential – based on lack of suitable habitat
Taxidea taxus	American badger	Federal: None State: SSC	Inhabits drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Burrows dug in relatively dry, often sandy soils, usually in areas with sparse overstory cover. Frequently reuse old burrows.	Yes	Known to occur in the Study Area

Source: CNDDB 2017; USFWS 2017

FE = Federally Endangered.

FT = Federally Threatened

SE = State Endangered

ST = State Threatened

SSC = Species of special concern

Attachment C1. USFWS IPAC Listings (2109)

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IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

San Diego County, California

Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385

http://www.fws.gov/carlsbad/

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Pacific Pocket Mouse Perognathus longimembris pacificus No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8080	Endangered
Stephens' Kangaroo Rat Dipodomys stephensi (incl. D. cascus) No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3495	Endangered

Birds

NAME	STATUS
California Least Tern Sterna antillarum browni No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8104	Endangered
Coastal California Gnatcatcher Polioptila californica californica There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo Vireo bellii pusillus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/5945	Endangered
Light-footed Clapper Rail Rallus longirostris levipes No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6035	Endangered
Southwestern Willow Flycatcher Empidonax traillii extimus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered
Western Snowy Plover Charadrius nivosus nivosus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8035	Threatened

Amphibians

NAME	STATUS
Arroyo (=arroyo Southwestern) Toad Anaxyrus californicus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/3762	Endangered

Fishes

NAME	STATUS
Tidewater Goby Eucyclogobius newberryi There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/57	Endangered

Crustaceans

NAME	STATUS
Riverside Fairy Shrimp Streptocephalus woottoni There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8148	Endangered
San Diego Fairy Shrimp Branchinecta sandiegonensis There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6945	Endangered
Vernal Pool Fairy Shrimp Branchinecta lynchi There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Del Mar Manzanita Arctostaphylos glandulosa ssp. crassifolia No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7673	Endangered
San Diego Ambrosia Ambrosia pumila There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/8287	Endangered

San Diego Button-celery Eryngium aristulatum var. parishii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/5937	Endangered
San Diego Thornmint Acanthomintha ilicifolia There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/351	Threatened
Spreading Navarretia Navarretia fossalis There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/1334	Threatened
Thread-leaved Brodiaea Brodiaea filifolia There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6087	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php

- Nationwide conservation measures for birds

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Allen's Hummingbird Selasphorus sasin This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9637	Breeds Feb 1 to Jul 15
Black-chinned Sparrow Spizella atrogularis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9447	Breeds Apr 15 to Jul 31
Clark's Grebe Aechmophorus clarkii This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Dec 31

Common Yellowthroat Geothlypis trichas sinuosa This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Costa's Hummingbird Calypte costae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470	Breeds Jan 15 to Jun 10
Golden Eagle Aquila chrysaetos This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Nuttall's Woodpecker Picoides nuttallii This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse Baeolophus inornatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Rufous Hummingbird selasphorus rufus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere
Song Sparrow Melospiza melodia This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
Spotted Towhee Pipilo maculatus clementae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20
Tricolored Blackbird Agelaius tricolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10

Wrentit Chamaea fasciata — Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

- PFO/SSC
- PSS/EM1C

FRESHWATER POND

- PUBHh

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Attachment C2. California Natural Diversity Database (CNDDB 2019)

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Las Pulgas Canyon (3311734) OR Morro Hill (3311733) OR Bonsall (3311732) OR Oceanside (3311724) OR San Luis Rey (3311723) OR San Marcos (3311722) OR Encinitas (3311713) OR Rancho Santa Fe (3311712))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia villosa var. aurita chaparral sand-verbena	PDNYC010P1	None	None	G5T2?	S2	1B.1
Acanthomintha ilicifolia San Diego thorn-mint	PDLAM01010	Threatened	Endangered	G1	S1	1B.1
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Acmispon prostratus Nuttall's acmispon	PDFAB2A0V0	None	None	G1G2	S1	1B.1
Adolphia californica California adolphia	PDRHA01010	None	None	G3	S2	2B.1
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Ambrosia pumila San Diego ambrosia	PDAST0C0M0	Endangered	None	G1	S1	1B.1
Anaxyrus californicus arroyo toad	AAABB01230	Endangered	None	G2G3	S2S3	SSC
Anniella stebbinsi southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos glandulosa ssp. crassifolia Del Mar manzanita	PDERI040E8	Endangered	None	G5T2	S2	1B.1
Arctostaphylos rainbowensis Rainbow manzanita	PDERI042T0	None	None	G2	S2	1B.1
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Artemisia palmeri San Diego sagewort	PDAST0S160	None	None	G3?	S3?	4.2
Artemisiospiza belli belli Bell's sage sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
Aspidoscelis hyperythra orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	WL
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Astragalus tener var. titi coastal dunes milk-vetch	PDFAB0F8R2	Endangered	Endangered	G2T1	S1	1B.1
Atriplex coulteri Coulter's saltbush	PDCHE040E0	None	None	G3	S1S2	1B.2
Atriplex pacifica south coast saltscale	PDCHE041C0	None	None	G4	S2	1B.2
Baccharis vanessae Encinitas baccharis	PDAST0W0P0	Threatened	Endangered	G1	S1	1B.1
Bloomeria clevelandii San Diego goldenstar	PMLIL1H010	None	None	G2	S2	1B.1
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta sandiegonensis San Diego fairy shrimp	ICBRA03060	Endangered	None	G2	S2	
Brodiaea filifolia thread-leaved brodiaea	PMLIL0C050	Threatened	Endangered	G2	S2	1B.1
Brodiaea orcuttii Orcutt's brodiaea	PMLIL0C0B0	None	None	G2	S2	1B.1
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	ABPBG02095	None	None	G5T3Q	S3	SSC
Ceanothus verrucosus wart-stemmed ceanothus	PDRHA041J0	None	None	G2	S2?	2B.2
Centromadia parryi ssp. australis southern tarplant	PDAST4R0P4	None	None	G3T2	S2	1B.1
Centromadia pungens ssp. laevis smooth tarplant	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
Chaenactis glabriuscula var. orcuttiana Orcutt's pincushion	PDAST20095	None	None	G5T1T2	S1	1B.1
Chaetodipus californicus femoralis Dulzura pocket mouse	AMAFD05021	None	None	G5T3	S3	SSC
Chaetodipus fallax fallax northwestern San Diego pocket mouse	AMAFD05031	None	None	G5T3T4	S3S4	SSC
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
Choeronycteris mexicana Mexican long-tongued bat	AMACB02010	None	None	G4	S1	SSC
Chorizanthe orcuttiana Orcutt's spineflower	PDPGN040G0	Endangered	Endangered	G1	S1	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Chorizanthe polygonoides var. longispina long-spined spineflower	PDPGN040K1	None	None	G5T3	S3	1B.2
Cicindela senilis frosti senile tiger beetle	IICOL02121	None	None	G2G3T1T3	S1	
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Coastal Brackish Marsh Coastal Brackish Marsh	CTT52200CA	None	None	G2	S2.1	
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Comarostaphylis diversifolia ssp. diversifolia summer holly	PDERI0B011	None	None	G3T2	S2	1B.2
Corethrogyne filaginifolia var. linifolia Del Mar Mesa sand aster	PDAST2M027	None	None	G4T1Q	S1	1B.1
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Crotalus ruber red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Cryptantha wigginsii Wiggins' cryptantha	PDBOR0A400	None	None	G2	S1	1B.2
Danaus plexippus pop. 1 monarch - California overwintering population	IILEPP2012	None	None	G4T2T3	S2S3	
Diadophis punctatus similis San Diego ringneck snake	ARADB1001A	None	None	G5T2T3	S2?	
Dipodomys stephensi Stephens' kangaroo rat	AMAFD03100	Endangered	Threatened	G2	S2	
Dudleya blochmaniae ssp. blochmaniae Blochman's dudleya	PDCRA04051	None	None	G3T2	S2	1B.1
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Dudleya variegata variegated dudleya	PDCRA040R0	None	None	G2	S2	1B.2
Dudleya viscida sticky dudleya	PDCRA040T0	None	None	G2	S2	1B.2
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Ericameria palmeri var. palmeri Palmer's goldenbush	PDAST3L0C1	None	None	G4T2?	S2	1B.1
Eryngium aristulatum var. parishii San Diego button-celery	PDAPI0Z042	Endangered	Endangered	G5T1	S1	1B.1
Eryngium pendletonense Pendleton button-celery	PDAPI0Z120	None	None	G1	S1	1B.1
Erysimum ammophilum sand-loving wallflower	PDBRA16010	None	None	G2	S2	1B.2
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Euphorbia misera cliff spurge	PDEUP0Q1B0	None	None	G5	S2	2B.2
Ferocactus viridescens San Diego barrel cactus	PDCAC08060	None	None	G3?	S2S3	2B.1
Gila orcuttii arroyo chub	AFCJB13120	None	None	G2	S2	SSC
Harpagonella palmeri Palmer's grapplinghook	PDBOR0H010	None	None	G4	S3	4.2
Hazardia orcuttii Orcutt's hazardia	PDAST4H070	None	Threatened	G1	S1	1B.1
Heterotheca sessiliflora ssp. sessiliflora beach goldenaster	PDAST4V0K2	None	None	G4T2T3	S1	1B.1
Horkelia truncata Ramona horkelia	PDROS0W0G0	None	None	G3	S3	1B.3
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Isocoma menziesii var. decumbens decumbent goldenbush	PDAST57091	None	None	G3G5T2T3	S2	1B.2
Iva hayesiana San Diego marsh-elder	PDAST580A0	None	None	G3	S2	2B.2
Ixobrychus exilis least bittern	ABNGA02010	None	None	G4G5	S2	SSC
Lasiurus cinereus hoary bat	AMACC05030	None	None	G5	S4	
Lasiurus xanthinus western yellow bat	AMACC05070	None	None	G5	S3	SSC
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Lepidium virginicum var. robinsonii Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
Leptonycteris yerbabuenae lesser long-nosed bat	AMACB03030	Delisted	None	G4	S1	SSC
Leptosyne maritima sea dahlia	PDAST2L0L0	None	None	G2	S1S2	2B.2
Lepus californicus bennettii San Diego black-tailed jackrabbit	AMAEB03051	None	None	G5T3T4	S3S4	SSC
Maritime Succulent Scrub Maritime Succulent Scrub	CTT32400CA	None	None	G2	S1.1	
Monardella hypoleuca ssp. lanata felt-leaved monardella	PDLAM180A2	None	None	G4T3	S3	1B.2
Myosurus minimus ssp. apus little mousetail	PDRAN0H031	None	None	G5T2Q	S2	3.1
Myotis yumanensis Yuma myotis	AMACC01020	None	None	G5	S4	
Nama stenocarpa mud nama	PDHYD0A0H0	None	None	G4G5	S1S2	2B.2
Navarretia fossalis spreading navarretia	PDPLM0C080	Threatened	None	G2	S2	1B.1
Nemacaulis denudata var. denudata coast woolly-heads	PDPGN0G011	None	None	G3G4T2	S2	1B.2
Nemacaulis denudata var. gracilis slender cottonheads	PDPGN0G012	None	None	G3G4T3?	S2	2B.2
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Nolina cismontana chaparral nolina	PMAGA080E0	None	None	G3	S3	1B.2
Nyctinomops femorosaccus pocketed free-tailed bat	AMACD04010	None	None	G4	S3	SSC
Orcuttia californica California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
Orobanche parishii ssp. brachyloba short-lobed broomrape	PDORO040A2	None	None	G4?T4	S3	4.2
Passerculus sandwichensis beldingi Belding's savannah sparrow	ABPBX99015	None	Endangered	G5T3	S3	
Perognathus longimembris pacificus Pacific pocket mouse	AMAFD01042	Endangered	None	G5T1	S1	SSC
Phacelia stellaris Brand's star phacelia	PDHYD0C510	None	None	G1	S1	1B.1
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Plegadis chihi white-faced ibis	ABNGE02020	None	None	G5	S3S4	WL
Plestiodon skiltonianus interparietalis Coronado skink	ARACH01114	None	None	G5T5	S2S3	WL
Pogogyne abramsii San Diego mesa mint	PDLAM1K010	Endangered	Endangered	G1	S1	1B.1
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
Pseudognaphalium leucocephalum white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
Quercus dumosa Nuttall's scrub oak	PDFAG050D0	None	None	G3	S3	1B.1
Rallus obsoletus levipes light-footed Ridgway's rail	ABNME05014	Endangered	Endangered	G5T1T2	S1	FP
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S2S3	SSC
Salvia munzii Munz's sage	PDLAM1S140	None	None	G2	S2	2B.2
San Diego Mesa Claypan Vernal Pool San Diego Mesa Claypan Vernal Pool	CTT44322CA	None	None	G2	S2.1	
San Diego Mesa Hardpan Vernal Pool San Diego Mesa Hardpan Vernal Pool	CTT44321CA	None	None	G2	S2.1	
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Sidalcea neomexicana salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
Southern Coastal Salt Marsh Southern Coastal Salt Marsh	CTT52120CA	None	None	G2	S2.1	
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Maritime Chaparral Southern Maritime Chaparral	CTT37C30CA	None	None	G1	S1.1	
Southern Riparian Forest Southern Riparian Forest	CTT61300CA	None	None	G4	S4	
Southern Riparian Scrub Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Southern Willow Scrub	CTT63320CA	None	None	G3	S2.1	
Southern Willow Scrub						
Spea hammondii	AAABF02020	None	None	G3	S3	SSC
western spadefoot						
Stemodia durantifolia	PDSCR1U010	None	None	G5	S2	2B.1
purple stemodia						
Sternula antillarum browni	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
California least tern						
Streptocephalus woottoni	ICBRA07010	Endangered	None	G1G2	S1S2	
Riverside fairy shrimp						
Suaeda esteroa	PDCHE0P0D0	None	None	G3	S2	1B.2
estuary seablite						
Taxidea taxus	AMAJF04010	None	None	G5	S3	SSC
American badger						
Tetracoccus dioicus	PDEUP1C010	None	None	G2G3	S2	1B.2
Parry's tetracoccus						
Thamnophis hammondii	ARADB36160	None	None	G4	S3S4	SSC
two-striped gartersnake						
Thamnophis sirtalis pop. 1	ARADB3613F	None	None	G5T1T2	S1S2	SSC
south coast gartersnake						
Tryonia imitator	IMGASJ7040	None	None	G2	S2	
mimic tryonia (=California brackishwater snail)						
Vireo bellii pusillus	ABPBW01114	Endangered	Endangered	G5T2	S2	
least Bell's vireo						

