

Appendix D

Potential Outfall Project Biological Resources Report



H. T. HARVEY & ASSOCIATES

Ecological Consultants

**Cilker Property Storm Drain Outfall Project
Biological Resources Report**

Project # 3855-01

Prepared for:

Jodi Starbird
David J. Powers & Associates
1871 The Alameda, Suite 200
San Jose, CA 95126

Prepared by:

H. T. Harvey & Associates



August 11, 2016

Executive Summary

The proposed Cilker Property storm drain outfall project would construct a new 48-inch storm drain outfall into Coyote Creek. The proposed outfall would result in permanent impacts on California annual grassland, mixed riparian forest and woodland, and seasonal wetlands. Permanent impacts would occur in a small patch (<0.01-acre) of California annual grassland and a small (0.01-acre) seasonal wetland habitat as a result of project implementation as well as 0.11 acres of mixed riparian forest canopy on site and 0.05 acres of mixed riparian forest canopy extending off site. The project avoids direct impacts to Coyote Creek because the outfall is located outside the stream's low flow channel. Construction access, project trenching, and pipe installation would temporarily impact California annual grassland and urban/suburban habitats.

The project could result in potentially significant impacts to jurisdictional waters and water quality, riparian forest habitat from tree removal, invasive weeds, and the burrowing owl (*Athene cunicularia*). With implementation of mitigation measures identified herein, impacts on these biological resources will be reduced to less-than-significant levels.

Table of Contents

Section 1. Introduction.....	1
1.1 Project Location.....	1
1.2 Proposed Project.....	1
Section 2. Regulatory Setting.....	5
2.1 Federal.....	5
2.1.1 Clean Water Act.....	5
2.1.2 Federal Endangered Species Act.....	5
2.1.3 Federal Migratory Bird Treaty Act.....	6
2.2 State.....	6
2.2.1 Porter-Cologne Water Quality Control Act.....	6
2.2.2 California Endangered Species Act.....	7
2.2.3 California Environmental Quality Act.....	7
2.2.4 California Fish and Game Code.....	9
2.3 Local.....	10
2.3.1 City of San José Tree Ordinance.....	10
2.3.2 Envision San José 2040 General Plan.....	11
2.3.3 City of San José Riparian Policy.....	13
2.3.4 Santa Clara Valley Habitat Plan.....	14
2.3.5 State and Local Requirements to Control Construction-Phase and Post-Construction Water Quality Impacts.....	15
Section 3. Methods.....	17
Section 4. Existing Biological Conditions.....	19
4.1 General Habitat Conditions and Wildlife Use.....	19
4.1.1 Vegetation.....	20
4.1.2 Wildlife.....	22
4.2 Special-Status Plant and Animal Species.....	23
4.2.1 Special-Status Plants.....	24
4.2.2 Special-Status Animals.....	27
4.3 Sensitive and Regulated Habitats.....	38
Section 5. Biotic Impacts and Mitigation.....	40
5.1 CEQA Overview.....	40
5.1.1 Santa Clara Valley Habitat Plan.....	41
5.2 Less-than-Significant Impacts.....	44
5.2.1 Impacts on Non-Sensitive Habitats and Associated Common Plant and Animal Communities.....	44
5.2.2 Impacts on Water Quality.....	45
5.2.3 Impacts from Invasive Weeds.....	46
5.2.4 Impacts on the Western Pond Turtle.....	47
5.2.5 Impacts on Nesting White-tailed Kite, Loggerhead Shrike, Yellow Warbler, and San Francisco Common Yellowthroat.....	47
5.3 Impacts Found to be Less than Significant with Mitigation.....	48
5.3.1 Impacts on Waters of U.S./State.....	48
5.3.2 Impacts to Mixed Riparian Forest from Tree Removal.....	49
5.3.3 Impacts on the Burrowing Owl.....	51
5.4 Cumulative Impacts.....	54

Section 6. Compliance with Additional Laws and Regulations Applicable to Biotic Resources of the Site	55
6.1 Regulatory Overview for Nesting Birds	55
Section 7. Literature Cited.....	56

Figures

Figure 1. Vicinity Map.....	2
Figure 2. Land Cover and Impacts Map	18
Figure 3. California Natural Diversity Database Map of Special-Status Plants	25
Figure 4. California Natural Diversity Database Map of Special-Status Animals	26

Tables

Table 1. Habitat Acreages in the Project Site	19
Table 2. Special Status Animal Species, Their Status, and Potential Occurrence on the Project Site	29
Table 3. Santa Clara Valley Habitat Plan Conditions and Project Applicability	41
Table 4. Proposed Project Impacts	45

List of Preparers

Patrick Boursier, Ph.D., Principal-In-Charge
Stephen Rottenborn, Ph.D., Principal Wildlife Ecologist
Kelly Hardwicke, Ph.D., Senior Associate Plant Ecologist/Project Manager
Patrick Stone, B.S., Senior Wildlife Ecologist
Élan Alford, Ph.D., Senior Plant Ecologist

Section 1. Introduction

This report describes the biological resources present in the area of the proposed Cilker Property storm drain outfall project (project), the potential biological impacts of the proposed project, and measures necessary to reduce these impacts to less-than-significant levels under the California Environmental Quality Act (CEQA). This assessment is based upon the project plans provided to H. T. Harvey & Associates by PAC LAND in late June, 2016.

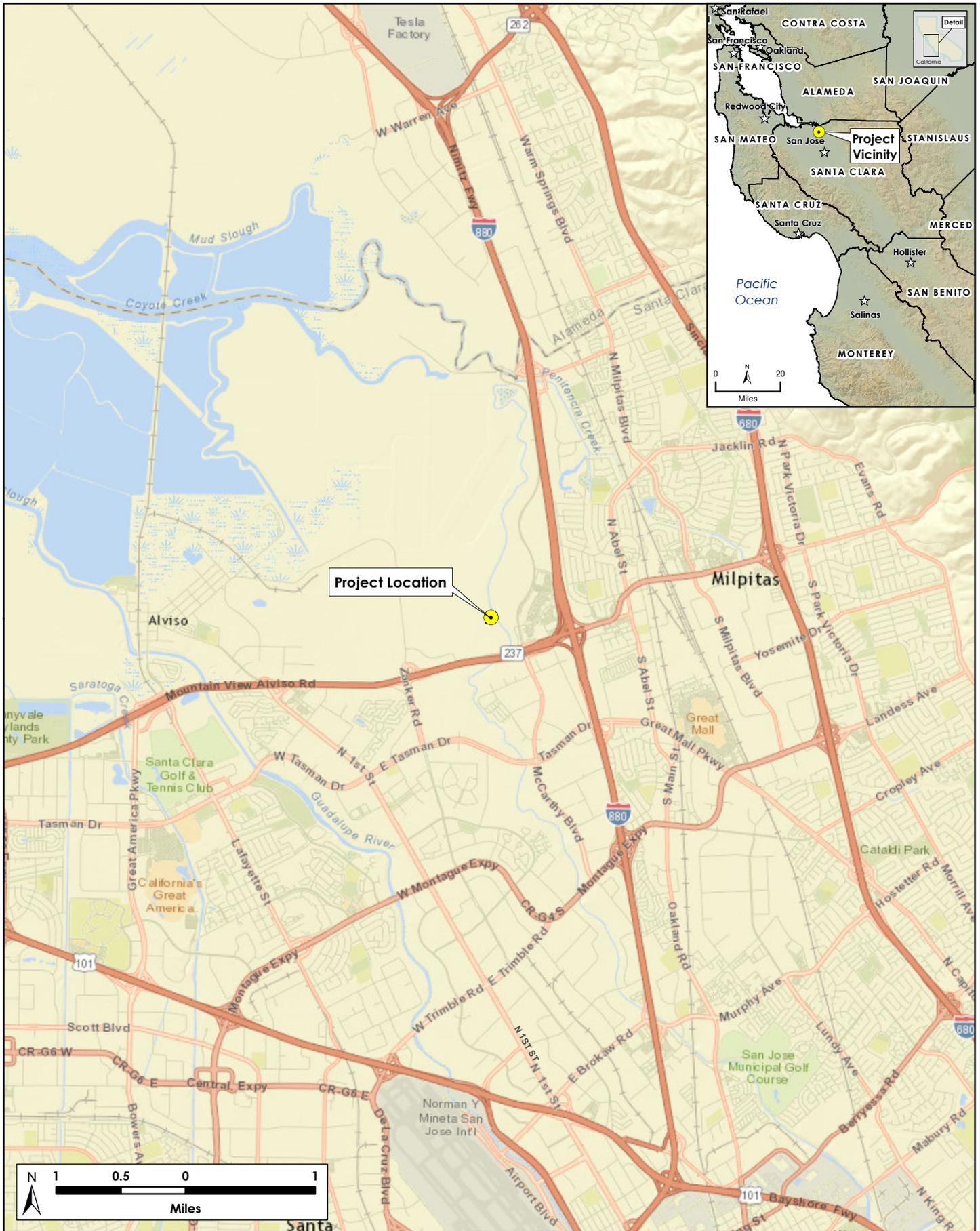
1.1 Project Location

The project site is 0.43 acre (ac) in size and is located on the north side of Highway 237 at the east side of the Alviso area in San Jose, California (Figure 1). It is located in the *Milpitas, California* 7.5-minute U.S. Geological Survey (USGS) quadrangle at an elevation of approximately 10 to 30 feet (Google Inc. 2016), with the lowest elevations within the bed of Coyote Creek and the highest elevations at the top of the western levee containing the creek. The site is located on parcels APN 015-31-054 and 015-31-068. The entire project site is located within the Santa Clara Valley Habitat Plan (VHP) permit area.

1.2 Proposed Project

The proposed project site is currently largely undeveloped. The purpose of the proposed Cilker Property storm drain outfall project is to construct a new storm drain outfall into Coyote Creek to convey storm water runoff from the proposed Cilker Property development to the west. The project alignment runs in a southwest to northeast orientation. The project site crosses an existing levee along the western side of Coyote Creek. It is adjacent to existing drainage pipe infrastructure, and the project would construct a new drainage pipe directly north of the existing storm water main. The project includes the construction of a storm drain outfall structure. All work, temporary and permanent, is to be completely confined to the limit of environmentally sensitive area (ESA) fencing along the project site borders as shown on project plans. All construction access will be from the existing gravel maintenance roads. There will be no dewatering of the low-flow channel to install the outfall or armoring. Project work would involve the following steps: (1) fencing the site perimeter, (2) preparing the site by removing trees in the trenching area, (3) excavating a sending pit and receiving pit, (4) jacking and boring for 60-inch pipe installation under the existing levee, (5) excavating an open trench east of the levee, (6) installing the 48-inch outfall pipe in the trench, (7) installing rock slope protection at the outfall, and (8) installing erosion control measures for the disturbed areas.

Access into the ESA-fenced project site would be provided by entries at the Santa Clara Valley Water District (SCVWD) lower levee maintenance road. The entrances would be gated to allow for construction access. Equipment would enter the project site from the existing gravel road that crosses through the site on the eastern side of the levee or through the main Cilker Property site located directly west of the project site. Trees in the trenching area would be removed to prepare for outfall construction. Hand crews with chain saws will enter



N:\Projects\38500\3855-01\Reports\Biological Resources\Fig 1 Vicinity Map.mxd miagardc



H. T. HARVEY & ASSOCIATES
Ecological Consultants

Figure 1. Vicinity Map

Cilker Property Biological Resources Report (3855-01)
August 2016

the work area to cut trees that would be directly impacted by project trenching. The trees would then be dragged upslope to be cut up and off hauled using a front loader with a log attachment or the trees will be cut into sections, and the branches trimmed and ground into a truck using a wood chipper.

Outfall pipe installation would be conducted via jack and bore methods under the levee, to preserve levee integrity and reduce above-ground impacts. The pipe would be installed via trench excavation east of the levee up to Coyote Creek. For the jack and bore pipe installation a backhoe would enter the work area from along the top of SCVWD road and would excavate two pits, the receiving pit on the eastern side of the levee and the sending pit west of the levee. Access to the sending pit would be from the main Cilker Property site to avoid heavy machinery crossing the levee. The side cast earthen material would be placed to the side of the pits temporarily. In accordance with standard National Pollutant Discharge Elimination System (NPDES) permit construction practices the side cast material will be encircled with fiber rolls and a staked silt fence to prevent stream sedimentation. All soil material removed during the jack and bore process would be stockpiled to the side of the sending pit. A boring machine would be set in the sending pit, the auger would be attached, and the machine would bore the hole while a 60-inch diameter culvert pipe would be simultaneously put into place and jacked forward. This process would continue until the pipe is bored from the sending pit to the receiving pit. The 48-inch storm drain outfall pipe would then be fed through the bored culvert using spacers, and the annulus grouted, using a front loader. The material would be delivered to the pit via a Gradall forklift, or similar. A manhole would be constructed in the sending pit to receive the force main from the main Cilker site on-site storm drain treatment systems and connect to the outfall pipe. The sending and receiving pits would then be backfilled with gravel first and then soil. Any extra soil removed from the jack and bore pits and culvert excavation that would not be used in backfilling the pit will be put into standard one-trailer dump trucks positioned on the existing SCVWD access road. The soil would be loaded into the dump truck by a front loader tractor.

The next phase of the work would involve excavating the trench extending from the receiving pit and proceeding down slope to the proposed outfall and rock slope area. During construction the project site would be physically separated from Coyote Creek by using fiber rolls, staking, and silt fencing to prevent water quality impacts as required by the NPDES Construction General Permit. The 6-foot wide trench would be excavated with a long reach backhoe. Trenching soil would be side cast in the project site and a portion would be saved to backfill the trench. Extra material would be off-hauled. The 48-inch diameter pipe would be put in place by hoisting with the front of the front-loader or using a small crane. The outfall rock slope area would be over excavated inside the limits of the fiber rolls and silt fencing. That soil material would be stockpiled and/or off-hauled. The rock slope materials would be put into place using a combination of a front loader and hand crews.

