Final Initial Study/Mitigated Negative Declaration

Roman Creek Mitigation and Habitat Restoration Project

City of Vista, California

August 2020

Prepared for:	Prepared by:
City of Vista, California	HDR Engineering, Inc.

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Acronyms

BMP	best management practice
BPO	Biological Preserve Overlay
Cal Fire	California Fire
CalEEMod	California Emissions Estimator Model
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CH_4	methane
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRHR	California Register of Historic Resources
dBA	A-weighted decibel
DPM	diesel particulate matter
EI	expansion index
EIR	Environmental Impact Report
ESA	environmentally sensitive area
FEMA	Federal Emergency Management Agency
GHG	greenhouse gases
IS	Initial Study
MHCP	Multi-species Habitat Conservation Plan
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
MT	metric tons
N_2O	nitrous oxide
NAHC	Native American Heritage Commission
NO_X	Nitrogen Oxide
NPDES	National Pollution Discharge Elimination System
NRHP	National Register of Historic Places
PM_{10}	particulate matter 10 micrometers or less
$PM_{2.5}$	particulate matter 2.5 micrometers or less
PPV	peak particle velocity
PSFS	Public Safety, Facilities, and Service Element

RAQS	Regional Air Quality Strategy
RCS	Resource Conservation Element
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SDAPCD	San Diego Air Pollution Control District
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas and Electric
SIP	State Implementation Plan
SO_X	Oxides of Sulfur
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
TCA	traditionally and culturally affiliated
TMP	Traffic Management Plan
U.S.	United States
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
WOUS	waters of the U.S.

1 Introduction

1.1 CEQA Overview

The City of Vista (City), has prepared this Initial Study (IS)/Mitigated Negative Declaration (MND) to evaluate the potential environmental consequences associated with the proposed Roman Creek Mitigation and Habitat Restoration Project (Project). As part of the City's discretionary approval process, the proposed Project is required to undergo an environmental review pursuant to the California Environmental Quality Act (CEQA). One of the main objectives of CEQA is to disclose to the public and the decision makers the potential environmental effects of a project. CEQA requires that the lead agency prepare an Initial Study to determine whether an Environmental Impact Report (EIR), Negative Declaration, or a Mitigated Negative Declaration (MND) is needed. The City's Sewer Engineering Division is the Lead Agency for the proposed Project and per State CEQA Guidelines Section 15070 has determined that the preparation of an MND is the appropriate document type for complying with CEQA. A description of this Project is found in Section 2 of this document, followed by an Environmental Checklist and the City's CEQA Determination in Section 3, and cited references in Section 4.

1.2 Authority

The preparation of this document is governed by two principal sets of regulations: CEQA (Public Resources Code Section 21000, et seq.) and the State of California (State) CEQA Guidelines (California Code of Regulations Section 15000, et seq.). Specifically, State CEQA Guidelines, Section 15063 describe the requirements for preparing initial studies, and Sections 15070 through 15075 describe the process for the preparation of a MND. Where appropriate and supportive to an understanding of the issues, reference would be made to either the CEQA statute or State CEQA Guidelines. This IS/MND includes the contents required by CEQA, which includes a project description, a depiction of the Project location, a proposed finding that the project will not result in a significant effect with supporting documentation, and mitigation measures to avoid potentially significant effects on the environment.

The City's Sewer Engineering Division is serving as the lead agency for the purposes of CEQA. CEQA Guidelines Section 15367 defines the lead agency as "…the public agency, which has the principal responsibility for carrying out or approving a project." Other public agencies may use this document in the decision making or permit processing and would consider the information in this IS/MND along with other information that may be presented during the CEQA process. Section 2 of this Final IS/MND contains a list of permits or other approvals potentially required to implement the proposed Project. Approvals would require the following actions by the City:

- City Council adoption of the MND and Mitigation Monitoring and Reporting Program
- City Council approval of the Roman Creek Mitigation Site and Habitat Restoration Project, and conservation easement(s), as applicable

Copies of the IS/MND and supporting documents are on file and may be reviewed at the City's Planning Division counter, 200 Civic Center Drive, in Vista. The IS/MND and supporting documents may also be viewed on the City's web site (https://www.cityofvista.com/city-services/city-departments/community-development/building-planning-permits-applications/vista-general-plan-2030/environmental-resources). The Draft IS/MND was circulated for a 30-day public review period on June 1, 2020. Comments on the Draft IS/MND were accepted by the City's Sewer Engineering Division Manager at the following address and electronic correspondence:

Elmer Alex, Sewer Engineering Division Manager
200 Civic Center Drive
Vista, CA 92084-6275
Fax: (760) 643-5416
E-mail: ealex@cityofvista.com

The public comment period for the Draft IS/MND extended through July 1, 2020. Section 4 of the Final IS/MND includes the comments received on the Draft IS/MND and the City's corresponding responses.

1.2.1 Documents Incorporated by Reference

This document incorporates by reference Chapter 4, Resource Conservation and Sustainability Element, from the City of Vista General Plan 2030 Update (City of Vista 2011). The City's General Plan includes an important land use designation for several parks within the City by virtue of their open space and resource conservation values. In the case of Buena Vista Park, the City has applied the Biological Preserve Overlay (BPO) designation across the land area with the goal of the permanently conserving existing biological resources. The conservation goals of the BPO and use designation were considered and analyzed programmatically in Chapter 4 of the Program EIR prepared for the City's General Plan 2030 Update. The analysis contained herein incorporates by reference this prior analysis, as applicable.

1.2.2 Scope of the Initial Study Checklist

Consistent with the guidance provided in Appendix G of the CEQA Guidelines (as amended), this IS/MND evaluates the proposed Project's effects on the following resource topics:

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

2 Environmental Setting and Project Description

2.1 Project Overview

The City is proposing the Project, which is a combined hydromodification and habitat restoration improvement project within Buena Vista Park (Park), located in the City of Vista, California (Figure 2-1). Buena Vista Park is owned by the City and managed by the City's Parks and Recreation Department. According to the City's General Plan 2030, Buena Vista Park contains both active use areas and areas intended for the permanent conservation of natural resources. The City's 2030 General Plan Update included the adoption of a BPO with the primary purpose of conserving the City's biological resources. The BPO was adopted to restrict land uses to only limited passive recreational uses where protection of those resources is ensured, or those uses are required to protect public health and safety. As shown on Figure 2-2, the BPO covers most of the land areas within Buena Vista Park, and the proposed Roman Creek Mitigation Site (Mitigation Site).

2.2 Project Location

As shown on Figure 2-2, the Project is located within the proposed 16.7-acre Mitigation Site, which is generally located along Roman Creek, a tributary of Agua Hedionda Creek, and within the western and southern portions of Buena Vista Park, south of Shadowridge Drive. This area lies within Section 6, Township 12 South, Range 3 West of the San Bernardino Base and Meridian 7.5-minute San Marcos, California Quadrangle.

2.2.1 Existing Environmental Setting

Buena Vista Park

The Project is within Buena Vista Park (Park), which is located within the southwestern portion of the City and is located in a semi-rural setting at the southwestern edge of the Shadowridge master planned development. The existing Park provides a variety of active and passive recreational uses. According to Table RCS-2 of the City's General Plan, 119.4 acres of the Park are dedicated to open space (OS) use and the remaining approximately 30.1 acres are developed for active recreation (City of Vista 2011). The existing open space portions of the Park include oak woodland, willow riparian, open grasslands, chaparrals, and marsh habitats amongst the complex topography, which includes steep slopes to the east and west of Roman Creek. An extensive network of improved and unimproved trails exists throughout the Park. According to Table RCS-1 of the General Plan, the City's BPO designation applies to 296.2 acres of the City with the BPO applying to approximately 119.4 acres of OS designated land within the Park.

Surrounding Land Uses

As shown on Figure 2-2, Buena Park is designated for parks and recreation (PR) and OS land uses. As previously stated, a majority of the Park is also within a BPO. Land uses adjacent to Buena Vista Park include medium low density residential (MLD) and civic activity (CA) to the east, MLD and OS to the west, PR and high density residential (HD) to the north, and PR and rural residential (RR) to the south. Southwest of the Park is the 235-acre Dawson Los Monos Canyon Reserve, which is managed

by the University of California at San Diego as part of its Natural Reserve System, and has a land use designation of OS without the BPO overlay.

Local Watershed Conditions

Roman Creek generally flows in a southerly direction through Buena Vista Park, and has a total drainage area of approximately 1.1 square miles above where it confluences with Agua Hedionda Creek just to the south of the Mitigation Site. The Roman Creek watershed includes relatively steep terrain and consists primarily of urban developed communities, in addition to a high school, an 18-hole golf course, and Buena Vista Park. The Roman Creek watershed is a densely urbanized and highly geomorphologically controlled creek for the majority of the upper-two thirds of the watershed, receiving stormwater runoff from residential and commercial areas. Flows are conveyed via both hardened and unlined channels and pass through multiple grade controls at culverts before draining into the Buena Vista Park open space area.

Roman Creek exhibits a vegetated natural channel through Buena Vista Park, before discharging into Agua Hedionda Creek within the Dawson Los Monos Canyon Reserve. Portions of the existing channel contain little to no understory south of the roadway crossing and water and power easements owned by San Diego County Water Authority (SDCWA) and San Diego Gas and Electric (SDG&E). Figure 2-3 illustrates that the overall Agua Hedionda watershed, which includes Roman Creek, is comprised of seven sub-watershed areas. Additional information on hydrology and water quality can be found in Chapter 3, Section IX Hydrology and Water Quality.

Figure 2-1. Regional Map

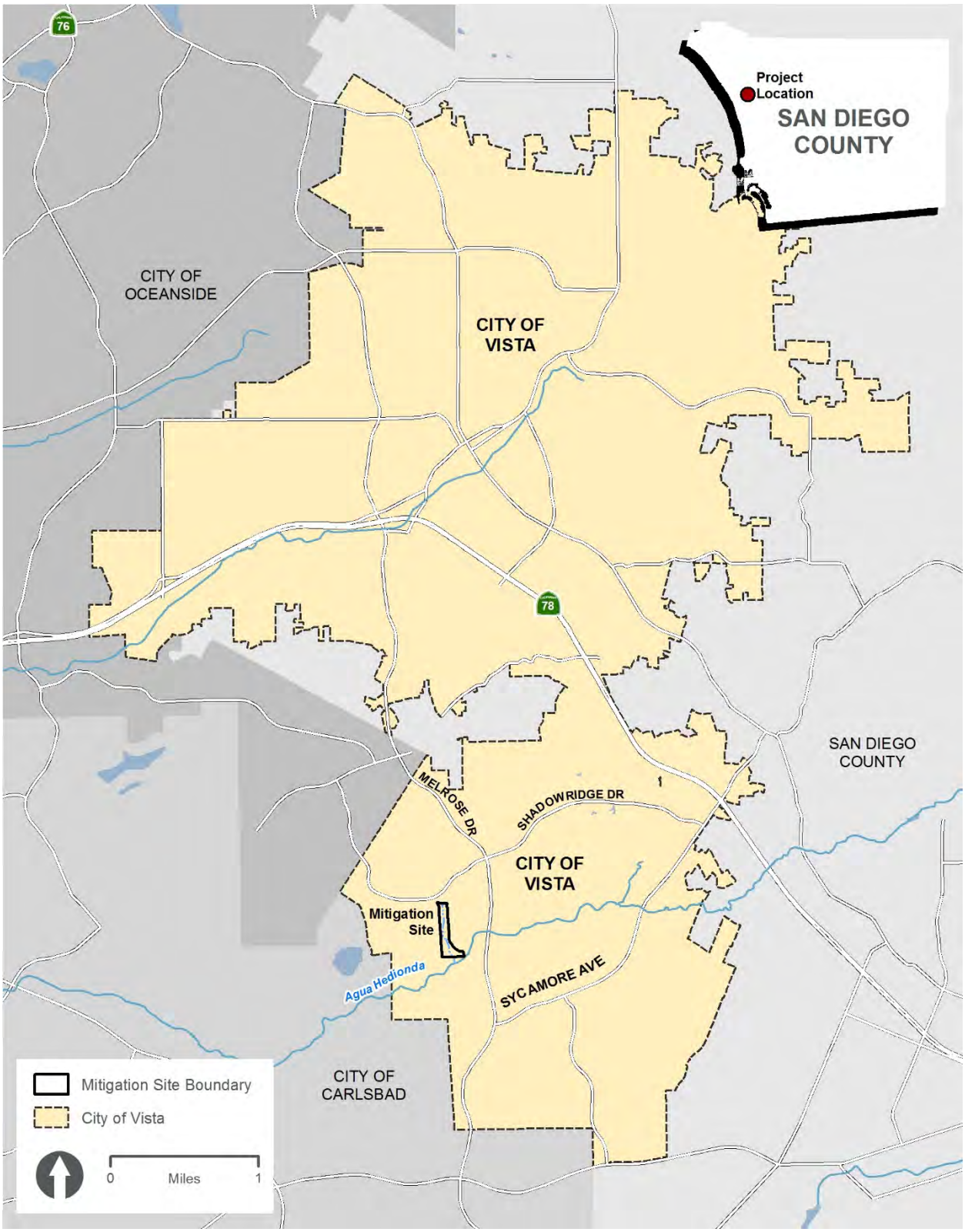

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Figure 2-2. General Plan 2030 Land Use and Biological Resources Overlay

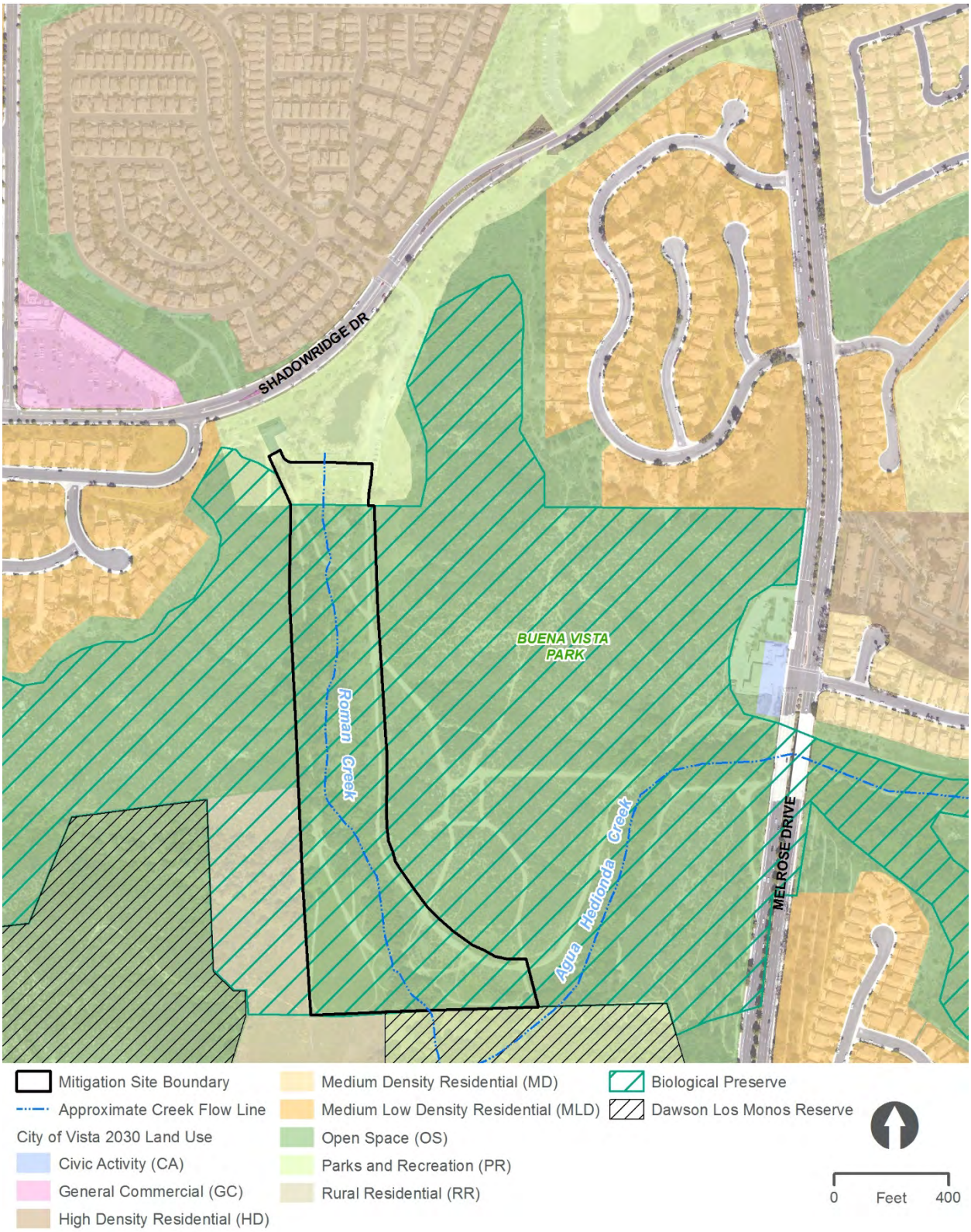

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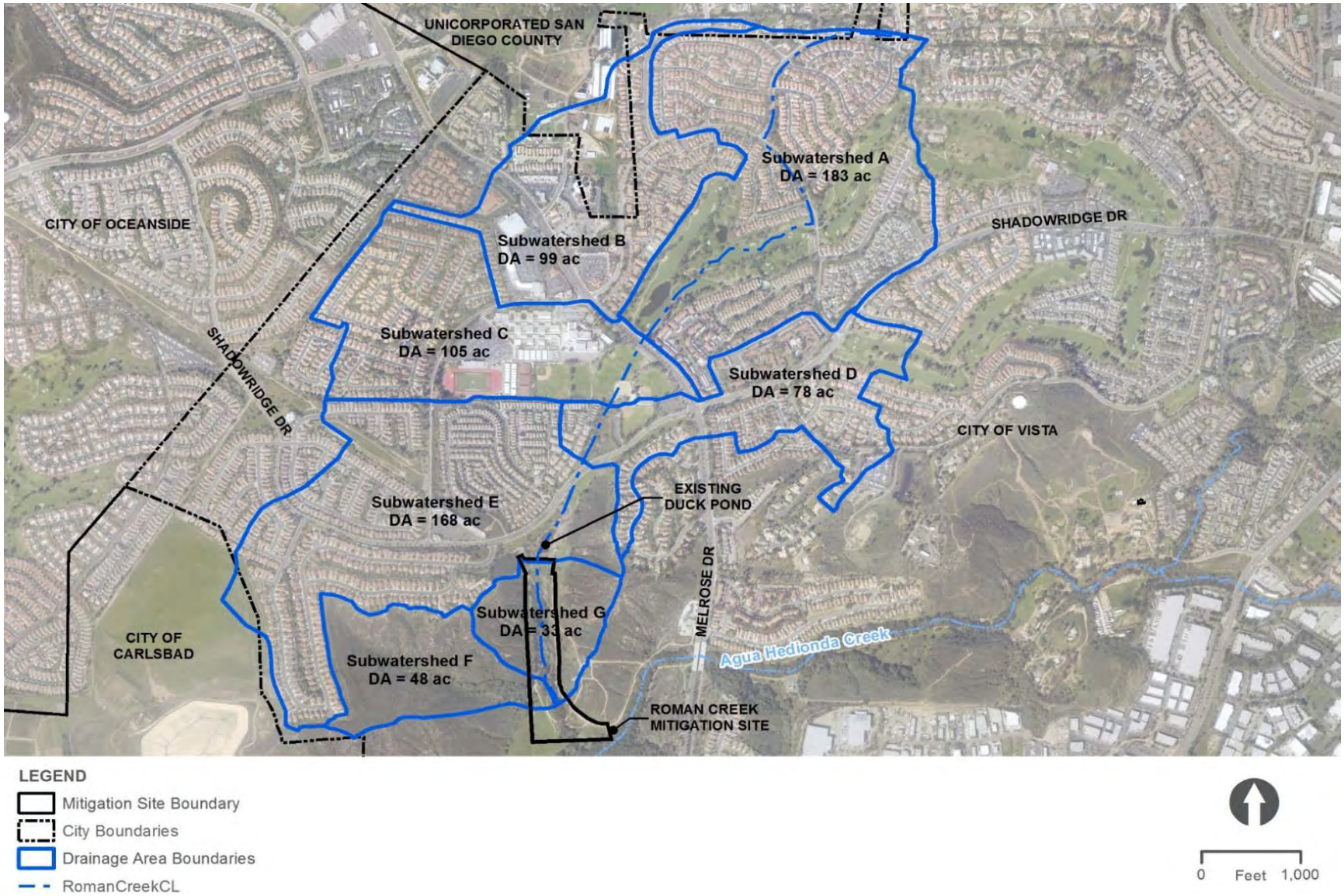
Figure 2-3. Agua Hedionda Creek Watershed



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2.3 Project Goals and Objectives

The City's goal for the Project is to address existing hydromodification impacts within the lower reaches of Roman Creek while providing a reliable source of compensatory mitigation for biological resources impacts associated with the 2017 Comprehensive Sewer Master Plan and related sewer capital improvement projects. The objectives for the proposed Project are to:

- Improve the hydrologic function of Roman Creek, including addressing peak flows from hydromodification within the upper watershed
- Maximize opportunities for onsite establishment, enhancement, and rehabilitation credits for waters of the United States (U.S.; WOUS) and State, including associated sensitive habitats protected by the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)
- Omit unauthorized trails within the riparian corridor of Roman Creek to protect compensatory mitigation and habitat restoration areas from damage
- Improve the management of natural resources through enhancements to existing trails, provision of interpretative signage and educational materials, and long-term adaptive management
- Enhance native habitats through removal of non-native species and re-planting/seeding with native species
- Protect existing habitat that is in insufficient condition so as to not require remedial weeding or plant installation
- Maintain and enhance the chemical, physical, and biological integrity of the aquatic resources within Roman Creek
- Provide wildlife habitat/structural diversity and connectivity
- Augment tree canopy to enhance shading within the riparian corridor and promote desirable aquatic organisms

2.4 Proposed Project Description

The Project would involve the implementation of riparian, streambed, and upland mitigation and habitat restoration opportunities within the western portion of Buena Vista Park. The proposed 16.7 acre Mitigation Site would include a combination of up to 10.7 acres of habitat establishment, enhancement, and rehabilitation in conjunction with the implementation of hydromodification improvements at strategic locations. The City's proposed Mitigation Site would be subject to approval from the U.S. Army Corps of Engineers (USACE), USFWS, and CDFW. Once approved, the City would be responsible for implementation, habitat success monitoring, and long term management, including adaptive management and maintenance. Figure 2-4 illustrates the Mitigation Site area in relation to the existing Park site and Dawson Los Monos Econological Reseve.

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Figure 2-4. Proposed Project

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2.4.1 Habitat Restoration

The Mitigation Site would include the establishment of up to 2.26 acres of wetlands and riparian habitats adjacent to approximately 4.08 acres of existing, in-channel habitats along Roman Creek proposed for enhancement and restoration of up to 4.36 acres of upland habitats. These proposed habitats would provide enhanced connectivity to the downstream habitats along Agua Hedionda Creek. Grading activities would be generally limited to areas west of the channel centerline (Figure 2-5). Figure 2-5 also identifies the preliminary habitat acreages proposed. The final habitat areas and proposed vegetation communities would require resource agency concurrence and approval. Detailed plans and specifications for onsite restoration, seed mixes, container plant palettes, temporary irrigation system details, restoration techniques to maximize survivability and success of the restoration program, and performance standards would be prepared, if the Project is approved.

2.4.2 Hydromodification Improvements

A suite of hydromodification improvements are under consideration for implementation at the Mitigation Site. These improvements could include:

- Installing one or more grade control structures;
- Replacing and upgrading the 18-inch culverts at the existing dirt access road near the north end of the Mitigation Site;
- Replacing and upgrading the existing pedestrian access bridge near the south end of the Mitigation Site with a new, expanded bridge crossing;
- Widening the flood prone area of the creek by lowering the adjacent terrace(s) to the west of the creek in one or more locations; and
- Excavating a secondary channel to increase flood prone area for the highly entrenched reach of the existing creek just north of the existing pedestrian bridge.

These improvements are subject to various agency approvals and further hydrologic analysis and may not all be implemented; however, for the purposes of this analysis, all of the improvements are assumed to be implemented.

2.4.3 Recreation/Access Improvements

In conjunction with the proposed Project and to promote the habitat establishment, enhancement, and rehabilitation opportunities proposed at the Mitigation Site, access to the riparian corridor along Roman Creek would be omitted through the installation of fencing at appropriate locations. New interpretative signage would be included at strategic locations to inform the public on key aspects of the City's Mitigation Site and observe the proposed habitat corridor. The two existing trail crossings would be retained to facilitate existing circulation through Buena Vista Park (Figure 2-6).

Trail Network Enhancements

In conjunction with improving the trail network at Buena Vista Park, the City proposes the enhancement of multiple sections of the designated trail network to minimize localized sediment inputs to Roman Creek, reduce hydraulic restrictions within Roman Creek, and minimize degradation of the trail network. In general, these improvements would include the following as funding becomes available:

- Placement of soil stabilization and erosion control best management practices (BMP) along existing trails at selected locations;
- Replacement of the existing, undersized bridge crossing over Roman Creek with a new 110-foot bridge in conjunction with the habitat establishment;
- Realignment of designated trails to improve walkability;
- Addition or replacement of fencing along riparian mitigation areas; and
- Placement of interpretative signage.

Actual design features, including material type selection, remain subject to regulatory agency approval and final engineering design.