Record Count: 136

Attachment C3. California Native Plant Society Listings (2019)

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CNPS California Native Plant Society

Inventory of Rare and Endangered Plants

Plant List

85 matches found. *Click on scientific name for details*

Search Criteria

California Rare Plant Rank is one of [1B, 2B, 3, 4], FESA is one of [Endangered, Threatened, Candidate, Not Listed], CESA is one of [Endangered, Threatened, Rare, Not Listed], Found in Quads 3311734, 3311733, 3311732, 3311724, 3311723, 3311722, 3311713 and 3311712; Elevation is above 0 or below 930 feet

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	Federal Listing Status	State Listing Status	CA Rare Plant Rank	Habitats	Lowest Elevation	Highest Elevation
Abronia maritima	red sand-verbena	Nyctaginaceae	perennial herb	Feb-Nov			4.2	• Coastal dunes	0 m	100 m
Abronia villosa var. aurita	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep			1B.1	• Chaparral • Coastal scrub • Desert dunes	75 m	1600 m
Acanthomintha ilicifolia	San Diego thorn-mint	Lamiaceae	annual herb	Apr-Jun	FT	CE	1B.1	• Chaparral • Coastal scrub • Valley and foothill grassland • Vernal pools	10 m	960 m
Acmispon prostratus	Nuttall's acmispon	Fabaceae	annual herb	Mar-Jun(Jul)			1B.1	• Coastal dunes • Coastal scrub (sandy)	0 m	10 m
Adolphia californica	California adolphia	Rhamnaceae	perennial deciduous shrub	Dec-May			2B.1	• Chaparral • Coastal scrub • Valley and foothill grassland	10 m	740 m
Ambrosia pumila	San Diego ambrosia	Asteraceae	perennial rhizomatous herb	Apr-Oct	FE		1B.1	• Chaparral • Coastal scrub • Valley and foothill grassland • Vernal pools	20 m	415 m
Arctostaphylos glandulosa ssp. crassifolia	Del Mar manzanita	Ericaceae	perennial evergreen shrub	Dec-Jun	FE		1B.1	• Chaparral (maritime, sandy)	0 m	365 m
Arctostaphylos rainbowensis	Rainbow manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar			1B.1	• Chaparral	205 m	670 m
Artemisia palmeri	San Diego sagewort	Asteraceae	perennial deciduous shrub	(Feb)May-Sep			4.2	• Chaparral • Coastal scrub • Riparian forest • Riparian scrub • Riparian woodland	15 m	915 m
		Aspleniaceae		Feb-Jun			4.2		180 m	1000 m

Asplenium vespertinum	western spleenwort		perennial rhizomatous herb					• Chaparral • Cismontane woodland • Coastal scrub		
Astragalus tener var. titi	coastal dunes milk-vetch	Fabaceae	annual herb	Mar-May	FE	CE	1B.1	• Coastal bluff scrub (sandy) • Coastal dunes • Coastal prairie (mesic)	1 m	50 m
Atriplex coulteri	Coulter's saltbush	Chenopodiaceae	perennial herb	Mar-Oct			1B.2	• Coastal bluff scrub • Coastal dunes • Coastal scrub • Valley and foothill grassland	3 m	460 m
Atriplex pacifica	South Coast saltscale	Chenopodiaceae	annual herb	Mar-Oct			1B.2	• Coastal bluff scrub • Coastal dunes • Coastal scrub • Playas	0 m	140 m
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct			1B.1	• Chenopod scrub • Playas • Vernal pools	25 m	1900 m
Baccharis vanessae	Encinitas baccharis	Asteraceae	perennial deciduous shrub	Aug,Oct,Nov	FT	CE	1B.1	• Chaparral (maritime) • Cismontane woodland	60 m	720 m
Bloomeria clevelandii	San Diego goldenstar	Themidaceae	perennial bulbiferous herb	Apr-May			1B.1	• Chaparral • Coastal scrub • Valley and foothill grassland • Vernal pools	50 m	465 m
Brodiaea filifolia	thread-leaved brodiaea	Themidaceae	perennial bulbiferous herb	Mar-Jun	FT	CE	1B.1	• Chaparral (openings) • Cismontane woodland • Coastal scrub • Playas • Valley and foothill grassland • Vernal pools	25 m	1120 m
Brodiaea orcuttii	Orcutt's brodiaea	Themidaceae	perennial bulbiferous herb	May-Jul			1B.1	• Closed-cone coniferous forest • Chaparral • Cismontane woodland • Meadows and seeps • Valley and foothill grassland • Vernal pools	30 m	1692 m