Soil removed from the pits and trenching would be put back into place and lightly compacted so that it would match the pre-construction topography. The disturbed area would be restored by seeding the area with an erosion control mixture that is suitable to the California Department of Fish and Wildlife (CDFW) and the Regional Water Quality Control Board (RWQCB) and would have a mixture of California native grasses and forbs. This will minimize the potential for the germination of the majority of seeds from non-native, invasive

plant species. The seed mixture would be applied and an erosion control blanket would be placed and staked with wooden stakes that are 1 by 2-inches around and 12-inches long. No netting would be used in the erosion control area. Following construction the ESA perimeter fence, silt fences and other temporary protective materials would then be removed. During construction of the proposed project, all straw materials used for erosion control on site will be weed-free rice (or similar material acceptable to the City) straw, and all gravel and fill material will be certified weed free to the satisfaction of the City, and any deviation from this will be approved by the City.

During construction of the proposed project, vehicles and all equipment will be washed (including wheels, undercarriages, and bumpers) before and after entering the proposed project site. Vehicles will be cleaned at existing originating and receiving construction equipment yards or legally operating car washes.

The project is located in the VHP coverage area (ICF International 2012) and is subject to its conditions. The proposed project is partially inside the planning limits of urban growth at the SCVWD levee in the western portion of the project site. Work in the western portion of the site is a “covered project” under the VHP (ICF International 2012) for storm water management facilities, including outfall improvements. The eastern portion of the project site, inboard of the levee, is outside the planning limits of urban growth and is in the private development covered area of the VHP. Due to this VHP coverage, the proposed project is required by the City of San Jose to pay VHP fees for land impacts in accordance with the types and acreage of habitat impacted, and to implement conservation measures specified by VHP conditions. This biological resources report, therefore, incorporates VHP avoidance, minimization, and compensatory mitigation measures as appropriate, in the context of measures that we believe to be appropriate to reduce impacts to less-than-significant levels under CEQA.

Section 2. Regulatory Setting

Biological resources on the project site are regulated by a number of federal, state, and local laws and ordinances, as described below.

2.1 Federal

2.1.1 Clean Water Act

Areas meeting the regulatory definition of “Waters of the U.S.” are subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE) under provisions of Section 404 of the 1972 Clean Water Act (CWA). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), territorial seas, and wetlands adjacent to Waters of the U.S. (33 Code of Federal Regulations [CFR], Part 328). Wetlands on non-agricultural lands are identified using the Corps of Engineers Wetlands Delineation Manual (1987) using an approach that relies on identification of three parameters: hydrophytic vegetation, hydric soils, and wetland hydrology indicators. Areas typically not considered to be jurisdictional waters include nontidal drainage and irrigation ditches excavated in uplands, artificially irrigated areas, artificial lakes or ponds used for irrigation or stock watering, small artificial water bodies such as swimming pools, and water-filled depressions (33 CFR, Part 328).

Construction activities within jurisdictional waters are regulated by the USACE. The placement of fill into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of Section 401 Water Quality Certification. The State Water Resources Control Board (SWRCB) is the state agency (together with the Regional Water Quality Control Boards [RWQCBs]) charged with implementing water quality certification in California.

Project Applicability: The project site does support an area that would likely be considered jurisdictional waters of the U.S. as seasonal wetlands. Although the channel of the Coyote Creek is adjacent to the northeastern edge of the project site, the lateral limits of the channel do not overlap with the project site. Installation of rock slope protection and trenching to place a storm drain pipe would occur in seasonal wetlands habitat. Because this work is proposed in Waters of the U.S, a permit from the USACE would be required.

2.1.2 Federal Endangered Species Act

The Federal Endangered Species Act (FESA) protects federally listed wildlife species from harm or “take”, which is broadly defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” Take can also include habitat modification or degradation that directly results in death or injury of a listed wildlife species. An activity can be defined as “take” even if it is unintentional or

accidental. Listed plant species are provided less protection than listed wildlife species. Listed plant species are legally protected from take under the FESA only if they occur on federal lands.

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service have jurisdiction over federally listed, threatened, and endangered species under the FESA. The USFWS also maintains lists of proposed and candidate species; on these lists are not legally protected under the FESA, but may become listed in the near future and are often included in their review of a project.

Project Applicability: No federally listed plant or animal species occur on the project site.

2.1.3 Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA), 16 U.S.C. §703, prohibits killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The MBTA protects whole birds, parts of birds, and bird eggs and nests; and prohibits the possession of all nests of protected bird species whether they are active or inactive. An active nest is defined as having eggs or young, as described by the Department of the Interior in its April 16, 2003 Migratory Bird Permit Memorandum. Nest starts (nests that are under construction and do not yet contain eggs) are not protected from destruction.

Project Applicability: All native bird species that occur on the project site are protected under the MBTA.

2.2 State

2.2.1 Porter-Cologne Water Quality Control Act

The SWRCB works in coordination with the nine RWQCBs to preserve, protect, enhance, and restore water quality. Each RWQCB makes decisions related to water quality for its region, and may approve, with or without conditions, or deny projects that could affect Waters of the State. Their authority comes from the CWA and the State's Porter-Cologne Water Quality Control Act (Porter-Cologne). Porter-Cologne broadly defines Waters of the State as "any surface water or groundwater, including saline waters, within the boundaries of the state." Because Porter-Cologne applies to any water, whereas the CWA applies only to certain waters, California's jurisdictional reach overlaps and may exceed the boundaries of Waters of the U.S. For example, Water Quality Order No. 2004-0004-DWQ states that "shallow" waters of the State include headwaters, wetlands, and riparian areas. Moreover, the San Francisco Bay Region RWQCB's Assistant Executive Director, has stated that, in practice, the RWQCBs claim jurisdiction over riparian areas. Where riparian habitat is not present, such as may be the case at headwaters, jurisdiction is taken to the top of bank.

Pursuant to the CWA, projects that are regulated by the USACE must also obtain a Section 401 Water Quality Certification permit from the RWQCB. This certification ensures that the proposed project will uphold state water quality standards. Because California's jurisdiction to regulate its water resources is much broader than that of the federal government, proposed impacts on Waters of the State require Water Quality Certification

even if the area occurs outside of USACE jurisdiction. Moreover, the RWQCB may impose mitigation requirements even if the USACE does not. Under the Porter-Cologne, the SWRCB and the nine regional boards also have the responsibility of granting CWA National Pollutant Discharge Elimination System (NPDES) permits and Waste Discharge Requirements for certain point-source and non-point discharges to waters. These regulations limit impacts on aquatic and riparian habitats from a variety of urban sources.

Project Applicability: Waters of the State include Waters of the U.S. as described above, which were determined to be present in the project site as seasonal wetlands. In addition, riparian areas are claimed as Waters of the State, and thus the top of bank at the project site is equivalent to the inboard side of the levee top. All areas east toward Coyote Creek are considered Waters of the State jurisdiction inside top of bank. The riparian tree canopy is contained entirely below the top of the levee, therefore Waters of the State jurisdiction does not extend beyond the top of bank.

2.2.2 California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code, Chapter 1.5, §§2050-2116) prohibits the take of any plant or animal listed or proposed for listing as rare (plants only), threatened, or endangered. In accordance with the CESA, the CDFW has jurisdiction over state-listed species (Fish and Game Code 2070). The CDFW regulates activities that may result in “take” of individuals (i.e., “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”). Habitat degradation or modification is not expressly included in the definition of “take” under the California Fish and Game Code. The CDFW, however, has interpreted “take” to include the “killing of a member of a species which is the proximate result of habitat modification.”

Project Applicability: No state listed plant or animal species occur on the project site.

2.2.3 California Environmental Quality Act

The CEQA is a state law that requires state and local agencies to document and consider the environmental implications of their actions and to refrain from approving projects with significant environmental effects if there are feasible alternatives or mitigation measures that can substantially lessen or avoid those effects. The CEQA requires the full disclosure of the environmental effects of agency actions, such as approval of a general plan update or the projects covered by that plan, on resources such as air quality, water quality, cultural resources, and biological resources. The State Resources Agency promulgated guidelines for implementing CEQA known as the State CEQA Guidelines.

Section 15380(b) of the State CEQA Guidelines provides that a species not listed on the federal or state lists of protected species may be considered rare if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definitions in the FESA and the CESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals. This section was included in the guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a

significant effect on a species that has not yet been listed by either the USFWS or CDFW or species that are locally or regionally rare.

The CDFW has produced three lists (amphibians and reptiles, birds, and mammals) of “species of special concern” that serve as “watch lists”. Species on these lists are of limited distribution or the extent of their habitats has been reduced substantially, such that threat to their populations may be imminent. Thus, their populations should be monitored. They may receive special attention during environmental review as potential rare species, but do not have specific statutory protection. All potentially rare or sensitive species, or habitats capable of supporting rare species, are considered for environmental review per the CEQA §15380(b).

The CNPS, a non-governmental conservation organization, has developed rankings for plant species of concern in California in the CNPS Inventory of Rare and Endangered Plants. Lichens, vascular, and non-vascular plants included in these rankings are defined as follows:

- Rank 1A Plants considered extinct.
- Rank 1B Plants rare, threatened, or endangered in California and elsewhere.
- Rank 2A Plants considered extinct in California but more common elsewhere.
- Rank 2B Plants rare, threatened, or endangered in California but more common elsewhere.
- Rank 3 Plants about which more information is needed - review list.
- Rank 4 Plants of limited distribution-watch list.

These CNPS rankings are further described by the following threat code extensions:

- .1—seriously endangered in California;
- .2—fairly endangered in California;
- .3—not very endangered in California.

Although the CNPS is not a regulatory agency and plants on these lists have no formal regulatory protection, plants appearing on List 1B or List 2 are, in general, considered to meet CEQA’s §15380 criteria, and adverse effects to these species may be considered significant. Impacts on plants that are listed by the CNPS on List 3 or 4 are also considered during CEQA review, although because these species are typically not as rare as those on List 1B or List 2, impacts on them are less frequently considered significant.

Compliance with CEQA Guidelines §15065(a) requires consideration of natural communities of special concern, in addition to plant and wildlife species. Vegetation types of “special concern” are tracked in Rarefind (CNDDDB 2016). Further, the CDFW ranks sensitive vegetation alliances based on their global (G) and state (S) rankings analogous to those provided in the CNDDDB and using NatureServe’s (2016) standard heritage

program methodology. Global rankings (G1–G5) of natural communities reflect the overall condition (rarity and endangerment) of a habitat throughout its range, whereas S rankings are a reflection of the condition of a habitat within California. If an alliance is marked as a G1–G3, all of the associations within it would also be of high priority. The CDFW provides the Vegetation Classification and Mapping Program’s currently accepted list of vegetation alliances and associations (California Department of Fish and Game [CDFG] 2010).

Project Applicability: All potential impacts on biological resources will be considered during CEQA review of the project in the context of this Biological Resources Report. Project impacts are discussed below in Section 5, Biotic Impacts and Mitigation.

2.2.4 California Fish and Game Code

Ephemeral and intermittent streams, rivers, creeks, dry washes, sloughs, blue line streams on USGS maps, and watercourses with subsurface flows fall under CDFW jurisdiction. Canals, aqueducts, irrigation ditches, and other means of water conveyance may also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. A *stream* is defined in Title 14, California Code of Regulations §1.72, as “a body of water that follows at least periodically or intermittently through a bed or channel having banks and that supports fish and other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation.” Using this definition, CDFW extends its jurisdiction to encompass riparian habitats that function as a part of a watercourse. California Fish and Game Code §2786 defines *riparian habitat* as “lands which contain habitat which grows close to and which depends upon soil moisture from a nearby freshwater source.” The lateral extent of a stream and associated riparian habitat that would fall under the jurisdiction of CDFW can be measured in several ways, depending on the particular situation and the type of fish or wildlife at risk. At minimum, CDFW would claim jurisdiction over a stream’s bed and bank. In areas that lack a vegetated riparian corridor, CDFW jurisdiction would be the same as USACE jurisdiction. Where riparian habitat is present, the outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats.

Pursuant to California Fish and Game Code §1603, CDFW regulates any project proposed by any person that will “substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the department, or use any material from the streambeds.” California Fish and Game Code §1602 requires an entity to notify CDFW of any proposed activity that may modify a river, stream, or lake. If CDFW determines that proposed activities may substantially adversely affect fish and wildlife resources, a Lake and Streambed Alteration Agreement (LSAA) must be prepared. The LSAA sets reasonable conditions necessary to protect fish and wildlife, and must comply with CEQA. The applicant may then proceed with the activity in accordance with the final LSAA.

Certain sections of the California Fish and Game Code describe regulations pertaining to protection of certain wildlife species. For example, Code §2000 prohibits take of any bird, mammal, fish, reptile, or amphibian except as provided by other sections of the code.

The California Fish and Game Code §§3503, 3513, and 3800 (and other sections and subsections) protect native birds, including their nests and eggs, from all forms of take. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “take” by the CDFW. Raptors (i.e., eagles, hawks, and owls) and their nests are specifically protected in California under Code §3503.5. Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.”

Bats and other non-game mammals are protected by California Fish and Game Code §4150, which states that all non-game mammals or parts thereof may not be taken or possessed except as provided otherwise in the code or in accordance with regulations adopted by the commission. Activities resulting in mortality of non-game mammals (e.g., destruction of an occupied nonbreeding bat roost, resulting in the death of bats), or disturbance that causes the loss of a maternity colony of bats (resulting in the death of young), may be considered “take” by the CDFW.