2.4.4 Mitigation Site Implementation Activities

Implementation of the Mitigation Site would include the following activities as further described in this section:

- Site Preparation
- Fencing and Trail Enhancements
- Planting
- Watering and Irrigation
- Monitoring and Adaptive Management

Site Preparation

Mitigation Site preparation activities would be contingent on the management area involved. The protection of native species, including the retention of native riparian trees, is a high priority for each management unit. Clearing and grubbing, non-native tree removal, and grading would only occur in establishment and rehabilitation management areas. Site grading would be limited to that required to achieve the elevations appropriate to support seasonal and emergent wetlands, oak woodland, riparian, or scrub habitats, establishing water supply, if required, and invasive plant control.

Native Species Protections and Exclusions

To minimize effects on desirable habitats and native plant species, avoidance measures would be implemented. Temporary access paths (where vegetation would be removed but no grading would occur) and staging areas would be identified, and equipment movement would be restricted to these areas by the use of environmentally sensitive area (ESA) fencing, signage, and other appropriate measures.

Figure 2-5. Proposed Roman Creek Mitigation and Habitat Restoration Project

LEGEND

- Mitigation Site Boundary
- Creek Enhancement
- Creek Establishment
- Creek Enhancement and Establishment

Aquatic Resource Enhancement	4.08 ac
Coast live oak alliance	1.40 ac
Oak-willow alliance	2.68 ac

Aquatic Resource Establishment	2.26 ac
Emergent Marsh	0.05 ac
Mulefat scrub	0.26 ac
Oak-willow alliance	1.95 ac

Upland Buffer Restoration/Enhancement	4.36 ac
California buckwheat scrub	0.88 ac
California sagebrush scrub	0.02 ac
California sagebrush-black sage scrub	0.19 ac
California sagebrush-California buckwheat scrub	1.08 ac
Coast live oak alliance	0.44 ac
Coyote brush scrub	0.07 ac
Native Grassland	1.68 ac

0 Feet 150
1 inch = 150 feet

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Figure 2-6. Trail Crossings and Proposed Fencing

LEGEND

- Mitigation Site Boundary
- Proposed Fencing
- Proposed Interpretive Sign

0 Feet 150
1 inch = 150 feet

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Clearing, Grubbing, and Tree Removal

Clearing and grubbing would include the removal and disposal of all undesirable material, including large eucalyptus trees, Mexican fan palm (*Washingtonia robusta*) trees, tamarisk (*Tamarix* sp.), non-native grasses, mustards, thistles, excess plant detritus (predominant as leaf litter in the eucalyptus woodland understory), and trash. Earthwork operations would not begin in areas where clearing and grubbing are not complete, except where stumps and large roots may be removed concurrently with excavation. Existing vegetation outside the areas to be graded would be protected using temporary fencing. However, in limited instances, selective removal of invasive non-native species may take place in the adjacent grassland areas in coordination with a qualified biologist.

Eucalyptus duff currently present on the ground would also need to be removed because it adversely affects soil pH levels and can provide thick ground cover that inhibits the germination and growth of understory herbaceous vegetation. Eucalyptus duff removal would occur with a biological monitor present and the material would be removed offsite and disposed of at an approved facility.

Upland and In-Channel Grading

Grading limits would be clearly defined in the field to prevent damage to existing WOUS and State, wetlands, and high quality upland habitat. Temporary impacts to any adjacent habitats would be mitigated through in-situ restoration activities, including revegetation with native species. In-channel grading would be limited and designed to increase the channel's capacity to accommodate increased peak flows from the upper watershed. Much of this work would occur in existing upland areas and restricted to up to three locations within the existing channel profile of Roman Creek to achieve the proposed habitat conditions.

The temporary loss of habitat would be compensated by reducing the amount of habitat credit available to compensate for other City projects. Additionally, temporary erosion and sediment control BMPs would be installed to manage sediment until permanent stabilization is achieved.

Soil Preparation

In-situ soils at design grade may require amendment, either by amending the entire revegetation area or by amending the backfill in the planting holes. During preparation of construction documents, the approach would be finalized, including the need for soil testing.

Invasive Plant Control

It is expected that invasive plant species control would be necessary prior to Project implementation. Invasive plant species control should be planned in advance and could be started prior to anticipated initial planting. Invasive plant species are defined as those listed by the California Invasive Plant Council with a rating of high or moderate, any Tier 1 or Tier 2 invasive species listed in the Water Board's Fact Sheet for Wetland projects, or species considered locally invasive (RWQCB 2009). Local invasive plant species lists from San Diego County would be used to supplement these lists. Control methods for each invasive plant species would be determined based on up-to-date research on effective control techniques.

Fencing and Trail Enhancements

In conjunction with the Project, the City would install new fencing at locations bordering the Mitigation Site (Figure 2-6). The fencing would be designed to restrict access to Park users to the

habitat mitigation areas and maintain wildlife movement through the riparian corridor. The fencing would consist of wooden posts with wire or cable strands.

Trail improvements to the western trail alignment that borders the Mitigation Site on the west would include the addition of BMPs to minimize the generation and input of sediment into the habitat rehabilitation, enhancement, and establishment areas. Minor realignment of the trail would also occur to facilitate site grading activities and maximize the size and connectivity of the riparian corridor.

Planting Material

Plant Species and Sources

A list of the plant species proposed for each of the habitat restoration areas would be prepared as part of final design. To the extent feasible, planting materials would be collected from appropriate woodland, wetland, and riparian habitats within the local watershed so that native plant material of local genetic origin is used within the Project area. Hydroseeding or broadcast seeding may be employed in erosion control areas and other highly disturbed areas if deemed appropriate.

Water Sources and Irrigation

No permanent irrigation installation would be necessary for the seeded areas or the proposed seasonal and emergent wetlands (which would include installed wetland plugs), as they would be designed to be supported by groundwater and surface water runoff. However, if rainfall is more that 20 percent below average in Years 1 and/or 2, supplemental irrigation may be applied to wetland areas to establish survival of installed plugs and cuttings. If the site is irrigated during Years 3 through 5, the 5-year monitoring requirement would be reset to Year 1 and monitoring would resume for a minimum of 5 years after irrigation has ceased.

Overhead spray irrigation is not recommended due to water use inefficiency and increased establishment of weed species between the mitigation plantings. If an irrigation system is deemed necessary, water would be supplied by a water truck (via a stand pipe connection). Where wetland and willow plantings are proposed, the depth to available groundwater is expected to negate the need for irrigation.

Where temporary irrigation is required, watering would occur at least until the onset of the cool weather/wet season and/or a prolonged period of early rain in the fall. A restoration ecologist would evaluate watering needs after Year 1 of planting. If irrigation beyond the 2-year plant establishment period is required, the monitoring period would be reset to start anew at the cessation of irrigation. Under that scenario, once irrigation stops, Year 1 of the monitoring would resume.

Monitoring and Adaptive Management

Monitoring data would be collected and used to evaluate the success of the restoration areas. Information from this monitoring program would provide feedback to direct necessary maintenance and adjustments to planting areas or techniques to ensure the success of the mitigation program. Only created or restored habitats would be monitored; enhanced habitats would not be monitored or count towards the sites' success criteria.

2.4.5 Construction Details

Construction of the Project would start in 2020. Construction activities would occur for approximately six months and would involve site preparation, grading activities, soils and materials transport, and revegetation activities. Portions of the Project site that would be subject to grading activities or temporary work areas are identified on Figure 2-7. Up to two crews of 25 people each would be required at the height of construction resulting in approximately 50 daily trips, excluding haul trucks. Up to 10 daily trips for haul trucks to import and export material would be required on peak construction days. Typical activities involved in the Project's construction would include the following:

- Equipment and materials transport
- Placement of construction perimeter fencing
- Site preparation, including exotic and invasive vegetation removal
- Earthwork, including grading, excavation, and backfill
- Civil improvements, trail, drainage, and fencing
- Revegetation activities

Large organic debris, including eucalyptus tree trunks, along with smaller debris and construction-related import materials, would be transported offsite using single haul trucks. Native plant debris not removed offsite would be used onsite for erosion control or for coarse woody debris habitat enhancement features.

Surplus topsoil materials would be used as topsoil for the habitat planting area(s), where appropriate. Any suitable excess fill would be applied, where appropriate, onsite or exported offsite. The City anticipates that some material imports (e.g., aggregate, rocks, etc.) would be required to stabilize the final trail/access road alignments and to support habitat establishment. Construction specifications for these improvements would require that the materials be placed along the crown of the roadway and away from drainages. Additionally, at the locations where fill is placed, the City would provide appropriate erosion and sediment control BMPs, including, but not limited to, out-sloping, soil stabilizers, and erosion control blankets or rock-lined V-ditches at drainage outlets.

Excavated soils materials would be temporarily stockpiled at the proposed staging area, which would be situated in the southwestern end of the Park to minimize disruption to recreational uses. Following construction, the staging area would be restored to native habitat via tilling to alleviate any soil compaction and seeding.

Construction access to the site would require temporary access through Buena Vista Park and along the western access road, which follows an access easement along the adjacent property. Trail access along this section of the Park would be detoured to trails to the east until completion of construction. Temporary fencing would be erected, where required, to restrict access to the construction zone. Construction equipment would enter the Park site from the north from Shadowridge Drive.

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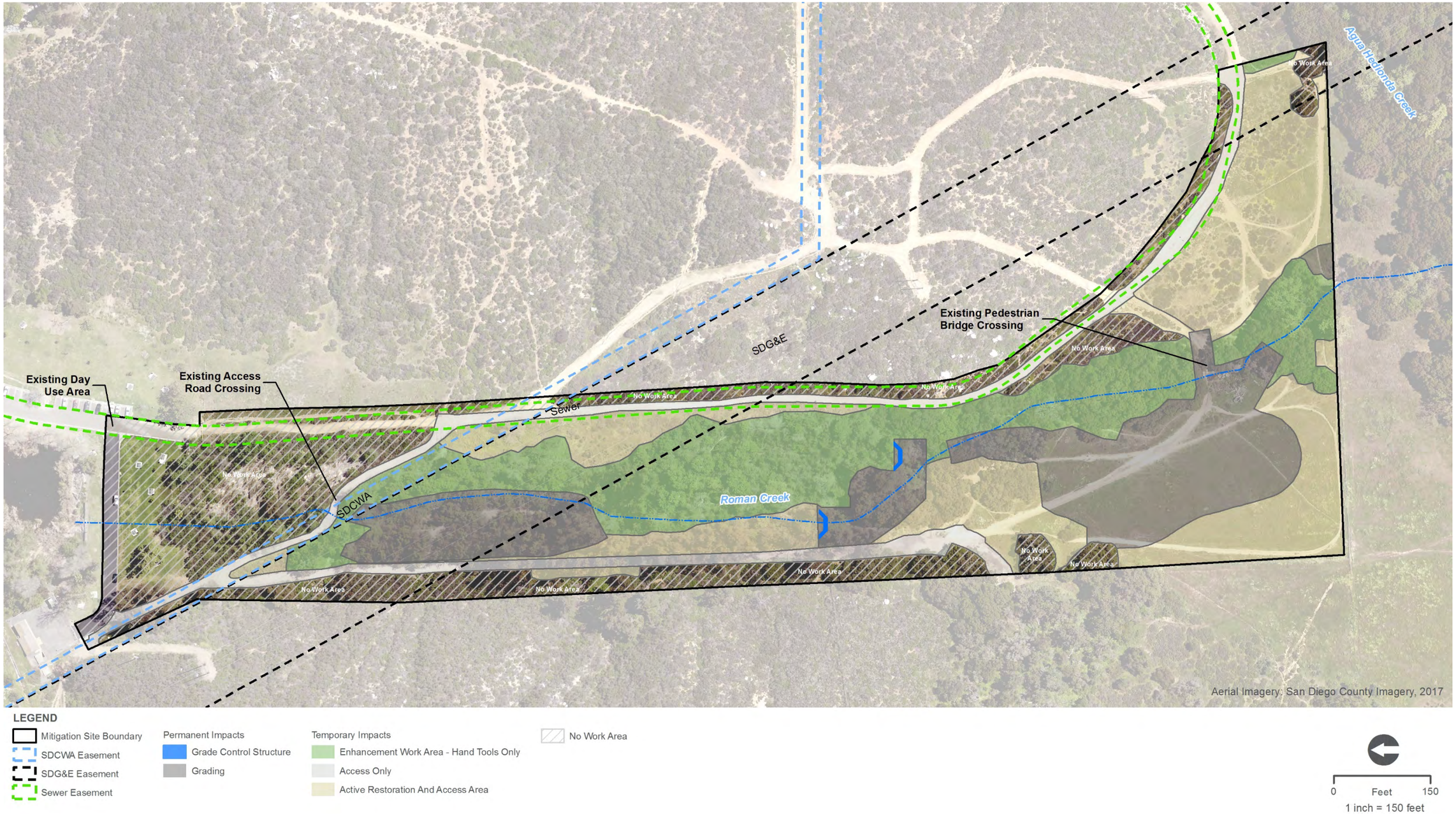
Figure 2-7. Project Site Grading Limits



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2.5 Anticipated Regulatory Approvals

The City is serving as the lead agency for the purposes of this IS/MND. Responsible Agencies are those agencies that have responsibility or approval authority over one or more actions involved with development of a project. Trustee Agencies are state agencies that have jurisdiction by law over natural resources affected by a project, that are held in trust for the people of the State of California. Agencies and their potential approvals for the proposed Project are identified in Table 2-1.

Table 2-1. Potential Project Approvals

Agency	Potential Permit or Approval
City of Vista (multiple departments)	Approve CEQA Determination; Grading and/or Encroachment Permits; Approve Project Funding
San Diego County Water Authority	Encroachment Permit, if required
RWQCB, Region 9	NPDES, General Construction Permit and Dewatering Permit, if required
	Clean Water Act, Section 401, Water Quality Certification
CDFW	1601 (or 1603) Streambed Alternation Agreement
	Approval of Applicant-Proposed Mitigation Site Conservation Easement
UCSD	Approval of right of entry access to Dawson Los Monos Ecological Reserve
USACE	Nationwide Permit
	Approval of Applicant-Proposed Mitigation Site
USFWS	Consultation with USACE and/or Federal Endangered Species Act, if required
State Historic Preservation Officer	Section 106, National Historic Preservation Act, Consultation with USACE
San Diego County Air Pollution Control District	Rule 51 Nuisance, Rule 55 Fugitive Dust Controls
SDG&E	Use Agreement and/or Encroachment Permit, if required

Notes:
CDFW=California Department of Fish and Wildlife; CEQA=California Environmental Quality Act; NPDES=National Pollution Discharge Elimination System; ROE=Right of Entry; RWQCB=San Diego Regional Water Quality Control Board; SDG&E=San Diego Gas and Electric; SDCWA=San Diego County Water Authority; UCSD=University of California San Diego; USACE=United States Army Corps of Engineers; USFWS=United States Fish and Wildlife Service

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3 Environmental Checklist Form

1. **Project Title:** Roman Creek Mitigation and Habitat Restoration Project
2. **Lead Agency name and address:** City of Vista, 200 Civic Center Drive, Vista, CA 92084
3. **Contact person and phone number:** Elmer Alex, Sewer Engineering Division Manager / (760) 643-5416
4. **Project location:** Buena Vista Park, 1601 Shadowridge Drive, Vista, CA 92081
5. **Project sponsor's name and address:** Same as CEQA Lead Agency
6. **General Plan designation:** OS and BPO
7. **Zoning:** Specific Plan Implementation (SP-24) and Biological Preserve (City of Vista 1995)
8. **Description of project:** Please refer to Chapter 2.
9. **Surrounding land uses and setting (Briefly describe the project's surroundings)**: Please refer to Section 2.2.1.
10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)**: Please refer to Section 2.5.
11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

    California Native American tribes traditionally and culturally affiliated with the Project area were notified by the City of the Project, and requested consultation pursuant to CEQA Statute § 21080.3.1. City staff consulted with California Native American representatives per the requirements of CEQA Statute § 21080.3.2 (as amended by AB 52) on the potential impacts of the Project. It was agreed that due to the cultural richness of the area, there could be potentially significant impacts (e.g., destruction or alteration) to unknown tribal cultural resources from grading or excavation during Project construction. The mitigation measures in Section V, Cultural Resources were a result of the consultation process.

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

3.2 Determination (To be Completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the project would not have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, 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 may have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project may have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

John Conley — 8/20/2020

Signature — Date:

3.3 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. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. 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:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, 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 building within a state scenic highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Impact Analysis

a) **Less than Significant Impact.** According to the 2011 Program EIR (City of Vista 2011) prepared for the City's General Plan 2030 Update, the Project is located within the Shadowridge Neighborhood, which is one of eight distinct neighborhoods identified within the City. The Project is located within the southwestern portion of the Shadowridge Neighborhood, which is bounded by Shadowridge Drive to the north, State Route 78 (SR-78) to the east, Vista Business Park to the south, and the City of Carlsbad to the west. According to the 2011 Program EIR, the Project is located in Viewshed 2, which is one of the two main viewsheds identified within the City and its Sphere of Influence. The 2011 Program EIR identified that within the southwestern portion of the City and Viewshed 2 are canyons that are characterized by rolling hills, canyons, hiking trails, and open space that buffers these resources from existing low-density residential development further to the north. Figure 3-1 illustrates the Mitigation Site's location within the Shadowridge Neighborhood and the general extent of Viewshed 2 as depicted on Figure 4.1-2 of the City's General Plan.

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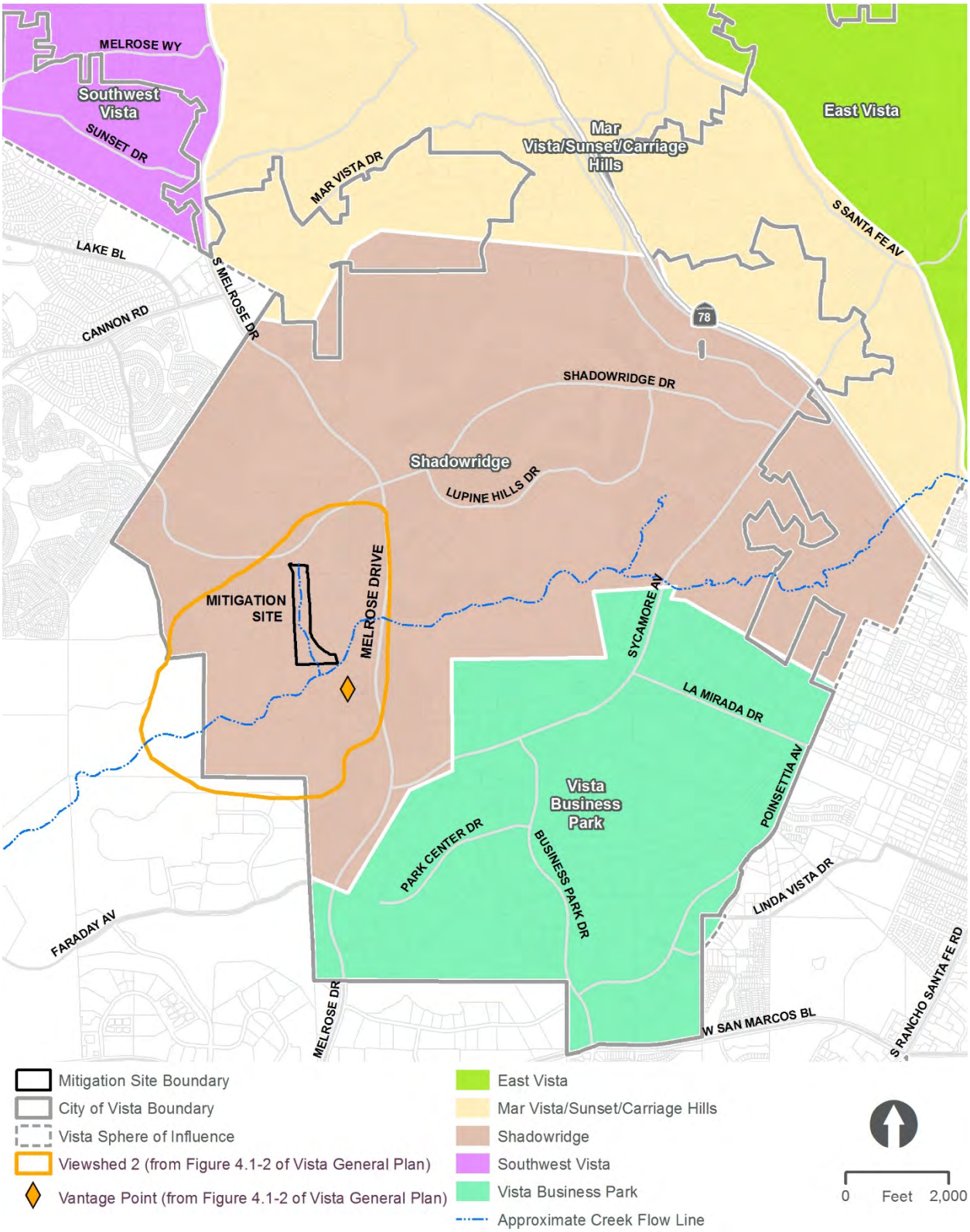
Figure 3-1. City of Vista Neighborhoods



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Within the limits of the proposed Mitigation Site, the City is proposing the implementation a combination of habitat restoration and hydromodification improvements (Figure 2-2). No large buildings or structures are proposed within the Mitigation Site; however, temporary construction and grading activities would be present during the construction phase of the Project. The operation of construction equipment, including contractor staging, could temporarily impact the visual quality of the existing scenic vista. Due to the temporary nature of these activities and the habitat establishment goals of the Project, this impact is considered less than significant.

The proposed improvements within the Mitigation Site would be limited to new signage, fencing, realignment, or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. In conjunction with these improvements, the goal of the Mitigation Site would be to increase the extent of the existing riparian corridor along Roman Creek and replacement of non-native trees (e.g. eucalyptus). In the proposed condition, the proposed trail improvements would largely conform to existing topographical conditions and the proposed habitat grading would not significantly alter the existing scenic landscape significantly. No changes to the existing visual encroachments within the Park, including a SDG&E high voltage transmission line, would result based on actions proposed within the Mitigation Site. Over the long term, the Project would entail desirable benefits by expanding the existing riparian corridor and enhancing the overall scenic vista. Therefore, the proposed improvements to the Mitigation Site would not have a substantial adverse effect on a scenic vista. A less than significant impact is identified for this issue area.

b) **No Impact.** There are two state scenic highways within the County of San Diego. These include SR-78 from the west boundary to the east boundary of Anzo-Borrego Desert State Park; and SR-125 from SR-94 in Spring Valley to Interstate 8 in La Mesa. Both of these state designated scenic highways are more than 25 miles from the Project area. Therefore, the Project would result in no impact to scenic or historic resources within a designated scenic highway.

c) **Less than Significant Impact.** Within the limits of the proposed Mitigation Site, the City is proposing a combination of improvements that would establish new riparian habitat, enhance existing riparian habitat, and restore other natural, upland habitats (e.g. chaparral). These habitat improvements would be implemented in conjunction with other physical improvements including trail modifications, new signage, and the placement of erosion control improvements. These improvements would require temporary construction and grading activities, and staging areas for construction equipment and storage of material which could temporarily lessen the visual quality within the southwestern portions of the Park site for up to 6 months.

Over the long term and following construction, the Project would entail desirable benefits in terms of visual quality by removing undesirable vegetation, such as large non-native eucalyptus and Mexican fan palm trees, and planting of native oaks, willows, and herbaceous wetland vegetation within the Mitigation Site. Portions of the Mitigation Site would also be fenced to omit public access to facilitate onsite establishment, enhancement, and rehabilitation of native vegetation per the goals of the City's BPO land use designation. Although the Project would result in changes to the existing visual character of the site from the stand point of a park user, the Project would not degrade the existing visual character or quality of public views of the Buena Vista Park and Mitigation Site or their surroundings. In this context, the impact to the existing visual character of the Park site would be less than significant.

d) **No Impact.** No new, permanent lighting fixtures or nighttime lighting improvements are proposed as part of the Project. Construction of the Mitigation Site would occur during daytime hours; no nighttime construction is proposed. Based on these considerations, implementation of the Project would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the Project area. No impact is identified for this issue area.

ii) Agriculture and Forestry Resources

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Impact Analysis

a) No Impact. According to the California Department of Conservation Farmland Mapping and Monitoring Program (California Department of Conservation 2016), the Project area contains a mix of Urban and Built-Up Land, Other Land, Grazing Land, and Farmland of Local Importance. The Project area does not contain prime farmland, unique farmland, or farmland of statewide importance, and has not been irrigated for purposes of agricultural production for over 30 years. Therefore, implementation of the Project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impact is identified for this issue area.

b) **No Impact.** The Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use (California Department of Conservation n.d.). According to the California Department of Conservation's San Diego County Williamson Act Lands Map, no Williamson Act contracted lands occur within the City. Additionally, within the Project area, the BPO and Open space designation does not allow for agricultural uses and the Project would not result in the rezoning of these existing uses; therefore, the Project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact is identified for this issue area.

c) **No Impact.** The land use and zoning designation within the Project area does not include designated forest land or timberland uses. Furthermore, the Project does not propose the rezoning of areas within Buena Vista Park. Therefore, the Project does not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. No impact is identified for this issue area.

d) **No Impact.** Please refer to response c).

e) **No Impact.** Please refer to response c).

iii) Air Quality

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district 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) 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?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

San Diego Air Pollution Control District Rules and Regulations

The San Diego Air Pollution Control District (SDAPCD) has the authority to adopt and enforce regulations dealing with controls for specific types of sources, emissions of hazardous air pollutants, and New Source Review. The SDAPCD Rules and Regulations are part of the State Implementation Plan (SIP) and are separately enforceable by the U.S. Environmental Protection Agency. The following SDAPCD rules apply to the proposed Project:

- **Rule 51: Nuisance.** Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property.
- **Rule 55: Fugitive Dust Control.** Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site.