Camissoniopsis lewisii	Lewis' evening-primrose	Onagraceae	annual herb	Mar-May(Jun)			3	• Coastal bluff scrub • Cismontane woodland • Coastal dunes • Coastal scrub • Valley and foothill grassland	0 m	300 m
Caulanthus simulans	Payson's jewelflower	Brassicaceae	annual herb	(Feb)Mar-May(Jun)			4.2	• Chaparral • Coastal scrub	90 m	2200 m
Ceanothus verrucosus	wart-stemmed ceanothus	Rhamnaceae	perennial evergreen shrub	Dec-May			2B.2	• Chaparral	1 m	380 m
Centromadia parryi ssp. australis	southern tarplant	Asteraceae	annual herb	May-Nov			1B.1	• Marshes and swamps (margins) • Valley and foothill grassland (vernally mesic) • Vernal pools	0 m	480 m
Centromadia pungens ssp. laevis	smooth tarplant	Asteraceae	annual herb	Apr-Sep			1B.1	• Chenopod scrub • Meadows and seeps • Playas • Riparian woodland • Valley and foothill grassland	0 m	640 m
Chaenactis glabriuscula var. orcuttiana	Orcutt's pincushion	Asteraceae	annual herb	Jan-Aug			1B.1	• Coastal bluff scrub (sandy) • Coastal dunes	0 m	100 m
Chorizanthe orcuttiana	Orcutt's spineflower	Polygonaceae	annual herb	Mar-May	FE	CE	1B.1	• Closed-cone coniferous forest • Chaparral (maritime) • Coastal scrub	3 m	125 m
Chorizanthe polygonoides var. longispina	long-spined spineflower	Polygonaceae	annual herb	Apr-Jul			1B.2	• Chaparral • Coastal scrub • Meadows and seeps • Valley and foothill grassland • Vernal pools	30 m	1530 m
Cistanthe maritima	seaside cistanthe	Montiaceae	annual herb	(Feb)Mar-Jun(Aug)			4.2	• Coastal bluff scrub • Coastal scrub • Valley and foothill grassland	5 m	300 m
Clarkia delicata	delicate clarkia	Onagraceae	annual herb	Apr-Jun			1B.2	• Chaparral • Cismontane woodland	235 m	1000 m
Comarostaphylis diversifolia ssp. diversifolia	summer holly	Ericaceae	perennial evergreen shrub	Apr-Jun			1B.2	• Chaparral •	30 m	790 m

						Cismontane woodland		
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	• Chaparral (openings) • Coastal scrub • Valley and foothill grassland	30 m	740 m
Corethrogyne filaginifolia var. incana	San Diego sand aster	Asteraceae	perennial herb	Jun-Sep	1B.1	• Coastal bluff scrub • Chaparral • Coastal scrub	3 m	115 m
Corethrogyne filaginifolia var. linifolia	Del Mar Mesa sand aster	Asteraceae	perennial herb	May,Jul,Aug,Sep	1B.1	• Coastal bluff scrub • Chaparral (maritime, openings) • Coastal scrub	15 m	150 m
Cryptantha wigginsii	Wiggins' cryptantha	Boraginaceae	annual herb	Feb-Jun	1B.2	• Coastal scrub	20 m	275 m
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov(Dec)	4.2	• Coastal scrub • Valley and foothill grassland • Vernal pools	25 m	940 m
Dichondra occidentalis	western dichondra	Convolvulaceae	perennial rhizomatous herb	(Jan)Mar-Jul	4.2	• Chaparral • Cismontane woodland • Coastal scrub • Valley and foothill grassland	50 m	500 m
Dudleya blochmaniae ssp. blochmaniae	Blochman's dudleya	Crassulaceae	perennial herb	Apr-Jun	1B.1	• Coastal bluff scrub • Chaparral • Coastal scrub • Valley and foothill grassland	5 m	450 m
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	1B.2	• Chaparral • Coastal scrub • Valley and foothill grassland	15 m	790 m
Dudleya variegata	variegated dudleya	Crassulaceae	perennial herb	Apr-Jun	1B.2	• Chaparral • Cismontane woodland • Coastal scrub • Valley and foothill grassland • Vernal pools	3 m	580 m
Dudleya viscida	sticky dudleya	Crassulaceae	perennial herb	May-Jun	1B.2	• Coastal bluff scrub • Chaparral • Cismontane woodland • Coastal scrub	10 m	550 m
Ericameria palmeri var. palmeri	Palmer's goldenbush	Asteraceae		(Jul)Sep-Nov	1B.1		30 m	600 m

			perennial evergreen shrub					• Chaparral • Coastal scrub		
Eryngium aristulatum var. parishii	San Diego button-celery	Apiaceae	annual / perennial herb	Apr-Jun	FE	CE	1B.1	• Coastal scrub • Valley and foothill grassland • Vernal pools	20 m	620 m
Eryngium pendletonense	Pendleton button-celery	Apiaceae	perennial herb	Apr-Jun(Jul)			1B.1	• Coastal bluff scrub • Valley and foothill grassland • Vernal pools	15 m	110 m
Erysimum ammophilum	sand-loving wallflower	Brassicaceae	perennial herb	Feb-Jun			1B.2	• Chaparral (maritime) • Coastal dunes • Coastal scrub	0 m	60 m
Euphorbia misera	cliff spurge	Euphorbiaceae	perennial shrub	Dec-Aug(Oct)			2B.2	• Coastal bluff scrub • Coastal scrub • Mojavean desert scrub	10 m	500 m
Ferocactus viridescens	San Diego barrel cactus	Cactaceae	perennial stem succulent	May-Jun			2B.1	• Chaparral • Coastal scrub • Valley and foothill grassland • Vernal pools	3 m	450 m
Harpagonella palmeri	Palmer's grapplinghook	Boraginaceae	annual herb	Mar-May			4.2	• Chaparral • Coastal scrub • Valley and foothill grassland	20 m	955 m
Hazardia orcuttii	Orcutt's hazardia	Asteraceae	perennial evergreen shrub	Aug-Oct		CT	1B.1	• Chaparral (maritime) • Coastal scrub	80 m	85 m
Heterotheca sessiliflora ssp. sessiliflora	beach goldenaster	Asteraceae	perennial herb	Mar-Dec			1B.1	• Chaparral (coastal) • Coastal dunes • Coastal scrub	0 m	1225 m
Holocarpha virgata ssp. elongata	graceful tarplant	Asteraceae	annual herb	May-Nov			4.2	• Chaparral • Cismontane woodland • Coastal scrub • Valley and foothill grassland	60 m	1100 m
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun			3.2	• Coastal dunes • Coastal scrub • Valley and foothill grassland (saline flats and depressions) • Vernal pools	5 m	1000 m
		Asteraceae		Apr-Nov			1B.2		10 m	135 m

Isocoma menziesii var. decumbens	decumbent goldenbush		perennial shrub				• Chaparral • Coastal scrub (sandy, often in disturbed areas)		
Iva hayesiana	San Diego marsh-elder	Asteraceae	perennial herb	Apr-Oct		2B.2	• Marshes and swamps • Playas	10 m	500 m
Juncus acutus ssp. leopoldii	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun		4.2	• Coastal dunes (mesic) • Meadows and seeps (alkaline seeps) • Marshes and swamps (coastal salt)	3 m	900 m
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun		1B.1	• Marshes and swamps (coastal salt) • Playas • Vernal pools	1 m	1220 m
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul		4.3	• Chaparral • Coastal scrub	1 m	885 m
Leptosyne maritima	sea dahlia	Asteraceae	perennial herb	Mar-May		2B.2	• Coastal bluff scrub • Coastal scrub	5 m	150 m
Lycium californicum	California box-thorn	Solanaceae	perennial shrub	(Dec)Mar,Jun,Jul,Aug		4.2	• Coastal bluff scrub • Coastal scrub	5 m	150 m
Microseris douglasii ssp. platycarpha	small-flowered microseris	Asteraceae	annual herb	Mar-May		4.2	• Cismontane woodland • Coastal scrub • Valley and foothill grassland • Vernal pools	15 m	1070 m
Myosurus minimus ssp. apus	little mousetail	Ranunculaceae	annual herb	Mar-Jun		3.1	• Valley and foothill grassland • Vernal pools (alkaline)	20 m	640 m
Nama stenocarpa	mud nama	Namaceae	annual / perennial herb	Jan-Jul		2B.2	• Marshes and swamps (lake margins, riverbanks)	5 m	500 m
Navarretia fossalis	spreading navarretia	Polemoniaceae	annual herb	Apr-Jun	FT	1B.1	• Chenopod scrub • Marshes and swamps (assorted shallow freshwater) • Playas • Vernal pools	30 m	655 m
Nemacaulis denudata var. denudata	coast woolly-heads	Polygonaceae	annual herb	Apr-Sep		1B.2	• Coastal dunes	0 m	100 m
Nemacaulis denudata var. gracilis	slender cottonheads	Polygonaceae	annual herb	(Mar)Apr-May		2B.2	• Coastal dunes • Desert	-50 m	400 m