Project Applicability: The project site has seasonal wetlands in the vicinity of Coyote Creek and the top of bank is located at the inboard side of the levee. The area of CDFW jurisdiction on the project site corresponds to all habitat types that occur from top of bank and inboard toward the stream. Therefore, an LSAA will be required for proposed project activities up to the top of bank. Most native bird, mammal, and other wildlife species that occur on the project site and in the immediate vicinity are protected by the California Fish and Game Code.

2.3 Local

2.3.1 City of San José Tree Ordinance

According to the City of San José’s Municipal Code, Chapter 13.28.220, no person is allowed to unlawfully prune or remove street trees or heritage trees without obtaining a permit. Any tree planted on a street is protected by this ordinance. In addition, any tree which, because of factors including but not limited to its history, girth, height, species, or unique quality, has been found by the City Council to have special significance to the community may be designated as a heritage tree (also see Chapter 13.28.220 of the Municipal Code). Property owners can contact the City Arborist’s Office to nominate a tree for heritage status, and the arborist has the authority to accept or deny requests to add trees to the Heritage Tree List. The list is available on the City of San José’s official website (<http://www.sanjoseca.gov/index.aspx?NID=1913>) and includes the unique identification number, species, girth, and location for each tree.

Permits to prune or remove street trees are issued by the City Department of Transportation, whereas permits to impact heritage trees can be obtained from the Department of Planning, Building, and Code Enforcement. Both types of permits will define protection measures that will be required during development and construction activities to limit adverse environmental effects. For instance, heritage tree work must be performed by a certified arborist and must remain in compliance with the trimming, cutting, or pruning standards adopted by the American National Standards Institute.

Project Applicability: Based upon reviewing the City Tree Map in July 2016 we have verified that heritage trees do not occur. The project site is not adjacent to a City street and thus no street trees occur either.

2.3.2 Envision San José 2040 General Plan

The Envision San José 2040 General Plan (Envision) (City of San José 2012) was adopted in compliance with the state law requirement that each city and county prepare and adopt a comprehensive and long-range general plan for its physical development (California Government Code Section 65300). Envision is an integrated general plan document, with most elements addressed through goals, policies and implementation actions. Envision provides the City with a consistent framework for its decision-making related to the land use and delivery of municipal services. Under California law, no specific plan, area plan, community plan, zoning, subdivision map, nor public works project may be approved unless the City finds that it is consistent with the adopted general plan. The goals and policies set forth by Envision that pertain to biological resources and are relevant to the project are summarized below.

“Measurable Sustainability” includes policies related to City’s community’s forest and water quality that that fulfill the City’s Green Vision goal. Community forest goals that are relevant to the project are described above under *City of San José’s Tree Ordinance*. Water quality policies prohibit locating new development or authorizing activities with the potential to negatively impact groundwater quality in areas that have been identified as having a high degree of aquifer vulnerability by the SCVWD, or other public agencies (Goal MS-20.2). Water quality implementation action MS-20.4 protects surface water and groundwater supplies in the City’s watershed from pollution and degradation through cooperation of local, regional, and state agencies.

“Environmental Resources” includes policies intended to protect the high-quality ecological habitats and other environmental resources that can be found within the City, such as the urban-natural interface and special-status plants and animals. The following goals preserve, manage, and restore suitable habitat for special-status species that are known to occur in the City, which are listed under Table ER-4 (City of San José 2012):

- Goal ER-4.1 Preserves and restores, to the greatest extent feasible, habitat areas that support special status species. Avoid development in such habitats unless no feasible alternatives exist and mitigation is provided of equivalent value.
- Goal ER-4.2 Limit recreational uses in wildlife refuges, nature preserves and wilderness areas in parks to those activities which have minimal impact on sensitive habitats.
- Goal ER-4.3 Prohibit planting of invasive non-native plant species in natural habitats that support special-status species.
- Goal ER-4.4 Require that development projects incorporate mitigation measures to avoid and minimize impacts to individuals of special-status species

In addition to goals that protect special-status species, Envision's lists policies that minimize adverse effects of urbanization on natural lands adjacent to the City's developed areas under "Environmental Resources" (City of San José 2012). Policies and actions that are relevant to the proposed project are listed below:

- Policy ER-6.1 Encourage fencing between residential areas and natural lands to minimize the encroachment of people, pets, and non-native vegetation into natural lands.
- Policy ER-6.2 Design development at the urban-natural land interface of the Greenline/Urban Growth Boundary (UGB) to minimize the length of the shared boundary between urban development and natural areas. In particular, this policy pertains to baylands in the Alviso community.
- Policy ER-6.3 Employ low-glare lighting in areas developed adjacent to natural areas. Any high-intensity lighting used near natural areas will be placed as close to the ground as possible and directed downward or away from natural areas.
- Policy ER-6.4 Site public facilities such as ballparks and fields that require high-intensity night lighting at least 0.5 mile from sensitive habitats to minimize light pollution, unless it can be demonstrated that lighting systems will not substantially increase lighting within natural areas (e.g., due to screening topography or vegetation).
- Policy ER-6.5 Prohibit use of invasive species within the City limits in required landscaping as part of the discretionary review of proposed development.
- Policy ER-6.6 Encourage the use of native plants in the landscaping of developed areas adjacent to natural lands.
- Policy ER-6.7 Include barriers to animal movement within new development and, when possible, within existing development, to prevent movement of animals (e.g., pets and wildlife) between developed areas and natural habitat areas where such barriers will help to protect sensitive species.
- Policy ER-6.8 Design and construct development to avoid changes in drainage patterns across adjacent natural areas and for adjacent native trees, such as oaks.
- Action ER-6.9 Work with landowners, landscapers, nurseries, and the multi-agency Santa Clara County Weed Management Area to remove and prevent the spread of highly invasive and noxious weeds. Invasive plants are those plants listed in the State's Noxious Weed List, the California Invasive Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California," and other priority species identified by the agricultural commissioner and California Department of Agriculture.
- Action ER-6.10 Update the Riparian Corridor Policy Study and all City design guidelines based on guidance from Responsible Agencies on best practices for lighting to protect sensitive habitats and species, including birds and bats.

The Envision San José 2040 General Plan (General Plan) (City of San José 2012) also includes the following policies related to bird-safe design:

- *Environmental Resource-7.1*: In the area north of Highway 237 design and construct buildings and structures using bird-friendly design and practices to reduce the potential for bird strikes for species associated with the baylands or the riparian habitats of lower Coyote Creek.
- *Environmental Resource-7.6*: Update the Riparian Corridor Policy Study and City of San José design guidelines based on guidance from Responsible Agencies and other interested organizations on best practices for avoiding and minimizing bird strikes at new tall buildings.

Project Applicability: The project will comply with the City of San José's General Plan and not use invasive species on the site. No lighting facilities, buildings, or other such structures would be built by this project.

2.3.3 City of San José Riparian Policy

The City of San José has a riparian buffer policy that is in neither the Municipal Code nor the General Plan. The riparian buffer policy is administered through use of a *Riparian Corridor Policy Study* (Policy Study) document that describes suggested buffer widths (City of San José 1999). The Policy Study defines a riparian corridor as any defined stream channel, including the area up to the bank full-flow line, as well as all riparian (streamside) vegetation in contiguous adjacent uplands. Characteristic woody vegetation could include (but is not limited to) willow (*Salix* spp.), alder (*Alnus* spp.), box elder (*Acer negundo*), Fremont cottonwood (*Populus fremontii*), bigleaf maple (*Acer macrophyllum*), western sycamore (*Platanus racemosa*), and oaks (*Quercus* spp.). Stream channels include all perennial and intermittent streams shown as a solid or blue line on USGS topographic maps, and ephemeral streams or “arroyos” with well-defined channels and some evidence of scour or deposition. The Policy Study states that riparian setbacks should be measured 100 feet from the outside edges of riparian habitat or the top of bank, whichever is greater. However, the Policy Study also states that setback distances for individual sites may vary if consultation with the City of San José and a qualified biologist, or other appropriate means, indicates that a smaller or larger setback is more appropriate for consistency with riparian preservation objectives (City of San José 1999). Additionally, the setbacks specifically apply to buildings, impervious surfaces, and ornamental landscape areas.

The *Santa Clara Valley Water Resources Protection Collaborative Guidelines and Standards for Land-Use Near Streams (Guidelines and Standards)* document was also reviewed (Santa Clara Valley Water Resources Protection Collaborative [SCVWRP Collaborative] 2007). This document defines the top of bank line as the stream boundary where a majority of normal discharges and channel forming events take place; containing the active channel, active floodplain, and their associated banks. The top of bank along streams with levees should be delineated on the inner edge of the levee (see Chapter 11, SCVWRP Collaborative 2007).

Project Applicability: The City's Policy Study recommends a protective buffer be established along streams so that aquatic and riparian resources are not impacted by development. The riparian setback along Coyote Creek extends 100 feet inland from the inboard top of levee. The entire project site is dependent on proximity to the creek and is located inside this setback. The project storm drain outfall cannot be designed to avoid the riparian setback because it is designed to discharge to Coyote Creek. However, this project is still consistent with the

policy because buildings, impervious surfaces, and ornamental landscape areas are not proposed, and it meets the utility exemption to the policy.

2.3.4 Santa Clara Valley Habitat Plan

The Santa Clara Valley Habitat Agency leads the implementation of the VHP. It is a regional partnership between six local partners, including the County of Santa Clara, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District (SCVWD), the Cities of San José, Gilroy, and Morgan Hill), CDFW, and USFWS. In 2013 the VHP was adopted by all local participating agencies, and permits were issued from the USFWS and CDFW. It is both a habitat conservation plan and natural community conservation plan, or HCP/NCCP. The planning document helps private and public entities plan and conduct projects and activities in ways that lessen impacts on natural resources, including specific threatened and endangered species. The VHP identifies regional lands (called reserves) to be preserved or restored to benefit of at-risk species, and describes how reserves will be managed and monitored to ensure that they benefit those species. In providing a long-term, coordinated planning for habitat restoration and conservation, the VHP aims to enhance the viability of threatened and endangered species throughout the Santa Clara Valley.

The VHP defines specific measures to avoid, minimize, and mitigate impacts on covered species and their habitats while allowing for the implementation of certain “covered projects”. The USFWS, a signatory of the VHP, will provide incidental take approval for the project’s impacts to federally listed species via Section 10 of the FESA. In conformance with the VHP, project proponents are required to pay impact fees in accordance with the types and acreage of habitat or “land cover” impacted, and to implement conservation measures specified by the VHP. Land cover impacts are used because it is the best predictor of potential species habitat, and is applicable to all of the covered species (with the exception of the burrowing owl). The Santa Clara Valley Habitat Agency has mapped 3 fee zones in the VHP area: (A) rangeland and natural lands, (B), agricultural and valley floor lands, and (C) small vacant sites (SCVHA 2016). The following areas are exempt from land cover fees:

- All development that occurs on land mapped by the VHP as urban-suburban, landfill, reservoir (excluding dams), or agriculture developed land cover types
- Other exempt activities include urban development in fee zones A-C on parcels less than 0.5 acres
- Additions to structures within 50 feet of existing structure that result in less than 5000 feet of impervious surface so long as there is no effect on wetland or serpentine land cover types
- Construction of recreational facilities within the reserve system.

Project Applicability: The project site is located in the VHP area. Because the project is a VHP-covered project, it will comply with all applicable VHP conditions. Section 5.1.1 on the Santa Clara Valley Habitat Plan further explains how the VHP applies to the project.

2.3.5 State and Local Requirements to Control Construction-Phase and Post-Construction Water Quality Impacts

2.3.5.1 Construction Phase

Construction projects in California causing land disturbances that are equal to one acre or greater must comply with State requirements to control the discharge of stormwater pollutants under the NPDES *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit; Water Board Order No. 2009-0009-DWQ). Prior to the start of construction/demolition, a Notice of Intent must be filed with the State Water Board describing the project. A Storm Water Pollution Prevention Plan must be developed and maintained during the project and it must include the use of Best Management Practices (BMPs) to protect water quality until the site is stabilized.

Similarly, within the City of San José city limits regardless of size, all construction/demolition projects must comply with the City of San José's Grading Ordinance, which requires the use of erosion and sediment controls to protect water quality while the site is under construction. Prior to the issuance of a permit for grading activity that occurs during the rainy season (October 15 to April 15), an Erosion Control Plan must be submitted to the Department of Public Works detailing Best Management Practices that will prevent the discharge of storm water pollutants.

Standard permit conditions under both of these permits requires that the applicant utilize various measures including: on-site sediment control best management practices, damp street sweeping, temporary cover of disturbed land surfaces to control erosion during construction, and utilization of stabilized construction entrances and/or wash racks, among other factors. Additionally, the Construction General Permit does not extend coverage to projects if storm water discharge-related activities are likely to jeopardize the continued existence, or result in take of any federally-listed endangered or threatened species.

Project Applicability: The outfall project is smaller than one acre but will still comply with the requirements of the NPDES permit and the City Grading Ordinance, thus, construction phase activities would not result in detrimental water quality effects upon biological/regulated resources.

2.3.5.2 Post-Construction Phase

In California, projects must also comply with the *California Regional Water Quality Control Board, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit (MRP)* (Water Board Order No. R2-2009-0074). Within the City of San José projects must also comply with the *City Council Policy 6-29, Post Construction Urban Runoff Management* and *City Council Policy 8-14, Post Construction Hydromodification Management Policy and Map*. These policies require that all projects implement Best Management Practices and incorporate Low Impact Development practices into the design that prevents storm water runoff pollution, promotes infiltration, and holds/slows down the volume of water coming from a site. In order to meet these permit and policy requirements, projects must incorporate the use of green roofs, impervious surfaces, tree planters, grassy swales, bioretention and/or detention basins, among other factors.