Thresholds of Significance

The SDAPCD has set quantitative emission thresholds to allow for an assessment of a project's impact on ambient air quality. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 3-1 are exceeded. The pounds per day standards apply to the Project.

For CEQA purposes, these screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality.

Table 3-1. Thresholds of Significance for Air Quality Impacts

Pollutant	Emissions (pounds per day)	
	Construction	Operations
Reactive Organic Gases	250	250
NO_X	250	250
SO_X	250	250
CO	550	550
Respirable Particulate Matter (PM_{10})	100	100
Fine Particulate Matter ($PM_{2.5}$)	67	67

Source: Rule 20.2 - New Source Review, Non-Major Stationary Sources. San Diego Air Pollution Control District. Revision Adopted April 27, 2016.

Notes:

CO=carbon monoxide; NO_X=nitrogen oxide; PM_{10}=particulate matter 10 micrometers or less; $PM_{2.5}$=particulate matter 2.5 micrometers or less; SO_X=oxides of sulfur

Impact Analysis

a) Less than Significant Impact. The applicable air quality plans are the SIP and San Diego County Regional Air Quality Strategy (RAQS). The SIP includes strategies and tactics to be used to attain and maintain acceptable air quality in the San Diego Air Basin. The RAQS is a separate document that contains a list of strategies to maintain acceptable air quality. Consistency with the RAQS is typically determined by two standards. The first standard is whether the proposed project would exceed assumptions contained in the RAQS. The second standard is whether the Project would increase the frequency or severity of existing air quality violations, contribute to new violations, or delay the timely attainment of air quality standards or interim reductions as specified in the RAQS.

The RAQS and SIP are intended to address cumulative impacts in the San Diego Air Basin based on future growth predicted by San Diego Association of Governments (SANDAG) in the 2050 Regional Growth Forecast Update. SANDAG uses growth projections from the local jurisdictions' adopted general plans; therefore, development consistent with the applicable general plan would be generally consistent with the growth projections in the air quality plans. Cumulative development would generally not be expected to result in a significant impact in terms of conflicting with RAQS because the cumulative projects would be required to demonstrate that the proposed development is consistent with local planning documents. However, some projects would involve plan amendments that would exceed the growth assumptions in the planning document and RAQS. Therefore, cumulative development in the San Diego Air Basin would have the potential to exceed the growth assumptions in the RAQS and result in a conflict with applicable air quality plans.

As discussed in Response b) below, the Mitigation Site in its proposed condition is not expected to result in any long-term regional air quality impacts. In addition, the short-term air quality emissions would not exceed any of the thresholds listed in Table 3-1. Therefore, the Project is consistent with and would not conflict with implementation of the SIP and RAQS. A less than significant impact is identified for this issue area.

b) Less than Significant Impact.

Construction Emissions

Construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew. Exhaust emissions from construction activities envisioned on-site would vary daily as construction activity levels change. The use of construction equipment on-site would result in localized exhaust emissions.

The most recent version of the California Emissions Estimator Model (CalEEMod) model (Version 2016.3.2) was used to calculate the construction emissions. The daily construction emissions from each phase of construction are shown in Table 3-2. The analysis assumes that construction would take approximately six months and begin in 2020. As shown in Table 3-2, the emissions from the construction of the Project would not exceed the SDAPCD thresholds. Therefore, the Mitigation Site's short-term air quality impacts are less than significant.

Table 3-2. Daily Construction Emissions

(lb/day)

Phase	CO	NO_X	Reactive Organic Gases	SO_X	PM_{10}	$PM_{2.5}$
Site Preparation	22.0	42.4	4.1	0.04	20.4	12.0
Grading	32.5	50.3	4.5	0.06	8.8	5.4
Construction	24.8	26.5	2.9	0.02	4.1	1.7
SDAPCD Threshold	550	250	250	250	100	67
Significant?	NO	NO	NO	NO	NO	NO

Notes:

CO=carbon monoxide; NO_X=nitrogen oxide; PM_{10}=particulate matter 10 micrometers or less; $PM_{2.5}$=particulate matter 2.5 micrometers or less; SDAPCD=San Diego Air Pollution Control District; SO_X=oxides of sulfur

In order to minimize dust emissions, all active grading areas would be watered at least twice per day, as required by SDAPCD Rule 55, which requires that visible dust emissions do not extend beyond the property line for more than 3 minutes in any 60-minute period. Appendix A presents the CalEEMod output reports with more detail.

Operational Emissions

Very minimal maintenance is required for operation of the facility amounting to only a few employee related trips to the Mitigation Site on any given day. Therefore, the operational emissions of the Project in its proposed condition would not exceed the SDAPCD thresholds. No mitigation measures are required.

c) **Less than Significant Impact.** Construction activities would result in short-term project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road heavy-duty diesel equipment. DPM contains gaseous hazardous air pollutants including acetaldehyde, acrolein, benzene, 1, 3-butadiene, formaldehyde and polycyclic aromatic hydrocarbons. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer time period. Health risk assessments, which determine the exposure of sensitive receptors to hazardous air pollutant emissions, are typically based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Project.

The closest sensitive receptors to the portion of the Mitigation Site where heavy construction equipment would be used are located at a distance of approximately 400 feet. Additionally, as presented earlier in Table 3-2, maximum daily particulate emissions, which include DPM, would be relatively low. Furthermore, the construction period would be relatively short (approximately six months), especially when compared to 70 years. Combined with the highly dispersive properties of DPM, construction-related emissions of hazardous air pollutants would not expose sensitive receptors to substantial emissions of hazardous air pollutants. A less than significant impact is identified for this issue area.

d) **Less than Significant Impact.** The Project would not create objectionable odors affecting a substantial number of people. Land uses commonly considered to be potential sources of odorous emissions include wastewater treatment plants, sanitary landfills, food processing facilities, chemical manufacturing plants, rendering plants, paint/coating operations, and concentrated agricultural feeding operations and dairies. The construction of the Mitigation Site could generate fumes from the operation of construction equipment, which may be considered objectionable by some people. However, such exposure would be short-term or transient. In addition, the number of people exposed to such transient impacts is not considered substantial. Therefore, a less than significant impact is identified for this issue area.

iv) Biological Resources

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 state or federally protected wetlands (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 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 Analysis

a) Potentially Significant Unless Mitigation Incorporated. The implementation of the proposed improvements within the limits of the proposed Mitigation Site 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 CDFW or USFWS.

Direct Impacts (Special-status Plant Species). No federally and/or state-listed plant species have been observed in the Mitigation Site (Appendix B). Therefore, no impacts on federally listed plant species would occur.

Three non-listed plant species considered special-status were observed in the Mitigation Site during focused surveys: California adolphia (*Adolphia californica*), California Rare Plant Rank 2B.1), San Diego marsh-elder (*Iva hayesiana*, California Rare Plant Rank 2B.2), and San Diego sagewort (*Artemisia palmeri*, California Rare Plant Rank 4.2). The special status botanical species occurring within the Mitigation Site are not located within grading areas and would not be directly impacted by the Project. Therefore, the Project would not have a substantial adverse effect, either directly or through habitat modifications, on these non-listed special-status plant species.

Direct Impacts (Special-status Wildlife Species). Potential impacts on special-status wildlife species from construction would primarily be in proposed rehabilitation and establishment areas. Construction activities would include minor grading and creation of a braided stream to correct hydrological imperfections of Roman Creek.

Potentially suitable foraging and breeding habitat for the federally and state-listed endangered least Bell's vireo (*Vireo bellii pusillus*; LBVI) and southwestern willow flycatcher (*Empidonax traillii extimus*; SWFL) and the federally threatened coastal California gnatcatcher (*Polioptila californica californica*; CAGN) is present within the Mitigation Site, although none of these species were detected during focused surveys (Appendix B). Suitable habitat for tri-colored blackbird is located just north of the proposed project improvements, although direct impacts to that habitat is not proposed. Implementation of the Project would temporarily remove 0.49 acre and permanently remove approximately 0.004 acre of potentially suitable habitat for LBVI and SWFL. Should any of these species utilize the site in the future and vegetation removal occurred during the breeding season (March 15-September 15, collectively), impacts on these species would be significant. Implementation of Mitigation Measure BIO-4 would avoid direct impacts on these species while nesting and would reduce impacts to a level less than significant.

Suitable nesting and foraging habitat for birds protected by the Migratory Bird Treaty Act and California Fish and Game Code 3300-5500 occurs within and adjacent to the project footprint and a nesting red shouldered hawk was specifically observed in the eucalyptus woodland. Direct impacts may also occur on nesting birds, including tri-colored blackbird, white-tailed kite, or yellow warbler. These direct impacts on an active nest would be considered significant. Implementation of mitigation Measures BIO-1 and BIO-5 would reduce impacts on nesting birds to a level less than significant.

Implementation of the Project would result in a temporary reduction in mature trees; however, sufficient mature eucalyptus, coast live oaks, and arborescent willows (3.57acres) would continue to be available within the site for nesting in addition to abundant woodland habitat available nearby in Agua Hedionda Creek while the 6.88 acres of potential raptor nesting habitat (including , oak-willow alliance, and coast live oak alliance) is restored, enhanced and established following project completion (Appendix B). Therefore, the temporary loss of raptor nesting habitat is not significant.

Direct impacts on California glossy snake (*Arizona elegans*), orange-throated whiptail (*Aspidoscelis hyperythra*), southern California legless lizard (*Anniella stebbinsi)*, coastal whiptail (*Aspidoscelis tigris stejnegeri*), red-diamond rattlesnake (*Crotalus ruber*), coast patch-nosed snake (*Salvadora hexalepis*), coast horned lizard (*Phrynosoma coronatum*), two-striped garter snake (*Thamnophis hammondii*), south coast gartersnake (*Thamnophis sirtalis* pop.1), Dulzura pocket mouse (*Chaetodipus californicus femoralis*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), western yellow bat (*Lasiurus xanthinus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepida intermedia*), and American badger (*Taxidea taxus)*, if present in the project area, could result from grading operations. Most of these species would be able to move out of the project area when disturbance begins. Given the wide range of habitats that these species use, their wide geographic range, the loss of a small number of individuals would not significantly alter these species' future survival. Implementation of standard wildlife preservation measures as part of Mitigation Measure BIO-6 would minimize impacts on these species (Appendix B). These impacts would be considered less than significant after mitigation.

Direct impacts on both western spadefoot toad *(Spea hammondi*i) and western pond turtle (*Actinemys marmorata*) could result from grading and could be significant. Implementation of Mitigation Measure BIO-4 would reduce these impacts to a level less than significant.

The Project would involve the rehabilitation and establishment of areas within the study area that would increase the quantity and quality of suitable habitat for special-status wildlife species, therefore, construction impacts would be temporary and operation impacts would be beneficial. In addition, no construction activities are proposed for the enhancement areas at this time; however, planting activities could be proposed in order to improve upon the existing riparian habitat. Future improvements to the riparian habitat or hydrology would be beneficial to the existing habitat for special-status wildlife species. In this context, direct impacts on special-status wildlife species would be less than significant.

Indirect Impacts (Special-Status Plant Species). No federally or state-listed botanical species occur within the Project site; therefore, the project would not result in indirect impacts on federally or state-listed botanical species.

Special status botanical species recorded on site could be subject to indirect impacts from construction including dust, inadvertent crushing or removal, changes in hydrology during or as a result of construction, or introduction of invasive species. Given the relatively wide geographic range of the special status botanical species occurring on site and the quantity of suitable habitat preserved in the region, temporary short-duration indirect impacts are not expected to significantly alter these species' future survival.

Indirect Impacts (Special-status Wildlife Species). The Mitigation Site supports suitable habitat for CAGN, LBVI, and SWFL. However, none of these species were observed within the project area during focused surveys. Since the project area supports suitable habitat for these species, there is potential for them to occur within the Mitigation Site during Project activities. Indirect impacts to these species during construction or long term management such as reduction in the quality of occupied habitat from dust or noise, disruption of nesting, interfering with communication between adults or adults and juveniles, or introduction of nest predators would be considered significant (Appendix B). Implementation of Mitigation Measure BIO-1, BIO-2, BIO-4, and BIO-7 would reduce potential indirect impacts on CAGN, LBVI, and SWFL to a level less than significant.

Construction of the project may have indirect impacts on birds protected by the Migratory Bird Treaty Act and California Fish and Game Code 3500-5500, including tri-colored blackbird, white-tailed kite, and yellow warbler, to a level less than significant. Length and timing of the construction of the project could coincide with the bird breeding season (January 15 – September 15) and could result in indirect effects on these species (e.g., temporary loss of preferred/suitable nesting areas or degradation of suitable habitat due to noise and dust). However, the temporary short-duration of these potential impacts to a small number of non-federally-listed species would not be expected to significantly alter these species' survival.

Indirect impacts on California glossy snake, orange-throated whiptail, southern California legless lizard, coastal whiptail, red-diamond rattlesnake, coast patch-nosed snake, coast horned lizard, two-striped garter snake, south coast gartersnake, Dulzura pocket mouse, northwestern San Diego pocket mouse, western yellow bat, San Diego black-tailed jackrabbit, San Diego desert woodrat, and American badger, if present in the project area, could result from construction-related dust, noise and water quality effects from equipment working in or around the study area. Noise, dust and water quality impacts on other special-status species would be temporary and of relatively brief duration. Wildlife could temporarily move out of the area in response to these temporary construction disturbances. Therefore, impacts on special-status wildlife species would be less than significant.

Mitigation Measures

BIO-1 Implement Biological Resource Protection Measures During Construction. The City will implement the following BMPs, which are consistent with BMPs in the Habitat Mitigation Plan, 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 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., 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 Worker Environmental Awareness Program training before they commence with work. The training shall advise workers of potential impacts on special-status vegetation communities and special-status species, and the potential penalties for impacts on such vegetation communities and species. At a minimum, the training shall include the following topics: (1) occurrences of special-status species and special-status vegetation communities in the Project area (including vegetation communities subject to USACE, CDFW, and Regional Water Quality Control Board [RWQCB] jurisdiction), (2) the purpose for resource protection; (3) sensitivity of special-status species to human activities; (4) protective measures to be implemented in the field, including strictly limiting activities, vehicles, equipment, and construction materials to the fenced to avoid special-status resource areas in the field (i.e., avoided areas delineated on maps or on the Project site by fencing); (5) environmentally responsible construction practices; (6) the protocol to resolve conflicts that may arise at any time during the construction process; (7) reporting requirements and procedures to follow should a special-status species be encountered during construction; and, (8) avoidance and minimization measures designed to reduce the impacts on special-status species.

d. The training program shall include color photos of special-status species and special-status 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 special-status 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 special-status 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 appropriate regulatory agency within 24 hours of being noticed.

e. The Project Biologist shall be authorized to halt work, if necessary, and contact the appropriate regulatory agencies in collaboration with the City 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 appropriate regulatory agencies 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 special-status vegetation communities 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 special-status vegetation communities outside of and adjacent to the designated Project limits of disturbance shall be designated as 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 special-status habitats and special-status 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 appropriate regulatory agencies 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 and the appropriate regulatory agencies. 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 special-status vegetation communities 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 special-status vegetation communities. 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 store all construction-related vehicles and equipment in the designated staging areas. These areas shall not contain native or special-status vegetation communities and shall not support special-status plant or wildlife species.

o. 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.

p. 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.

q. Capture and relocation of trapped or injured wildlife listed under the federal Endangered Species Act or the California Endangered Species Act 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.

r. The City shall be notified within one working day of the discovery of, injury to, or mortality of a special-status plant or wildlife 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 U.S. Geological Survey 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.

s. The spread of dust from work sites to special-status vegetation communities or habitats for special-status species 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.

t. 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.

u. 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.

v. To prevent harassment, injury, or mortality of special-status wildlife species by dogs or cats, no canine or feline pets shall be permitted in the active construction area.

w. 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.

x. 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.

y. 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 secondary containment unit shall be used by the Contractor.

z. The Contractor shall be required to conduct vehicle refueling in upland areas where fuel cannot enter WOUS or waters of the state and in areas that do not have suitable habitat 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.

aa. 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.

bb. 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.

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

dd. 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 WOUS or waters of the state and in areas that do not have suitable habitat to support federally and/or state-listed species.

BIO–4 Avoid and Minimize Direct and Indirect Impacts on Least Bell's Vireo, Southwestern Willow Flycatcher, and coastal California Gnatcatcher.

The removal of native vegetation and habitat shall be avoided and minimized to the maximum extent practicable. For temporary impacts, the work site shall be graded and revegetated with appropriate native species as detailed in the Habitat Mitigation and Monitoring Plan for the Project.

Contractor shall, to the maximum extent practicable, avoid removing suitable habitat for coastal California gnatcatcher (coastal sage scrub habitats) and least Bell's vireo and southwestern willow flycatcher (all riparian and coast live oak alliances) during their respective breeding seasons (February 15 through August 31 for coastal California gnatcatcher) and March 15 through September 15 for least Bell's vireo and southwestern willow flycatcher collectively).

i. Should least Bell's vireo or southwestern willow flycatcher habitat removal occur during these timeframes, a qualified biologist will conduct three pre-construction surveys within 7 days of the initiation of suitable habitat removal. The final survey shall be conducted within 24 hours of vegetation removal. If either species is detected, work will be halted until the species is no longer present, CDFW, USACE, and USFWS will be notified for consultation. Work may proceed upon authorization by CDFW, USACE, and USFWS.

ii. A qualified biologist will conduct three pre-construction surveys within 7 days of the initiation of suitable habitat removal. The final survey shall be conducted within 24 hours of vegetation removal. If coastal California gnatcatcher is detected, work will be halted until the species is no longer present, CDFW, USACE and USFWS will be notified for consultation. Work may proceed upon authorization by CDFW, USACE, and USFWS.

BIO-5 Avoid Impacts on Migratory and Nesting Birds. If construction activities occur between January 15 and September 15, a preconstruction nesting bird survey (within seven days prior to construction activities) shall be conducted by a qualified biologist to determine if active nests are present within the area proposed for disturbance 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 [USFWS/CDFW], upon request) prior to initiation of any construction activities.

BIO-6 Conduct Pre-Construction Surveys for Western Spadefoot and Southwestern Pond Turtle. Prior to ground-disturbing activities in or near aquatic habitats, preconstruction surveys for western spadefoot and southwestern pond turtles will be conducted to determine their presence or absence within the construction footprint. If western spadefoot are found within the construction footprint, the occupied habitat and appropriate buffer, as determined by a qualified biologist, will be avoided to the maximum extent practicable. If avoidance is not possible and the species is determined to be present in work areas the project biologist will consult with the Wildlife Agencies to determine appropriate measures to avoid and minimize take of individuals.

If western pond turtles are found within the construction footprint, the occupied habitat and appropriate buffer, as determined by a qualified biologist, will be avoided to the maximum extent practicable. If avoidance is not possible and the species is determined to be present in work areas, the biologist may capture turtles prior to construction activities and relocate them to nearby suitable habitat a minimum of 300 feet downstream from the work area. Alternatively, if recommended/approved by the Wildlife Agencies, the turtles may be captured and either temporarily held or relocated to an appropriate nearby location.

BIO-7 Implement Long-Term Management Plan. A Long-Term Management Plan shall be prepared and implemented. The Long Term Management Plan shall include measures to minimize the potential introduction of invasive species during maintenance activities including, but not limited to: washing all equipment, clothing, boots, and vehicles prior to entering the site from another location, remove invasive species before seeding to the maximum extent feasible, collect all plant material removed during maintenance securely, such as in a burlap bag, and remove from the site. The plan shall prohibit the use of pesticides or herbicides with potential toxicity to aquatic or terrestrial wildlife species. Maintenance shall be conducted outside of the bird breeding season (February 15 to September 15) to the maximum extent feasible. If maintenance must occur during the breeding season, a qualified biologist shall conduct pre-construction nesting bird surveys and direct maintenance staff to areas not occupied by breeding birds. The plan shall include contingency erosion control BMP's should they be needed following especially large storms.

b) Potentially Significant Unless Mitigation Incorporated. Implementation of the Mitigation Site would result in the following impacts on riparian habitat or other sensitive natural communities 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.

Direct Impacts. The Mitigation Site supports 12 special-status vegetation communities. Mixed willow riparian forest, which includes black willow thickets that have a state rank of S3; and Oak-willow alliance, and cattail marsh communities, which are all regulated pursuant to the Clean Water Act and/or State Fish and Game Code Section 1600, as well as being identified for no net loss within the MHCP; Coast live oak alliance is regulated pursuant to Public Resources Code § 21083.4 and by State Fish and Game Code Section 1600 where it is associated with streambed, as well as being identified as a rare upland habitat in the MHCP; Coastal sage scrub and chaparral communities (California sagebrush scrub, California sagebrush-buckwheat scrub, California sagebrush-black sage scrub, buckwheat scrub, coyote brush scrub, sugarbush chaparral and chamise chaparral), which are targeted by the MHCP for preservation at a 2:1 and 1:1 ratio, respectively; and Annual grassland (annual brome grassland and red brome grassland), which is targeted by the MHCP for preservation at a 0.5:1 ratio. (Figure 3-2).

The goal of the Project is to implement hydromodification mitigation strategies, establish and enhance wetland and nonwetland WOUS and CDFW-regulated streambed, and restore and enhance upland buffer habitat. The Project would result in direct impacts on vegetation communities as summarized in Table 3-3.

Table 3-3. Mitigation Site Implementation: Anticipated Vegetation

Vegetation Community	Existing (acres)	Temporary Loss (acres)	Proposed within the SDG&E Easement (acres)***	Proposed not including SDG&E Easement (acres)	Net Change (acres)
Tree-dominated habitats					
Coast live oak alliance*	2.47	0.39	0.16	2.31	-
Eucalyptus woodland (non-native/invasive community)	1.32	—		0.08	-1.24
Mixed willow riparian*	0.75	—		0.75	—
Oak–willow alliance*	2.68	0.49	0.84	3.64	+1.95
Ornamental (planted)	0.47	—	—	0.47	—
Shrub-dominated habitats					
California buckwheat scrub	0.59	—	0.20—	0.74	+0.35
California sagebrush scrub	0.49	—	0.15—	0.36	+0.02
California sagebrush– black sage scrub	0.73	—	0.04—	0.82	+0.13
California sagebrush– California buckwheat scrub	0.94		0.40	0.66	+0.12
Chamise chaparral	0.22	—	0.09—	0.13	—
Coyote brush scrub	0.31	—	0.07—	0.24	—
Mulefat Scrub**	0.00	—	0.26—	0.00	+0.26
Sugarbush chaparral	0.04	—	0.04—		—
Tamarisk thickets (non-native/invasive community)	0.04	—	—	0.00	-0.04

Table 3-3. Mitigation Site Implementation: Anticipated Vegetation

Vegetation Community	Existing (acres)	Temporary Loss (acres)	Proposed within the SDG&E Easement (acres)***	Proposed not including SDG&E Easement (acres)	Net Change (acres)
Herbaceous-dominated habitats					
Annual brome grassland (non-native/invasive community)	2.04	—	—	0.00	-2.04
Cattail marsh*	0.31	—	—	0.31	—
Emergent Marsh**	0.00	—	0.20—	0.00	+0.05
Native grassland**	0.00	—	—	1.68	+1.68
Red brome grassland (non-native/invasive community)	0.81	—	—	0.00	-0.81
Other land cover types					
Disturbed habitat	2.19	—	0.31—	1.45	-0.43
Un-vegetated Stream**	0.00	—	—	0.08	+0.08
Urban/Developed	0.28	—	—	0.28	—
Total	**16.7**	**0.88**	**2.76**	**13.92**	**0.00**

Source: Appendix B

Notes:

* Special-status Vegetation Communities

** Proposed establishment, community does not currently exist within the Mitigation Site

***Restored impact areas are included within the Proposed Vegetation Columns. Vegetation within SD&G Easement is, and will continue to be subject to maintenance

As seen in Table 3-3, permanent impacts on vegetation communities would generally be limited to the conversion of non-native vegetation communities (eucalyptus woodland, annual brome grassland, and red brome grassland) to special-status native vegetation communities. As shown on Figure 2-7 implementation of the proposed Project would require earth movement at one or more locations within the site that support special-status vegetation communities. Implementation of the Project results in a 2.26-acre net increase in wetland and riparian habitat including wetland and non-wetland WOUS and CDFW-regulated streambed habitat (oak-willow alliance, mulefat scrub, emergent wetland, and unvegetated streambed) and enhancement of 2.68 acres of Oak-Willow Alliance and 2.47 acres of Coast Live Oak Alliance. However, grading will temporarily impact 0.49-acre of CDFW-regulated oak-willow alliance and 0.39 acre of CDFW-regulated Coast Live Oak Alliance where excavation must occur within the existing creek to integrate hydrologic and habitat functions as well as during construction of the two proposed grade control structures.

The removal and replacement of the pedestrian bridge would be completed without impacting special-status vegetation communities. Additionally, the installation of rock weirs by hand within the incised, unvegetated portions of the existing channel would not adversely impact special status vegetation, and would further stabilize the existing channel by trapping sediment and slowing water velocities.

The grade control structures are required to prevent the deep incision observed in the lower half of the existing creek from migrating upstream and causing both the existing and proposed wetland, which is situated in the active floodplain, from becoming disconnected from the active channel. However, construction of the grade control structures results in permanent impacts to 0.004-acre of Oak-Willow alliance and 0.004 acre of unvegetated streambed due to displacement by the structure. The permanent loss of up to 0.004 acre of Oak-Willow Alliance would be significant in the absence of mitigation. Similarly, the temporary loss of aquatic function that would occur between project construction and maturation of restored oak-willow and coast live oak riparian habitat would be significant prior to mitigation. Mitigation Measures BIO-1 and BIO-2 would reduce impacts to less than significant.