								dunes • Sonoran desert scrub		
Nolina cismontana	chaparral nolina	Ruscaceae	perennial evergreen shrub	(Mar)May-Jul			1B.2	• Chaparral • Coastal scrub	140 m	1275 m
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	FE	CE	1B.1	• Vernal pools	15 m	660 m
Orobanche parishii ssp. brachyloba	short-lobed broomrape	Orobanchaceae	perennial herb (parasitic)	Apr-Oct			4.2	• Coastal bluff scrub • Coastal dunes • Coastal scrub	3 m	305 m
Pentachaeta aurea ssp. aurea	golden-rayed pentachaeta	Asteraceae	annual herb	Mar-Jul			4.2	• Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Riparian woodland • Valley and foothill grassland	80 m	1850 m
Phacelia ramosissima var. austrolitoralis	south coast branching phacelia	Hydrophyllaceae	perennial herb	Mar-Aug			3.2	• Chaparral • Coastal dunes • Coastal scrub • Marshes and swamps (coastal salt)	5 m	300 m
Phacelia stellaris	Brand's star phacelia	Hydrophyllaceae	annual herb	Mar-Jun			1B.1	• Coastal dunes • Coastal scrub	1 m	400 m
Pinus torreyana ssp. torreyana	Torrey pine	Pinaceae	perennial evergreen tree				1B.2	• Closed-cone coniferous forest • Chaparral	30 m	160 m
Pogogyne abramsii	San Diego mesa mint	Lamiaceae	annual herb	Mar-Jul	FE	CE	1B.1	• Vernal pools	90 m	200 m
Polygala cornuta var. fishiae	Fish's milkwort	Polygalaceae	perennial deciduous shrub	May-Aug			4.3	• Chaparral • Cismontane woodland • Riparian woodland	100 m	1000 m
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul)Aug-Nov(Dec)			2B.2	• Chaparral • Cismontane woodland • Coastal scrub • Riparian woodland	0 m	2100 m
Psilocarphus brevissimus var. multiflorus	Delta woolly-marbles	Asteraceae	annual herb	May-Jun			4.2	• Vernal pools	10 m	500 m
Quercus dumosa	Nuttall's scrub oak	Fagaceae	perennial evergreen shrub	Feb-Apr(May-Aug)			1B.1	• Closed-cone coniferous forest • Chaparral • Coastal scrub	15 m	400 m
		Fagaceae		Mar-Jun			4.2		50 m	1300 m

Quercus engelmannii	Engelmann oak		perennial deciduous tree			• Chaparral • Cismontane woodland • Riparian woodland • Valley and foothill grassland		
Salvia munzii	Munz's sage	Lamiaceae	perennial evergreen shrub	Feb-Apr	2B.2	• Chaparral • Coastal scrub	115 m	1065 m
Selaginella cinerascens	ashy spike-moss	Selaginellaceae	perennial rhizomatous herb		4.1	• Chaparral • Coastal scrub	20 m	640 m
Senecio aphanactis	chaparral ragwort	Asteraceae	annual herb	Jan-Apr(May)	2B.2	• Chaparral • Cismontane woodland • Coastal scrub	15 m	800 m
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	2B.2	• Chaparral • Coastal scrub • Lower montane coniferous forest • Mojavean desert scrub • Playas	15 m	1530 m
Stemodia durantifolia	purple stemodia	Plantaginaceae	perennial herb	(Jan) Apr,Jun,Aug,Sep,Oct,Dec	2B.1	• Sonoran desert scrub (often mesic, sandy)	180 m	300 m
Stipa diegoensis	San Diego County needle grass	Poaceae	perennial herb	Feb-Jun	4.2	• Chaparral • Coastal scrub	10 m	800 m
Suaeda esteroa	estuary seablite	Chenopodiaceae	perennial herb	(May)Jul-Oct(Jan)	1B.2	• Marshes and swamps (coastal salt)	0 m	5 m
Tetracoccus dioicus	Parry's tetracoccus	Picrodendraceae	perennial deciduous shrub	Apr-May	1B.2	• Chaparral • Coastal scrub	165 m	1000 m
Viguiera laciniata	San Diego County viguiera	Asteraceae	perennial shrub	Feb-Jun(Aug)	4.3	• Chaparral • Coastal scrub	60 m	750 m

Suggested Citation

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 06 March 2019].

Attachment D. California Natural Diversity Database Site Record

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Mail to:
California Natural Diversity Database
California Dept. of Fish & Wildlife
P.O. Box 944209
Sacramento, CA 94244-2090
CNDDB@wildlife.ca.gov

For Office Use Only
Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 4/24/19

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: Juglans californica

Common Name: California black walnut

Species Found? (●) Yes ( ) No _____ If not found, why?

Total No. Individuals: 3 Subsequent Visit? ( ) Yes ( ) No

Is this an existing NDDB occurrence? NO Yes, Occ. # ☐ No ☐ Unk.

Collection? If yes: NO Number _____ Museum / Herbarium

Reporter: Allegra Engleson & Aaron Newton

Address: _____

E-mail Address: _____

Phone: _____

Plant Information

Phenology: * 67 % vegetative 33 % flowering _____ % fruiting

Animal Information

_____ # adults _____ # juveniles _____ # larvae _____ # egg masses _____ # unknown

☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ lek ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

County: _____ Landowner / Mgr: _____

Quad Name: _____ Elevation: _____

T ___ R ___ Sec ___, ___ ¼ of ___ ¼, Meridian: H ( ) M ( ) S ( ) Source of Coordinates (GPS, topo. map & type): _____

T ___ R ___ Sec ___, ___ ¼ of ___ ¼, Meridian: H ( ) M ( ) S ( ) GPS Make & Model: _____

DATUM: NAD27 ( ) NAD83 ( ) WGS84 ( ) Horizontal Accuracy: _____ meters/feet

Coordinate System: UTM Zone 10 ( ) UTM Zone 11 ( ) *OR* Geographic (Latitude & Longitude) ( )

Coordinates: See GPS

* Tree (A)[EASTERN] ~ 25' high, Tree (B) (Middle) ~ 10', (C) tree on ground, small branch is resprouting

Habitat Description (plants & animals) *plant communities, dominants, associates, substrates/soils, aspects/slope:*

Animal Behavior *(Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):*

Walnuts occur with Eucalyptus woodlands. Understory is dominated by: Radish? Non-native grasses. Walnut @ western end had fallen over but is re-sprouting. Soil substrate. Plants are located in historic and current floodplain.

Please fill out separate form for other rare taxa seen at this site. Only one of the three walnut trees are flowering

Site Information Overall site/occurrence quality/viability (site + population): ( ) Excellent ( ) Good (●) Fair ( ) Poor

Immediate AND surrounding land use: Site has frequent pedestrian use and ATV use by locals

Visible disturbances: ATV tracks, locals using site, cleared area often used by local kids to camp and play

Threats: human use of site

Comments: fair to poor site quality, moderate local use, tree trimming (by locals), ATV use right next to trees.

Determination: *(check one or more, and fill in blanks)*

☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☑ By another person (name): Shelly Austin
☐ Other: _____

Photographs: *(check one or more)*

	Slide	Print	Digital
Plant / animal	☐	☐	☑
Habitat	☐	☐	☒
Diagnostic feature	☐	☐	☒

May we obtain duplicates at our expense? (●) yes ( ) no

Attachment E. Plant Species List
(Observed at OV1)

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Species	Common Name	Special-Status	Wetland Rank	Weed Rank
GYMNOSPERMS				
CUPRESSACEAE – CYPRESS FAMILY				
*Cupressus sempervirens**	Italian cypress			
EUDICOTS				
AIZOACEAE – FIG–MARIGOLD FAMILY				
*Carpobrotus edulis**	freeway iceplant			
ANACARDIACEAE – SUMAC FAMILY				
*Schinus molle**	pepper tree		FACU	
*Schinus terebinthifolius**	Brazilian pepper tree		FAC	
APIACEAE – CARROT FAMILY				
*Foeniculum vulgare**	fennel			
ASTERACEAE – SUNFLOWER FAMILY				
Ambrosia psilostachya	western ragweed		FACU	
Baccharis pilularis ssp. consanguinea	coyote brush			
Baccharis salicifolia ssp. salicifolia	mule fat		FAC	
*Carduus pycnocephalus ssp. pycnocephalus**	Italian thistle			B
*Centaurea melitensis**	Maltese star-thistle			C
*Cirsium vulgare**	bull thistle		FACU	C
Deinandra fasciculata	fascicled tarplant		FACU	
Encelia farinosa	brittlebush			
*Glebionis coronaria**	crown daisy			
*Hedypnois rhagadioloides**	crete weed			
*Lactuca serriola**	prickly lettuce		FACU	
Pseudognaphalium californicum	California cudweed			
Psilocarphus brevissimus var. brevissimus	dwarf woolly-marbles		FACW	
*Silybum marianum**	blessed milk thistle			
*Sonchus sp.**	sow thistle			
Xanthium strumarium	cocklebur		FAC	
BORAGINACEAE – BORAGE FAMILY				
Amsinckia intermedia	common fiddleneck			
BRASSICACEAE – MUSTARD FAMILY				
*Brassica nigra**	black mustard			
*Lepidium didymum**	lesser swine grass			
*Raphanus sativus**	radish			
CACTACEAE – CACTUS FAMILY				
*Opuntia ficus-indica**	mission prickly-pear			

Species	Common Name	Special-Status	Wetland Rank	Weed Rank
CHENOPODIACEAE – GOOSEFOOT FAMILY				
Atriplex lentiformis	big saltbush		FAC	
EUPHORBIACEAE – SPURGE FAMILY				
*Euphorbia peplus**	petty spurge			
*Ricinus communis**	castor bean		FACU	
FABACEAE – LEGUME FAMILY				
*Melilotus indicus**	Indian sweetclover		FACU	
*Melilotus sp.**	sweetclover			
FAGACEAE – OAK FAMILY				
Quercus agrifolia	coast live oak			
GERANIACEAE – GERANIUM FAMILY				
*Erodium cicutarium**	redstem filaree			
Geranium californicum	California geranium		FAC	
JUGLANDACEAE – WALNUT FAMILY				
Juglans californica	southern California black walnut	CRPR 4.2	FAC	
LAMIACEAE – MINT FAMILY				
*Marrubium vulgare**	common horehound		FACU	
MALVACEAE – MALLOW FAMILY				
*Malva parviflora**	cheeseweed			
MYRSINACEAE – MYRSINE FAMILY				
*Lysimachia arvensis**	scarlet pimpernel		FAC	
MYRTACEAE – MYRTLE FAMILY				
*Callistemon viminalis**	weeping bottlebrush			
*Eucalyptus sp.**	gum tree			
OLEACEAE – OLIVE FAMILY				
*Fraxinus uhdei**	shamel ash			
*Olea europaea**	European olive			
ONAGRACEAE – EVENING PRIMROSE FAMILY				
Epilobium ciliatum	fringed willowherb		FACW	
OXALIDACEAE – OXALIS FAMILY				
Oxalis sp.	wood-sorrel			
POLYGONACEAE – BUCKWHEAT FAMILY				
Eriogonum fasciculatum	California buckwheat			
*Rumex crispus**	curly dock		FAC	
ROSACEAE – ROSE FAMILY				
Rubus sp.	blackberry			
RUBIACEAE – COFFEE FAMILY				
Galium aparine	goose grass		FACU	