Project Applicability: The project, will comply with the requirements of the MRP permit and the City Policies, thus, post-construction activities would not result in detrimental water quality effects upon biological/regulated resources.

Section 3. Methods

H. T. Harvey & Associates senior wildlife ecologist Patrick Stone, B.S., and senior plant ecologist Élan Alford, Ph.D., characterized the existing biotic conditions at the project site, which included all areas expected to be directly impacted by the proposed project (Figure 2). Prior to conducting fieldwork, H. T. Harvey & Associates ecologists reviewed relevant background information, including information from the following sources:

- California Natural Diversity Database (CNDDDB) and its associated species accounts (CNDDDB 2016);
- Species list information for the project vicinity from the U.S. Fish and Wildlife Service (USFWS) (<https://ecos.fws.gov/ipac/>);
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2016);
- Jepson Manual Second Edition (Baldwin et al. 2012);
- Relevant scientific literature, technical databases, and resource agency reports; and
- the VHP (ICF International 2012).

The search of CNDDDB Rarefind published accounts (CNDDDB 2016) was conducted for special-status plant and wildlife species occurring in the *Milpitas, California* USGS 7.5-minute topographic quadrangle within which the site is located, as well as the eight surrounding quadrangles (*Niles, La Costa Valley, Mountain View, Cupertino, Newark, Calaveras Reservoir, San Jose West, and San Jose East*). In addition, for plants, we reviewed the Online Inventory of Rare Plants (CNPS 2016) for information regarding the distribution and habitats of vascular plants designated as California Rare Plant Rank (CRPR) 1A, 1B, 2A, 2B, or 3 that occur in any of the nine USGS quadrangles listed above. We also considered the CNPS plant list for Santa Clara County, as the CNPS does not maintain quadrangle-level records for CRPR 4 species.

Reconnaissance-level surveys of the project site were conducted by Dr. Alford on March 22 and July 5, 2016 and by Mr. Stone on July 6, 2016. The purpose of these surveys was to provide a project-specific impact assessment for the development of the site as described above. Specifically, the surveys were conducted to (1) assess existing biotic habitats and plant and animal communities on the project site, (2) assess the site for its potential to support special-status species and their habitats, and (3) identify potential jurisdictional habitats (such as waters of the U.S./state), although a formal wetland delineation was not conducted. In addition, Mr. Stone conducted focused surveys throughout the project site and surrounding areas within 250-feet of the site for nesting raptors, nesting or roosting western burrowing owls (*Athene cunicularia*), and nesting San Francisco dusky-footed woodrats (*Neotoma fuscipes annectens*).



N:\Projects\3800\3855-01\Reports\Biological Resources\Fig 2 Land Cover and Impacts Map.mxd



H. T. HARVEY & ASSOCIATES
Ecological Consultants

Figure 2. Land Cover and Impacts Map
Cilker Property Biological Resources Report (3855-01)
August 2016

Section 4. Existing Biological Conditions

Based on a review of historical aerial photos (National Environmental Title Research 2016, Google Inc. 2016), land use on much of the project site was agricultural row crops west of Coyote Creek from at least 1948 through 1987. Mature riparian forest lined Coyote Creek during this period. After 1987 the existing channel at Coyote Creek was widened and by 1993, land-use changes had reduced the area under row crops. Subsequently, additional trees grew in the widened area and extended to additional areas at the inboard side of the levee that were previously not forested. This new tree growth is visible on historical aerial photographs and the site appears to have supported mature tree canopy by 2002. Currently, the southwestern portion of the project site is an undeveloped, grassy field on the outboard side of the levee. The inboard side of the levee is also undeveloped and contains grassland and mature riparian forest. Wetland habitats occur along the northeastern edge of the site, along the Coyote Creek channel.

Much of the site is gently sloped down toward Coyote Creek. A levee separates the large northeast and smaller southwest portions of the site. Soils in the project site are Elder fine sandy loam soils (Natural Resources Conservation Service 2016). The climate conditions for this area include a 30-year normal of 15.49 inches of annual precipitation and a 70.4° F average maximum temperature and 50.1° F average minimum temperature (PRISM 2016).

4.1 General Habitat Conditions and Wildlife Use

Land cover types on the entire project site were previously mapped as part of the VHP program (ICF International 2012). For this report, the land cover classes present on the project site, while based on the VHP mapping, have been refined and updated to reflect current conditions and a finer mapping scale. These habitats, also termed “land cover” types in accordance with the VHP, are described on the following pages. The field survey identified four general biotic habitats/land cover types on the project site: California annual grassland, mixed riparian forest and woodland, seasonal wetland, and urban/suburban. These habitat/land cover types were named in accordance with accepted VHP land cover classes. Table 1 provides a summary of the land cover acreages on the site, and their distribution is depicted in Figure 2. Representative photos of each land cover type are also provided below.

Table 1. Habitat Acreages in the Project Site

Land Cover Type	Area (acres)	Percentage of Site
California annual grassland	0.25	58
Mixed Riparian Forest and Woodland	0.11	25
Seasonal Wetland	0.02	5
Urban/Suburban	0.05	12
Total	0.43	100

4.1.1 Vegetation

California Annual Grassland. On the project site, the grassland is pervasively present where tree cover is absent (Photo 1) and it comprises 0.25 acre in the project site (Figure 2). It occurs between the northern edge of the tree canopy between the riparian forest and seasonal wetlands along the edge of Coyote Creek. The grassland is ruderal, meaning that it is typically composed of a suite of non-native annual species that tolerate disturbance. Native vegetation is limited in ruderal grassland habitats. Wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), Smilo grass (*Stipa miliacea*), wild radish (*Raphanus sativus*), prickly lettuce (*Lactuca serriola*), rattail fescue (*Festuca myuros*), Italian ryegrass (*Festuca perennis*), and cheeseweed (*Malva parviflora*) are common plants in the California annual grassland. Some scattered invasive perennial pepperweed (*Lepidium latifolium*) are also present but more abundant off site to the north. Portions of this grassland habitat type include the VHP land cover class “grain, row crop, hay and pasture or willow riparian forest” as mapped on the west side of the levee by ICF International (2012). For the purposes of this analysis, the agricultural VHP land cover type was replaced with California annual grassland to reflect the current site-specific observations. Agricultural practices do not appear to have been in use recently and ruderal, non-native, herbaceous vegetation is currently present. On the southwest side of the project site the grassland and was mowed down to a few inches of stubble at the time of the survey. In addition to the flatter areas of the project site the levee banks are also dominated by this California annual grassland vegetation type.



Photo 1. California annual grassland.

Mixed Riparian Forest and Woodland. Mature trees occur in the mixed riparian forest and woodland (Photo 2) in 0.11 acre of the project site (Figure 2). Prior VHP mapping by ICF International (2012) shows the entire inboard side of the levee as willow riparian habitat, however this designation was refined here to the existing extent of woodland canopy. Our report changes the designation from willow riparian to mixed riparian forest as a result of the lack of willow species being observed during site visits. Rather, the dominant trees are Fremont cottonwood (*Populus fremontii*), which is mixed with coast live oak (*Quercus agrifolia*) and buckeye (*Aesculus californica*) that have grown up in a broad excavated terrace around Coyote Creek (Photo 2; Figure 2). According to historic imagery analysis, this small extent of woodland appears to have grown up in an area that was previously grassland up until around 1993, and by 1998, trees and scrub



Photo 2. Mixed Riparian Forest and Woodland.

species can be observed in aerial photographs (National Environmental Title Research 2016). Currently the site supports mature forest with several large diameter trees creating an intermittent to closed canopy.

Seasonal Wetland. A small strip of seasonal wetland on 0.02 acre of the project site occurs at the northeast edge of the site (Figure 2). This wetland is dominated by poison hemlock (*Conium maculatum*), curly dock (*Rumex crispus*), and California mugwort (*Artemisia douglasiana*) (Photo 3). The seasonal wetland abuts cattail dominated (*Typha sp.*) coastal valley and freshwater marsh wetland habitat that lines the low flow channel of Coyote Creek. Both the coastal valley and freshwater marsh and stream features are outside the project site. In the on-site seasonal wetland poison hemlock and curly dock plants are approximately 5-7 feet tall and exist in a narrow strip in a transition zone along the slope between the wetter channel below and the drier and flatter terrace where the California annual grassland and mixed riparian woodland occur. Current VHP mapping shows this area as willow riparian forest and scrub, but we have updated the existing VHP mapping based on the current observed site conditions. There is a distinct break in wetland vegetation types between the cattails associated with the channel, which is outside the project site, and this higher and drier suite of facultative plants on the bank slope in the project site. The higher topographic position and plant composition indicates that inundation or saturation in the seasonal wetlands on the project site is less frequent than the lower cattail wetlands, and this hydrology would be associated with seasonal storm flows or reservoir release flows.



Photo 3. Seasonal Wetland.

Urban/Suburban. Crushed gravel roads on the levee top and the immediate inboard side of the levee are the dominant feature in the urban/suburban habitat type (Photo 4); which occurs on 0.05 acre of the project site (Figure 2). This is a designated land cover defined in the VHP. The VHP definition is that there are one or more structures per 2.5 acres in urban/suburban land cover areas. However, it also includes land that has been cleared of vegetation for transportation purposes. With an unpaved road surface being the major defining factor, we determined that the levee roads are urban/suburban land cover types even if no structures occur in the project site. The roads are mostly devoid of vegetation.

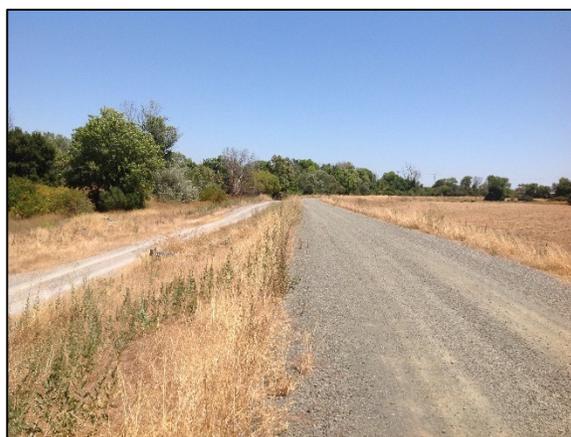


Photo 4. Urban/Suburban.

The edges of the road intergrade with the California annual grassland habitat. Along the edge of the road rattail fescue commonly occurs. Native plant species are generally absent from this habitat because of the level of

disturbance and extent of gravel ground cover material. These areas are also generally described as developed lands. The VHP used the willow riparian forest and scrub and the agricultural land cover of grain, row-crop, hay and pasture, disked/short-term fallowed designation to map these portions of the project site. Our site visit analysis and finer scale mapping resulted in classifying these gravel roads as urban/suburban land cover.

4.1.2 Wildlife

California Annual Grassland. Many of the species that occur on the site are species that are common in urban and suburban areas and use annual grassland habitat on the site for foraging. Such species include the American crow (*Corvus brachyrhynchos*), California towhee (*California towhee*), mourning dove (*Zenaidura macroura*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Carduelis psaltria*), and American goldfinch (*Carduelis tristis*). Likewise, a few species nesting on nearby bridges and overpasses, such as the cliff swallow (*Petrochelidon pyrrhonota*), barn swallow (*Hirundo rustica*), and black phoebe (*Sayornis nigricans*), also forage on or over the grassland habitat on the site. The annual grassland within the project footprint likely does not provide nesting habitat for any bird species due to its limited extent and disturbed nature. During winter and migration, common nonbreeding species such as the white-crowed sparrow (*Zonotrichia leucophrys*) and golden-crowned sparrow (*Zonotrichia atricapilla*) also forage on the ground or in herbaceous vegetation, primarily for seeds. However, the small extent of the project footprint and the high levels of development and human disturbance that occur in nearby areas limit wildlife use of the grassland habitat on the project site. As a result, wildlife species associated with more extensive grassland habitats in the region, such as the grasshopper sparrow (*Ammodramus savannarum*), are absent from this habitat within the project site.

Reptiles and amphibians occurring in the grasslands on the project site include the western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis melanoleucus*), and common garter snake (*Thamnophis sirtalis*). Small mammals present include the western harvest mouse (*Reithrodontomys megalotis*), house mouse (*Mus musculus*), and California ground squirrel (*Spermophilus beecheyi*). These species, in turn, attract raptors such as the American kestrel (*Falco sparverius*), red-tailed hawk (*Buteo jamaicensis*), and northern harrier (*Circus cyaneus*). Larger mammals, such as the striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and black-tailed hare (*Lepus californicus*), also occur in this habitat.

Mixed Riparian Forest and Woodland. The mixed riparian woodland habitat in the project area supports a mature tree canopy and a large diversity of wildlife species, particularly birds, and the riparian woodland corridor associated with Coyote Creek provides suitable breeding and foraging habitat for songbirds in the vicinity. American crows, chestnut-backed chickadees (*Poecile rufescens*), downy woodpeckers (*Picooides pubescens*), Bewick's wrens (*Thryomanes bewickii*), Anna's hummingbirds (*Calypte anna*), American robins (*Turdus migratorius*), and other birds nest in the trees and other vegetation in riparian woodland habitat on the project site. Up to one pair of a raptor species, such as the red-tailed hawk (*Buteo jamaicensis*) or red-shouldered hawk (*Buteo lineatus*), could also nest in the two large cottonwood trees, although the limited extent of such large trees within the project footprint reduces this potential, and no raptor nests were observed on the project site during reconnaissance-level and focused surveys conducted in July 2016. During migration, trees on the site provide foraging habitat for numerous species of migrating birds, including a number of species of warblers, vireos, flycatchers, and

sparrows. The cottonwood trees and the buckeye tree are deciduous, and thus provide poor cover in winter, but the site still supports large numbers of foraging birds during this season. Common waterfowl, such as mallards (*Anas platyrhynchos*), forage in and along Coyote Creek year-round, and may breed in riparian woodland habitat on the project site, but the highest densities of waterbird species in the project vicinity occur during winter and migration.