The channel adjacent to the southerly terrace proposed for grading and vegetated with coast-live oak woodland is very incised. Many of the oak trees are in danger of being undercut and toppling over time absent any corrective action to the streambed. The Project would result in no net loss of coast live oak alliance; however, grading will temporarily impact 0.39-acre of coast live oak alliance where excavation must occur within the existing channel to tie in the secondary channel at its upstream and downstream ends. In addition, the loss of any individual oak trees with a diameter at breast height of greater than or equal to 5 inches would be considered significant prior to mitigation**.** Mitigation Measures BIO-3 would reduce these impacts to a level less than significant.

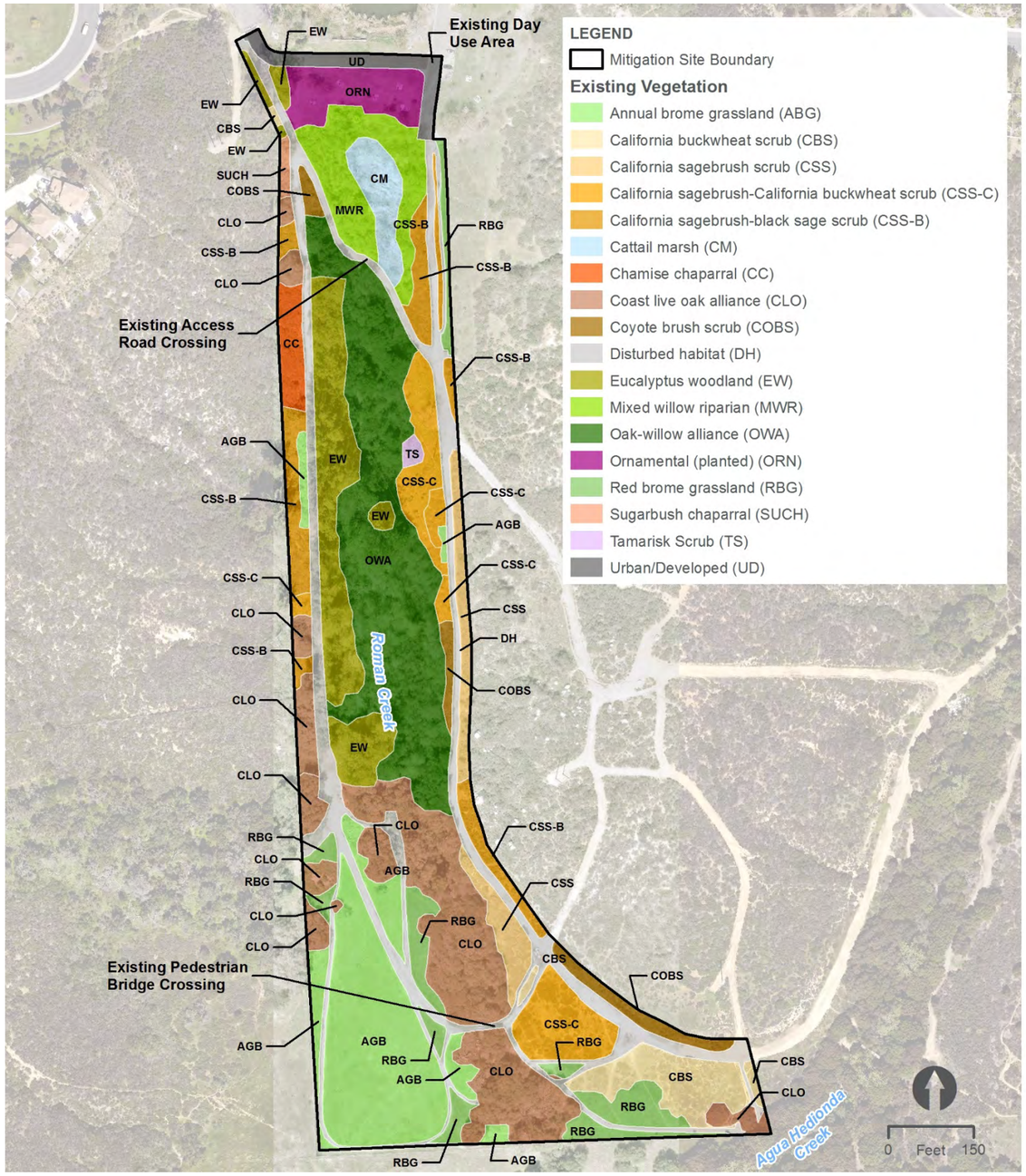
The Project would also result in the net loss of 1.18 acres of annual (non-native) grassland habitat, however it results in the preservation and long term management of 1.67 acres of native grassland. Annual grassland provides raptor foraging habitat and is an important component of dynamic CAGN dispersal and foraging habitat. The net loss of annual grassland is considered significant prior to mitigation. The net loss of non-native grassland would be significant prior to mitigation. Mitigation Measures BIO-1 and BIO-2 would reduce impacts to less than significant.

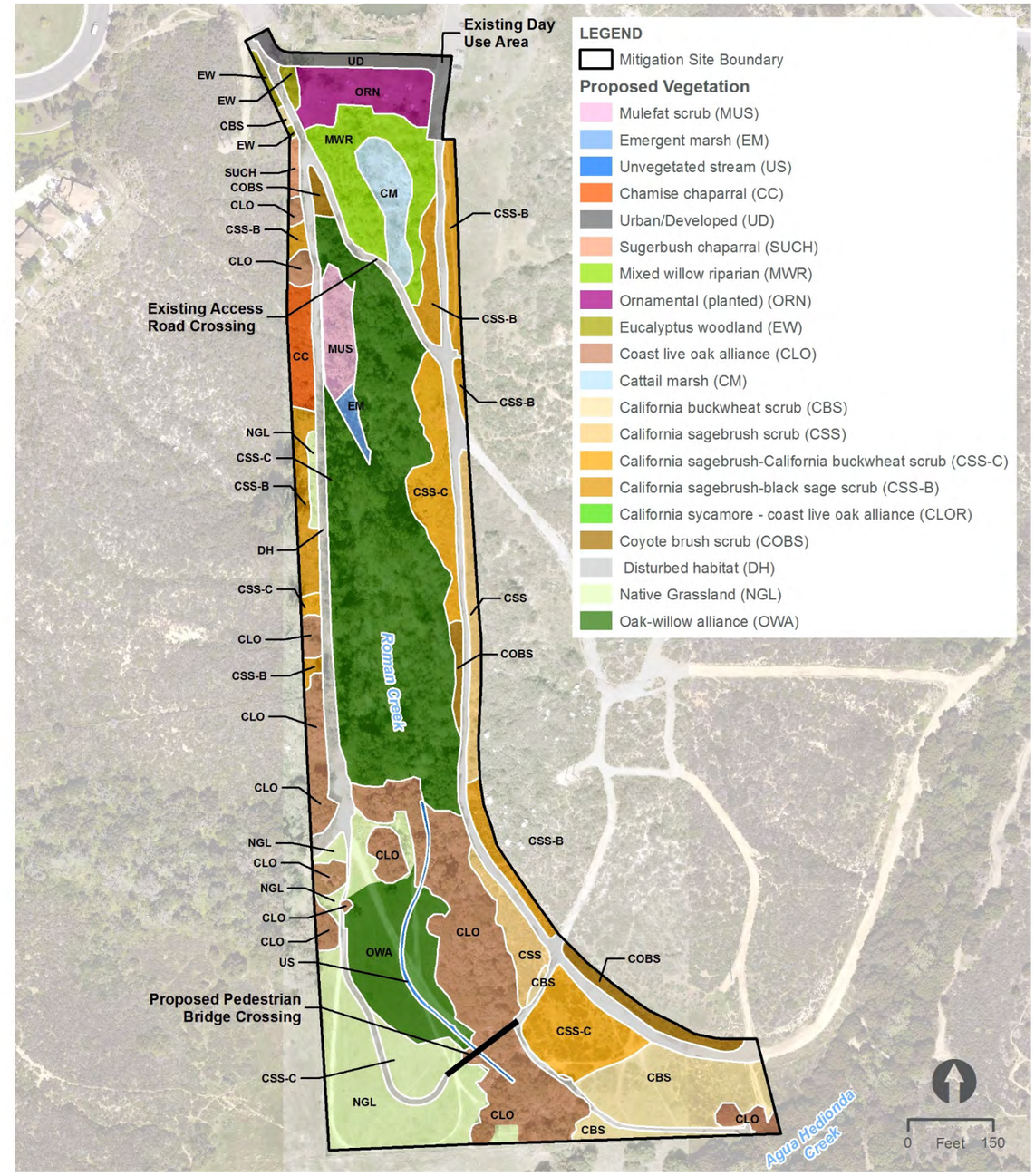
The Project would result in the preservation and long term management of 3.68 acres of coastal sage scrub and 0.26-acre of chaparral of which 2.24 acres consists of coastal sage scrub, restoration. As communities with potential to support a wide variety of native species including federally-threatened California gnatcatcher, the net increase in coastal sage scrub is beneficial to the function of the project site and the Focus Planning Area in which it is located. Therefore, the Project would result in no significant adverse effects on coastal sage scrub or chaparral habitats.

Indirect Impacts. Construction activities would occur on the margins of Roman Creek, which may result in indirect impacts on special-status vegetation communities as a result of increased dust, changing erosion patterns, introduction of invasive species, and reducing water quality (Appendix B). The contractor would be required to comply with all state and federal air quality and water quality regulations (e.g., National Pollutant Discharge Elimination System General Construction Permit). However, if special status habitats are removed outside of authorized limits, impacts would be considered significant. Mitigation Measures BIO-1 and BIO-2 would reduce impacts to less than significant.

The Mitigation Site would be subject to short-term and long-term monitoring and management, which would include active management such as invasive species removal, trash removal, fence maintenance and repair, monitoring and as-needed adaptive management. Maintenance and monitoring activities have the potential to 1) introduce exotic species that would degrade habitat quality for wildlife, 2) introduce pollutants to Roman Creek through the use of herbicides and pesticides or poor erosion control and 3) disrupt nesting birds if maintenance or monitoring activities are conducted during the breeding season. In addition, the Project restoration activities carry the potential to introduce invasive Polyphagous and Kuroshio shot hole borers (ISHB), which are documented within 6 miles of the proposed Mitigation Site. These impacts would be significant prior to mitigation. Mitigation Measures BIO-2, BIO-3, BIO-7, and BIO-8 would reduce these potential ecosystem impacts to less than significant.

Figure 3-2. Existing and Proposed Vegetation





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Mitigation Measures

BIO-2 Avoid, Minimize and Compensate for, Direct and Indirect Impacts on Special- Status Vegetation Communities. Temporary impacts on special-status vegetation communities, including Oak-Willow Alliance, Coast Live Oak Alliance and unvegetated streambed will be restored onsite pursuant to the Habitat Mitigation and Monitoring Plan for the Project. Compensatory mitigation for the temporary loss of function associated with Oak-Willow Alliance and Coast Live Oak Alliance while restored areas mature, will consist of 1:1 enhancement as proposed by the Project herein.

Compensatory mitigation for the net loss of non-native grassland shall consist of preservation and long-term management of native grassland established onsite per the Habitat Mitigation and Monitoring Plan for the Project at a 0.5:1 ratio.

Permanent impacts on jurisdictional aquatic resources will be mitigated at a 3:1 ratio for USACE wetlands and CDFW riparian habitats and at a 2:1 ratio for non-wetland WOUS 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 through consultation with the resource agencies. Mitigation shall first be considered onsite, 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 will finalize the mitigation requirements.

BIO-3 Conduct Oak Tree Survey and Avoid, Minimize and Compensate for Direct and Indirect Impacts on Oak Trees. A certified arborist shall conduct an oak tree survey to document the size and health of each oak tree within the grading area. Heritage oak trees shall be assessed to determine the feasibility of boxing and relocating those trees to the proposed onsite oak riparian establishment area. All oak trees greater than 5 inches diameter at breast height shall be replaced in-kind at a 3:1 ratio by planting acorns and container plants at the proposed onsite oak riparian establishment area. Planting of acorns has been demonstrated to be the most effective technique for native oak tree establishment; however, a mix of acorns and container plants (1-gallon and 5-gallon) may be used to provide a variety of size classes in the establishment area. Acorns shall be collected onsite for planting in the establishment area. In addition, soil from existing oak riparian and woodland habitats within the grading area shall be collected and used in the acorn and container plant soil pits to serve as a source of inoculum for mycorrhizal fungi and other beneficial soil microorganisms and invertebrates.

BIO-8 Invasive Pest Control. The City shall implement the following best management practices during Project construction to avoid the introduction and spread of invasive ISHBs:

a. Conduct baseline assessment of the site for the presence of ISHBs

b. Educate on-site workers regarding ISHB and its spread;

c. Report signs of ISHB infestation, including sugary exudate ("weeping") on trunks or branches and ISHB entry/exit-holes (about the size of the tip of a ballpoint pen), to the Department and University of California Riverside's Eskalen Lab (www.pshb.org);

d. Disinfect equipment that may have come into contact with infected wood;

e. Prune infected limbs in infested areas where project activities may occur;

f. Inspect container stock for sign of infestation before accepting delivery;

g. Chip potential host materials to less than 1 inch and sterilize, prior to delivering to a landfill, biogeneration facility or commercial composting facility;

h. Chip potential host materials to less than 1 inch and sterilize (via solarization or equivalent method), prior to composting on site;

i. Sterilize cut logs using solarization or equivalent method;

j. If infested wood cannot be treated on site, cover wood tightly while being stored on site and in transit to other facilities for treatment; and

k. Conduct regular inspections of susceptible species on site; prune or remove as needed. Follow reporting and disposal methods described above.

c) Potentially Significant Unless Mitigation Incorporated. Implementation of the Mitigation Site would result in the following impacts 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 Impacts. The Project would require vegetation clearing, grading, and excavation that would temporarily impact federally protected wetlands and other WOUS and state-regulated streambed and riparian resources (Appendix B). However, following construction and replanting with native riparian vegetation, there would be a net increase in area subject to USACE and CDFW jurisdiction (Table 3-4).

Table 3-4. Existing and Proposed United States Army Corps of Engineers and California Department of Fish and Wildlife

Jurisdictional Type	Existing (acres)	Proposed (acres)	Net Increase (acres)
USACE			
Wetland WOUS	1.91	2.46	0.55
Non-wetland WOUS	1.48	1.80	0.32
Total	3.39	4.26	+0.87
CDFW			
Riparian	5.13	7.44	2.26
Un-vegetated Streambed	0.04	0.04	--
Total	5.17	7.48	2.26

Source: Appendix B

Notes:

CDFW=California Department of Fish and Wildlife; USACE=United States Army Corps of Engineers; WOUS=waters of the United States

Implementation of the Project results in the establishment of 2.22-acre of CDFW-regulated riparian habitat consisting of Oak-Willow Alliance, Mulefat Scrub and Emergent Wetland. Soil excavation is required to lower the existing ground surface elevation below the creek's ordinary high water mark and widen the active flood plain, thereby reducing surface water velocities, establishing WOUS and providing the necessary hydrology to support wetland WOUS and CDFW-regulated riparian habitat. Excavation will temporarily remove up to 0.49-acre of CDFW-regulated Oak-Willow Alliance and 0.39 acre of CDFW-regulated Coast Live Oak Alliance where the proposed establishment sites tie into the existing creek. Excavation will temporarily impact up to 0.16-acre of wetland WOUS and 0.52 acre of non-wetland WOUS where the proposed establishment sites tie into the existing creek.

Installation of the two grade control structures are proposed to prevent the deep incision observed in the lower half of the existing creek from further migrating upstream and causing the loss of additional floodplain functions. Construction of the grade control structures results in permanent impacts to 0.008-acre of CDFW-regulated riparian habitat due to displacement by the structure. Construction of the grade control structures results in permanent impacts to 0.005-acre of wetland WOUS and 0.003 acre of non-wetland WOUS due to displacement by the structure.

The installation of rock weirs by hand within the incised, unvegetated portions of the existing channel would not adversely impact special status vegetation, and would further stabilize the existing channel by trapping sediment and slowing water velocities.

The proposed changes to creek morphology, in combination with the proposed establishment of additional wetland and riparian habitats, are expected to improve a variety of aquatic biogeochemical functions including dissipating the energy of floodwaters thereby reducing storm water velocities and reducing erosion: increasing groundwater infiltration and evapotranspiration rates, thereby increasing short-term and long-term storm water storage on site; detention of particulates and related reduction in deleterious elements and compounds in surface waters; and increasing wildlife benefits. Additionally, the Project would include the removal of eucalyptus woodland, which currently adds allelochemicals to the creek and promotes erosion by prohibiting the growth of protective ground covers. Therefore, the entire reach of Roman Creek from the existing dirt road crossing to the property boundary totaling 4.12 acres will exhibit enhanced hydrologic function in addition to more standard enhancement methods including invasive species removal and long-term management.

Pedestrian bridge removal and replacement would be completed without impacting special-status vegetation communities. could the lengthening of the bridge will result in improved hydrologic conditions at the current bridge location, which currently experiences impeded and constrained storm flows. In addition, a series of rock

weirs may be installed in the unvegetated, incised portions of the existing creek. However, constructing these would have minimal impact to existing vegetation because they could be constructed without mechanized equipment while having a beneficial impact on hydrology.

The permanent loss of 0.009 acre of CDFW-regulated riparian habitat and 0.009-acre of WOUS, including 0.006 acre of wetland, would be significant prior to mitigation. Similarly, the temporary loss of aquatic function that would occur between project construction and maturation of 0.009 acre of restored Oak-Willow Alliance (including 0.16 acre of wetland WOUS) and coast live oak riparian habitat would be significant prior to mitigation. Implementation of BIO-1 and BIO-2 would reduce impacts to less than significant.

All impacts on WOUS, including wetlands, and CDFW-regulated streambed, including riparian habitat, would require Clean Water Act Section 404 and Section 401 authorizations as well as a state streambed alteration agreement, as described in Mitigation Measure BIO-2.

Indirect Impacts. Construction activities would occur on the margins of Roman Creek, which may result in indirect impacts on USACE- and CDFW-regulated aquatic resources as a result of increasing dust, changing erosion patterns, and reducing water quality. The contractor would be required to comply with all state and federal air quality and water quality regulations (e.g., National Pollutant Discharge Elimination System General Construction Permit). Compliance with these regulations would minimize potential indirect effects on USACE- and CDFW-regulated resources. Therefore, the Project is not expected to result in adverse indirect effects on wetland or non-wetland WOUS or CDFW riparian habitat or streambed.

d) **Less than Significant Impact.** Implementation of the Mitigation Site would result in the following impacts on the movement of any native resident or migratory fish or wildlife species, on established native resident or migratory wildlife corridors, and on the use of wildlife nursery sites.

The Mitigation Site provides habitat for local small- to medium-bodied animal movement, but does not contribute to significant east-west wildlife movement. Implementation of the Project would improve cover for local wildlife movement and would not add barriers to movement. Large amounts of native habitat would remain available outside of the grading areas during construction to maintain wildlife access and movement. Therefore, wildlife movement would not be significantly impacted by the Project.

e) **No Impact.** The Project is consistent with local policies or ordinances protecting biological resources, as detailed in Table 3-6 of Section XI, Land Use and Planning. Therefore, no impact would occur.

f) **Less than Significant Impact.** The Project occurs within land identified as hardline preserve within the San Diego Multiple Habitat Conservation Program. The Vista Subarea Plan has not been completed and the City has not entered into an Implementation Agreement with the resource agencies. Therefore, the Project may not be authorized by the Multiple Habitat Conservation Program, but the proposed habitat restoration is consistent with allowed uses of preserve land. This is considered a less than significant impact.

v) Cultural and Tribal Cultural Resources

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐
d) Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code §21074?	☐	☒	☐	☐

Impact Analysis

a) Less than significant Impact. Project construction activities could include clearing and grubbing, grading, excavation and backfilling, and the removal of trees and vegetation. Based on the Project area of potential effect, one potential historic resource was identified within the area of direct impact. CA-SDI-5781H is a historic eucalyptus grove planted in 1888. As proposed, implementation of the Mitigation Site would include the removal of these eucalyptus trees. As the recorded resource is comprised entirely of eucalyptus trees, removal of the trees would destroy the site. The site has not been previously evaluated for significance and inclusion on the National Register of Historic Places (NRHP) or the California Register of Historic Resources (CRHR). As provided in Appendix C, the site CA-SDI-5781H is recommended as ineligible. Pending State Historic Preservation Officer concurrence, Project related impacts to historical resources as defined in Section 15064.5 of the CEQA Guidelines would be less than significant.

b) Potentially Significant Unless Mitigation Incorporated. As provided on Figure 2-7, the City applied probable work limits for construction for the Project. This included approximating the area of direct impact for construction, adjacent staging areas, and/or other temporary work and grading areas. The areas of potential grading are defined on Figure 2-7. As previously described, CA-SDI-5781H is recorded as a potential historic archaeological site within the area of potential effect that is recommended as ineligible for listing on listing on the CRHR and NRHP. Therefore, removal of the eucalyptus trees, including the associated stumps, in conjunction with restoration of the riparian corridor would not result in a significant impact to an archaeological resource as defined in Section 15064.5 of the CEQA Guidelines.

Although no resources were observed at the surface during the archaeological survey, research for the area suggests that excavation and grading activities may disturb buried subsurface, archaeological or historic artifacts, or features associated with the historic occupation of the Project area. The results of the record search indicate a high density of prehistoric habitation sites within 0.5 mile of the area of potential effect. Additional cultural material may be buried underneath the alluvial soils. As a result, the Project has the potential to cause significant impacts to buried cultural resources that may be eligible for listing on the CRHR and NRHP. In the absence of mitigation, Project related excavation may cause the destruction, relocation, or alteration of buried archaeological deposits that may be likely to yield information important to prehistory or history. This is considered a potentially significant impact and Mitigation Measure CULT-1 through CULT-5 is required prior to and during all grading or excavation. Following implementation of the proposed mitigation, this impact would be reduced to a level of less than significant.

Mitigation Measures

CULT-1 Cultural Resource Monitoring. Cultural resource mitigation monitoring shall be conducted on the site 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 traditionally and culturally affiliated (TCA) Native American Monitor associated with a TCA tribe for, but not limited to, any clearing or grubbing of vegetation, tree removal, demolition and/or removal of remnant foundations, pavements, abandonment and/or installation of infrastructure; grading or any other ground disturbing or altering activities, including the placement of any imported fill materials (note: all fill materials shall be absent of any and all cultural resources); and any related road improvements, including, but not limited to, the installation of infrastructure, realignments, and/or expansions to parking lots. 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 at least one pre-construction meeting with the Contractor and/or associated Subcontractors (e.g., Grading Contractor) and a representative from the City of Vista's Engineering or Community Development departments to present the archaeological monitoring program as presented in these measures.
- 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 Contractor or Grading Contractor shall notify the Director of Community Development & Engineering, preferably through e-mail, of the start and end of all ground-disturbing activities.
- 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 of Mission Indians (San Luis Rey Band), or other TCA tribe. 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 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, culturally appropriate treatment of those resources, including but not limited to funding an ethnographic or ethnohistoric study of the resource(s), and/or developing 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 or other TCA tribe shall be notified and consulted in drafting and finalizing any such recovery plan.

CULT-2 Grading Plan Review and Pre-Excavation Agreement. Prior to the submission of a grading plan to City staff for review, the Applicant or Owner, and/or Contractor shall enter into a Pre-Excavation Agreement with the San Luis Rey Band, or other TCA tribe. A copy of the agreement shall be included in the grading plan submission. The purpose of this agreement shall be to formalize protocols and procedures between the Applicant or Owner, and/or Contractor, and the San Luis Rey Band (or other TCA tribe) for the protection and treatment of, including but not limited to, Native American human remains, funerary objects, cultural and religious landscapes, ceremonial items, traditional gathering areas and cultural items, located and/or discovered through a monitoring program in conjunction with the construction of the proposed project, including additional archaeological surveys and/or studies, excavations, geotechnical investigations, off-site infrastructure installation, grading, and all other ground disturbing activities.

CULT-3 Cultural Resources Monitoring Report. Prior to the release of the Grading Bond, a Monitoring Report and/or Evaluation Report, which shall comply with Government Code Section 6254(r), shall be submitted by the Qualified Archaeologist, along with the TCA Native American Monitor's notes and comments, to the City Planner for the project administrative record.

CULT-4 Cultural Resource Repatriation. All cultural materials that are associated with burial and/or funerary goods shall be repatriated to the Most Likely Descendant as determined by the Native American Heritage Commission (NAHC) per California Public Resources Code Section 5097.98.

CULT-5 Cultural Resources Discovery. Recovered cultural material of historic significance, but not of tribal significance, shall be curated with accompanying catalog, photographs, and reports to a San Diego curation facility that meets federal standards per 36 CFR Part 79. Recovered cultural material of tribal cultural significance shall be repatriated as stipulated in the pre-excavation agreement as described in CULT-2.

c) Potentially Significant Unless Mitigation Incorporated. During Project grading and excavation activities, the potential for the unexpected discovery of interred human remains, either prehistoric or historic, is a possibility. The physical disturbance of any human remains, including those interred outside of formal cemeteries, would represent a significant, adverse impact in the absence of mitigation. Implementation of Mitigation Measure CULT-6 is proposed to reduce the potential for adverse impacts in the event of an accidental discovery of human remains during construction. With the proposed mitigation, this impact would be reduced to a level of less than significant.

d) Potentially Significant Unless Mitigation Incorporated. No Tribal Cultural Resources were identified by the records search or during the archaeological survey. On April 3, 2019 a letter was sent to the Native American Heritage Commission (NAHC) requesting a review of Sacred Lands File for any registered cultural resources, traditional cultural properties, or areas of heritage sensitivity within the vicinity of the Project area. The results of the Sacred Lands File were negative. However, the NAHC did provide a contact list of known Native American tribes that may have knowledge of cultural resources in the Project area. This letter correspondence is provided in Appendix C.