Species	Common Name	Special-Status	Wetland Rank	Weed Rank
SALICACEAE – WILLOW FAMILY				
Salix gooddingii	Goodding's black willow		FACW	
Salix lasiolepis	arroyo willow		FACW	
SOLANACEAE – NIGHTSHADE FAMILY				
*Nicotiana glauca**	tree tobacco		FAC	
URTICACEAE – NETTLE FAMILY				
*Urtica urens**	dwarf nettle			
MONOCOTS				
AGAVACEAE – AGAVE FAMILY				
*Agave americana**	American century plant			
ARECACEAE – PALM FAMILY				
*Washingtonia robusta**	Mexican fan palm		FACW	
CYPERACEAE – SEDGE FAMILY				
Cyperus sp.	flatsedge			
POACEAE – GRASS FAMILY				
*Arundo donax**	giant reed		FACW	W
*Avena sp.**	oat			
*Bromus diandrus**	ripgut grass			
*Bromus hordeaceus**	soft chess		FACU	
*Bromus madritensis ssp. rubens**	red brome			
*Cynodon dactylon**	bermuda grass		FACU	D
*Festuca myuros**	rattail sixweeks grass		FACU	
*Hordeum murinum**	wall barley		FACU	
*Poa annua**	annual blue grass		FAC	
*Polypogon monspeliensis**	annual beard grass		FACW	

Legend

Symbols:

* Non-native species
^ Seed mix species
+ Volunteer species
cf. confer: This designation is used when a species or infraspecific taxon cannot be confirmed, but is believed to be the selected species of infraspecific taxon based on available anatomy

Federal Designations:

U.S. Fish and Wildlife Service:

FE Endangered
FT Threatened
FC Candidate Species

U.S. Forest Service:

FSS Forest Service Sensitive
WL Watch List

U.S. Army Corps of Engineers Wetland Rank:

OBL Wetland-dependent plants that require standing water or seasonally saturated soils near the surface.
FACW Plants dependent on and predominantly occur with hydric soils, standing water, or seasonally high water tables in wet habitats.
FAC These plants can occur in wetlands or non-wetlands. They can grow in hydric, mesic, or xeric habitats.
FACU Plants that are not wetland dependent. They are non-wetland plants by habitat preference.
None Plants are upland plants and do not occur in wetlands.

Other Designations:

California Invasive Plant Council Rank:

High These species have severe ecological impacts on the surrounding habitat. They have moderate to high rates of dispersal and establishment, and most are widely distributed.
Moderate These species have substantial and apparent—but generally not severe—ecological impacts on the surrounding habitat. They have moderate to high rates of dispersal. Distribution may range from limited to widespread.
Limited These species are invasive, but their ecological impacts are minor on a statewide level. They have low to moderate rates of colonization. Although their distribution is generally limited, these species may be locally persistent and problematic.
Watch List These species are predicted to become invasive if no further actions are taken. Distribution may range from limited to widespread in specific regions.

State of California Designations:

California Department of Fish and Wildlife:

SE Endangered
ST Threatened
SR Rare

California Rare Plant Rank:

1A Plants presumed extirpated in California and either rare or extinct elsewhere
1B Plants Rare, Threatened, or Endangered in California and elsewhere
2A Plants presumed extirpated in California, but more common elsewhere
2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere
3 Plants about which we need more information - review list
4 Plants of limited distribution - watch list

Threat Code Extensions:

None Plants lacking any threat information
.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)
.2 Moderately threatened in California (20–80% of occurrences threatened; moderate degree and immediacy of threat)
.3 Not very threatened in California (<20% of occurrences threatened; low degree and immediacy of threat or no current threats known)

California Department of Food and Agriculture Weed Rank:

A eradication, containment, rejection, or other holding action at the state-County level is mandated
B eradication, containment, control, or other holding action is at the discretion of the commissioner
C no state action is required except to retard the speed of spreading
D no state action is required
W this plant is included in CCR Section 4500 list of state noxious weeds

Attachment F. Wildlife Species List (Observed at OV1)

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Scientific Name	Common Name	Special Statu
REPTILES		
IGUANIDAE - IGUANA FAMILY		
Sceloporus occidentalis	Western Fence Lizard	
BIRDS		
ACCIPITRIDAE - RAPTOR FAMILY		
Accipiter cooperii	Cooper's Hawk	
Buteo jamaicensis	Red-tailed Hawk	
Buteo lineatus	Red-shouldered Hawk	
AEGITHALIDAE - BUSHTIT FAMILY		
Psaltriparus minimus	Bushtit	
BOMBYCILLIDAE - WAXWING FAMILY		
Bombycilla cedrorum	Cedar Waxwing	
COLUMBIDAE - PIGEON FAMILY		
Zenaida macroura	Mourning Dove	
CORVIDAE - CROW FAMILY		
Aphelocoma californica	California Scrub-Jay	
FALCONIDAE - FALCON FAMILY		
Falco sparverius	American Kestrel	
FRINGILLIDAE - NEW WORLD FINCH FAMILY		
Haemorhous mexicanus	House Finch	
Spinus psaltria	Lesser Goldfinch	
ICTERIDAE - NEW WORLD ORIOLE FAMILY		
Icterus cucullatus	Hooded Oriole	
MIMIDAE - THRASHER FAMILY		
Mimus polyglottos	Northern Mockingbird	
PARULIDAE - WARBLER FAMILY		
Geothlypis trichas	Common Yellowthroat	
PASSERELLIDAE - NEW WORLD SPARROW F		
Melospiza melodia	Song Sparrow	
Melozone crissalis	California Towhee	
PICIDAE - WOODPECKER FAMILY		
Dryobates nuttallii	Nuttall's Woodpecker	

Scientific Name	Common Name	Special Statu
STURNIDAE - MYNA FAMILY		
*Sturnus vulgaris**	European Starling	
TROCHILIDAE - HUMMINGBIRD FAMILY		
Calypte anna	Anna's Hummingbird	
Selasphorus sasin	Allen's Hummingbird	
TURDIDAE - THRUSH FAMILY		
Sialia mexicana	Western Bluebird	
TYRANNIDAE - TYRANT FLYCATCHER FAMIL		
Sayornis nigricans	Black Phoebe	
Sayornis saya	Say's Phoebe	

LEGEND

Federal (USFWS):

BGEPA=Bald and Golden Eagle Protection Act

FE=Endangered

FT=Threatened

FCE=Federal Candidate Endangered

FCT= Federal Candidate Threatened

FPD=Proposed for delisting

FC=Candidate

Appendix C. Cultural Resources Letter

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August 28, 2019

Elmer Alex, Sewer Engineering Division Manager
200 Civic Center Drive
Vista, CA 92084

Re: Cultural Resources Study for the Oceanside Vista Trunk Sewer Access, Reach 1 (OV1), San Diego County, California

This letter report provides the results of cultural resources study for the proposed access improvements to Reach 1 of the Oceanside Vista Trunk Sewer (OV1 or project) as proposed by the City of Vista (City) in the City of Vista, California. The proposed project is subject to compliance with the California Environmental Quality Act (CEQA), as amended through 2019 and Section 106 of the National Historic Preservation Act (NHPA). Therefore, cultural resources management work was conducted in compliance with the CEQA and NHPA Statutes and Guidelines.

The cultural resources study was conducted in support of the implementation of the OV1 project, which is covered under the City's 2017 Comprehensive Sewer Master Plan (CSMP) and Supplemental, Program EIR (SPEIR). Mitigation Measure CULT-2 in the City's Mitigation Monitoring and Reporting Program (MMRP) requires the preparation of a project specific archaeological survey prior to project implementation. According to the SPEIR, the project is identified as a Category 4 project and is subject to the requirements of Mitigation Measure CULT-2.