Reptiles and amphibians occurring in the riparian woodlands on the project site are similar to those occurring in adjacent annual grasslands and include the gopher snake, common garter snake, and Sierran chorus frog (*Pseudacris sierra*). Small mammals present include the house mouse and Norway rat (*Rattus norvegicus*). Larger mammals, such as striped skunk, raccoon, and Virginia opossum occur in the project vicinity and frequently move through the Coyote Creek corridor, including the riparian woodland habitat on the project site.

Seasonal Wetland. The small seasonal wetland in the project area sits in a transition zone between upland and aquatic habitats and provides suitable habitat for a large variety of common wildlife species similar to the California annual grassland and the riparian woodland habitats on the project site. Mallards and other waterfowl that occur in Coyote Creek may use the seasonal wetland habitat for nesting. Insects with aquatic larvae, such as dragonflies (Odonata) and chironomid midges (Chironomidae) occur in the Coyote Creek corridor, including the seasonal wetland habitat. These insects provide food for a variety of aerial foragers such as swallows and bats, which regularly forage over the Coyote Creek channel and suitable adjacent areas, including the seasonal wetland habitat on the project site.

No aquatic habitat for fish or amphibian species occurs on the project site. However, western pond turtle (*Actinemys marmorata*), Sierran chorus frog, bullfrog (*Lithobates catesbeiana*), and a variety of fish species occur in aquatic habitats in Coyote Creek, and these species may occur in the reach located adjacent to and east of the project site. Central California coast steelhead (*Oncorhynchus mykiss*) also move through Coyote Creek during migration between estuarine/oceanic habitat downstream and spawning or rearing habitat upstream, although this species is not expected to spawn in the reach located adjacent to the project site.

Urban/Suburban. Gravel areas that lack vegetation do not provide high-quality wildlife habitat; however, snakes and lizards may bask on these surfaces and a variety of wildlife may cross over or move along the levee roads within the project site to move between other habitats in the vicinity.

4.2 Special-Status Plant and Animal Species

As described in *Methods* above, information concerning threatened, endangered, or other special-status species that could occur on the project site was collected from several sources and reviewed by H. T. Harvey & Associates biologists. The specific habitat requirements and the locations of known occurrences of each special-status species were the principal criteria used for inclusion in the list of species potentially occurring on the site. Figures 3 and 4 are maps of the CNDDDB's special-status plant and animal species records in the general vicinity of the project site, defined for the purposes of this report as the area within a 5-mile radius. These generalized

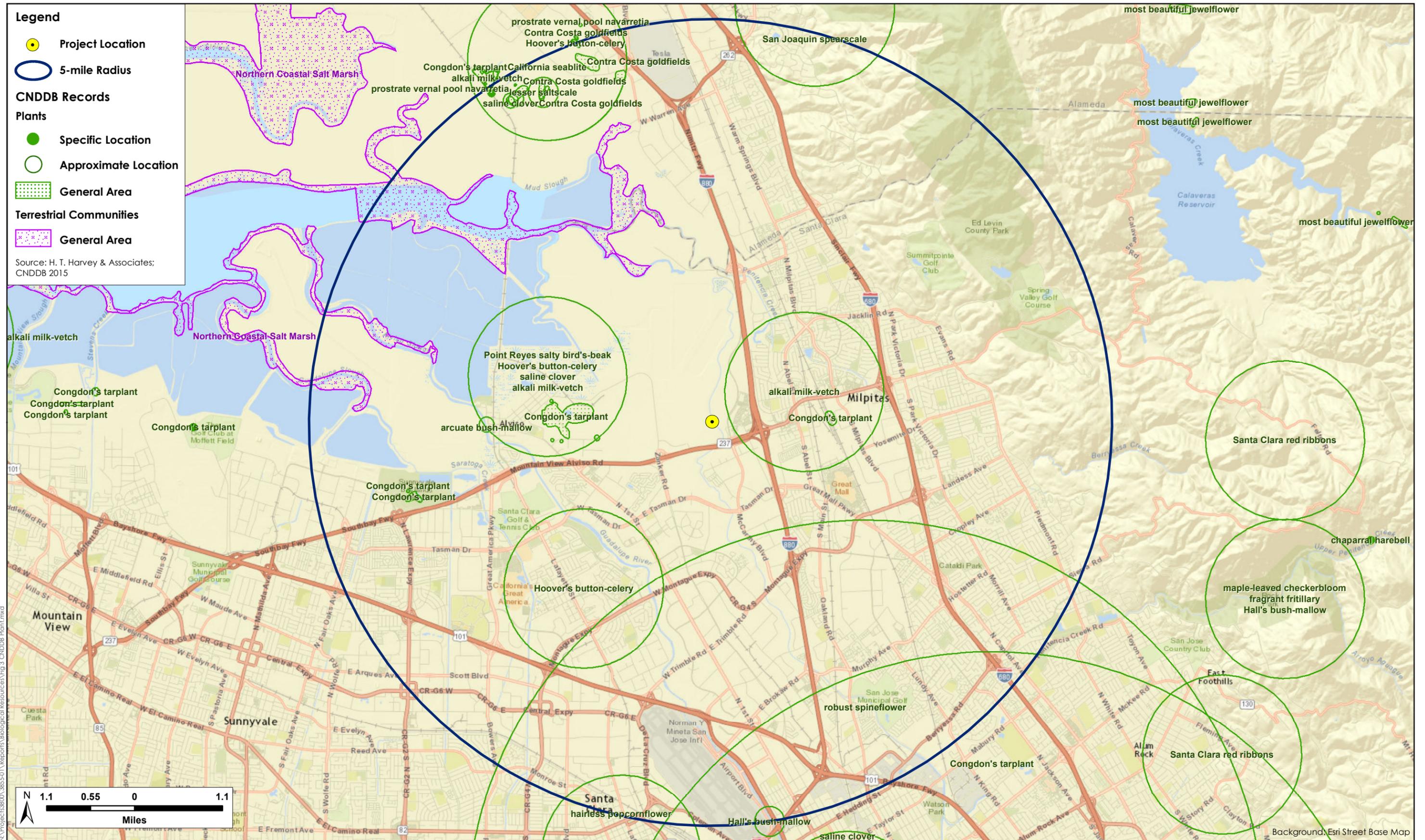
maps are valuable on a historical basis, as they show areas where special-status species occur or have occurred previously, but they do not necessarily represent current conditions or indicate where species are absent.

4.2.1 Special-Status Plants

A list of 70 special-status plants with some potential for occurrence on the project site was compiled using CNPS (2016) and CNDDDB (2016) records and then reviewed. Analysis of the documented habitat requirements and occurrence records associated with all of the species considered allowed us to reject 69 of the 70 species as not having a reasonable potential to occur on the project site. These 69 species were rejected based on one or more of the following reasons: (1) the species has a very limited range of endemism and has never been observed in the vicinity of the project site; (2) species elevation ranges are outside the elevation limits of the project site; (3) specific, edaphic soil characteristics, such as serpentine soils are absent from the project site; (4) observed absence of perennial special-status species; or (5) the site is too disturbed.

Based upon species habitat occurrences, edaphic requirements, and ranges, one species were determined to have some potential to occur on the project site, Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*). It was considered to have some potential to occur within habitats similar to those in the project site based on its general habitat requirements and known distribution, and thus warranted further analysis.

Congdon's Tarplant (*Centromadia parryi* ssp. *congdonii*). **Federal Listing Status: None; State Listing Status: None; CRPR: 1B.1.** Congdon's tarplant is an annual herb in the composite family (Asteraceae) that has a variable blooming period extending from June through November. It occurs in valley and foothill grasslands, particularly those with alkaline substrates, and in slumps or disturbed areas where water collects in lower elevation wetlands below approximately 760 feet. This subspecies tolerates disturbance and often occurs in disked fields with non-native, California annual grassland habitat with hood canary grass (*Phalaris paradoxa*) and alkali mallow (*Malvella leprosa*). This species is documented from 91 occurrences, including several from Alviso, and it is considered seriously threatened by development (CNPS 2016). The closest known CNDDDB specific location record of Congdon's tarplant (CNDDDB occurrence #41) is located approximately 1.8 miles west of the project site in disturbed grassland.



N:\Projects\3855-01\Reports\BiologicalResources\Fig 3 CNDDB Plant.mxd

Based on the proximity of the project site to known occurrences of the species and this species' ability to grow in disturbed habitats, it was determined that potentially suitable habitat for Congdon's tarplant exists within the project site in the small area of California annual grassland habitat on the outboard and inboard levee sides of the site. Congdon's tarplant is most commonly found in seasonal alkaline wetland depressions that are periodically disturbed (often with mowing or disking). This species is also known to tolerate disturbance of the type that has occurred on portions of the project site, and it is known from several occurrences including Alviso and the Sunnyvale Baylands Park. Therefore, the project site is considered suitable habitat for this species. The July 5, 2016 site survey was conducted during the published bloom period for Congdon's tarplant. A reference site at Sunnyvale Baylands Park was observed in bloom on June 29, 2016. Reconnaissance-level project site surveys conducted by Dr. Alford in July 2016 did not detect any plants resembling Congdon's tarplant at the site. Therefore, Congdon's tarplant is considered absent from the project site.

4.2.2 Special-Status Animals

CNDDDB (2016) records (Figure 4), VHP mapping, and other data sources, coupled with our review of habitat conditions on the project site, determined that several special-status animal species are known to occur in the project region. The legal status and likelihood of occurrence on the project site of special-status animal species known to occur, or potentially occurring, in the project region are presented in Table 2. The majority of these species were determined to be absent from the project site due to a lack of suitable habitat or to evidence that the species does not occur in the project vicinity. Species considered for occurrence but rejected, as well as the reasons for their rejection, include the following (among others):

- Populations of the California tiger salamander (*Ambystoma californiense*), federally and state listed as threatened, located on the Santa Clara Valley floor have been extirpated due to habitat loss, and the species is now considered absent from the majority of the region, including the project site (H. T. Harvey & Associates 1999, 2012; Santa Clara Valley Water District 2011). No recent records of California tiger salamanders are located anywhere in the project vicinity (CNDDDB 2016), and the project site is not mapped as habitat for the California tiger salamander by the VHP. Thus, the species is determined to be absent from the project site.
- The California red-legged frog (*Rana draytonii*), federally listed as threatened and a California species of special concern, has been extirpated from the majority of the project region, including the entire urbanized Santa Clara Valley floor, due to development, the alteration of hydrology of its aquatic habitats, and the introduction of non-native predators such as non-native fishes and bullfrogs (H. T. Harvey & Associates 1997; Santa Clara Valley Water District 2011). The VHP model maps the northeastern portion of the project site, inboard of the levees and along Coyote Creek, as primary habitat for this species. However, there is no suitable aquatic habitat on the project site, we do not expect this species to be present on the site for the previously mentioned reasons, and there are no records of California red-legged frogs from anywhere in the project vicinity (CNDDDB 2016). Thus, California red-legged frogs are determined to be absent from the project site.

- The California Ridgway's rail (*Rallus obsoletus obsoletus*), federally and state listed as endangered, is known to occur 4 miles west of the project site in Alviso Slough (CNDDDB 2016), where the tidal marsh is dominated by salt-marsh plant species. However, suitable habitat is not present within the project site, or in the reach of the Coyote Creek corridor adjacent to the project site, which is dominated by freshwater vegetation. This species has not been recorded in Coyote Creek or as far upstream as the project site. Thus, the California Ridgway's rail is determined to be absent from the project site.
- The California black rail (*Laterallus jamaicensis*), state listed as threatened, is also known to occur west of the project site in Alviso Slough, in tidal salt marsh and brackish marsh habitats. However, suitable habitat is not present within the project site, or in the freshwater marsh vegetation along the Coyote Creek corridor adjacent to the project site, and this species has not been recorded in Coyote Creek or as far upstream as the project site. Thus, the California black rail is determined to be absent from the project site.
- The yellow-breasted chat (*Icteria virens*), a California species of special concern, is a rare breeder, and only slightly more regular transient, in willow-dominated riparian habitats in the project region. However, suitably large, dense stands of riparian habitat with a dense understory are not present on or adjacent to the project site, and this species has not been recorded breeding in the project vicinity. Thus, the yellow-breasted chat is determined to be absent.
- Although the VHP maps a portion of the project site adjacent to Coyote Creek as habitat for the tricolored blackbird (*Agelaius tricolor*), a state candidate for listing, this species has not been recorded nesting on the project site (CNDDDB 2016, Bousman 2007a), despite regular coverage of the area by birders assisting with bird-banding at the nearby Coyote Creek Field Station. Further, although potentially suitable nesting habitat was identified along the Coyote Creek channel to the east of the project site, this habitat was limited in extent and no tricolored blackbirds were observed during the reconnaissance-level and focused surveys conducted in July 2016. Individual tricolored blackbird may occur in seasonal wetland and freshwater marsh habitats in the project vicinity as occasional foragers; however, this species is determined to be absent from the project site as a breeder.
- The salt marsh harvest mouse (*Reithrodontomys raviventris*), federally and state listed as endangered, and the salt marsh wandering shrew (*Sorex vagrans halicoetes*), a California species of special concern, are known to occur in salt marsh habitats of the south Bay to the north and northwest of the project site (CNDDDB 2016). However, suitable salt marsh habitat for these species is not present within the project site, or in the reach of Coyote Creek adjacent to the project site. The reach of the Coyote Creek corridor located adjacent to the project site supports only freshwater vegetation that is not suitable for these species. Thus, these species are determined to be absent from the project site.
- The project site supports large riparian trees, but these trees lack large cavities that would provide suitable roosting habitat for maternity colonies, or large nonbreeding colonies, of the pallid bat (*Antrozous pallidus*), a California species of special concern. Although the pallid bat may occasionally fly over the project site or the adjacent Coyote Creek channel while foraging, breeding colonies of special-status bat species are determined to be absent from the project site.