City staff consulted with California Native Americans representatives per the requirements of AB 52 on the potential impacts of the project. It was agreed that due to the cultural richness of the area, there could be potentially significant impacts (e.g., destruction or alteration) to unknown tribal cultural resources from grading or excavation during project construction. However, with the implementation of the proposed mitigation measures below, potential impacts to undiscovered tribal cultural resources would be reduced to a less than significant level.

Mitigation Measures

CULT-6 Discovery 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 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 within 24 hours. The Native American Heritage Commission would then 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 a TCA Native American monitor.

vi) Energy

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
i. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
ii. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Impact Analysis

a) **Less than Significant Impact**. Within the limits of the proposed Mitigation Site, the City is proposing the implementation a combination of habitat restoration and hydromodification improvements. The proposed improvements within the Mitigation Site would be limited to new signage, fencing, realignment or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. In conjunction with these improvements, the goal of the Mitigation Site would be to increase the extent of the existing riparian corridor along Roman Creek and replacement of non-native trees (e.g. eucalyptus). Therefore, during construction there would be temporary consumption energy from the operation of construction equipment.

Consumption of energy during construction would result primarily from transportation fuels (e.g. diesel and gasoline) for haul trucks, heavy-duty construction equipment, and construction workers traveling to and from the Project area. Construction would occur over a six month period and would follow standard construction practices. Standard construction equipment would also be used as the Mitigation Site does not present unique or special circumstance that would require the use of special equipment. Additionally, natural gas is not anticipated to be consumed in any substantial quantities during construction of the proposed Project. Therefore, the short-term construction activities related to Project improvements within the Mitigation Site, would not result in wasteful, inefficient, or unnecessary consumption of energy.

Operation of the Mitigation Site would return the area to Buena Vista Park with improved active recreational features as well as protected habitat areas the City would manage over the long-term for the conservation of biological resources. Therefore, once construction is complete, long-term consumption of energy would be negligible because the Mitigation Site would not involve new lighting, permanent improvements, or uses requiring energy or fuel to operate. A less than significant impact is identified for this issue area.

b) **No Impact.** The State of California adopted Assembly Bill 32 to address climate change and statewide greenhouse gases (GHG). Therefore, at the local level the City adopted a Climate Action Plan in 2019 (City of Vista 2019) which identifies 14 GHG reduction measures categorized under four categories which include: Energy, Transportation, Solid Waste, and Carbon Sequestration. These reduction measures provide guidance to reduce GHG emissions by at least 42 percent by 2030, below 2012 levels.

The following reduction measures and adaption strategies from the 2019 Climate Action Plan apply to the Project:

Measure W-1: Reduce Solid Waste Disposal and Increase Recycling. Achieve 85 percent waste diversion citywide (equivalent to reducing per capita waste landfilled to two lbs per person) by 2030.

Measures C-1: Increase Tree Planting at Municipal Facilities and Public Rights-of-Way. Develop a program to track tree planting and maintenance at city facilities, public parks, and public rights-of-way.

Adaption Strategy 3: Prepare for Increased Flood Risk

Measure FLOOD-3: Continue to promote and/or engage in local and regional ecosystem restoration efforts that will result in increased climate resiliency for flooding events within the city.

Adaptation Strategy 4: Prepare for Increased Wildfire Risk

Measure FIRE-2: Monitor/control invasive species by encouraging the removal of eucalyptus and other non-native vegetation from the wildland-urban interface.

As discussed further in Section VIII. GHG and XVIII Utilities and Service Systems, the Project improvements within the Mitigation Site would result in temporary GHG emissions during the six month construction phase. However, the Project would be built according to applicable local plans and state regulations, and implementation of the Mitigation Site would comply with the adopted BPO overlay as well as the resource reduction measures and actions identified above. Therefore, the Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. No impact is identified for this issue area.

vii) Geology and Soils

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause 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?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risk 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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Impact Analysis

ai) No Impact. The intent of the Alquist- Priolo Earthquake Fault Zoning Act is to reduce losses from surface fault rupture. According to the City's General Plan, there are no active faults within the City as listed under the Alquist-Priolo Earthquake Fault Zoning Act (City of Vista 2011). Therefore, there are no known active faults or mapped Alquist-Priolo Earthquake Fault Zones traversing through the Project area, and surface ruptures as a result of seismic activity is unlikely. No habitable structures or facilities would be constructed and no new improvements or land alterations are proposed outside of the Mitigation Site. No impact is identified for this issue area.

aii) Less than Significant Impact. The Project is located in the coastal section of the Peninsular Ranges Geomorphic Province (Appendix D). This geomorphic province encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin south to the southern tip of Baja California. The Peninsular Ranges Province is traversed by a group of sub-parallel faults and fault zones trending roughly northwest.

Major faults in the San Diego region include the Newport-Inglewood Rose Canyon Fault Zone, San Andreas, San Jacinto, Elsinore, Palos Verdes–Coronado Bank, San Diego Trough, and San Clemente faults. The Rose Canyon Fault Zone is the closest active fault to the Project at approximately 12 miles west of the City in the Pacific Ocean and is the prevailing zone of faulting within local vicinity. Fourteen earthquake events with magnitudes equal or greater than 5.0 have occurred within a radius of 60 miles of the Mitigation Site in the last 100 years (Appendix D). As a result, the Project area will likely experience strong ground movement at some point in the future.

Implementation of the Mitigation Site does not involve the construction of any buildings or other habitable structures that may be especially susceptible to seismic ground shaking. However, the pedestrian bridge that crosses over Roman Creek within the southern portion of the Mitigation Site would be replaced with a new foot bridge structure; which would be susceptible to seismic shaking. In response to these geological conditions, California has promulgated regulations that require new structures to meet minimum seismic design criteria and are housed in the California Building Code. Therefore, as part of the Project and as analyzed in Appendix D, to reduce the effects of ground shaking produced by regional seismic events, seismic design should be performed in accordance with the applicable building codes. The seismic parameters were calculated using United States Geological Survey U.S. Design Maps Application and in accordance with the 2016 California Building Code and American Society of Civil Engineers/Structural Engineering Institute 7-16 (2016). Compliance with applicable seismic design criteria and codes combined with local requirements would reduce the risk of bridge failure or collapse during an earthquake event. In this context, the Project would not result in substantial adverse effects, including the risk of loss, injury or death involving ground motion and this impact is less than significant impact.

aiii) Potentially Significant Unless Mitigation Incorporated. As defined in the Project's Geotechnical Design Report (Appendix D), the term liquefaction describes a phenomenon in which saturated, cohesionless soils temporarily lose shear strength (liquefy) due to increased pore water pressures induced by strong, cyclic ground motions during an earthquake. Structures founded on or above potentially liquefiable soils may experience bearing capacity failures due to the temporary loss of foundation support, vertical settlements (both total and differential), and/or undergo lateral spreading. The factors known to influence liquefaction potential include soil type, relative density, grain size, confining pressure, depth to groundwater, and the intensity and duration of the seismic ground shaking. Liquefaction is most prevalent in loose to medium dense, silty, sandy, and gravelly soils below the groundwater table.

Within the Project area, basement rocks are generally overlain by Quaternary and Tertiary age sedimentary rock and alluvial soils with the Mitigation Site generally underlain by alluvial flood plain deposits (Appendix D). In addition, cretaceous rocks and sedimentary bedrock of the Santiago Formation are located in close proximity to the Mitigation Site. Borings were drilled at approximately 100-feet from the proposed 110-foot bridge. However, for estimation purposes, data from nearby borings indicate that subsurface soils near the proposed bridge location consist of medium dense sands with 10-foot thick clay layer at approximately 15 feet below ground surface (bgs). The borings drilled during this investigation indicate liquefiable soils may be encountered between approximately 8 to 24 feet bgs. Groundwater was encountered at depths ranging from about 2.5 to 19.3 feet bgs during the field investigation. Due to the anticipated relatively shallow depth to groundwater (within 20 feet bgs) and the soil types present, the potential for liquefaction at the Mitigation Site exists. Based on the evaluation provided in Appendix D, further evaluation during final design is recommended once specific design elements and their location become available.

Although the Mitigation Site may be subject to strong ground shaking in the event of a major earthquake the implementation of the Mitigation Site does not involve the construction of any buildings or other habitable structures that may be especially susceptible to ground failure, including liquefaction. Nonetheless, new structural foundations and/or fills could be susceptible to the effects of liquefaction during a seismic event. In response to this risk, Mitigation Measure GEO-1 is proposed to provide additional geotechnical surveys and

design review in conjunction with the Project's final design. Therefore, a less than significant impact with mitigation incorporated is identified for this issue area.

Mitigation Measure

GEO-1 Geotechnical Review of Bridge Foundations. During final design, the City shall have a licensed geotechnical engineer conduct an additional field exploration program to obtain site specific data; review the proposed bridge design; and provide recommendations on the foundation type and applicable seismic design criteria, including recommendations to address the potential for liquefaction.

aiv) **Less than Significant Impact.** The Project site is characterized by complex topography and steeps slopes; especially to the east of the Roman Creek channel. Within the existing slopes of the Mitigation Site, the City is proposing grading activities that would result in new cut and fill slopes of up to 2:1 to reestablish riparian habitats and support the establishment of native vegetation. During construction, grading activities within the areas delineated on Figure 2-7 could contribute to the risk of a potential landslide. However, equipment operators would be subject to Occupational Safety and Health Administration safety requirements regarding the safe operations of heavy equipment. Therefore, construction related impacts are considered less than significant.

No habitable structures or facilities would be constructed within the limits of the Mitigation Site. Final cut and fill slopes would adhere to recommendations from a qualified geotechnical engineer (Appendix D). As discussed further below in Response b) and Section X. Hydrology and Water Quality, the Project proposes to implement multiple BMPs to stabilize soils within the Mitigation Site following construction in addition to rectifying existing in-channel erosion and scour within Roman Creek. In this context, the Project would not result in substantial adverse effects, including the risk of loss, injury, or death involving landslides and, therefore, a less than significant impact is identified for this issue area.

b) Potentially Significant Unless Mitigation Incorporated. Erosion and loss of topsoil could occur at the Mitigation Site during grading activities, clearing and grubbing, non-native tree removal, realignment of the trail, and ingress/egress within staging areas. However, as discussed above in Section 2.4, during construction surplus topsoil materials would be used as topsoil for the habitat planting area(s), where appropriate, and stored on-site beyond the limits of any 100-year flooding. The City anticipates that some material imports (e.g., aggregate, rocks, etc.) would be required to stabilize the final trail/access road alignments and to support habitat establishment. Additionally, at the locations where fill is placed, the City would provide appropriate erosion control measures, including, but not limited to, outsloping, soil stabilizers, and erosion control blankets or rock-lined V-ditches at drainage outlets. To the extent feasible, construction activities would occur during the dry season, when the potential for erosion from unfinished surfaces would be the lowest.

The construction timing and procedures discussed in Section 2 would reduce the potential for erosion during construction. The Project will also be required to comply with NPDES permit requirements, including preparation of a SWPPP which would include BMPs to address soil erosion per Mitigation Measure HWQ-2 (See Section X. Hydrology and Water Quality). Implementation and maintenance of these BMPs would minimize the amount of erosion and loss of topsoil resulting from construction activities associated with the Project. In addition, the SWPPP will require specific BMPs for in-channel construction activities and to support post-construction revegetation. A less than significant impact with mitigation incorporated related to soil erosion is anticipated.

c) **Less than Significant Impact.** Liquefaction-induced lateral spreading is defined as the finite lateral displacement of ground as a result of pore pressure build-up or liquefaction in shallow underlying soils during an earthquake (Appendix D). Lateral spreading can occur on sloping ground or where nearby steep banks are present. As discussed above in Response a), although the City is not adjacent to the State's major faults, faults do exist within the general vicinity of the City and ground movement from earthquakes is likely to occur in the Project area. Furthermore, due to the anticipated relatively shallow depth to groundwater, adjacent hillsides, and soil types present within the Mitigation Site, the potential for liquefaction exists.

Notwithstanding these preexisting conditions, hazards related to settlement and/or differential settlement along the trail would be addressed through adhering to standard engineering practices. Furthermore, as mentioned above in Response b), the City would stabilize the final trail/access road alignment and would implement BMPs to stabilize exposed soil surfaces, including cut and fill slopes, within the Mitigation Site. Based on these considerations, the Project is unlikely to result in on or off-site landslide, lateral spreading, subsidence, liquefaction, or soil collapse and a less than significant impact would result.

d) **No Impact.** Expansive soils are fine-grained soils (generally high plasticity clays) that can undergo a significant increase in volume with an increase in water content and a significant decrease in volume with a decrease in water content (Appendix D). Changes in the water content of an expansive soil can result in severe distress to structures constructed upon the soil. Two locations were tested for expansion index (EI) within the Mitigation Site (Appendix D). The EI test indicates the tendency of the soil to expand when wetted or contract when dried. The result of two tests indicated that the soil in the upper five feet had EI of 0 and 3, corresponding to

a very low expansion potential. Because the project would not involve the construction of any buildings or other habitable structures that would be affected by risks associated with soil expansion within the Mitigation Site, substantial risks to life or property as a result of being located on expansive soils is minimal. No Impact is identified for this issue area.

e) **No Impact.** Construction and operation of the Project would not involve the use of septic tanks or alternative wastewater disposal systems within the Mitigation Site. No impact is identified for this issue area.

f) **Less than Significant Impact.** According to the General Plan 2030 Update Program EIR (City of Vista 2011), several distinct geologic formations are present within the City and can be subdivided into two general geomorphic regions: (1) the Inland Mesa and Canyon Region and (2) the Peninsular Ranges Foothill Region. The Project is located in the Peninsular Ranges Foothill Region which is underlain by Mesozoic metavolcanic and plutonic (granitic) rocks. The Mesozoic plutonic rocks which are of volcanic origin, have low to no potential for fossil finds (City of Vista 2011).

Therefore, the Mitigation Site is assumed to have low or zero sensitivity for fossil remains, and Project-related impacts to paleontological resources or unique geologic features are unlikely. A less than significant impact is identified for this issue area.

viii) Greenhouse Gas Emissions

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Thresholds of Significance

In 2016, the City developed interim guidance for evaluating greenhouse gas (GHG) emissions from individual development projects within Vista subject to CEQA in light of the 2015 Newhall Ranch project California Supreme Court Ruling.[1] The purpose of the *Interim Policy on Greenhouse Gas Emissions Significance Thresholds for CEQA* (April 6, 2016) is to provide guidance for a consistent and objective evaluation of significant climate change impacts in compliance with AB 32 until the Climate Action Plan (CAP) can be updated to include such evaluation criteria. The interim guidance identifies a numerical "Bright Line" threshold based on a review of projects within Vista. It was determined that a level of 1,185 metric tons (MT) of carbon dioxide equivalent (CO_2e) would capture 90 percent of the City's GHG emissions that are attributable to development projects. To determine if a project is making substantial progress towards meeting 2020 GHG emissions targets set forth in the CAP and AB 32, the total project GHG emissions in its first fully operational year must be less than the "Bright Line" threshold. If the project emissions are below the threshold, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

Impact Analysis

a) Less than Significant Impact. The analysis of GHG emissions, unlike air quality analysis which is a 'per day' threshold, is an aggregate quantity requiring summation over the total estimated number of work days (i.e., the total number of days that any construction grading vehicle would have an engine running). No activities are proposed beyond the limits of the Mitigation Site and, therefore, this analysis focuses on the construction and long-term maintenance of new improvements or land alterations within the Mitigation Site.

Construction Emissions

Construction of the Mitigation Site would result in temporary emissions associated with diesel engine combustion from mass grading, and site preparation construction equipment will be assumed to occur for engines running at the correct fuel-to-air ratios (the ratio whereby complete combustion of the diesel fuel occurs). Construction-related GHG emissions include site preparation, excavation, and construction of the Project features.

The Mitigation Site would be cleared, graded, and constructed over the course of approximately six months. The most recent version of the CalEEMod model (Version 2016.3.2) was used to calculate the construction emissions. Table 3-5 quantifies the expected GHG emissions from construction activities. As shown, construction of the Mitigation Site would generate 319.4 MT of CO_2e. This is below the 1,185 MT of CO_2e per year threshold established by the City. No significant impact would occur with implementation of the Project.

[1] *Center for Biological Diversity v. California Department of Fish and Wildlife* (11/30/2015, Case No. S217763).

Table 3-5. Construction Greenhouse Gases Emissions

Year	Pollutant Emissions (Metric Tons/year)			
	CO_2	CH_4	N_2O	CO_2e
2020	317.7	0.07	0.00	319.4

Notes:
CH_4=methane; CO=carbon monoxide; CO_2=carbon dioxide; CO_2e=carbon dioxide equivalent; N_2O=nitrous oxide

Operational Emissions

Very minimal maintenance is required for long term maintenance of the Mitigation Site amounting to only a few employee related trips to the facility on a weekly basis. Therefore, the project operations would not generate GHG emissions in excess of the City's 1,185 MT of CO_2e per year threshold. No mitigation measures are required.

b) **Less than Significant Impact.** As indicated under Response a), the Mitigation Site's GHG emissions would not exceed the City's 1,185 MT of CO_2e per year "Bright Line" threshold. Therefore, the proposed project would not conflict with the State's GHG reduction goals.

ix) Hazards and Hazardous Materials

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 one-quarter 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 two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☒	☐	☐

Impact Analysis

a) **Potentially Significant Unless Mitigation Incorporated.** Within the limits of the Mitigation Site, the potential exists for accidental spills of small amounts of hazardous materials during construction. Construction activities typically involve the transport and use of diesel fuel, gasoline, equipment fluids, cleaning solutions and solvents, and lubricant oils for operation of construction equipment (e.g., excavation equipment and generators). However, it is not anticipated that construction of the Mitigation Site would involve a substantial amount of hazardous materials that would trigger the need for a Hazardous Materials Business Plan.

Construction workers would commute to the Mitigation Site via private vehicles and haul trucks for material transport would be required. Construction of the Mitigation Site would also involve grading activities as depicted on Figure 2-7. Site grading would be limited to that required to achieve the elevations appropriate to support seasonal and emergent wetlands, oak woodland, riparian, or scrub habitats, establishing water supply, if required, and invasive plant control. Project grading activities would also involve in-channel grading and excavation to the groundwater levels for habitat restoration, which could encounter unreported contaminated soils and groundwater during excavation. Depending on the nature and extent of hazardous materials encountered, if hazardous substances are encountered during construction or if materials were not managed or disposed of properly, the Project could result in a significant hazard to the public or the environment.

The Project would be required to prepare a Project-specific SWPPP per Mitigation Measure HWQ-2 (see Section X. Hydrology and Water Quality) which would include the preparation of a spill response and containment plan. Additionally, Mitigation Measures HAZ-1 would be required to address undocumented sources of containment encountered during construction. Therefore, a less than significant impact with mitigation incorporated is identified for this issue area.

Once construction is complete, operation of the Mitigation Site in its proposed condition would not create a significant hazard to the public or the environment through the release or improper handling of hazardous materials. The City would be responsible for implementation, habitat success monitoring, and long-term management, including adaptive management and maintenance; therefore, routine maintenance activities requiring vehicular trips would occur. However, the potential of creating a significant hazard involving the release of hazardous materials into the environment is considered unlikely during routine maintenance activities.

Mitigation Measures

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.

b) Potentially Significant Unless Mitigation Incorporated. Please see Response a).

c) Less than Significant Impact. Rancho Buena Vista High School and All Saints Preschool are located to the north of Buena Vista Park and within 0.25 mile of the Mitigation Site. As described above in Response a)-b), small quantities of materials hazardous to humans, wildlife, and sensitive environments would be present during construction activities associated with the within the Mitigation Site. However, the Project would be subject to federal and state standards for the routine transport, use, or disposal of hazardous materials have been established and compliance with these standards is required. Adherence to these regulations and permitting requirements would minimize the potential for the Project to result in significant impacts to nearby schools. Therefore, a less than significant impact is identified for this issue area.

Once construction is complete, operation of the Mitigation Site in its proposed condition would not result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25-mile radius of an existing or proposed school. Routine maintenance activities over the long term would generate few vehicular trips and the potential for a release of hazardous materials into the environment is considered unlikely.

d) No Impact. Based on review of the Cortese List data resources, the Project area which encompasses Buena Vista Park is not located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Department of Toxic Substances 2019). Therefore, construction of the Mitigation Site improvements, and long-term maintenance of the Mitigation Site in its proposed condition would not create a significant hazard to the public or the environment. No impact is identified for this issue area.

e) No Impact. There are no private airstrips within the vicinity of the Project area. The Project is approximately 2.6 miles northeast of the McClellan-Palomar Airport and is within Review Area 2. According to the McClellan - Palomar Airport Land Use Compatibility Plan (San Diego County Airport Land Use Commission 2011). Within Review Area 2, land uses are not restricted in this area, other than with respect to height limits, related airspace protection policies, and overflight notification requirements. The Project would not involve the construction of tall structures or improvements requiring airspace and overflight notification. Therefore, construction of the Mitigation Site improvements, and operation of the Mitigation Site in its proposed condition would not violate any requirements or limitations set forth by the McClellan - Palomar Airport Land Use Compatibility Plan. No impact is identified for this issue area.

f) Potentially Significant Unless Mitigation Incorporated. As discussed further below in Section XIX. Wildfire, Response a), the County of San Diego has two emergency plans that developed in coordination with the City.

These include the Multi-Jurisdictional Hazard Mitigation Plan and San Diego County Emergency Operations Plan.

Construction of the Mitigation Site would not require the closure of private or public roadways and would not impede access of emergency vehicles to the surrounding areas or to Buena Vista Park. Additionally, no changes to local roadways such as Shadowridge Drive or Melrose Drive would occur. However, as discussed in Section XVII. Transportation, Response a), during the 6 month construction period slight traffic delays may result from daily vehicular trips of construction workers as well as haul trucks, especially along Shadowridge Drive which is a 2-lane collector. However, implementation of a Traffic Management Plan (TMP) per Mitigation Measure (TR-1) (see Section XVII. Transportation) would include conditions such as time restrictions for delivery of construction material, strategies to minimize impacts to circulation to and from Buena Vista Park and adjacent roadways, and requirements to maintain access for emergency vehicles. Therefore, construction of the Mitigation Site would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. A less than significant impact with mitigation incorporated is identified for this issue area.

Once construction is complete, long-term maintenance of the Mitigation Site in its proposed condition would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

g) Potentially Significant Unless Mitigation Incorporated. As discussed further below in Section XIX. Wildfire, Response b), the Project is located in a Very High Fire Hazard Severity Zone within a Local Responsibility Area. Wildfire hazards are a concern to the public safety of the City due to the following factors: generally dry climate; location within a semi-rural setting; abundance of dry, low-lying brush and chaparral on hillsides; frequency of high wind velocity from Santa Ana winds and steep terrain in portions of the City.

The risk of wildland fire could increase during construction of improvements to the Mitigation Site as construction equipment would work in close proximity to large stands of vegetation. However, with the implementation of the Mitigation Measure HAZ-2 and HAZ-3, construction areas would be required to be clear of combustible materials and provide work crews with sufficient fire suppression equipment. Therefore a less than significant impact with mitigation incorporated is identified for this issue area.

Although the Project is located within a Very High Fire Hazard Severity Zone and is within a locality that is subject to factors that may contribute to wildfires, once the improvements to the Mitigation Site are complete, the Project would not exacerbate wildfire risks that would expose residents adjacent to the Park to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. See Section XIX, Wildfire, for additional discussion.

Mitigation Measures

HAZ-2 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.

HAZ-3 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.

x) Hydrology and Water Quality

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	☐	☒	☐	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☒	☐	☐
iii. 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; or	☐	☒	☐	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Impact Analysis

a) Potentially Significant Unless Mitigation Incorporated. According to the Roman Creek Hydrology and Hydraulics Memorandum (Appendix E), the Roman Creek watershed is a tributary to Agua Hedionda Creek (Figure 2-3), which flows in a westerly direction and ultimately discharges into the Pacific Ocean via the Agua Hedionda Lagoon. The Agua Hedionda watershed, which includes Roman Creek, is approximately 1.1 square miles and subdivided into a total of seven subwatersheds with the Project site located in the lower watershed (Figure 2-3). Roman Creek bisects the Mitigation Site and generally flows in a southerly direction. The Roman Creek watershed is a densely urbanized and highly geomorphologically controlled creek for the majority of the upper-two thirds of the watershed, receiving stormwater runoff from residential and commercial areas. Roman Creek consists of both hardened and unlined channels and passes through multiple grade controls at culverts before draining into the Buena Vista Park open space area. Roman Creek exhibits a vegetated natural channel through the Mitigation Site, before discharging into Agua Hedionda Creek.

According to the Water Quality Control Plan for the San Diego Basin (Basin Plan) (San Diego Regional Water Control Board 2016) beneficial uses of Agua Hedionda Creek includes municipal and domestic supply (MUN), agricultural supply (AGR), industrial service supply (IND), contact water recreation (REC-1), non-contact water recreation (REC-2), preservation of biological habitats of special significance (BIOL), warm freshwater habitat (WARM), and wildlife habitat (WILD). Agua Hedionda Creek is listed as a 303(d) impaired waterbody for fecal coliform, enterococcus, manganese, phosphorus, selenium, total dissolved solids, total nitrogen, pesticides (bifenthrin, chlorpyrifos, and cypermethrin), indicator bacteria, and toxicity; however, Roman Creek is not.