The cultural resources assessment encompassed background and archival record searches and a thorough pedestrian survey of the project area of potential effect (APE). The proposed project is located in an unincorporated island of San Diego County that borders the cities of Oceanside and Vista, California (Figure 1). As shown on Figure 2, the proposed project is generally located south of Navel Place, north of Fern Place, and is bordered by South Melrose Drive on the west and Buena Vista drive on the east. The proposed actions within the APE consist of securing long term access easements to the existing OV1 sewer trunk and easement and construction of new access roads. Activities would include vegetation removal or trimming, grading, limited excavation, soil stockpiling, and roadway compaction. The proposed access roads would be up to 15 ft in width and connect from the adjacent roads to the existing sewer line. Temporary construction easements of up to 50 ft in width from the sewer pipe centerline may be required during construction. HDR archaeologists Dan Leard and Dan Leonard conducted the survey on April 19, 2019.

hdrinc.com

591 Camino de la ReinaSuite 300San Diego, CA 92108-3104
(858) 712-8400

Figure 1. Project Area Shown on the USGS 7.5' Quadrangle

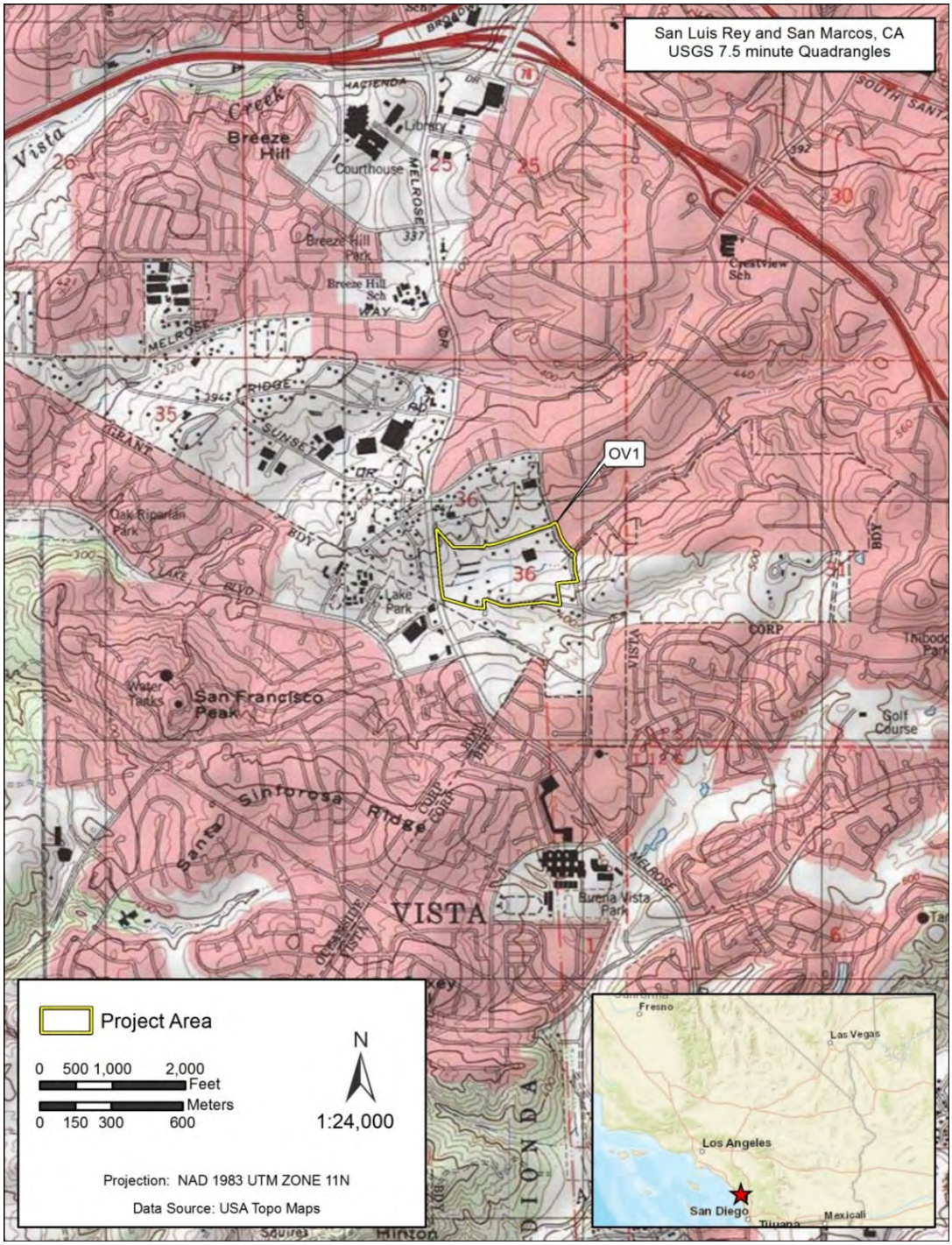
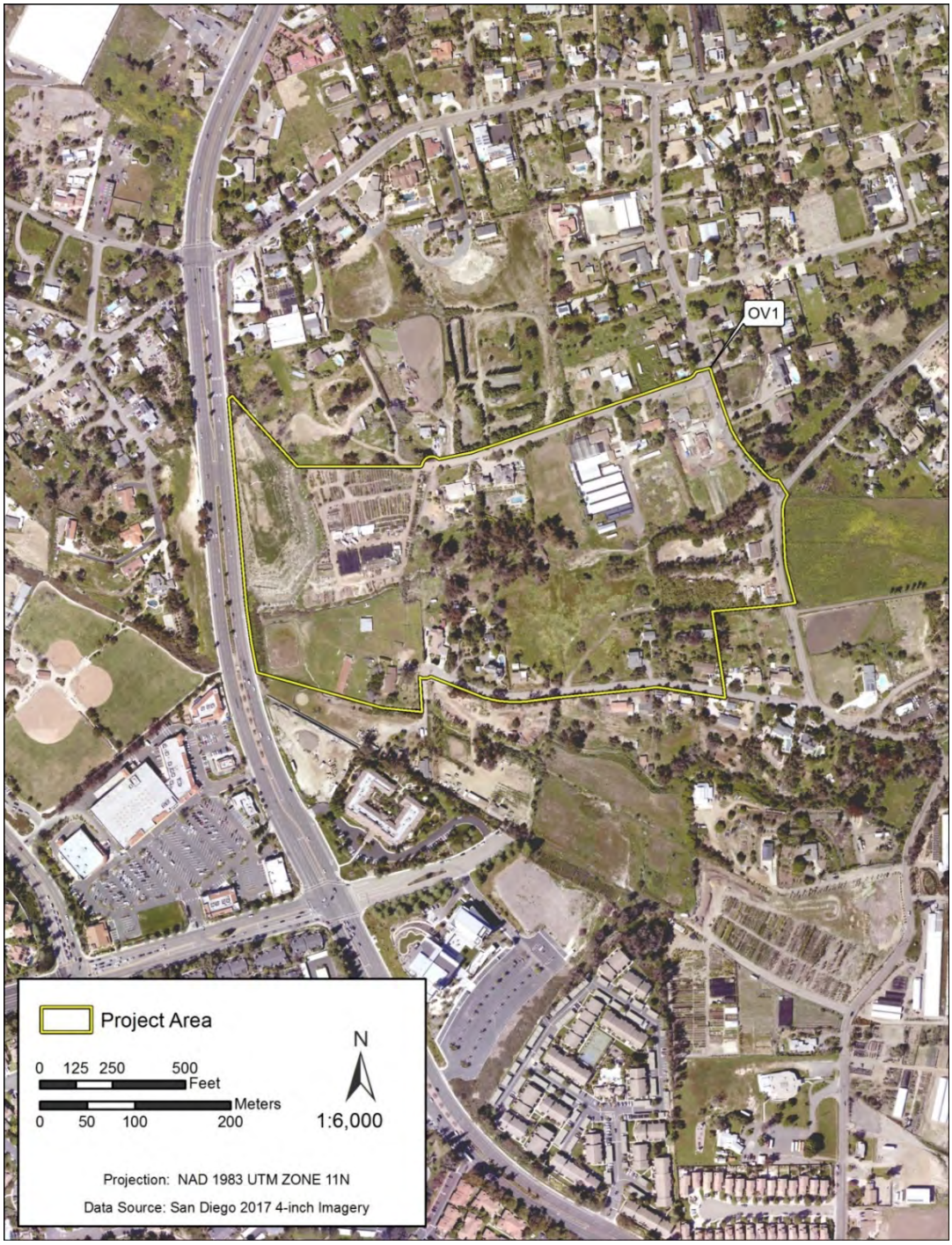


Figure 2. Aerial Overview of the Project Area



Background Studies

As part of the study, HDR conducted a background and archival records search of the project area that included a search of the cultural resources databases housed with the South Coastal Information Center (SCIC), the Sacred Lands File (SLF) kept with the Native American Heritage Commission (NAHC), and any available historic documentation and aerial imagery for the area. On February 21, 2019 a request was submitted to the SCIC for a record search of all archaeological and historical resources within 1/2 mile of the APE. The record search identified 25 cultural resource survey projects and 7 previously recorded cultural resources within the 1/2 mile radius (Figure 3 and Figure 4). On April 4, 2019 a letter was sent to the NAHC requesting a review of the SLF for any registered cultural resources, traditional cultural properties, or areas of heritage sensitivity within the vicinity of the project area. The results of the SLF were positive. The NAHC recommended that more information be requested from the La Jolla Band of Luiseno Indians and the San Luis Rey Band of Mission Indians.

Previous Cultural Resource Studies

The record search identified 25 cultural resource survey, excavation, and monitoring projects between 1977 and 2017 within a half mile of the APE (Table 1 and Figure 3).