- The San Francisco dusky-footed woodrat, a California species of special concern, is known to occur in the Coyote Creek corridor downstream from the project site (H. T. Harvey & Associates 2010a; CNDDDB 2016). However, a focused survey of the project site in July 2016 detected no woodrat nests within the project footprint. Thus, this species is determined to be absent from the project site.
- The Central California coast steelhead (*Oncorhynchus mykiss*), federally listed as threatened, and the Central Valley Fall-Run Chinook salmon (*Oncorhynchus tshawytscha*), a California species of special concern, occur in the reach of Coyote Creek located adjacent to the project site during migration between marine habitats and upstream spawning habitats. However, no aquatic habitat for special-status fish species occurs on the project site, and these species are thus determined to be absent.

Table 2. Special Status Animal Species, Their Status, and Potential Occurrence on the Project Site

Name	*Status	Habitat	Potential for Occurrence on Project Site
Federal or State Endangered, Rare, or Threatened Species			
Green sturgeon (<i>Acipenser medirostris</i>)	FT, CSSC	Spawns in large river systems such as the Sacramento River; forages in nearshore oceanic waters, bays, and estuaries.	Absent. No aquatic habitat is present on the project site. Green sturgeon may forage infrequently, and in low numbers, in tidal reaches of Coyote Creek downstream from the site; however, the reach of the creek located adjacent to the project site does not provide suitable habitat.
Longfin smelt (<i>Spirinchus thaleichthys</i>)	FC, ST	Spawns in fresh water in the upper end of the Bay; occurs year-round in the South Bay.	Absent. No aquatic habitat is present on the project site and the species is not known to spawn in the project vicinity. Pre-spawning adults and yearling juveniles may be present in tidal reaches of Coyote Creek and slough downstream of the project site, although fish sampling in Coyote Slough has detected the species only in January and March, suggesting that it may be absent during the summer (Hobbs et al. 2012).
Central California Coast steelhead (<i>Oncorhynchus mykiss</i>)	FT	Cool streams with suitable spawning habitat and conditions allowing migration between spawning and marine habitats.	Absent. No aquatic habitat is present on the project site. However, steelhead occur in Coyote Creek adjacent to the project site during upstream migration of adults to spawning areas and downstream migration of both adults and smolts.

Name	*Status	Habitat	Potential for Occurrence on Project Site
California tiger salamander (<i>Ambystoma californiense</i>)	FT, ST, VHP	Vernal or temporary pools in annual grasslands or open woodlands.	Absent. Populations located on the Valley floor have been extirpated due to habitat loss, and the species is now considered absent from the majority of the valley floor, including the project site (H. T. Harvey & Associates 1999a, 2012; SCVWD 2011). No recent records of California tiger salamanders are located anywhere in the project vicinity (CNDDDB 2016), the VHP does not map the project site as supporting the species, and the species is determined to be absent from the project site and vicinity.
California red-legged frog (<i>Rana draytonii</i>)	FT, CSSC, VHP	Streams, freshwater pools, and ponds with emergent or overhanging vegetation.	Absent. The VHP maps primary habitat for this species along Coyote Creek and within the project site inboard of the levee (ICF International 2012). However, this species has been extirpated from the majority of the project region, including the entire urbanized Valley floor, due to development, the alteration of hydrology of its aquatic habitats, and the introduction of non-native predators such as non-native fishes and bullfrogs (H. T. Harvey & Associates 1997; SCVWD 2011). Also, no suitable aquatic habitat for this species occurs on the project site. Thus, California red-legged frogs are determined to be absent from the project site.
Bank swallow (<i>Riparia riparia</i>)	ST	Colonial nester on vertical banks or cliffs with fine-textured soils near water.	Absent. No recent nesting records from Santa Clara County (CNDDDB 2016), and no suitable nesting habitat occurs in or near the project site.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	SE, SP	Occurs mainly along seacoasts, rivers, and lakes; nests in tall trees or in cliffs, occasionally on electrical towers. Feeds mostly on fish.	Absent. No suitable nesting or foraging habitat on the project site.
Swainson's hawk (<i>Buteo swainsoni</i>)	ST	Nests in trees surrounded by extensive marshland or agricultural foraging habitat.	Absent. Historically nested in small numbers in Santa Clara County; there is a record of this species nesting in the Berryessa area (eastern San José) in 1894 (Bousman 2007b). Currently, the species is known to nest in Santa Clara County only in one location in Coyote Valley; otherwise, it occurs in the project region only as a very infrequent transient during migration, and the suitable nesting and foraging habitat on the project site is very limited in extent. Thus, the species is determined to be absent.

Name	*Status	Habitat	Potential for Occurrence on Project Site
California Ridgway's rail (<i>Rallus obsoletus obsoletus</i>)	FE, SE, SP	Salt marsh habitat dominated by pickleweed and cordgrass.	Absent. No marsh habitat is present on the project site.
California black rail (<i>Laterallus jamaicensis coturniculus</i>)	ST, SP	Breeds in fresh, brackish, and tidal salt marsh.	Absent. No suitable nesting or foraging habitat for the California black rail is present on the project site or in Coyote Creek corridor adjacent to the site.
Salt marsh harvest mouse (<i>Reithrodontomys raviventris</i>)	FE, SE, SP	Salt marsh habitat dominated by common pickleweed or alkali bulrush.	Absent. Suitable pickleweed/alkali bulrush-dominated salt marsh habitat is not present on the project site or along the adjacent reach of the Coyote Creek channel.
California Species of Special Concern			
Central Valley fall-run Chinook salmon (<i>Oncorhynchus tshawytscha</i>)	CSSC	Cool rivers and large streams that reach the ocean and that have shallow, partly shaded pools, riffles, and runs.	Absent. No aquatic habitat for this species is present on the project site. Small numbers of Chinook occur in Coyote Creek adjacent to the project site but this species is not expected to spawn there and these individuals do not represent a native run.
Foothill yellow-legged frog (<i>Rana boylei</i>)	CSSC, VHP	Partially shaded shallow streams and riffles with a rocky substrate. Occurs in a variety of habitats in coast ranges.	Absent. Although the VHP maps the reach of Coyote Creek located adjacent to the project site as secondary habitat (i.e., low-use habitat) for this species (ICF International 2012), suitable habitat for foothill yellow-legged frogs is absent from the project site. This species has disappeared from farmed and urbanized areas as well as many of the perennial streams below major reservoirs (H. T. Harvey & Associates 1999b).

Name	*Status	Habitat	Potential for Occurrence on Project Site
Western pond turtle (<i>Actinemys marmorata</i>)	CSSC, VHP	Permanent or nearly permanent water in a variety of habitats.	May be present. The VHP mapped primary and secondary habitat for this species along Coyote Creek and within the project site (ICF International 2012), although no suitable aquatic habitat is present within the site. Although breeding populations have been extirpated from most agricultural and urbanized areas in the project region, individuals of this long-lived species still occur in urban streams and ponds in the Santa Clara Valley. Individuals of this species have been recorded in the project vicinity, the reach of Coyote Creek adjacent to the project site provides suitable aquatic habitat, and individuals may occasionally use habitat on the project site for dispersal or refuge. Therefore, this species may be present on the project site as an occasional dispersant. However, owing to the small populations in urban portions of Coyote Creek and the hard-packed nature of most of the project site (on and around the levee), this species is unlikely to nest on the site.
Northern harrier (<i>Circus cyaneus</i>)	CSSC (nesting)	Nests in marshes and moist fields, forages over open areas.	May be Present. Northern harriers are not expected to nest on the project site due to a lack of suitable habitat. However, harriers may nest in nearby freshwater marsh habitats and likely forage on the site.
Burrowing owl (<i>Athene cunicularia</i>)	CSSC, VHP	Nests and roosts in open grasslands and ruderal habitats with suitable burrows, usually those made by California ground squirrels.	May be Present. The annual grassland habitat on the project site provides suitable foraging habitat for the burrowing owl, but provides only marginally suitable nesting and roosting habitat, as no suitable burrows were observed within the site during a focused survey. However, burrowing owls could nest in nearby grassland habitats with suitable ground squirrel burrows. Further, the entire project site is mapped by the VHP as occupied burrowing owl habitat, based on the historic presence of burrowing owl nests within 1 mile, and the site is located within the VHP Burrowing Owl Fee zone (SCVHA 2016).
Loggerhead shrike (<i>Lanius ludovicianus</i>)	CSSC (nesting)	Nests in tall shrubs and dense trees; forages in grasslands, marshes, and ruderal habitats.	May be Present. Suitable nesting and foraging habitat is present on the project site, and this species is known to breed in the Alviso area.

Name	*Status	Habitat	Potential for Occurrence on Project Site
Yellow warbler (<i>Setophaga petechia</i>)	CSSC (nesting)	Nests in riparian woodlands with dense understory.	May be Present. Riparian habitat on the project site provides at least moderately suitable breeding conditions for up to one pair, and this species is known to breed in small numbers along Coyote Creek downstream from Highway 237. This species also occurs on the site as a common migrant.
San Francisco common yellowthroat (<i>Geothlypis trichas sinuosa</i>)	CSSC	Nests in herbaceous vegetation, usually in wetlands or moist floodplains.	May be Present. This species is a common breeder in the overflow channel along Coyote Creek, and the seasonal wetland vegetation provides potential breeding habitat for up to one pair.
Yellow-breasted chat (<i>Icteria virens</i>)	CSSC (nesting)	Nests in dense stands of willow and other riparian habitat.	Absent as Breeder. This species is a rare breeder, and only slightly more regular transient, in willow-dominated riparian habitats in the project region. Suitably large, dense stands of willow are not present on the project site. However, this specie may occasionally use nearby dense stands of riparian habitat in the Coyote Creek corridor, and may rarely occur in the project site as a forager, if at all.
Alameda song sparrow (<i>Melospiza melodia pusillula</i>)	CSSC	Nests in salt marsh, primarily in marsh gumplant and cordgrass along channels.	Absent. Suitable nesting habitat for the Alameda song sparrow is not present on the project site. However, song sparrows breed in the tidal salt marshes along Coyote Slough downstream of the project site (San Francisco Bay Bird Observatory 2012).
Bryant's savannah sparrow (<i>Passerculus sandwichensis alaudinus</i>)	CSSC	Nests in pickleweed dominant salt marsh and adjacent ruderal habitat.	Absent as Breeder. Suitable breeding habitat is not present on the project site or along the reach of Coyote Creek adjacent to the project site, but small numbers of this species may forage on the site during the nonbreeding season.
Tricolored blackbird (<i>Agelaius tricolor</i>)	CSSC, VHP (nesting colony)	Nests near fresh water in dense emergent vegetation.	Absent as Breeder. Typically nests in extensive stands of tall emergent herbaceous vegetation in non-tidal freshwater marshes and ponds, which are not present on the project site. This species has not been recorded nesting on the project site (CNDDDB 2016). However, the species is known to occasionally forage in the project vicinity during the nonbreeding season, and may occur on the project site only as an uncommon nonbreeding visitor, if at all.
Salt marsh wandering shrew (<i>Sorex vagrans halicoetes</i>)	CSSC	Medium to high marsh 6 to 8 feet above sea level with abundant driftwood and common pickleweed.	Absent. Suitable pickleweed -dominated salt marsh habitat is not present on the project site or along the adjacent reach of Coyote Creek.

Name	*Status	Habitat	Potential for Occurrence on Project Site
Pallid bat (<i>Antrozous pallidus</i>)	CSSC	Forages over many habitats; roosts in caves, rock outcrops, buildings, and hollow trees.	Absent as Breeder. Historically, pallid bats were likely present in a number of locations throughout the project region, but their populations have declined in recent decades. No suitable roosting habitat for large breeding colonies is present on the project site, and no known maternity colonies are present near the project site. This species has been extirpated as a breeder from urban areas close to the Bay, as is the case around the project site. There is a low probability that the species occurs in the project vicinity due to urbanization; however, individuals from more remote colonies could occasionally forage over open habitats on the project site.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	CSSC	Roosts in caves and mine tunnels, and occasionally in deep crevices in trees such as redwoods or in abandoned buildings, in a variety of habitats.	Absent. No known extant populations occur on the Santa Clara Valley floor, and no breeding sites are known from the project area. Suitable breeding habitat is not present on or adjacent to the project site.
San Francisco dusky-footed woodrat (<i>Neotoma fuscipes annectens</i>)	CSSC	Nests in a variety of habitats including riparian areas, oak woodlands, and scrub.	Absent. Although suitable habitat is present on and immediately adjacent to the project site, no woodrat nests or evidence of woodrats were observed on the project site during focused surveys conducted in July 2016. Thus, this species is determined to be absent from the project site.
State Fully Protected Species			
American peregrine falcon (<i>Falco peregrinus anatum</i>)	SP	Forages in many habitats; nests on cliffs and tall bridges and buildings.	Absent as Breeder. Peregrine falcons are known to nest on electrical transmission towers within managed ponds near the Mountain View/Alviso area to the west of the project site, and on other structures in the South Bay, but they are not known or expected to nest on the project site. Nevertheless, the peregrine falcon may occur on the project site as an occasional forager, primarily during migration and winter.
Golden eagle (<i>Aquila chrysaetos</i>)	SP	Breeds on cliffs or in large trees (rarely on electrical towers), forages in open areas.	Absent as Breeder. Suitable breeding habitat is not present on, or immediately adjacent to, the project site. This species is expected to forage in the open habitats near the project site only infrequently, if at all, based on the limited extent of suitable habitat and the low number of recorded occurrences in the project vicinity.