Improvements within the Mitigation Site would include establishing new riparian habitat, enhancing existing riparian habitat, and in conjunction with other physical improvements include trail modifications, new signage, water and irrigation improvements, and the placement of erosion control improvements. The Project would not alter the course of the creek; however, the proposed improvements would require limited, in-channel grading which would be clearly defined in the field to prevent damage to existing WOUS and State, wetlands, and high quality upland habitat.

In-channel grading would be limited and designed to increase the channel's capacity by expanding the existing floodplain to accommodate the peak flows from the upper watershed. Much of this work would occur in existing upland areas and restricted to up to three locations within the existing channel profile of Roman Creek to achieve the proposed habitat conditions within the Mitigation Site. Nonetheless, these improvements would result in a disturbance greater than one acre, and the use of construction equipment has the potential to introduce hydrocarbons, fluids, lubricants, and other toxic substances as a result of accidental spills or mishandling of these materials, into the surrounding environment and local receiving waters.

In order to minimize impacts to water quality, implementation of a Flow Diversion Plan per Mitigation Measure HWQ-1, would require the contractor to minimize changes to flood flow elevation(s), address accumulation of floating debris, minimize sedimentation to surface waters, and include contingency measures in the event of substantial rainfall. Additionally, a SWPPP per Mitigation Measure HWQ-2 will be required to address storm water discharges originating from the Mitigation Site during construction activities as regulated and required by the NPDES General Construction Permit. Potential construction BMPs include specific actions for handling and storage or construction materials and equipment, limiting site grading activities, seasonal restrictions, soil stabilization and post-construction runoff, monitoring, and reporting activities. Therefore, a less than significant impact with mitigation incorporated is identified for this issue area.

Once construction of the Mitigation Site is complete, Buena Vista Park would benefit from the facilitation of onsite establishment, enhancement, and rehabilitation of native vegetation per the goals of the City's BPO land use designation; as well as in-channel design improvements to alleviate existing hydromodification conditions within Roman Creek. Therefore, the Mitigation Site in its proposed condition would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality in the long term.

Mitigation Measures

HWQ-1 Prepare and Implement a Flow Diversion Plan or 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.

HWQ-2 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 (Risk Level 2) 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 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 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.

b) Less than Significant Impact. As discussed above in Section Vii, Geology and Soils, Response aiii), groundwater was encountered at depths ranging from about 2.5 to 19.3 feet below ground surface (bgs) during a field investigation. Buena Vista Park is generally unpaved with pervious surfaces that facilitate the percolation of rainfall into the ground.

Construction activities within the Mitigation Site would not involve the use of groundwater as a water source; however, excavation to groundwater to support habitat restoration would occur. Dewatering may be required in select areas during construction; however, impacts to groundwater would be temporary and the Project would be required to comply with NPDES Permit No. CAG919003. Therefore, construction impacts would not substantially impact groundwater supplies or interfere substantially with groundwater recharge.

No impervious surfaces are proposed, and no permanent irrigation installation would be necessary for the seeded areas or the proposed seasonal and emergent wetlands, as they would be designed to be supported by groundwater and surface water runoff to negate the need for permanent irrigation to be installed. Additionally, the removal of eucalyptus trees in place of native species is expected to result in decrease evapotranspiration rates within the upper portions of the Mitigation Site. The use of existing groundwater and surface water runoff for the proposed habitat restoration would remaining within the local basin and would not to result in a substantial depletion of groundwater supplies or interfere substantially with groundwater recharge. This impact is less than significant.

ci) Potentially Significant Unless Mitigation Incorporated. Improvements within the Mitigation Site would include establishing new riparian habitat, enhancing existing riparian habitat, and in conjunction with other physical improvements include trail modifications, new signage, water and irrigation improvements, and the placement of erosion control improvements. Construction specifications would require that material imports (e.g., aggregate, rocks, etc.) be placed along the crown of the roadway and away from drainages. At locations where fill is placed, the City would provide appropriate erosion control measures, including, but not limited to, outsloping, soil stabilizers, and erosion control blankets or rock-lined V-ditches at drainage outlets. Construction would occur during the dry season, to the extent feasible, when the potential for erosion from unfinished surfaces would be low. The construction timing and procedures discussed above would reduce the potential for erosion during construction.

Existing conditions within the Roman Creek channel exhibit evidence of both channel scour and bank undercutting. Figure 3-3 illustrates two locations up- and downstream of the existing pedestrian bridge where these conditions are visually evident. Improvements within the creek would involve limited in-channel grading to facilitate the proposed hydraulic conditions and designed to increase the channel's capacity to accommodate increased peak flows from the upper watershed and lower existing flow velocities. Nonetheless, erosion or siltation may be created during construction activity within the Mitigation Site, thereby resulting a potentially significant impact. In response, construction BMPs including erosion control practices would be implemented throughout construction, and the Project would be required to comply with NPDES permit requirements and to prepare a SWPPP through the implementation of Mitigation Measures HWQ-2. A less than significant impact with mitigation incorporated is identified for this issue area.

Minimal additional impervious surfaces are proposed as part of the Project. Once construction is complete and, as depicted in the hydrograph on Figure 3-4, the existing hydromodification condition of Roman Creek would be improved and would alleviate impacts from peak high flow events that currently degrade the steep unlined banks of the creek and overflow into the southern portion of the Mitigation Site. Additionally, enhancement of multiple sections of the designated trail network within the Mitigation Site would minimize localized sediment inputs to Roman Creek, hydraulic restrictions within Roman Creek, and degradation of the trail network. The City also anticipates that material imports (e.g., aggregate, rocks, etc.) would be required to stabilize the final trail/access road alignments and to support habitat establishment. Therefore, long-term

maintenance of the Mitigation Site in its proposed condition is not expected to result in substantial erosion or siltation on- or off-site as a result of alterations to the existing drainage pattern of the Mitigation Site.

cii) Potentially Significant Unless Mitigation Incorporated. According to the Roman Creek Hydrology and Hydraulics Memorandum (Appendix E), the Roman Creek watershed is a densely urbanized and highly geomorphologically controlled creek for the majority of the upper-two thirds of the watershed, receiving stormwater runoff from residential and commercial areas.

Improvements within the Mitigation Site would include establishing new riparian habitat, enhancing existing riparian habitat, and in conjunction with other physical improvements include trail modifications, new signage, water and irrigation improvements, and the placement of erosion control improvements. Construction activities would involve site preparation, grading activities, soils and materials transport, and revegetation activities. Portions of the Mitigation Site that would be subject to grading activities or temporary work areas are identified on Figure 2-7. Site grading would be limited to that required to achieve the elevations appropriate to support seasonal and emergent wetlands, oak woodland, riparian, or scrub habitats, establishing water supply, if required, and invasive plant control.

In-channel grading would be limited and designed to increase the channel's capacity to accommodate increased peak flows from the upper watershed. Minor realignment of the trail would also occur to facilitate site grading activities and maximize the size and connectivity of the riparian corridor. Therefore, construction activity may increase the rate or amount of surface runoff on- or off-site, create or contribute runoff water, or provide substantial additional sources of polluted runoff. Implementation of a SWPPP per Mitigation Measure HWQ-2 shall identify specific actions and BMPs relating to the prevention of stormwater pollution from project-related construction sources. BMPs for soil stabilization and erosion control practices and sediment control practices will also be required. Therefore, a less than significant impact with mitigation incorporated is identified for this issues area.

As stated in above in Response cii), minimal additional impervious surfaces are proposed as part of the Project. Once construction is complete, the existing hydromodification condition of Roman Creek would be improved, as supported by the modeling results contained in Appendix E and shown on Figure 3-4. The proposed enhancement of multiple sections of the designated trail network within the Mitigation Site would minimize localized sediment inputs to Roman Creek, hydraulic restrictions within Roman Creek, and degradation of the trail network. Therefore, operation of the Mitigation Site in its proposed condition would not increase the rate or amount of surface runoff on- or off-site, create or contribute runoff water, or provide substantial additional sources of polluted runoff as a result of alterations to the existing drainage pattern of the Mitigation Site.

ciii) Potentially Significant Unless Mitigation Incorporated. Please see response cii).

civ) Less than Significant Impact. According to the Roman Creek Hydrology and Hydraulics Memorandum (Appendix E) and the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps 06073C0786J and 06073C0788J (FEMA 2012a and 2012b), the upper reaches of Roman Creek do not lie in a designated FEMA floodplain (Figure 3-5). For a distance of approximately 250 feet, the lower reach of Roman Creek is designated as a Zone A, where base flood elevations have not been determined and Zone X where areas determined to be outside the 0.2 percent annual chance of flood. This area represents backwater from Agua Hedionda Creek (Appendix E). The FEMA flood designation of Agua Hedionda Creek varies by location. Upstream of Roman Creek, Agua Hedionda Creek is designated as a Zone AE floodplain, where base flood elevations have been determined. Zones A and AE that are susceptible to 100-year flood. Based on the actions proposed as part of the Project, including the expanded channel capacity within the Mitigation Site, the Project would not impede or redirect flood flows. A less than significant impact would result.

d) No Impact. Seiches are large waves generated in enclosed bodies of water in response to ground shaking (Appendix D). Tsunamis are waves generated in large bodies of water by fault displacement or major ground movement. Based on the absence of enclosed bodies of water near the site, seiche and tsunami risks at the site are considered negligible. Earthquake-induced flooding is caused by dam failures or other water-retaining structure failures as a result of seismic shaking. A review of the San Diego County General Plan, Dam Inundation Map (2011) indicates that the Project site is not located within a dam inundation area. Earthquake induced flooding is considered low. Therefore, no impact is identified for this issue area.

e) Less than Significant Impact. The Project is within the jurisdiction of the San Diego RWQCB. The Basin Plan (San Diego Regional Water Control Board 2016) designates beneficial uses for all surface and groundwater within the San Diego Region and establishes water quality objectives and plans to protect these beneficial uses. Beneficial uses for Roman Creek are discussed above in Response a).

The City prepared the Agua Hedionda Watershed Management Plan (City of Vista 2008) to address the degradation and significant loss natural habitat within the ecosystems of the hydrologic area. Priority issues that have identified within the watershed include development causing water quality impacts, stream stability, and replacing farmland and natural open space; channel erosion which have led to trees failing; loss of riparian habitat due to clearing or development; and climate change effects on weather patterns that have exacerbated

sediment loading, channel erosion, and watershed functions (City of Vista 2008). As stated in the Watershed Management Plan, “The Agua Hedionda Watershed Management Plan provides a comprehensive, scientifically-based plan for preserving, restoring, and enhancing watershed functions and minimizing future degradation” (City of Vista 2008).

Within the Mitigation Site, improvements include establishing new and enhancing existing riparian habitat, trail modifications, new signage, water and irrigation improvements, and the placement of erosion control improvements. The Project’s physical improvements within the Mitigation Site would address these priority issues as noted above; and the Project would be designed and constructed in compliance with applicable construction permits and recommendations set forth within these plans. Therefore, the Project would not conflict with these management plans. A less than significant impact identified for this issue area.

Figure 3-3. Existing Roman Creek Channel Conditions

Photo 1. Roman Creek upstream of existing pedestrian bridge

Photo 2. Roman Creek downstream of existing pedestrian bridge

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Figure 3-4. XS4 Discharge – Existing versus Proposed Conditions (at cross-section XS-4)

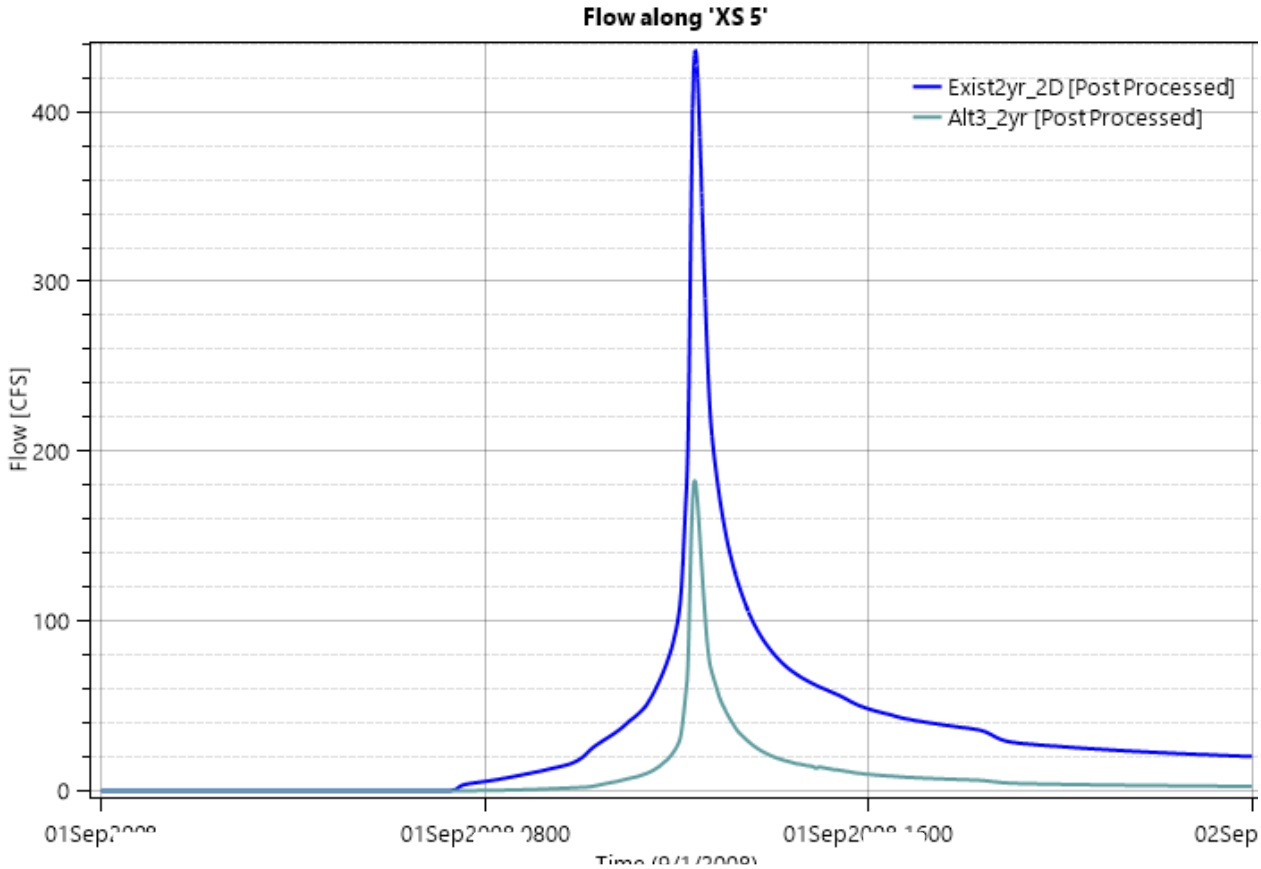

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Figure 3-5. Effective Federal Emergency Management Agency Mapping

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xi) Land Use and Planning

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Impact Analysis

a) **No Impact.** A project could result in impacts related to the physical division of an established community if new or widened roads would traverse an established community; if new development would block existing connections within an established community; if redevelopment would disrupt the physical arrangement of an existing community by shifting existing development from one land use to another; if the project would impact existing street and sidewalk patterns; or if the project would preclude development of surrounding parcels.

The proposed improvements within the Mitigation Site would be limited to new signage, fencing, realignment or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. These construction improvements and proposed condition once construction is complete, would be limited to the boundaries of the Mitigation Site which is located within the existing Buena Vista Park. Therefore, construction and operational activity would not extend outside the boundaries of Buena Vista Park. Therefore, the Project would not physically divide an established community. No Impact is identified for this issue area.

b) **No Impact.** As discussed Section 2, Environmental Setting and Project Description, Buena Vista Park contains both active use areas and areas intended for the permanent conservation of natural resources. As described in Section 2, the City adopted a BPO with the primary purpose of conserving the City's biological resources (City of Vista 2011) and restricts land uses to only limited passive recreational uses where protection of those resources is ensured, or those uses are required to protect public health and safety. The Project area as depicted on Figure 2-2, has an underlying open space land use designation and the BPO.

The proposed Project improvements within the Mitigation Site would be limited to new signage, fencing, realignment or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. Implementation of these improvements would help the City address its immediate and long-term project needs for compensatory mitigation for capital improvement projects through the implementation of establishment, enhancement, and/or rehabilitation opportunities at Buena Vista Park. The Mitigation Site is an opportunity area within the Park that has been identified for protection under the City's BPO. Therefore, proposed improvements and protection of the Mitigation Site would comply with the intent of the BPO designation, and support the compensatory mitigation needs of the City. Additionally, as provided in Table 3-6, the Project is consistent with applicable goals and policies of the 2030 General Plan. Therefore, no impact is identified for this issue area.

Table 3-6. Vista General Plan Consistency Analysis

Policy/Goal	Project Consistency	Consistent? (Yes/No)
Vista General Plan 2030 Land Use and Community Identity Element		
Land Use and Community Identity Element Policy 1.8: Preserve Vista' s major creek corridors, such as Buena Vista Creek and Agua Hedionda Creek and their major tributaries, as defining elements in the character of the community and pursue opportunities to enhance these waterways through public works projects, private development, redevelopment, environmental mitigation, and other means.	Roman Creek is a tributary of Agua Hedionda Creek. Implementation would include more detailed hydraulic and hydrologic modeling to assess the most optimal channel configurations to address existing hydromodification	Yes
Vista General Plan 2030 Resource Conservation and Sustainability Element		
RCS Policy 4.3: Implement the Agua Hedionda Watershed Management Plan and develop and implement a similar watershed management plan for Buena Vista Creek and its major tributaries, dependent upon available funding.	As discussed in Section 2.4, Proposed Project, the Project components would result in improvements that addresses the concerns identified in the Agua Hedionda Watershed Management Plan related to degradation and significant loss natural habitat within the ecosystems of the hydrologic area.	Yes
RCS Policy 4.5: Protect and restore appropriate beneficial uses for prioritized water bodies impacted by stormwater and urban runoff.	The beneficial uses of the Agua Hedionda Creek are discussed in Section X. Hydrology and Water Quality, Response a). As discussed in Section 2.3, Project Goals and Objectives, the Project intends to improve the hydrologic function of Roman Creek, and maintain and enhance the chemical, physical, and biological integrity of the aquatic resources within Roman Creek.	Yes
RCS Policy 4.3.3.: Restrict the installation of new concrete lining or channelization projects within open creeks and waterways and restore the creek system to its natural state where feasible in an effort to balance flood protection, water quality benefits, and habitat preservation. The daylighting and restoration of covered creek channels is encouraged.	The Project's improvements to Roman Creek would not include installation of concrete lining within the creek or channelization. The proposed improvements are intended to mitigate historic hydromodification of the creek and restore and enhance natural aquatic habitat values within the Mitigation Site.	Yes
RCS Policy 4.3.2: Allow alteration, rechannelization, and /or modifications to existing channelized streams only if such modifications preserve or restore natural habitat values to the greatest extent feasible and necessary permits are obtained.		Yes

Table 3-6. Vista General Plan Consistency Analysis

Policy/Goal	Project Consistency	Consistent? (Yes/No)
RCS Policy 5.3.: Continue to require development that is proposed in areas identified or expected to contain sensitive vegetation and wildlife communities to consult with wildlife agencies (i e., USFWS and the California Department of Fish and Game) early in the development review process regarding special status plant and wildlife species; conduct biological assessments, as appropriate; and develop and implement project- specific mitigation measures to mitigate impacts on threatened and endangered species.	Applications for CWA Section 404 and 401 permits and a CDFW Streambed Alteration Agreement would be submitted, thus initiating collaboration with USACE, RWQCB, and CDFW. Once approved, the City would be responsible for implementation, habitat success monitoring, and long-term management, including adaptive management and maintenance. Project-specific mitigation measures are identified in Appendix F of this technical report.	Yes
RCS Policy 5.3: Preserve the integrity of riparian habitat areas, creek corridors, and other drainages that support biological resources and contribute to the overall health of the watershed areas through the preservation and restoration of native plants and the removal of invasive, exotic, and nonnative species.	As discussed in Section 2.4, Proposed Project, the Mitigation Site would include a combination of habitat establishment, enhancement, and rehabilitation of the existing riparian corridor along Roman Creek. Additionally, unauthorized trails would be omitted within the riparian corridor of Roman Creek to protect compensatory mitigation and habitat restoration areas from damage.	Yes
RCS Policy 5.6: Continue to require the use of native, naturalized, and non-invasive plants and turf to avoid or minimize use of irrigation, fertilizers, and pesticides, and to provide increased wildlife habitats for native species.	As discussed in Section 2.4, Proposed Project, improvements within the Mitigation Site would involve clearing and grubbing and would include the removal and disposal of all undesirable material, including large eucalyptus trees, Mexican fan palm trees, tamarisk, non-native grasses, mustards, thistles, excess plant detritus; as well as in-situ restoration activities, including revegetation with native species. Additionally, within the Mitigation Site, grading would excavate down to groundwater for the restoration of habitat within the Mitigation Site.	Yes
RCS Policy 6.3.: Establish and maintain a BPO reflecting the Focused Planning Area in the MHCP to the maximum extent practicable. The BPO shall define lands worthy of protection based on the presence of sensitive vegetation and wildlife communities, or those lands that support viable wildlife corridors.	The Mitigation Site is within the BPO and western portion of Buena Vista Park. The proposed Project would create management areas (or units) within the limits of the existing Buena Vista Park to facilitate planning and implementation of hydromodification improvements, compensatory mitigation, and habitat restoration activities.	Yes
RCS Policy 6.2: Limit land uses within the BPO to only those necessary for the protection of public health and safety, or recreational uses that are consistent with the conservation standards in the MHCP. Biological conservation shall be the primary objective within the BPO whenever potential conflicts with recreational uses arise.	Unauthorized trails would also be omitted within the riparian corridor of Roman Creek to protect compensatory mitigation and habitat restoration areas from damage. The City would be responsible for implementation, habitat success monitoring, and long-term management, including adaptive management and maintenance.	Yes

Table 3-6. Vista General Plan Consistency Analysis

Policy/Goal	Project Consistency	Consistent? (Yes/No)
RCS Policy 6.3: Establish maintenance and management standards for the BPO to ensure permanent conservation. The City' s standards shall be based on the applicable standards in Section 6.0 of the Final MHCP (i.e., Fire Management; Habitat Restoration; Erosion Control; Landscaping Restrictions; Recreation and Public Access; Fencing, Signs and Lighting; Predator and Exotic Species Control; Hydrology and Flood Control; and Species Reintroduction), subject to the availability of permanent funding.		Yes
RCS Policy 8.4: Preserve and increase the amount of open space /forest land within the City to help mitigate GHG emissions.	As discussed in Section 2.4, the proposed Project would create establishment and rehabilitation areas within the boundaries of the proposed Mitigation Site to facilitate planning and implementation of improvements intended to correct existing hydromodification conditions while providing compensatory mitigation and habitat restoration opportunities. Within the Mitigation Site, the Project would expand the existing riparian corridor thereby increasing the sequestering capacity of the riparian corridor to assimilate and store CO_2.	Yes
RCS Policy 8.5: Preserve and maintain natural areas in urban neighborhoods, such as canyons and creeks, and provide access for the enjoyment of the surrounding community.	—	Yes
RCS Policy 10.1: Provide a range of high quality recreational facilities programming to serve the needs of all Vista's residents, including children, teens, adults, senior adults, families, and persons with disabilities.	In conjunction with improving the trail network at Buena Vista Park, the City proposes the enhancement of multiple sections of the designated trail network to minimize localized sediment inputs to Roman Creek, reduce hydraulic restrictions within Roman Creek, and minimize degradation of the trail network. As funding becomes available additional improvements along the trail network would include replacement of the existing, undersized bridge crossing over Roman Creek in conjunction with the habitat establishment and trail realignment	Yes
RCS Policy 3.5.4: Maintain the Construction and Demolition Debris Recycling Ordinance, requiring building projects to recycle or reuse a minimum percentage of non-hazardous construction and demolition debris and unused or leftover building materials.	The Project would be conditioned to comply with all applicable constriction permitting requirements.	Yes

Table 3-6. Vista General Plan Consistency Analysis

Policy/Goal	Project Consistency	Consistent? (Yes/No)
Vista General Plan 2030 PSFS		
PSFS Policy 4. 9: Support or undertake creek corridor restoration projects that manage flooding while restoring native plant species, wildlife habitats, and watersheds.	As discussed in Section 2.4, the proposed Project would create establishment and rehabilitation areas within the boundaries of the Mitigation Site which is located within the existing Buena Vista Park to facilitate planning and implementation of hydromodification improvements, compensatory mitigation, and habitat restoration activities. Within the Mitigation Site the Project would improve the hydrologic function of Roman Creek, including addressing peak flows from hydromodification within the upper watershed, and maintain and enhance the chemical, physical, and biological integrity of the aquatic resources within Roman Creek.	Yes
PSFS Policy 5. 7: Maintain the City's Vegetation Management Program to reduce wildfire hazards in urban and semi -urban areas within Vista. Thinning, pruning or removal of native vegetation under this program shall require approval of the Fire Marshal and the appropriate resource agencies if not permitted under existing agreements.	The City would be responsible for implementation, habitat success monitoring, and long-term management, including adaptive management and maintenance. Additionally, a portion of the Mitigation Site overlap with SDG&E easements for aboveground powerlines; therefore, maintenance of vegetation would be required as a standard maintenance measure.	Yes
PSFS Policy 3.4.3.: Ensure that the City maintains acceptable ratios of law enforcement personnel per population.	As discussed in Section XV. Public Services, Response ai) and ii), the Project would be implemented within the boundaries of Buena Vista Park, and would not require the closures of the Park entrance or adjacent roadways. A TMP, per Mitigation Measure TR-1 would be implemented to reduce any traffic delays as a result of vehicular trips for construction.	Yes

Sources: City of Vista 2011

Notes:

BPO=Biological Preserve Overlay; CDFW=California Department of Fish and Wildlife; CO_2=carbon dioxide; MHCP=Multi-species Habitat Conservation Plan; PSFS=Public Safety, Facilities, and Service Element; RCS=Resource Conservation Element; USACE=United States Army Corps of Engineers; USFWS=United States Fish and Wildlife Service

xii) Mineral Resources

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Impact Analysis

a) **No Impact.** The City of Vista 2030 General Plan does not identify any mineral resources that would be of local, regional, or state value. According to the California Department of Conservation, Division of Mines and Geology Special Report 153 – Plate 9 map (California Department of Conservation 2011), the Project is located in area designated as mineral resource zone 3 (MRZ-3). Areas designated as MRZ-3 have undetermined mineral resource significance, and the significance of areas containing mineral deposits cannot be evaluated from available data. Although MRZ-3 zones have undetermined mineral resource significance, these areas are not identified as a local-important mineral resource and the potential for viable extraction of mineral resources within this zone is limited due to the City's urbanized character.