Table 1. Previous cultural resources studies

Report Number	Author	Date	Affiliation	Title
SD-00296	Bull, Charles S. and Paul H. Ezell	1973	California State University, San Diego	An Archaeological Impact Statement for A. F. Anzlover of Centurion International
SD-00359	Carrico, Richard	1975	WESTEC Services, Inc.	Archaeological Survey of the TMI Project
SD-00574	Carrillo, Charles and Charles Bull	1979	RECON	McMillin North Pointe: Archaeological Studies of SDM W 2133, Oceanside, California
SD-00575	Carrillo, Charles C.	1980	RECON	Archaeological Survey of the Radestock property, Vista, California
SD-00840	Laylander, Don	1980	Paul G. Chace & Associates	An Archaeological and Paleontological Survey of the Karlin Property in the City of Vista, California
SD-01014	Gallegos, Dennis and Andrew Pigniolo	1987	WESTEC Services, Inc.	Cultural Resource Survey of the Proposed South Melrose Drive Street Improvements, Vista, California
SD-01016	Gallegos, Dennis and Andrew Pigniolo	1987	WESTEC Services, Inc.	Cultural Resource Survey of the Mar Vista OV1 Trunk Sewer Line, Vista, California
SD-01473	Scientific Resource Surveys, Inc.	1981	Scientific Resource Surveys, Inc.	Archaeological Report on a Portion of the Shadowridge Development Project Located in the City of Vista, San Diego County, California
SD-01672	Walker, Carol J. and Charles S. Bull	1980	RECON	An Archaeological Test Investigation of Seven Cultural Resources for Leisure Village Oceanside

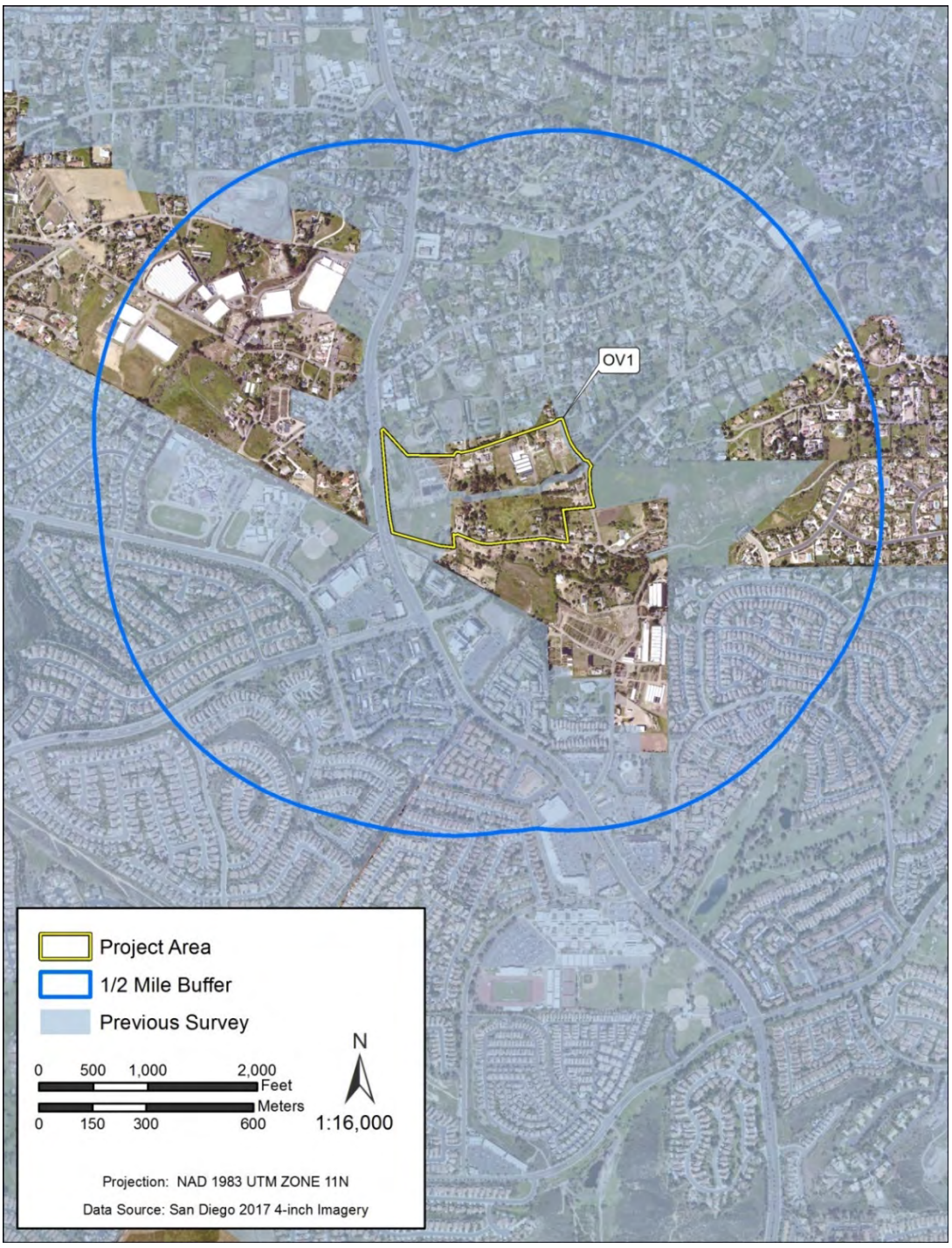
Table 1. Previous cultural resources studies

Report Number	Author	Date	Affiliation	Title
SD-02694	Mooney, Brian and John Cook	1993	Brian F. Mooney & Associates	Archaeological Survey Report for a Portion of Adams Street Widening Project in The City of Carlsbad, California
SD-03528	Gross, G. Timothy and Ruth C. Alter	1998	Carlsbad Municipal Water District	Archaeological Testing of a Portion of SDI-14,809, An Archaeological Site on a Segment of The South Agua Hedionda Trunk Sewer Carlsbad, California
SD-03894	Curt, Duke	2000	Curt Duke, LSA Associates, Inc.	Cultural Resource Assessment For Pacific Bell Wireless Facility SD 297-03, County Of San Diego, California
SD-05078	Robbins-Wade, Mary	2001	AFFINIS	Cultural Resources Inventory For The Taylor Street Extension NAD Escondido Ave. Extension, Vista, San Diego County, California
SD-08746	Advance Planning and Research and Associates	1979	APRA	An Archaeological Report Submitted To City Of Oceanside, California , Broadmoor-Oceanside Subdivision Phase II Archaeological Report For Archaeological Site TMI-4 Oceanside, California
SD-08755	Flower, Douglas and Linda Roth	1981	Flower and Roth Environmental Consultants	Archaeological Investigations Of South Ridge Trails Oceanside, California SDM-W-2130, SDM-W-2135, SDM-W-2137
SD-09645	Kyle, Carolyn	2001	Kyle Consulting	Cultural Resource Assessment/Evaluation for Cingular Wireless Site SD 611-01, San Diego, California
SD-10062	Eckhardt, William	1975	WESTEC Services, Inc.	Archaeological Survey for TMI Oceanside Property
SD-11228	Marben-Laird Associates	1987	Marben-Laird Associates	HISTORIC RESOURCE SURVEY, A PROJECT OF THE CITY OF VISTA, CALIFORNIA
SD-11524	Rosenberg, Seth A., Adriane Dorrler, and Brian F. Smith	2007	Brian F. Smith and Associates	A Cultural Resources Evaluation for the Vista and Buena Sanitation District 2007 Sewer Master Plan Update
SD-11707	Tuma, Michael W., Caprice D. Harper, and Susan Underbrink	2008	SWCA Environmental Consultants	Archaeological Survey, Testing, and Evaluation of Three Bedrock Milling Feature Sites, and Evaluation of One Built Environment Resource for the Stonemark Estates Project in Unincorporated San Diego County, California
SD-12827	Bonner, Wayne	2010	Michael Brandman Associates	Cultural Resource Records Search and Site Visit Results for Clearwire Candidate Ca-Sdg5046d (West Coast Baptist Church), 1525 Buena Vista Drive, Vista, San Diego County, California
SD-14069	Ni Ghabhlain, Sinead	2011	ASM Affiliates, Inc.	Cultural And Historical Resource Study For The City Of Oceanside General Plan- Circulation Element Update Program Environmental Impact Report (PEIR)

Table 1. Previous cultural resources studies

Report Number	Author	Date	Affiliation	Title
SD-14886	Loftus, Shannon	2013	Ace Environmental, LLC	Cultural Resource Records Search And Site Survey AT&T Site NS0016 Ocean Hills Country Club 1298 Navel Place Vista, San Diego County, California 92081
SD-16560	Castells, Shelby Gunderman	2015	ASM Affiliates, Inc.	Cultural Resources Study For The Presidio Vista Project, City Of Vista, San Diego County, California
SD-17341	Robbins-Wade, Mary and Nicole Falvey	2017	Helix Environmental Planning	South Melrose Self-Storage Project - Cultural Resources Survey

Figure 3. Previous Cultural Resource Surveys



Archaeological Resources

The record search identified seven previously recorded archaeological resources within a half mile of the APE (Figure 4). None of the archaeological resources are within the APE. The previously recorded resources include one prehistoric lithic scatter, three isolated bedrock milling features**,** two prehistoric lithic isolates, and one historic trail (Table 2). No built resources were identified by the record search.

Table 2. Previously Recorded Resources

Primary Number	Trinomial Number	Property Type	Resource Attributes	Description	Date Recorded	Eligibility
P-37-004930	CA-SDI-004930	Site	AP2. Lithic Scatter	11 small isolated lithic scatters consisting of debitage, groundstone, and lithic tools	1979	Unevaluated
P-37-005792	CA-SDI-005792	Site	AH7. Roads/Trails	Traditional trail from Mission San Luis Rey through San Marcos plains to the Cuyamaca Mountains	1978	Unevaluated
P-37-029301	CA-SDI-18742	Site	AP4. BMF	Granite bedrock milling feature with 1 milling slick	2008	Unevaluated
P-37-29302	CA-SDI-18743	Site	AP4. BMF	Granite bedrock milling feature with 1 milling slick	2008	Unevaluated
P-37-29303	CA-SDI-18744	Site	AP4. BMF	Granite bedrock milling feature with 1 milling slick	2008	Unevaluated
P-37-29304	--	Isolate	AP16. Isolate	1 Flake	2008	Unevaluated
P-37-29305	--	Isolate	AP16. Isolate	1 Flake	2008	Unevaluated

Figure 4. Previously recorded cultural resources within 1/2 mile

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Survey Methods

HDR cultural resources specialists conducted a thorough pedestrian surface inspection of the entire project footprint. The pedestrian survey was consistent with the Secretary of the Interior's (SOI) Standards and Guidelines for Archaeology and Historic Preservation (48FR 44716, September 29, 1983) with the intent to locate and record all cultural resources. Survey methods conformed to prevailing State of California and the SOI's Standards and Guidelines. HDR pedestrian survey transect intervals did not exceed 15 m. All cultural resources encountered were fully documented and photographed and all spatial data was recorded using a Trimble GeoXT handheld GPS

unit with sub-meter accuracy. Field sketches, field artifact inventories, and detailed field notes were employed to document cultural resources.