Name	*Status	Habitat	Potential for Occurrence on Project Site
White-tailed kite (<i>Elanus leucurus</i>)	SP	Nests in tall shrubs and trees, forages in grasslands, marshes, and ruderal habitats.	May be Present. Suitable foraging and nesting habitat is present on the project site.

Special-Status Species Code Designations

FE =	Federally listed Endangered
FT =	Federally listed Threatened
FC =	Federal Candidate for listing
SE =	State listed Endangered
ST =	State listed Threatened
SC =	State Candidate for listing
CSSC =	California Species of Special Concern
SP =	State Fully Protected Species
VHP =	Santa Clara Valley Habitat Plan Covered-Species

No federal or state listed species are expected to occur on the project site. Several special-status species, including the western pond turtle, northern harrier, Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), yellow-breasted chat (*Icteria virens*), tricolored blackbird, American peregrine falcon (*Falco peregrinus anatum*), golden eagle (*Aquila chrysaetos*), and pallid bat, may occur on the project site only as occasional foragers, but they do not breed on or very near the site, nor do they occur regularly or in large numbers.

Special-status animals that may breed on or very close to the site include four California species of special concern, the burrowing owl, loggerhead shrike (*Lanius ludovicianus*), yellow warbler (*Setophaga petechia*), and San Francisco common yellowthroat (*Geothlypis trichas sinuosa*), as well as the white-tailed kite (*Elanus leucurus*), a state fully protected species. These species are discussed in detail below.

Burrowing Owl (*Athene cunicularia*). **Federal Listing Status: None; State Listing Status: Species of Special Concern.** Burrowing owls occur year-round in the Santa Clara Valley, using open, agricultural or grassland areas with active small mammal burrows, which they use for nesting and roosting. Typical burrowing owl habitat is treeless (because tall trees provide perches for raptors that can easily prey on burrowing owls), with minimal shrub cover and woody plant encroachment, and low density and foliage height diversity, which allows the owls to observe approaches to their nest or roost burrows. In the San Francisco Bay Area, burrowing owls are chiefly associated with burrows of California ground squirrels, which, in addition to providing nesting, roosting, and escape burrows, improve habitat for burrowing owls in other ways. For example, burrowing owls are known to favor areas with short, sparse vegetation (Coulombe 1971, Haug and Oliphant 1990, Plumpton and Lutz 1993), which provides visual protection from avian predators and foraging habitat, and ground squirrel colonies maintain short vegetation height. In the absence of ground squirrel populations, habitats soon become unsuitable for occupancy by owls.

The burrowing owl nesting season as recognized by the CDFW runs from February 1 through August 31. In Santa Clara County, burrowing owl families with non-flying young have been found as early as March 30, suggesting egg-laying dates in mid to late February, and fledged young still dependent on adults have been

found into late August (Trulio 2007). After nesting is completed, adult owls may remain in their nesting burrows or in nearby burrows, or they may migrate and over-winter elsewhere (Gorman et al. 2003). Young birds disperse across the landscape from 0.1 to 35 miles from their natal burrows (Rosier et al. 2006). Philopatry (the tendency for individuals to breed at or near their place of birth), site tenacity (the tendency for individuals to breed at or near their prior nest location), and nest burrow reuse have been well documented for burrowing owls (Martin 1973, Gleason 1979, Rich 1984, Plumpton and Lutz 1993), and burrowing owls may return to a nesting site and attempt to nest even after the site has been developed. Further, past reproductive success may influence future site reoccupancy. Female burrowing owls with large broods tend to return to previously occupied nest sites, while females that fail to breed, or which produce small broods, may change nest territories in subsequent years (Lutz and Plumpton 1999).

The annual grasslands on the project site provide at least marginally suitable nesting, foraging, and roosting habitat for the burrowing owl, and the entire project site is mapped as occupied burrowing owl habitat by the VHP based on the relatively occurrence of burrowing owls in nearby areas (ICF International 2012). No California ground squirrel burrows that provide suitable nesting or wintering habitat for burrowing owls were observed within the project site during focused-level surveys conducted in July 2016, although multiple suitable ground squirrel burrows were observed within 250 feet of the site. Although we are aware of no observations of burrowing owls in the immediate vicinity of the site, several records of burrowing owl occurrence are located within 1 mile of the site (CNDDDB 2016). If the species occurs on the site, it likely does so primarily as an occasional forager, but we cannot rule out the possibility that the species may nest or roost in a ground squirrel burrow on or near the site.

Loggerhead Shrike (*Lanius ludovicianus*). Federal Listing Status: None; State Listing Status: Species of Special Concern (Nesting). The loggerhead shrike is a predatory songbird associated with open habitats interspersed with shrubs, trees, poles, fences, or other perches from which it can hunt (Yosef 1996). Nests are built in densely foliated shrubs or trees, often containing thorns, which offer protection from predators and upon which prey items are impaled. The breeding season for loggerhead shrikes may begin as early as mid-February and lasts through July (Yosef 1996). Nationwide, loggerhead shrike populations have declined significantly over the last 20 years. Loggerhead shrikes are still fairly common in parts of the San Francisco Bay area, but urbanization has reduced available habitat, and local populations are likely declining (Cade and Woods 1997, Humple 2008).

Loggerhead shrikes nest in a number of locations in the project region where open grassland, ruderal, or agricultural habitats with scattered brush, chaparral, or trees provide perches and nesting sites for the species (Bousman 2007c). This species occurs slightly more widely (i.e., in smaller patches of open areas providing foraging habitat) during the nonbreeding season. The ruderal grassland and riparian woodland habitats on the project site provide suitable nesting and foraging habitat for the loggerhead shrike. However, based on the extent of suitable habitat on the project site and typical territory sizes of this species, no more than one pair of loggerhead shrikes is expected to nest on the project site.

Yellow Warbler (*Dendroica petechia*). Federal Listing Status: None; State Listing Status: Species of Special Concern (Nesting). The yellow warbler is a widespread neotropical migrant that inhabits wet deciduous forests throughout North America (Lowther et al. 1999). In California, yellow warbler occupies wooded riparian habitats along the coast, on both eastern and western slopes of the Sierra Nevada up to approximately 1,700 feet, and throughout the northern portion of the state (Heath 2008). Its range has remained relatively stable over time, but populations have declined substantially in many localities because of habitat loss (Cain et al. 2003, Heath 2008) and expansion of the brood-parasitic, brown-headed cowbird (*Molothrus ater*). As a result, breeding yellow warbler has been largely extirpated from the Santa Clara Valley (Heath 2008). Ideal breeding habitat for yellow warbler consists of riparian corridors with dense, shrubby understory and open canopy (Lowther et al. 1999, Cain et al. 2003, Heath 2008). Yellow warbler breeds from early May through early August, and constructs open-cup nests in upright forks of shrubs or trees in dense willow thickets or other dense vegetation (Lowther et al. 1999).

Yellow warblers are uncommon breeders in the project vicinity due to loss of riparian habitat, invasion by non-native plants, development along riparian corridors, and the abundance of the brown-headed cowbirds in the San Jose area. However, small numbers of yellow warblers still breed in remnant riparian areas within Santa Clara County (Bousman 2007d). Suitable breeding habitat consists of riparian corridors, often with an overstory of mature cottonwoods and sycamores, a midstory of box elder and willow, and a substantial shrub understory (Bousman 2007d). Riparian areas with reduced understory because of grazing or disturbance generally are not used by this species, and riparian corridors lacking open ruderal or herbaceous vegetation along the edges of the corridors or with development up to the corridor edge often are avoided as well. This species breeds in very low numbers along the lower reaches of South Bay streams, such as Coyote Creek, being somewhat more common in the upper reaches of the cottonwood/willow-dominated zone. The riparian woodland habitat on the project site provides at least moderately suitable breeding conditions for up to one pair of yellow warblers, and this species is known to breed in small numbers along Coyote Creek downstream from Highway 237. Yellow warblers are also an abundant migrant throughout the Santa Clara Valley during the spring and fall.

San Francisco Common Yellowthroat (*Geothlypis trichas sinuosa*). Federal Listing Status: None; State Listing Status: Species of Special Concern. The San Francisco common yellowthroat inhabits emergent vegetation and breeds in fresh and brackish marshes and moist floodplain vegetation around the San Francisco Bay. Common yellowthroat uses small and isolated patches of habitat as long as groundwater is close enough to the surface to encourage the establishment of dense stands of rushes, cattails, willows, and other emergent vegetation (Nur et al. 1997, Gardali and Evens 2008). Ideal habitat, however, has extensive, thick riparian, marsh, or herbaceous floodplain vegetation in perpetually moist areas, where populations of brown-headed cowbirds are low (Menges 1998). San Francisco common yellowthroat breeds primarily in fresh and brackish marshes, although it nests in salt marsh habitats that support tall vegetation (Guzy and Ritchison 1999). This subspecies builds open-cup nests, low in the vegetation, and nests from mid-March through late July (Guzy and Ritchison 1999, Gardali and Evens 2008).

The San Francisco common yellowthroat is one of the approximately 12 subspecies of common yellowthroat recognized in North America, two of which occur in the project vicinity. Because subspecies cannot be reliably distinguished in the field, determination of the presence of San Francisco common yellowthroat can be achieved only by locating breeding birds in the breeding range known for this subspecies. Common yellowthroats breeding along the edge of the Bay and in riparian and wetland habitats away from the Bay from the Milpitas/northern San Jose/Santa Clara/Los Gatos area northward are considered San Francisco common yellowthroats, while those breeding from southern San Jose southward are of the more widespread subspecies *arizela*. The demarcation between the two subspecies apparently occurs somewhere in the mid-San Jose area (Grinnell and Miller 1944), and although those breeding in the southern part of the Project Area are certainly *arizela*, yellowthroats breeding in such areas as along Silver Creek near Lake Cunningham could be either subspecies, or could be intergrades.

The San Francisco common yellowthroat is a fairly common breeder in fresh and brackish marshes, and in herbaceous riparian habitats, in the project vicinity. San Francisco common yellowthroats commonly breed in the overflow channel along Coyote Creek downstream of Highway 237 (Bousman 2007e), and up to one pair of this species could potentially breed in the seasonal wetland habitat within the project site.

White-tailed Kite (*Elanus leucurus*). **Federal Listing Status: None; State Listing Status: Fully Protected.** In California, white-tailed kites can be found in the Central Valley and along the coast, in grasslands, agricultural fields, cismontane woodlands, and other open habitats (Zeiner et al. 1990, Dunk 1995, Erichsen et al. 1996). White-tailed kites are year-round residents of the state, establishing nesting territories that encompass open areas with healthy prey populations, and snags, shrubs, trees, or other nesting substrates (Dunk 1995). Nonbreeding birds typically remain in the same area over the winter, although some movements do occur (Polite 1990). The presence of white-tailed kites is closely tied to the presence of prey species, particularly voles, and prey base may be the most important factor in determining habitat quality for white-tailed kites (Dunk and Cooper 1994, Skonieczny and Dunk 1997). Although the species recovered after population declines during the early 20th century, its populations may be exhibiting new declines as a result of recent increases in habitat loss and disturbance (Dunk 1995, Erichsen et al. 1996).

In the project vicinity, white-tailed kites are known to nest along the northern edge of Santa Clara County throughout the open areas edging the Bay, including areas along Coyote Creek downstream from the project site (Bousman 2007f). Suitable foraging habitat for the white-tailed kite is present in annual grassland habitats on the project site and the two large cottonwoods on the site provide suitable nesting habitat for this species, although no white-tailed kite nests were observed in these trees or within 300 feet of the project site during focused surveys conducted in July 2016.

4.3 Sensitive and Regulated Habitats

CDFW Sensitive Habitats. The CDFW ranks certain rare or threatened plant communities, such as wetlands, meadows, and riparian forest and scrub, as ‘threatened’ or ‘very threatened’. These communities are tracked in

the CNDDDB. Impacts on CDFW sensitive plant communities, or any such community identified in local or regional plans, policies, and regulations, must be considered and evaluated under the CEQA (California Code of Regulations: Title 14, Div. 6, Chap. 3, Appendix G).

A query of sensitive habitats in Rarefind (CNDDDB 2016) was performed for the *Milpitas, California* 7.5-minute USGS quadrangle and surrounding eight quadrangles. Based on this query, Northern Coastal Salt Marsh and Sycamore Alluvial Woodland are the only sensitive communities occurring in the project vicinity; however, neither habitat type is present on the project site because the key indicator plant species do not occur on the site. The closest mapped record of Northern Coastal Salt Marsh in the CNDDDB is located approximately 2 miles north of the project site in downstream reaches of Coyote Creek (Figure 3). The closest mapped record of Sycamore Alluvial Woodland in the CNDDDB is located approximately 9-miles northeast of the project site near San Antonio Reservoir (Figure 3).

CDFW maintains a list of vegetation alliances and associations within the state of California (California Department of Fish and Game 2010). This list includes global (G) and state (S) rarity ranks for associations and alliances. Alliances and associations currently ranked as S1-S3 are considered highly imperiled. A crosswalk of the identified habitats on the site is conducted here to identify habitats that conform to the CDFW alliances and associations. The California annual grassland would be consistent with non-native grassland according to Holland (1986), which is a non-sensitive habitat. The seasonal wetland would be consistent with poison hemlock and fennel patches (Sawyer, Keeler-Wolf, and Evans 2009) or non-native grassland in Holland (1986) and is not considered a sensitive habitat. The mixed riparian forest and woodland is consistent with the Central Coast cottonwood-sycamore riparian forest in Holland (1986) and the Fremont cottonwood forest (Sawyer, Keeler-Wolf, and Evans 2009), which is a S3.2 ranked alliance. Thus, the mixed riparian forest is considered imperiled and a sensitive habitat type. Urban-suburban habitat has exceptionally little vegetation and does not conform to a CDFW vegetation category nor does it have an associated rarity rank.