Construction of the Mitigation Site would not result in the extraction of known mineral resources. The 10.7 -acre Mitigation Site is within an existing park designated for open space which was established to preserve these areas in their natural state. Therefore, the Project would not result in a loss of availability of a known mineral resource that would be of value to the region and the residents of the state or a locally important mineral resources during construction or operation. No Impact is identified for this issue area.

b) **No Impact.** Please refer to Response a)

xiii) Noise

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two 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?	☐	☐	☒	☐

Impact Analysis

a) Less than Significant Impact. Construction noise, although temporary, can be a source of concern for sensitive receptors, such as nearby residences. Construction is anticipated to take approximately 6 months. Construction of the Mitigation Site would require the use of heavy equipment that may be periodically audible at off-site locations. Received sound levels would fluctuate, depending on the construction activity, equipment type, and distance between noise source and receiver. Additionally, sound from construction equipment will vary dependent on the construction phase and the number and class of equipment at a location at any given time.

The closest sensitive receptors to the portion of the Mitigation Site where heavy construction equipment would be used are located at a distance of approximately 400 feet. Construction noise will attenuate with increased distance from the noise sources.

Construction is performed in discrete steps, each of which has its own mix of equipment, and consequently its own noise characteristics. These various sequential phases would change the character of the noise generated on site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 3-7 lists maximum noise levels recommended for noise impact assessments for typical construction equipment based on a distance of 50 feet between the equipment and a noise receptor. Typical maximum noise levels range up to 91 A-weighted decibel (dBA) L_{max} at 50 feet during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels, because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three or four minutes at lower power settings.

Table 3-7. Typical maximum Construction Equipment Noise Level (L_{max})

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 feet)	Suggested Maximum Sound Levels for Analysis (dBA at 50 feet)
Pile Drivers, 12,000 to 18,000 feet-lb/blow	81 – 96	93
Rock Drills	83 – 99	96
Jack hammers	75 – 85	82
Pneumatic Tools	78 – 88	85
Pumps	74 – 84	80
Dozers	77 – 90	85
Scrapers	83 – 91	87
Haul Trucks	83 – 94	88
Cranes	79 – 86	82
Portable Generators	71 – 87	80
Rollers	75 – 82	80
Tractors	77 – 82	80
Front-End Loaders	77 – 90	86
Hydraulic Backhoe	81 – 90	86
Hydraulic Excavators	81 – 90	86
Graders	79 – 89	86
Air Compressors	76 – 89	86
Trucks	81 – 87	86

Notes:
dBA=A-weighted decibel

Construction of the Mitigation Site is expected to require the use of earthmovers, bulldozers, loaders, water trucks, and pickup trucks. This equipment would be used on the Mitigation Site. Based in Table 3-7 the maximum noise level generated by each earthmover on the Mitigation Site is assumed to be 88 dBA L_{max} at 50 feet from the earthmover. Each bulldozer would also generate 88 dBA L_{max} at 50 feet. The maximum noise level generated by water and pickup trucks is approximately 86 dBA L_{max} at 50 feet from these vehicles. Each doubling of a sound source with equal strength increases the noise level by 3 dBA. As each piece of construction equipment operates as an independent noise source, the combined noise level during construction would be 91 dBA L_{max} at a distance of 50 feet. The Mitigation Site would include construction activities within 400 feet of the existing residences. Distance attenuation would reduce the construction noise by 18 dBA to 73 dBA L_{max}.

The variation in power and usage of the various equipment types creates complexity in characterizing construction noise levels. The estimated composite site noise level is based on the assumption that all equipment would operate at a given usage load factor, for a given hour (i.e., front end loaders are assumed to be used for up to 40 percent of 1 hour, or 24 minutes), to calculate the composite average daytime hourly L_{eq}. Using a conservative load factor of 40 percent for all on-site equipment, the average noise level at the existing residence would be 69 dBA L_{eq}. This noise level would not exceed the County's 75 dBA L_{eq} construction noise threshold. Furthermore, the Project must comply with County standards regarding construction hours (i.e. construction limited to normal weekday working hours, 7 a.m. to 7 p.m., Monday through Saturday). Therefore, impacts from construction noise are considered less than significant. Once construction is complete, the Mitigation Site in its proposed condition, would not generate excessive noise.

b) Less than Significant Impact. Vibration associated with the on-site heavy equipment has the potential to be an annoyance to nearby land uses. Table 3-8 lists the vibration source amplitudes for construction equipment. The highest reference peak particle velocity (PPV) for the proposed project would be 0.089 inches per second (in/sec) associated with on-site heavy equipment.

Table 3-8. Vibration Source Amplitudes for Construction Equipment

Equipment	Reference PPV at 25 feet (in/sec)
Vibration roller	0.210
Large bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
Crack-and-seat operations	2.4

Source: Caltrans 2013
Notes:
PPV=peak particle velocity

The closest sensitive receptors are within 400 feet of the on-site equipment. Caltrans vibration guidance provides the following equation to calculate PPV at sensitive receptors:

$$PPV_{equip} = PPV_{Ref} (25/D)^n \text{ (in/sec)}$$

Where:

PPV_{Ref} = reference PPV at 25 feet

D = distance from equipment to the receiver in feet

n = 1.1 is a value related to the vibration attenuation rate through ground

Distance attenuation would reduce the on-site equipment vibration levels from 0.089 in/sec at 25 feet to 0.004 in/sec at 400 feet. This level is much lower than the 0.04 in/sec level considered to be barely perceptible to humans for transient sources (Caltrans 2013). Therefore, vibration impacts associated with the Mitigation Site would be less than significant. Once construction is complete, the Mitigation Site in its proposed condition, would not generate excessive groundborne vibrations.

c) Less than Significant Impact. The proposed Project site is located approximately 2.6 miles northeast of the McClellan-Palomar Airport and approximately 5 miles southeast of the Oceanside Municipal Airport. The proposed Project does not propose the introduction of noise-sensitive land uses, which are not otherwise present under existing conditions. At these distances the Mitigation Site is located outside of the 65 dBA community noise equivalent level noise contour of either airport. Therefore, aircraft noise impacts would be less than significant.

xiv) Population and Housing

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned 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 people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Impact Analysis

a) **No Impact**. Implementation of the Project improvements within the Mitigation Site would not construct habitable structures, roadways, or extend existing infrastructure that provide services or access to residential and non-residential uses. The Project is a combined habitat restoration and hydromodification improvement project within the limits of the existing Buena Vista Park, which is consistent with the designated open space and BPO land uses and do not allow for development of residential or commercial uses. These improvements would not induce substantial unplanned population growth in the long-term either directly or indirectly. Therefore, no Impact is identified for this issue area.

b) **No Impact**. The Project would be implemented within the boundaries of the existing Buena Vista Park. Construction of the Mitigation Site would not require additional right-of-way or cause displacement of people or housing that would necessitate the construction of replacement housing or relocation of displaced residents. Therefore, no Impact is identified for this issue area.

xv) Public Services

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
a) 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:				
i. Fire Protection?	☐	☒	☐	☐
ii. Police Protection?	☐	☒	☐	☐
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☒	☐	☐
v. Other public facilities?	☐	☐	☐	☒

Impact Analysis

ai) Potentially Significant Unless Mitigation Incorporated.

Fire Protection Services

The Vista Fire Department has six fire stations within the city and provides fire protection services for a 36.5-square-mile service area of the City and contracts with the Vista Fire Protection District to provide services to the City's Sphere of Influence, an unincorporated area of the County of San Diego (City of Vista 2012). The population within this service area is approximately 123, 797 (City of Vista n.d.). The Vista Fire Station No. 5 is located directly adjacent to Buena Vista Park (Figure 2-3) on the eastside, at 2009 S. Melrose Drive, Vista, California 92081. Vista Fire Station No. 5 includes one captain, one engineer, one firefighter paramedic.

Police protection Services

Police protection for Vista and the sphere of influence is provided by the San Diego County Sherriff's Department, which maintains a station and three substations. The closest patrol station is the Vista Patrol Station located at 325 Melrose Drive, Suite 210, which is approximately 2.7 miles north of Buena Vista Park. Over 150 sworn, professional, and volunteer staff member are stationed at this location.

Construction Phase

Construction of the Project improvements within the Mitigation Site is anticipated to extend for up to six months with up to two crew of workers at the height of Project construction at the; The Project will be constructed pursuant to all applicable standards, thus minimizing potential adverse service calls to the site. Construction would not result in temporary closures of roadways or streets within the vicinity of the Project area or impact access to the Buena Vista Park from Shadowridge Drive. However, a minor increase in vehicular trips associated with the arrival of construction workers to the Mitigation Site may result in slight traffic delays related to ingress and egress from the Buena Vista Park and to Shadowridge Drive which is a 2-lane collector. Therefore, a TMP per Mitigation Measure TR-1 (see Section XVII. Transportation) would involve conditions such as time restrictions for delivery of construction material, strategies to minimize impacts to circulation to and from Buena Vista Park and adjacent roadways, and requirements to maintain access for emergency vehicles. Therefore, a less than significant impact with mitigation incorporated is identified for this issue area.

Operational Phase

Once construction is complete, the long-term maintenance of the Mitigation Site would not increase the demand for fire or police protection services, or impact acceptable service ratios and response times. Therefore, no new services for fire or police facilities would be required as a result of this Project.

aii) Potentially Significant Unless Mitigation Incorporated. Please see Response ai).

aiii) No Impact. Construction of the Mitigation Site does not include the development of residential land uses. Implementation of the Project would meet the goals of the City's open space and BPO land use designation for the Project area. Therefore, the Project would not result in the need for construction of new or expanded school facilities to meet additional demand. No impact is identified for this issue area.

aiv) Potentially Significant Unless Mitigation Incorporated. The Project is within the existing boundaries of Buena Vista Park located at 1601 Shadowridge Drive, Vista, CA 92081. As discussed in Section 2, Environmental Setting and Project Description, Buena Vista Park is subject to a BPO with an underlying open space land use designation that has both active use areas and areas intended for the permanent conservation of natural resources. Buena Vista Park includes the following recreational amenities and features: a baseball field, two softball fields, a recreation building with restrooms, concession stand with meeting room, a 2-acre lake, picnic facilities, opens space, and trails. Of the Park's 150 acres, approximately 30.6 acres are dedicated to active use, and the remaining 119.4 acres are dedicated to open space and trails (City of Vista 2011).

The use of active recreational amenities and features within the Mitigation Site would be temporarily impacted during Project construction. The proposed improvements within the Mitigation Site would be limited to new signage, fencing, realignment or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. Minor realignment of the trail would also occur to facilitate site grading activities and maximize the size and connectivity of the riparian corridor. In conjunction with these improvements, the goal of the Mitigation Site would be to increase the extent of the existing riparian corridor along Roman Creek and replacement of non-native trees (e.g., eucalyptus). In the proposed condition, the proposed trail improvements would largely conform to existing topographical conditions and the proposed habitat grading (Figure 2-7) would not significantly alter or limit the availability of parkland for active use.

During the six month construction phase, staging areas would be situated in the southwestern and northeastern portions of the Mitigation Site. Construction would generally be restricted to the eastern or western half of the Mitigation Site at any given time. Once construction activities on the east side of the Mitigation Site are complete, construction would shift to the west side of the site; thereby, closing off access to the western half of the trail loop. Temporary construction signs and detours would be posted along the trails and within the Park per Mitigation Measure TR-2 (see Section XVII. Transportation).

The Project does not include the development of residential land uses that would result in an increase in population or Park usage. The resulting Project would omit public access to the riparian corridor along Roman Creek and within Mitigation Site; however, these restrictions intend to facilitate onsite establishment, enhancement, and rehabilitation of native vegetation per the goals of the City's BPO and underlying open space land use designation. Over the long term, the Project would result in desirable benefits by expanding the existing riparian corridor, improving Roman Creek's hydromodification, improving the existing authorized trail loop, and replacing the pedestrian bridge crossing over Roman Creek. The restrictions to public access within portions of the Mitigation Site would not result in permanent impacts to the use of the aforementioned Park amenities, or trigger a shift in Park usage or demand to other portion of Buena Vista Park or to adjacent parks, thereby requiring expanded or new facilities to be constructed elsewhere within the City. A less than significant impact with mitigation incorporated is identified for this issue area.

av) No Impact. Construction of the Mitigation Site does not include the development of residential land uses that would result in an increase in demand on other public facilities (e.g., post offices, public libraries, and civic services). Implementation of the Project would meet the goals of the City's open space and BPO land use designation for the Project area. No impact is identified for this issue area.

xvi) Recreation

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

Impact Analysis

a) **Potentially Significant Unless Mitigation Incorporated.** Please refer to Section 2, Environmental Setting and Project Description and Section XV. Public Services, Response aiv) for a description of Buena Vista Park.

The use of active recreational amenities and features within the Mitigation Site would be temporarily impacted during Project construction. The proposed improvements within the Mitigation Site would be limited to new signage, fencing, realignment or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. Minor realignment of the trail would also occur to facilitate site grading activities and maximize the size and connectivity of the riparian corridor. In conjunction with these improvements, the goal of the Mitigation Site would be to increase the extent of the existing riparian corridor along Roman Creek and replacement of non-native trees (e.g., eucalyptus).

During the six month construction period, temporary closures and construction activity within the Mitigation Site would generally be phased or split between the eastern and western portion of the site. Both phases would result in a temporary closure of the actively used loop trail and associated pedestrian crossing over Roman Creek. Detours and notification of these closures would be provided per Mitigation Measure TR-2 (see Section XVII. Transportation). The temporary closure of this trail may result in increased use of other available areas within Buena Vista Park; however, this increase would be minimal and would not physically deteriorate other recreational facilities within Buena Vista Park or within parks within the City.

The Mitigation Site in its proposed condition, would include an improved trail and fencing to omit public access to the riparian corridor along Roman Creek and within the Mitigation Site (as shown on Figure 2-6). These proposed boundaries within the Mitigation Site would facilitate onsite establishment, enhancement, and rehabilitation of native vegetation per the goals of the City's BPO and underlying open space land use designation. With the access features included as part of the Project, the implementation of the Mitigation site would not significantly alter or limit the availability of parkland for active use. Over the long term, the Mitigation Site in its proposed condition, would result in desirable benefits through the expansion of the existing riparian corridor, improvements to the hydromodification of Roman Creek, and improvements to the existing authorized trail loop and associated bridge crossing over Roman Creek. Therefore, a less than significant impact with mitigation incorporated is identified for this issue area.

b) **No Impact.** As discussed above in response a) and Section XV. Public Services, Response aiv), the Project is within an existing 150-acre Park with existing recreational facilities. Construction within the Mitigation Site would be limited to new signage, fencing, realignment or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. Minor realignment of the trail would occur in order to facilitate site grading activities and maximize the size and connectivity of the riparian corridor. The Mitigation Site does not include the development of residential land uses that would require the construction or expansion of recreational facilities, and does not propose the expansion of an existing recreational facility that would result in an environmental impact. For a discussion of impacts related to the Roman Creek hydromodification improvements, please Refer to Section X. Hydrology and Water Quality.

Over the long term, the Mitigation Site in its proposed condition, would result in desirable benefits through the expansion of the existing riparian corridor, improvements to the hydromodification of Roman Creek, and improvements to the existing authorized trail loop and associated bridge crossing over Roman Creek. The restrictions to public access within portions of the Mitigation Site would not result in permanent impacts to the use of the aforementioned Park amenities, or trigger a shift in Park usage or demand to other portion of Buena Vista Park or to adjacent parks, thereby requiring expanded or new facilities to be constructed elsewhere within the City. Therefore, no impact is identified for this issue area.

xvii) Transportation

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☒	☐	☐
b) Conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
d) Result in inadequate emergency access?	☐	☒	☐	☐

Impact Analysis

a) Potentially Significant Unless Mitigation Incorporated. The two main roadways that bound the Project area are Shadowridge Drive to the north, and Melrose Drive the east. According to the 2030 General Plan Circulation Element (City of Vista 2011), the portion of Shadowridge Drive between Longhorn Drive and Melrose Drive is designated as 2-lane collector, and is where the main entrance into Buena Vista Park is located. Melrose Drive is designated as a 6-lane prime arterial. The closest highway to the Park within the City is SR-78 which approximately 1.50 miles northeast of the Park. Existing 5-foot wide sidewalks are located along both sides of Shadowridge Drive and Melrose Drive. However, the sidewalks along Shadowridge Drive do not continue into the park. Currently no existing bike route is located along Shadowridge Drive between Longhorn Drive and Melrose Drive, but an existing Class II bike lane exists along Melrose Drive. Additionally, no major transportation stations are located adjacent to the Park; however, bus route 332 currently runs along both Shadowridge Drive and Melrose Drive with four existing bus stops along Melrose Drive between Shadowridge and Green Oak Road. No bus stops exist along Shadowridge Drive between Longhorn Drive and Melrose Drive. The Project area is also subject to the County's adopted Congestion Management Program (SANDAG 2008) which requires an enhanced CEQA Review for projects that are expected to generate more than 2,400 average daily trips or more than 200 peak hour trips.

The Mitigation Site improvements would be conducted within the existing boundaries of the Buena Vista Park. Construction within the Mitigation Site would be limited to new signage, fencing, realignment, or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. The trail within the Mitigation Site is not documented within the 2030 General Plan; however, it is considered an internal Park trail within Buena Vista Park. Minor realignment of the trail would occur in order to facilitate site grading activities and maximize the size and connectivity of the riparian corridor. Construction access to the Mitigation Site would utilized the main entrance off Shadowridge Drive, which is a 2-lane collector. The minor increase in vehicular trips associated with the arrival of construction workers to the Mitigation Site. The improvements to the Mitigation Site would require no more than two crews of 25 people on-site on any given day resulting in approximately 50 daily trips, excluding haul trucks. Approximately 10 trips for haul trucks to import and export material will be required.

Therefore, slight traffic delays related in regards to ingress and egress from the Buena Vista Park may occur during the 6 month construction period. However, construction would not result in closures of roadways within the vicinity of the Project area or impacts to access to Buena Vista Park from Shadowridge Drive. The parking spaces near the trail's western entrance may be utilized during construction; however, signage to notify park users will be placed within the Park. The Project would not result in a locally significant impacts to level of service to Project adjacent roadway segments or intersections, or generate more than 2,400 average daily

trips or more than 200 peak hour trips. However, a TMP per Mitigation Measure TR-1 is proposed to address temporary, construction-related impacts to the circulation network. Mitigation Measure TR-1 would involve notification of parking impacts and conditions such as time restrictions for delivery of construction material and strategies to minimize impacts to circulation to and from Buena Vista Park, adjacent roadways. Mitigation Measure TR-2 would provide temporary construction trail detours.

Over the long term, the operation of the Mitigation Site in its proposed condition would result in desirable benefits by expanding the existing riparian corridor, improving Roman Creek's hydromodification, improving the existing authorized trail loop, and replacing the pedestrian bridge crossing over Roman Creek. No long-term impacts to the local roadway network would occur. Therefore, the Project would not conflict with applicable program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. A less than significant impact with mitigation incorporated is identified for this issue area.

Mitigation Measures

TR-1 **Traffic Management Plan.** The construction contractor shall prepare a TMP for impacts to surrounding multi-modal transit (e.g., trails, roadways, and parking) that may be impacted by construction 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:

- 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.
- Maintain the maximum travel-lane capacity during construction along Melrose Avenue and Shadowridge Drive.
- Maintain access to Buena Vista Park from the Shadowridge Drive entrance.
- Provide flagger-control at construction sites to manage traffic control and flows.
- Limit the construction work zone to designated boundaries of the Mitigation Site to the extent possible to minimize impacts to available parking.
- Signage would be placed within the Buena Vista Park to notify park users of temporary closures of several parking spaces during construction.
- 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.
- Provide adequate off-street parking locations for workers' vehicles and construction equipment within the Mitigation Site to minimize impacts to available parking.

TR-2 **Construction Trail Detours.** Prepare a temporary trail detour plan for Buena Vista Park visitors utilizing active recreational parkland and trails within the Mitigation Site that will be subject to temporary closures during construction. The plan will define the detour routes available, the duration of the closure, and advanced notification to users.

b) **Less than Significant Impact.** The Project is a land use project subject to Section 15064.3(b)(1) of the CEQA Guidelines. The Project area is not within 0.50 mile of a major transit stops or high quality transit corridors. Construction of Project improvements within the Mitigation Site do not include development that would not generate additional vehicle miles traveled or increase congestion on the surrounding circulation. Construction may result in a minor increase in vehicles miles traveled associated with the arrival of construction workers to the Mitigation Site; however, once construction is complete, the Project would not contribute to long-term impacts resulting from increased vehicle miles traveled. Therefore, the operation of the Mitigation Site in its proposed condition would not be inconsistent with CEQA Guidelines Section 15064.3(b). A less than significant impact is identified for this issue area.

c) **Potentially Significant Unless Mitigation Incorporated.** Construction within the Mitigation Site would be limited to new signage, fencing, realignment or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. During construction, areas of active work would be fenced off

and restricted from public access, and signage detouring trail users would be implemented per Mitigation Measure TR-2 (see Section XVII. Transportation).

The Project intends to facilitate onsite establishment, enhancement, and rehabilitation of native vegetation per the goals of the City's BPO and underlying open space land use designation. Over the long term, operation of the Mitigation Site in its proposed condition would result in desirable benefits by expanding the existing riparian corridor, improving Roman Creek's hydromodification, improving the existing authorized trail loop, and replacing the pedestrian bridge crossing over Roman Creek. The restrictions to public access within portions of the Mitigation Site would be consistent with the open space land use and BPO, and the proposed fencing (Figure 2-6) consisting of wooden posts with wire or cable stands would be implemented to direct Park users to designated active recreation areas while protecting and maintaining wildlife movement through the riparian corridor along Roman Creek. Therefore, the Project would not result in a change of land use or incompatible geometric design feature that could increase hazards. A less than significant impact with mitigation incorporated is identified for this issue area.

d) **Potentially Significant Unless Mitigation Incorporated.** Construction within the Mitigation Site would be limited to new signage, fencing, realignment or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. As discussed in Section XV. Public Services, Response ai)-ii), construction work would not occur within the public roadway right-of-way which would impair roadway widths or capacity, and significantly increase traffic congestion. Construction would not result in temporary closures of roadways or streets within the vicinity of the Project area or impact access to the Buena Vista Park from Shadowridge Drive.

Several parking spaces near the trail's western entrance may be utilized during construction and a minor increase in vehicular trips associated with the arrival of construction workers to the Mitigation Site may result in slight traffic delays related to ingress and egress from the Buena Vista Park and to Shadowridge Drive which is a 2-lane collector. Therefore, a TMP per Mitigation Measure TR-1 (see Section XVII. Transportation) would involve notification of parking impacts and conditions such as time restrictions for delivery of construction material, strategies to minimize impacts to circulation to and from Buena Vista Park and adjacent roadways, and requirements to maintain access for emergency vehicles. Additionally, construction activities within the Mitigation Site would not result in inadequate emergency access within Buena Vista Park itself. Vista Fire Station No. 5, would still be able to access that Park from the dirt access road that provides Vista Fire Station No. 5 direct access to the Park from a secondary entrance off Melrose Drive.

One construction is complete, operation of the Mitigation Site in its proposed condition would not trigger additional traffic within the vicinity of the project, and no impacts to emergency access would occur. A less than significant impact with mitigation incorporated is identified for this issue area.

xviii) Utilities and Service Systems

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) 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?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Impact Analysis

a) **Potentially Significant Unless Mitigation Incorporated**. As discussed in Section X. Hydrology and Water Quality, the Roman Creek watershed is a densely urbanized and highly geomorphologically controlled creek for the majority of the upper-two thirds of the watershed, receiving stormwater runoff from residential and commercial areas. Project improvements within the Mitigation Site would include establishing new and enhancing existing riparian habitat, trail modifications, new signage, water and irrigation improvements, and the placement of erosion control improvements. As previously discussed, Project improvements within the Mitigation Site would improve the hydromodification of Roman Creek. Improvements within the creek would involve in-channel grading and designed to increase the channel's capacity to accommodate increased peak flows from the upper watershed. Therefore, Project construction would involve the expansion of a water system as it relates to Roman Creek and the establishment and enhancement of riparian habitat.