Survey Results

The OV1 project area extends along a narrow east-west intermittent drainage that extends between Buena Vista Drive and S. Melrose Drive. The area is within a residential neighborhood and includes several access roads that connect to the main line from Navel Place and Fern Place (Photographs 1-4). The terrain includes gentle north and south facing slopes on either side of the creek. Vegetation in the area is generally dense and includes riparian woodland and wetland plants along the creek, various grasses, and rows of eucalyptus and California fan palm. Except for within the creek bed and along the dirt paths, ground visibility in the area is less than five percent. No cultural materials from either prehistoric or early historic eras were identified. There were no artifacts, ecofacts, features, human remains, or midden soil typical of prehistoric or historic occupation observed in the project area. Based on the results of the archaeological survey, the project would have no impacts to cultural resources.

Impact Evaluation

As defined in Appendix G of the 2019 CEQA Statute & Guidelines, project impacts to cultural resources would be considered significant if the project was determined to:

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines;
b. Cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the CEQA Guidelines;
c. Disturb any human remains, including those interred outside of formal cemeteries; or
d. Cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code §21074?

The following evaluation considers the potential impacts to the cultural resources identified within the APE project improvements.

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines?

No historic structures were found in the vicinity of the proposed construction. Therefore, construction activities will cause no vibration-related impacts to historic resources.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the CEQA Guidelines?

As described in Section 4.3 of the SPEIR, the City applied probable work limits for construction for the Category 4 improvements, including the project. This included approximating the area of direct impact for construction, adjacent staging areas, and/or other temporary work areas and averages 50 feet in width. These areas are now defined in Figure 2 for OV1 at the project level.

Based on the results of the record search, no previously recorded sites have been recorded within the area of direct impact. No archaeological or historic sites were identified during the Project-Specific Archaeological Survey. Based on the results of the

survey, the project does not have potential to cause significant impacts to cultural resources eligible for listing on the CRHR and NRHP.

Compliance with Mitigation Measures CULT-3 would reduce any potential impacts associated with the accidental discovery of previously unrecorded archaeological resources. For this reason, the impact would be less than significant following the application of the proposed mitigation.

c. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

As provided in Section 4.3 of the SPEIR, construction of the improvements proposed under the 2017 CSMP, including the project, would occur at the vicinity of existing facility locations. However, during the construction of these facilities, the potential for the unexpected discovery of interred human remains, either prehistoric or historic, is a possibility. These direct impacts could be significant. Mitigation Measure CULT-4 is proposed to reduce these potential impacts to the unexpected discovery of interred human remains.

d. *Would the project cause a substantial adverse change in the significance of a Tribal Cultural Resource as defined in Public Resources Code §21074?*

As provided in (b), the project would not result in direct impacts to any known archaeological sites. Implementation of Mitigation Measure CULT-5 is required.

Project-Level Mitigation Recommendations

The cultural resources study was conducted as part of the implementation of Mitigation Measure CULT-2 (Project Specific Archaeological Survey). This mitigation measure, along with Mitigation Measure CULT-3 and CULT-5 are designed to reduce potentially significant impacts identified for CSMP Categories 1, 2, 3, and 4, including the project. Based on the implementation of Mitigation Measure CULT-2, the project would not result in a direct impact on cultural resources.

CULT-2 **Project-Specific Archaeological Survey.** Prior to the issuance of project-specific construction documents for CIP Capacity and Condition Projects (Hardscape and Cross-County Environs), Pump Station Rehabilitations, and Out-of-Service Area Projects, a Qualified Archaeologist approved by the City shall contact the NAHC regarding a Sacred Lands File Search for the project area. In addition, the City shall request a written response from the San Luis Rey Band of Mission Indians (SLR Band) (a tribe traditionally and culturally affiliated with the site) regarding whether the site of the 2017 CSMP improvement project may potentially affect Native American resources. If the NAHC and/or the SLR Band confirms potential known resources, a pedestrian survey (i.e., physical walk over) shall first be conducted by the Qualified Archaeologist and a TCA (traditionally and culturally affiliated) Native American Monitor. Should the pedestrian survey identify Native American cultural resources, the Qualified Archeologist shall, in consultation with the TCA Native American monitor and the SLR Band, make an immediate written evaluation of the significance and appropriate treatment of the resource, including any avoidance measures, additional testing and evaluations, or data recovery plans, and Pre-Excavation Agreements with the Tribe. If the SLR Band confirms, in consultation with the Qualified Archaeologist, that there is a potential for unknown resources to be uncovered during construction activities, then Mitigation Measure CULT-3, Archaeological Monitoring, shall be implemented (City of Vista 2017).

CULT-3 **Archaeological Monitoring.** Cultural resource mitigation monitoring shall be conducted to provide for the identification, evaluation, treatment, and protection of any cultural resources that are affected by or may be discovered during the construction of the proposed project. The monitoring shall consist of the full-time presence of a Qualified Archaeologist and a TCA (traditionally and culturally affiliated) Native American Monitor, and the monitoring activities shall be identified and defined in a Pre-Excavation Agreement between the City's Engineering Department and the San Luis Rey Band. The purpose of this agreement shall be to formalize protocols and procedures for the protection, treatment, and disposition of, but not limited to, such items as Native American human remains, funerary objects, cultural and religious landscapes, ceremonial items, traditional gathering areas and cultural items, located and/or discovered through the cultural resource mitigation monitoring program in conjunction with the construction of the proposed project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, soil surveys, grading, or any other ground disturbing activities. Other tasks of the monitoring program shall include the following:

- The requirement for cultural resource mitigation monitoring shall be noted on all applicable construction documents, including demolition plans, grading plans, etc.
- The Qualified Archaeologist and TCA Native American Monitor shall attend all applicable pre-construction meetings with the Contractor and/or associated Subcontractors.
- The Qualified Archaeologist shall maintain ongoing collaborative consultation with the TCA Native American Monitor during all ground disturbing or altering activities, as identified above.
- The Qualified Archaeologist and/or TCA Native American Monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground-disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the Qualified Archaeologist and the TCA Native American Monitor, in consultation with the San Luis Rey Band. Ground- disturbing activities shall not resume until the Qualified Archaeologist, in consultation with the TCA Native American Monitor, deems the cultural resource or feature has been appropriately documented and/or protected. At the Qualified Archaeologist's discretion, the location of ground disturbing activities may be relocated elsewhere on the project site to avoid further disturbance of cultural resources.
- The Qualified Archaeologist and/or TCA Native American Monitor may also halt ground disturbing activities around known archaeological artifact deposits or cultural features if, in their respective opinions, there is the possibility that they could be damaged or destroyed.
- The avoidance and protection of discovered unknown and significant cultural resources and/or unique archaeological resources is the preferable mitigation for the proposed project. If avoidance is not feasible, a Data Recovery Plan may be authorized by the City as the Lead Agency under CEQA. If data recovery is required, then the San Luis Rey Band shall be notified and consulted in drafting and finalizing any such recovery plan.
- Prior to the release of any Bonds associated with the construction of improvements noted in the 2017 CSMP, a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the cultural resource mitigation monitoring efforts (such as, but not limited to, a Data Recovery Program) shall be submitted by the Qualified Archaeologist, along with the TCA Native American Monitor's notes and comments, to the City's Director of Community Development for approval.
- Implementation of the following mitigation measure would reduce significant impacts identified for 2017 CSMP Categories 1, 2, 3, and 4 as identified under Impact 4.3-4 to less than significant levels. The proposed mitigation would replace the mitigation measures adopted in the 2008 PEIR for potential impacts to human remains.

CULT-5 **Disturbance to Human Remains.** As specified by California Health and Safety Code Section 7050.5, if human remains are found on the project site during construction or during archaeological work, the person responsible for the excavation, or his or her authorized representative, shall immediately notify the San Diego County Coroner's office by telephone. No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie adjacent remains (as determined by the Qualified Archaeologist and/or the TCA (traditionally and culturally affiliated) Native American Monitor) shall occur until the Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.98. If such a discovery occurs, a temporary construction exclusion zone shall be established surrounding the area of the discovery so that the area would be protected (as determined by the Qualified Archaeologist and/or the TCA Native American Monitor), and consultation and treatment could occur as prescribed by law. As further defined by State law, the Coroner would determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC would make a determination as to the Most Likely Descendent. If Native American remains are discovered, the remains shall be kept "in situ" ("in place"), or in a secure location in close proximity to where they were found, and the analysis of the remains shall only occur on-site in the presence of the TCA Native American Monitor.

Thank you for the opportunity to work on this project. If there are any questions regarding the information provided in this letter or if additional information is needed, please contact me at the HDR San Diego office (858) 712-8273.

Sincerely,

Daniel Leard
Staff Archaeologist

Photograph 1. Project area overview from the eastern extent, facing west

Photograph 2. Project area overview from the center, facing west

Photograph 3. Project area overview from the center, facing southeast

Photograph 4. Overview of access road, from the center facing north

References Cited

City of Vista. 2017.*City of Vista Sewer Mitigation Program Supplemental Program EIR*.

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