As further detailed in Section IV. Biological Resources, the Project would excavate down to groundwater for the restoration of habitat within the Mitigation Site. A Flow Diversion Plan during construction (HWQ-1) would also be implemented for in channel construction activities to minimize changes to flow elevations, accumulation of floating debris, and minimization measures for sedimentation within surface waters. Construction would comply with all permitting requirements as required, and a SWPPP would be prepared to

identify specific actions and BMPs related to project related construction impacts to receiving waters (HWQ-2). Improvements related to the trail realignment and new fencing would generate a negligible demand for water. With the implementation of Mitigation Measures HWQ-1 and HWQ-2 (Section X. Hydrology and Water Quality) a less than significant impact with mitigation incorporated is identified for this issue area.

Within the Mitigation Site, no permanent irrigation installation would be necessary for the seeded areas or the proposed seasonal and emergent wetlands, as they would be designed to be supported by groundwater and surface water runoff. Additionally, no new construction, expansion, or relocation of water or other existing utility systems would occur to meet a demand created by the Project or to accommodate the implementations of a Project component as detailed in Section 2.4, Proposed Project. Therefore, long term maintenance of the Mitigation Site in its proposed condition would not require or result in the relocation or construction of water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities.

b) **Less than Significant Impact.** Within the Mitigation Site, no permanent irrigation installation would be necessary for the seeded areas or the proposed seasonal and emergent wetlands, as they would be designed to be supported by groundwater and surface water runoff; and overhead spray irrigation is not recommended. During operation of the Project, temporary irrigation may be required in terms of watering until the onset of cool weather/wet season and/or a prolonged period of early rain in the fall. Evaluation of water needs after 1-year of revegetation would need to be conducted in order to determine whether supplemental temporary irrigation is needed. It is expected that available groundwater would be sufficient to accommodate the Mitigation Site in its proposed condition thereby negating the need for supplemental irrigation. Therefore, a less than significant impact is identified for this issue area.

c) **No Impact.** As further detailed in Section 2.3, Project Goals and Objectives, the Project would address existing hydromodification impacts within Roman Creek while providing a reliable source of compensatory mitigation for biological resources impacts associated with the City's capital improvement projects through the implementation of establishment, enhancement, and/or rehabilitation opportunities at Buena Vista Park.

Designation of management areas within the Mitigation Site are also proposed and would omit public access within protected areas within the site. Physical improvement within the Mitigation Site would be limited to new signage, fencing, realignment or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. In conjunction with these improvements, the goal of the Mitigation Site would be to increase the extent of the existing riparian corridor along Roman Creek and replacement of non-native trees (e.g., eucalyptus). These improvements would avoid the existing utilities that traverse the Project site as illustrated on Figure 3-6. Therefore, Project would not construct new facilities or habitable structures that would require water and sewer services, result in the generation of wastewater, and would not result in inadequate capacity for the existing wastewater treatment provider. No impact is identified for this issue area.

d) **Less than Significant Impact.** Escondido Disposal Corporation, which is a privately owned and operated company, provides trash and curbside recycling services for the City (City of Vista 2011). The City also enforces the Construction and Demolition Debris Recycling Ordinance that requires 50 percent of debris from construction and demotion be reused or recycled. Solid waste would be taken to the Sycamore Landfill located at 8514 Mast Blvd, Santee, CA 92071. This is an active solid waste operation facility that accepts debris from construction and demolition. The Sycamore Landfill is a Class III facility that is permitted to accept 5,000 tons of solid waste per day (California Recycle n.d.) and has a remaining capacity of 113,972,637Cubic Yards. The cease of operation date is December 31, 2042.

Construction of the Mitigation Site would generate a limited amount of solid waste that would include material packaging and construction debris. These materials would be sorted and recycled in compliance with solid waste disposal and diversion requirements. Construction may have excess fill that would be exported off-site to local material recovery sites or land disposal facilities for reuse. Solid waste generated from construction related to the Mitigation Site would not be of significant qualities, and the City would comply with existing solid waste diversion program during Project implementation. A less than significant impact is identified for this issue area.

Long term maintenance of the Mitigation Site in its proposed condition would not increase the amount of solid waste currently generated by existing use of Buena Vista Park, as the site would be returned to the Park once construction is complete.

No Impact. As stated in response d), Project improvements within the Mitigation Site would involve a limited amount of solid waste during construction and would comply with federal, state, and local regulation related to solid waste and recycling. Operation of the Mitigation Site in its proposed condition would not increase the amount of solid waste currently generated by existing use of Buena Vista Park, as the site would be returned to the Park once construction is complete. Therefore, the City as the responsible entity for the maintenance of the Park, would continue to comply with federal, state, and local regulation related to solid waste and recycling. No impact is identified for this issue area.

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Figure 3-6. Existing Utility Easements

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xix) Wildfire

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☒	☐

Impact Analysis

a) **No Impact.** The Project is not located within a state responsibility area; however, the Project is located within a Very High Fire Hazard Severity Zone within a Local Responsibility Area (Cal Fire 2009). Two county-wide emergency plans were developed in coordination with the City:

Multi-Jurisdictional Hazard Mitigation Plan. This hazard mitigation plan is a county wide plan that identifies risks and minimizes damage by natural and manmade disasters. The City reviewed a set of jurisdictional-level hazard maps including detailed critical facility information and localized potential hazard exposure/loss estimates to help identify the top hazards threatening their jurisdiction and to develop specific hazard mitigation goals, objectives and related potential actions (San Diego County Office of Emergency Services 2018a).

San Diego County Emergency Operations Plan. This emergency operations plan is used by the County of San Diego and cities within the county to respond to major emergencies and disasters. Annex B of the emergency operations plan is specific to fire and rescue operations and represent all facets of local, tribal and metropolitan fire departments, districts, their interactions with the California Department of Forestry and Fire Protection (Cal Fire), and federal fire agencies (U.S. Department of Agriculture-Forest Service, Bureau of Land Management, etc.) (San Diego County Office of Emergency Services 2018b)

The goal of these county wide plans are to ensure that all future development is built in accordance with applicable city plans and ordinances to limit development in hazardous areas; promote partnerships and coordination between local, county, and state agencies; reduce the possibility of damage and losses of critical facilities/infrastructure; minimize loss of life; and to provide systematic mobilization, organization and operation of fire and rescue resources within each sub-regional response zone.

As further discussed below, improvements within the Mitigation Site would be built according to permit requirements and local regulations thereby minimizing the risk of fire hazards. Additionally, the closure of adjacent roadways or access to and from Buena Vista Park would not occur during the construction phase and conflict or impair an adopted emergency response plan or emergency evacuation plan from being implemented.

The long-term maintenance of the Mitigation Site in its proposed condition would be in compliance with the goals of the City's BPO land use designation. Therefore, the Project would not violate and applicable city plans and ordinances that could impede the application or implementation of these plans. No impact is identified for this issue area.

b) Potentially Significant Unless Mitigation Incorporated. As discussed above in response a), the Project is located in a Very High Fire Hazard Severity Zone within a Local Responsibility Area. Wildfire hazards are a concern to the public safety of the City due to the following factors: generally dry climate; location within a semi-rural setting; abundance of dry, low-lying brush and chaparral on hillsides; frequency of high wind velocity from Santa Ana winds and steep terrain in portions of the City. Wildfires are of special concern in communities that are located in the Wildland -Urban Interface which is described as the area where human development meets and intermingles with undeveloped wild land Dry brush near homes and /or vegetative fuels. This results in creation of a wildfire hazard area that poses significant risks to life, property, and infrastructure (City of Vista 2011).

In contrast, the risk of wildland fire could increase during construction within the Mitigation Site as construction equipment would work in close proximity to large stands of vegetation. Within the Mitigation Site, construction would be limited to new signage, fencing, realignment or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. In conjunction with these improvements, the goal of the Mitigation Site would be to increase the extent of the existing riparian corridor along Roman Creek and replacement of non-native trees (e.g., eucalyptus). During construction, the Project would comply with all applicable sections of Chapter 7A of the revised California Building Code which includes minimum standards for ignition- resistant construction, methods, and design in these fire hazard zones. Furthermore, with the implementation of the Mitigation Measures HAZ-2 and HAZ-3 (see Section IX. Hazards and Hazardous Materials), construction areas would be required to be clear of combustible materials and provide work crews with sufficient fire suppression equipment.

Figure 3-5 shows existing utility easements with SDG&E for aboveground powerlines, SDCWA for water lines and sewer easements are present within the boundaries of the Mitigation Site. As depicted on Figure 2-5 the Project proposes revegatation and removal of non-native trees (e.g., eucalyptus) within the middle of the Mitigation Site with low-lying native Oak Willow Alliance.

According to the City's Landscape Manual (City of Vista 2015), eucalyptus are listed within the undesirable plant list due to the high flammability of the species. Plants within this list are more susceptible to burning due to rough or peeling bark; production of litter; vegetation that contains oils, resin, wax, or pitch; large amounts of dead material in the plant; or plantings with a high dead to live fuel ration. Therefore, the Project would be consistent with the City's Landscape Manual which specifically recommends that eucalyptus be removed if possible.

During operation of the Mitigation Site in its proposed condition, the City would be responsible for implementation, habitat success monitoring, and long-term management, including adaptive management and maintenance. Therefore, the risk of fire hazard as a result of dry or overgrown vegetation would be maintained. With the implementation of Mitigation Measures HAZ-2 and HAZ-3 a less than significant impact with mitigation incorporated with mitigation incorporated is identified for this issue area.

c) Potentially Significant Unless Mitigation Incorporated. As depicted on Figure 3-6, existing utility easements with SDG&E for aboveground powerlines, SDCWA for water lines, and sewer easements are present within the boundaries of the Mitigation Site.

Within the Mitigation Site, construction would be limited to new signage, fencing, realignment or omission of the existing trails, and replacement of the existing pedestrian bridge crossing over Roman Creek. In conjunction with these improvements, the goal of the Mitigation Site would be to increase the extent of the existing riparian corridor along Roman Creek and replacement of non-native trees such as Eucalyptus, which have a high flammability risk. Although improvements within the Mitigation Site would not relocate existing SDG&E and SDCWA utilities or require the installation or maintenance of a roads, fuel breaks, or emergency water sources, the risk of a fire event could increase during construction activities within the Mitigation Site due to existing risks identified within the site.

During final design, and prior to and during the commencement of construction and grading activities, coordination with SDG&E and SDCWA would occur to reduce fire risks associate with impacts to any aboveground or underground utilities during construction. Additionally, Project construction would comply with all applicable sections of Chapter 7A of the revised California Building Code which includes minimum standards for ignition- resistant construction, methods, and design in these fire hazard zones. Furthermore,

with the implementation of the Mitigation Measures HAZ-2 and HAZ-3 (see Section IX. Hazards and Hazardous Materials), construction areas would be required to be clear of combustible materials and provide work crews with sufficient fire suppression equipment.

During operation of the Mitigation Site in its proposed condition, the Project would not exacerbate fire risks within the Park. The City would be responsible for habitat success monitoring, and long-term management, including adaptive management and maintenance. Therefore, a less than significant impact with mitigation incorporated is identified for this issue area.

d) **Less than Significant Impact**. As discussed above in Section 0, Mitigation Site Implementation Activities, the placement of soil stabilization and erosion control BMPs at select locations would be installed until permanent stabilization is achieved; and resurfacing improvements of the existing, in-stream trail crossing of Roman Creek and/or replacement of the existing culverts would be implemented. The Project would be implementing habitat restoration and hydromodification improvements within an existing Park, and would not construct new facilities or structures. Additionally, as further discussed in Section X. Hydrology and Water Quality, the Project improvements within Roman Creek would alleviate impacts from peak high flow events that currently degrade the steep unlined banks of the creek and overflow into the southern portion of the Mitigation Area; and stabilize the banks from future degradation.

Over the long term, the Mitigation Site in its proposed condition is anticipated to decrease flow velocities within steeper section of Roman Creek thereby maintaining base flows within the existing channel (Appendix E) and reducing the risk of soil erosion or instability within the Mitigation Site. Fencing would also be implemented in order to omit public access into the riparian corridor of Roman Creek. Given the Project's location within a Very High Fire Hazard Severity Zone and the proposed improvements within the Mitigation Site, it is not anticipated that the Project would 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. A less than significant impact is identified for this issue area.

xx) Mandatory Findings of Significance

Environmental Issue Area:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Does the project have the potential to substantially 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, substantially 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?	☐	☒	☐	☐
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)?	☐	☒	☐	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Impact Analysis

a) Potentially Significant Unless Mitigation Incorporated.

Biological Resources

As discussed above in Section IV., Biological Resources, implementation of the Mitigation Site could result in potentially significant impacts to sensitive vegetation communities, plant species, and wildlife species. However, with implementation of Mitigation Measures BIO-1 through BIO-8, impacts would be reduced to less than significant levels.

During construction of the Mitigation Site, biological resources, including threatened, endangered, and species of special concern, could be temporarily affected by construction activities associated with Project in conjunction with other development and infrastructure projects. In instances where a potential impact to biological resources could occur, USACE, RWQCB, CDFW, and USFWS have promulgated a regulatory scheme that limits impacts to these species. The effects of the Project improvements in sensitive habitat areas would be rendered less than significant through mitigation requiring compliance with all applicable regulations that protect plant, fish, and animal species, as well as WOUS and the State (see Mitigation Measures BIO-1 through BIO-8). Other cumulative projects in the Project area would also be required to avoid impacts to special-status species and/or mitigate to the satisfaction of the CDFW and USFWS for the potential loss of

habitat. Similarly, impacts to wetlands would require mitigation to the satisfaction of the CDFW, RWQCB, and USACE.

As the Project-level mitigation measures would be imposed in conjunction with construction, such as pre construction surveys and protective fencing, these measures would minimize or avoid impacts to biological resources such that they would not be cumulatively considerable. Therefore, the proposed Project would not degrade the quality of the environment, substantially reduce the habitat of 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.

Cultural Resources

As discussed in Section V. Cultural Resources, one potential historic archaeological site P-37-5781 (CA-SDI-2781H), consisting of historic eucalyptus grove of the blue gum variety, is within the Mitigation Site boundaries. However, CA-SDI-5781H is recommended as ineligible for listing on listing on the CRHR and NRHP. Therefore, removal of the eucalyptus trees, including the associated stumps, in conjunction with restoration of the riparian corridor would not result in a significant impact. With the implementation of Mitigation Measures CULT-1 through CULT-6, potential impacts to an archaeological resource as defined in Section 15064.5 of the CEQA Guidelines would be reduced to a level of less than significant.

b) **Potentially Significant Unless Mitigation Incorporated**. Based on the analysis contained in this Initial Study, the proposed project would not result in significant impacts to aesthetics, agricultural and forestry resources, energy, air quality, greenhouse gas emissions, land use and planning, mineral resources, noise, and population and housing.

Mitigation measures recommended for biological resources (Mitigation Measures BIO-1 through BIO-8), undocumented archaeological resources (Mitigation Measures CULT-1 through CULT-6), hazardous materials (Mitigation Measure HAZ-1), wildfire hazards (Mitigation Measure HAZ-2 and HAZ-3), traffic safety (Mitigation Measures TR-1 and TR-2), and soil erosion (Mitigation Measure GEO-1) and water quality (Mitigation Measures HWQ-1 and HWQ-2) would reduce impacts to below a level of significance. Other cumulative projects, including ongoing channel maintenance activities upstream of the Mitigation site, would also be required to implement avoidance and mitigation measures to reduce project-specific impacts to less than significant levels. Therefore, the Project would not have impacts that are individually limited, but cumulatively considerable. A less than significant impact with mitigation incorporated is identified for this issue area.

c) **Less than Significant Impact.** A significant impact may occur if a project has the potential to result in significant impacts, as discussed in the preceding sections. All potential impacts of the Project have been identified, and mitigation measures have been prescribed, where applicable, to reduce all potentially significant impacts to less than significant levels. Upon implementation of the proposed mitigation measures, the Project would not have the potential to result in substantial adverse impacts on human beings either directly or indirectly.

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4 Responses to Comments on the Draft Initial Study/Mitigated Negative Declaration

The City circulated a draft IS/MND for the proposed Project on June 1, 2020, for a 30-day public comment period, which ended on July 1, 2020. The City received three comments via written letter and email on the Draft IS/MND. These comments were provided by the following individuals representing local organizations, agencies, and tribal governments:

- Cheryl Madrigal, Tribal Historic Preservation Officer, Rincon Band of Luiseno Indians
- Jessie Lane, Environmental Scientist, California Department of Fish and Wildlife, South Coast Region, Habitat Conservation Planning
- Stephanie Jackel, President, South Vista Communities

This section contains responses to the written comments received on the Draft IS/MND. None of the changes or additions to the Draft IS/MND as presented in this Final IS//MND result in a “substantial” revision to the Draft IS/MND, as defined in CEQA Guidelines §15073.5(b).

The following sections provide the City’s responses to the comments received on the Draft IS/MND. Where applicable, revisions to the Draft IS/MND are reflected in underline/~~strikeout~~ in the corresponding Section(s) of the Final IS/MND.

4.1 Response to Cheryl Madrigal, Tribal Historic Preservation Officer, Rincon Band of Luiseno Indians

Below are the City’s responses to written comments received from Cheryl Madrigal, Tribal Historic Preservation Officer, with Rincon Band of Luiseno Indians. The City’s responses correspond to the response codes included in the comment letter below.

Rincon Band of Luiseño Indians

CULTURAL RESOURCES DEPARTMENT

One Government Center Lane | Valley Center | CA 92082
(760) 749-1051 | Fax: (760) 749-8901 | rincon-nsn.gov

June 8, 2020

Sent via email: ealex@cityofvista.com
City of Vista
Elmer Alex
Sewer Engineering Division Manager
200 Civic Center Drive
Vista, CA 92084-6275

Re: CIP 8188: Roman Creek Mitigation & Habitat Restoration Project

Dear Mr. Alex,

This letter is written on behalf of the Rincon Band of Luiseño Indians ("Rincon Band" or "Band"), a federally recognized Indian Tribe and sovereign government. We have received your Notice of Intent to adopt a Mitigated Negative Declaration (MND) for the above mentioned project. The identified location is within the Territory of the Luiseño people, and is also within Rincon's specific area of Historic interest. R-1

The Band has reviewed the MND and has no further comments regarding this project. Eventually, the Band would like to have further discussions on the City's Standard Mitigation Measures. We would appreciate if City staff reaches out to us to schedule a meeting. If you have additional questions or concerns, please do not hesitate to contact our office at your convenience at (760) 297-2635. R-2

Thank you for the opportunity to protect and preserve our cultural assets.

Sincerely,

Cheryl Madrigal
Tribal Historic Preservation Officer
Cultural Resources Manager

Bo Mazzetti, Chairman | Tishmall Turner, Vice Chair | Laurie E. Gonzalez, Council Member | Alfonso Kolb, Sr., Council Member | John Constantino, Council Member

Response R-1

The City acknowledges that the Project's location is within the Rincon Band of Luiseño Indians (Rincon Band) specific area of Historic interest.

Response R-2

The City acknowledges that the Rincon Band has reviewed the draft IS/MND and has no further comments. Your request for a future meeting to discuss the City's Standard Mitigation Measures has been forwarded to the appropriate staff.

4.2 Response to Jessie Lane, Environmental Scientist, California Department of Fish and Wildlife, South Coast Region, Habitat Conservation Planning

Below are the City's responses to written comments received from Jessie Lane, Environmental Scientist with California Department of Fish and Wildlife's, South Coast Region, Habitat Conservation Planning Division. The City's responses correspond to the response codes included in the comment letter below.

From: Lane, Jessie@Wildlife <Jessie.Lane@Wildlife.ca.gov>
Sent: Wednesday, July 1, 2020 4:24 PM
To: Elmer Alex <ealex@ci.vista.ca.us>
Cc: Turner, Jennifer@Wildlife <Jennifer.Turner@wildlife.ca.gov>
Subject: Roman Creek Mitigation and Habitat Restoration Project (SCH# 2020050587) [heur]

Dear Mr. Alex,

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced draft Mitigated Negative Declaration (MND) dated May, 2020, for the for the Roman Creek Mitigation and Habitat Restoration Project (SCH# 2020050587). The comments provided herein are based on information provided in the MND, and our participation in regional conservation planning efforts. The Department is a Trustee Agency and a Responsible Agency pursuant to the California Environmental Quality Act (CEQA; §§ 15386 and 15281, respectively) and is responsible for ensuring appropriate conservation of the state's biological resources, including rare, threatened, and endangered plant and animal species, pursuant to the California Endangered Species Act (Fish and Game Code § 2050 et seq.) and other sections of the Fish and Game Code (1600 *et seq*.). The Department also administers the Natural Community Conservation Planning (NCCP) program. CDFW-1

We appreciate the detail and level of consideration for biological resources provided in your proposed mitigation measures. The Department recommends also including a mitigation measure to address potential shot hole borer impacts, outlined below:

The Polyphagous and Kuroshio shot hole borers (ISHBs) are invasive ambrosia beetles that introduce fungi and other pathogens into host trees. The adult female (1.8-2.5 mm long) tunnels galleries into the cambium of a wide variety of host trees, where it lays its eggs and propagates the Fusarium fungi species for the express purpose of feeding its young. These fungi cause Fusarium dieback disease, which interrupts the transport of water and nutrients in at least 58 reproductive host tree species, with impacts to other host tree species as well. With documented occurrences of both Polyphagous and Kuroshio shothole borers within 6 miles of the Project site, the spread of invasive shot hole borers (ISHBs) could have significant impacts in local ecosystems. Therefore, with regard to ISHBs, we recommend the final MND include the following: CDFW-2

a. a thorough discussion of the direct, indirect, and cumulative impacts that could occur from

the potential spread of ISHBs as a result of proposed activities in the final MND;

b. an analysis of the likelihood of the spread of ISHBs as a result of the invasive species' proximity to above referenced activities;

c. figures that depict potentially sensitive or susceptible vegetation communities within the project area, the known occurrences of ISHB within the project area (if any), and ISHB's proximity to above referenced activities; and

d. a mitigation measure or measure(s) within the final MND that describe Best Management Practices (BMPs) that bring impacts of the project on the spread of ISHB below a level of significance. Examples of such BMPs include:

CDFW-2

i. education of on-site workers regarding ISHB and its spread;
ii. reporting sign of ISHB infestation, including sugary exudate ("weeping") on trunks or branches and ISHB entry/exit-holes (about the size of the tip of a ballpoint pen), to the Department and UCR's Eskalen Lab;
iii. equipment disinfection;
iv. pruning infected limbs in infested areas where project activities may occur;
v. avoidance and minimization of transport of potential host tree materials;
vi. chipping potential host materials to less than 1 inch and solarization, prior to delivering to a landfill;
vii. chipping potential host materials to less than 1 inch, and solarization, prior to composting on-site;
viii. solarization of cut logs; and/or
ix. burning of potential host tree materials.

Please refer to UCR's Eskalen lab website for more information regarding ISHBs: http://eskalenlab.ucr.edu/pshb.html.

Please contact me with any questions about this recommendation or pertaining to biological resources for this project.

Thank you,

Jessie Lane
Environmental Scientist
California Department of Fish and Wildlife
South Coast Region, Habitat Conservation Planning
3883 Ruffin Road
San Diego, CA 92123

Phone (858) 636-3159

Response CDFW-1

The City understands the Department's role as a trustee agency under CEQA and expects to enter into a streambed alteration agreement with the Department consistent with State Fish and Game Code in support of Project implementation.

Response CDFW-2

The City appreciates the Department's notification regarding the documented occurrences of both invasive Polyphagous and Kuroshio shot hole borers (ISHBs) within 6 miles of the proposed Mitigation Site, and agrees that additional measures are warranted to avoid introducing ISHBs to the local ecosystem. In response to the recommendation of the Department, additional analysis and mitigation measures are incorporated into the Final MND, as well as in the Mitigation Monitoring and Reporting Program (MMRP) (Appendix F) and the corresponding Habitat Mitigation Plan. See Section 3.3 (page 52 and 55) for the additional analysis and mitigation measure.

4.3 Response to Stephanie Jackel, President, South Vista Communities

Below are the City's responses to written comments received from Stephanie Jackel, President, with South Vista Communities. The City's responses correspond to the response codes included in the comment letter below.

From: stephanie.jackel@gmail.com <stephanie.jackel@gmail.com>
Sent: Tuesday, June 30, 2020 9:16 AM
To: Elmer Alex <ealex@ci.vista.ca.us>
Subject: MND for Roman Creek Habitat project

Good morning, Mr. Alex –

Thank you very much for notifying me, representing South Vista Communities, of the proposal to adopt the mitigated negative declaration for the Roman Creek habitat mitigation and restoration project.

On behalf of SVC, I would like to submit the following comment: SVC-1
We have reviewed the information in the MND, thank you. South Vista Communities requests being continuously updated in regard to traffic, noise, dust, water, and environmental hazards as the project evolves from planning to execution.

With thanks,
Stephanie Jackel
President, SVC

Response SVC-1

The City notes the request from South Vista Communities (SVC) for continued updates on the Project's construction status and any related environmental effects to the community. The City appreciates SVC's commitment to the community and will provide periodic updates prior to and during construction of the Project. Enclosed is the City's proposed MMRP for the Project for reference.

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Appendix A. Air Quality Emission Table

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Appendix B. Roman Creek Biological Resources Technical Report

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Appendix C. Roman Creek Cultural Letter

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Appendix D. Roman Creek Geotechnical Design Report

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Appendix E. Roman Creek Hydrology and Hydraulics Memorandum

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Appendix F. Mitigation Monitoring and Reporting Program

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