Section 1602 of the Fish and Game Code establishes jurisdiction over the bed, channel, or bank of any river, stream, or lake. Riparian habitats along stream and drainage corridors are typically claimed by CDFW because they offer unique resources for wildlife. In accordance with the CDFW guidance we determined that riparian habitat is present in the project site. The CDFW riparian jurisdiction on the project site goes up to the inboard top of levee.

Section 5. Biotic Impacts and Mitigation

5.1 CEQA Overview

The CEQA and the State CEQA Guidelines provide guidance in evaluating impacts of projects on biological resources and determining which impacts will be significant. The Act defines “significant effect on the environment” as “a substantial adverse change in the physical conditions which exist in the area affected by the proposed project.” Under State CEQA Guidelines section 15065, a project's effects on biotic resources are deemed significant where the project would:

- A. “substantially reduce the habitat of a fish or wildlife species”
- B. “cause a fish or wildlife population to drop below self-sustaining levels”
- C. “threaten to eliminate a plant or animal community”
- D. “reduce the number or restrict the range of a rare or endangered plant or animal”

In addition to the section 15065 criteria that trigger mandatory findings of significance, Appendix G of State CEQA Guidelines provides a checklist of other potential impacts to consider when analyzing the significance of project effects. The impacts listed in Appendix G may or may not be significant, depending on the level of the impact. For biological resources, these impacts include whether the project would:

- 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, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service”
- C. “have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act”
- D. “interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites”
- E. “conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance”
- F. “conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan”

5.1.1 Santa Clara Valley Habitat Plan

As described in Section 2.3.4, the project site is entirely inside the VHP permit area and in Fee Zone A (Ranchlands and Natural Lands) (SCVHA 2016). The proposed project is consistent with a “covered project” under the VHP as determined by use of the Coverage Screening Form (ICF International 2012) because the site is partially located in an undeveloped location in Area 1-Private Development Covered lands (SCVHA 2016). Based on the mapped VHP Private Development Areas, the project site is divided between Area 1 and Area 4 (SCVHA 2016). The Area 1, Private Development Covered area, is located from the top of levee and inboard toward Coyote Creek. The remainder of the project site outboard of the levee top is located in Area 4, Urban Development area. The project site is located near Coyote Creek, which is mapped as a Category 1 stream. Category 1 streams have an associated 150-foot setback. There is no serpentine habitat on the project site, and therefore, fees in lieu of mitigation for impacts to this habitat types would not be required. However, fees for impacts on burrowing owl habitat will apply because the VHP maps habitat on the site as occupied burrowing owl habitat and fees for impacts on wetlands may apply. Because the proposed project entails new development, nitrogen deposition fees may apply.

This impact assessment summarizes the applicable fees and conservation measures that are required by the VHP. The impact analysis below provides the VHP conditions that apply to the proposed project. Chapter 6 of the VHP includes conditions on all covered activities. Condition 1 pertains to all covered activities. The rest of the conditions are split by activity type, natural community, and species. Table 3 below includes all conditions of the VHP and their applicability to the project. Following this table is an expanded description of specific Conditions applicable to the project site.

Table 3. Santa Clara Valley Habitat Plan Conditions and Project Applicability

Condition	Project Applicability and Justification
Conditions on all covered activities	
Condition 1. Avoid direct impacts on legally protected plant and wildlife species	Applicable. Applies to all projects.
Conditions on specific covered activities	
Condition 2. Incorporate urban-reserve system interface design requirements	Not applicable. Project is outside urban-reserve areas.
Condition 3. Maintain hydrologic conditions and protect water quality	Applicable. Applies to all projects.
Condition 4. Avoidance and minimization for in-stream projects	Applicable. Project is within stream banks and riparian corridor.
Condition 5. Avoidance and minimization measures for in-stream operations and maintenance	Not applicable. Project is not for operations and maintenance.
Condition 6. Design and construction requirements for covered transportation projects	Not applicable. Project is not for transportation.
Condition 7. Rural development design and construction requirements	Not applicable. Project is not in rural area.

Condition 8. Implement avoidance and minimization measures for rural road maintenance	Not applicable. Project is not for rural road work.
Condition 9. Prepare and implement a recreation plan	Not applicable. Project is not a reserve.
Condition 10. Fuel buffer	Not applicable. Project would not construct a dwelling or structure.
Conditions to minimize impacts on natural communities	
Condition 11. Stream and riparian setbacks	Not applicable. Outfall construction projects are exempt.
Condition 12. Wetland and pond avoidance and minimization	Applicable. Project would impact wetlands.
Condition 13. Serpentine and associated covered species avoidance and minimization	Not applicable. No serpentine habitat exists on the site.
Condition 14. Valley oak and blue oak woodland avoidance and minimization	Not applicable. No valley or blue oak woodland exists on the site.
Conditions to minimize impacts on specific covered species	
Condition 15. Western burrowing owl	Applicable. Site is within a mapped occupied habitat area and fee zone for this species.
Condition 16. Least Bell's vireo	Not applicable. Absent from site and no suitable habitat occurs.
Condition 17. Tricolored blackbird	Applicable. Site is within 250 feet of a mapped survey area for this species.
Condition 18. San Joaquin kit fox	Not applicable. Absent from project site and no suitable habitat present.
Condition 19. Plant salvage when impacts are unavoidable	Not applicable. No covered plants occur.
Condition 20. Avoid and minimize impacts to covered plant occurrences	Not applicable. No covered plants occur.

5.1.1.1 Condition 1- Avoid Direct Impacts on Legally Protected Plant and Wildlife Species

Contra Costa goldfields (*Lasthenia conjugens*) is a protected plant species under federal law. If this species is encountered on the project site, coordination with the U.S. Fish and Wildlife Service is required. Several wildlife species that occur in the proposed project vicinity are protected under state and federal laws. Some of these animal species are listed as fully protected under the California Fish and Game Code (e.g., American peregrine falcon and white-tailed kite), and eagles are protected under the Bald and Golden Eagle Protection Act. Further, all native bird species and their nests are protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code. Actions conducted under the VHP must comply with the provisions of the MBTA and California Fish and Game Code.

5.1.1.2 Condition 3. Maintain Hydrologic Conditions and Protect Water Quality

Condition 3 applies to all projects and identifies a set of programmatic best management practices (BMPs), performance standards, and control measures to minimize increases of peak discharge of storm drain waters

and to reduce runoff of pollutants to protect water quality, including during project construction. These requirements include pre-construction, construction site, and post-construction actions. Pre-construction conditions are site design planning approaches that protect water quality by preventing and reducing the adverse impacts of storm drain water pollutants and increases in peak runoff rate and volume. They include hydrologic source control measures that focus on the protection of natural resources. Construction site conditions include source and treatment control measure to prevent pollutants from leaving the construction site and minimizing site erosion and local stream sedimentation during construction. Post-construction conditions include measures for storm drain water treatment and flow control.

5.1.1.3 Condition 4 – Avoidance and Minimization for In-Stream Projects

Condition 4 applies to in-stream projects and identifies design requirements and construction practices to minimize impacts on riparian and aquatic habitat (See Table 6-2 of the VHP). In-stream projects are defined as work in the streambed, banks, and riparian corridor adjacent to a stream. In-stream projects must be designed to minimize impacts on stream morphology, habitats, and flow conditions. The design requirements and construction avoidance and minimization measures are required unless the measures are not appropriate for the activity or field data from the site suggests that the measures would not benefit wildlife or reduce impacts in to natural communities. The avoidance and minimization measures address construction staging, dewatering, sediment management, vegetation management, bank protection, drainage, trail construction, and ground disturbance.

5.1.1.4 Condition 12 – Wetland and Pond Avoidance and Minimization

Condition 12 applies to covered projects that would directly or indirectly affect wetlands or ponds. The purpose of Condition 12 is to minimize impacts on wetlands and ponds and avoid impacts on high quality wetlands and ponds by prescribing vegetated storm drain water filtration features, proper disposal of cleaning materials, and other requirements (see pages 6-55 to 6-68 of the VHP). Project proponents are required to pay a wetland fee for impacts on wetlands and ponds to cover the cost of restoration or creation of aquatic land cover types required by the VHP. Covered activities can avoid paying the wetland fee if they avoid impacts on wetlands.

5.1.1.5 Condition 15 – Western Burrowing Owl

Condition 15 requires the implementation of measures to avoid and minimize direct impacts on burrowing owls, including pre-construction surveys, establishment of 250-foot non-disturbance buffers around active nests during the breeding season (February 1 through August 31), establishment of 250-foot non-disturbance buffers around occupied burrows during the nonbreeding season, and construction monitoring. Pre-construction surveys for burrowing owls are required by the VHP in areas mapped as breeding habitat, which include the project site. As mentioned above, additional fees in-lieu of providing compensatory mitigation are imposed for VHP covered projects that impact burrowing owls. Because the project site includes VHP-mapped occupied habitat for burrowing owls and is located within the VHP Burrowing Owl Fee zone, a specialty fee for impacts on habitat for this species would apply.

5.1.1.6 Condition 17 – Tricolored Blackbird

Condition 17 calls for surveys of project areas within 250 feet of any riparian, coastal and valley freshwater marsh (perennial wetlands), or pond land cover types for potential tricolored blackbird nesting substrate. A qualified biologist is required to conduct a field investigation to identify and map potential nesting substrate. If potential nesting substrate is found, the project proponent may revise the project to avoid all areas within a 250-foot buffer around the potential nesting habitat. If the project proponent chooses not to avoid potential nesting habitat and the 250-foot buffer, additional nesting surveys are required. Avoidance and minimization measures are required for covered activities in tricolored blackbird nesting habitat that is currently occupied or has been used in the past 5 years. Although it is our opinion that tricolored blackbirds are absent from the project site and all areas within 250 feet of the site, based on the species' known distribution, we expect that the project applicant will need to conduct surveys per this condition for VHP compliance purposes.

5.2 Less-than-Significant Impacts

5.2.1 Impacts on Non-Sensitive Habitats and Associated Common Plant and Animal Communities

Construction activities related to the development of the storm drain outfall site with an excavated trench, sending and receiving pits, new outfall pipe placement, and construction access would result in permanent and temporary impacts to California annual grassland and urban/suburban habitats (Figure 2, Table 4). Permanent impacts would result from the conversion of less than 0.01 acre of California annual grassland to rock slope protection. Temporary impacts to 0.24 acre of California annual grassland and to 0.05 acre of Urban/suburban habitats would occur from trenching, pit installation, and access. Impacts on these habitats during construction would temporarily reduce the extent of ruderal grassy vegetation on the project site and would result in a reduction in abundance of some of the common plant and wildlife species that use the site. However, these habitat types are abundant and widespread regionally, and none of these habitats on the site represent particularly sensitive, valuable (from the perspective of providing important plant or wildlife habitat), or exemplary occurrences of these habitat types.

The very small areas of California annual grassland to be impacted by the current project will occur in areas that have been subject to disturbance and fragmentation in the past, such that these areas are not likely to support native vegetation to such an extent that a sensitive vegetation alliance or special-status plant would be considered to occur in this location (Figure 2). Similarly, although the trenching, pit excavation, and construction access would temporarily be impacted, the existing habitat does not support high quality native vegetation or provide high-quality habitat for wildlife species. Therefore, impacts on these habitats are considered less than significant. Further, because the number of individuals of any common plant or animal species within these habitats, and the proportion of these species' regional populations that could be disturbed, is very small, the project's impacts would not substantially reduce regional populations of these species. Thus, these impacts do not meet the CEQA standard of having a *substantial* adverse effect, and would not be considered significant under CEQA.

Table 4. Proposed Project Impacts

Habitat	Permanent Impact (acres)	Temporary Impact (acres)	Permanent Impact outside Project Site (acres)
California annual grassland	<0.01	0.24	0.00
Mixed riparian forest and woodland	0.11	0.00	0.05
Seasonal wetlands	0.01	0.01	0.00
Urban/Suburban	0.00	0.05	0.00
Total	0.12	0.31	0.05

The undeveloped habitats within the project footprint provide suitable nesting habitat for native bird species. Birds may also nest in undeveloped habitats outside the project footprint in areas adjacent to the project site, and thus, implementation of the project has the potential to result in the direct loss or indirect disturbance of nests, including eggs and young, of common birds. Such impacts may occur because of the removal of tree and other vegetation or the disturbance of individuals nesting within or immediately adjacent to the project footprint. However, the habitats within the project site represent a very small proportion of the habitats that support these species regionally and are available in the vicinity. Due to the loss of two large trees, fewer pairs of birds are expected to nest and forage on the site following project construction. However, the decline in bird abundance resulting from the project, if any, would be very low based on the limited extent of the project footprint and the abundance of similar large trees in the project vicinity. Therefore, project impacts on nesting and foraging birds that use the site, due to habitat impacts or disturbance of nesting birds, would not rise to the CEQA standard of having a *substantial* adverse effect, and these impacts would not constitute a significant impact on these species or their habitats under CEQA. However, all native bird species are protected from direct take by federal and state statutes (see Section 5.1, Regulatory Overview for Nesting Birds).

5.2.2 Impacts on Water Quality

Increased hardscape can lead to an increase in runoff and a decrease in infiltration and groundwater recharge. Because the outfall structure is a discharge pipe for storm drain water, possible introduction of anthropogenic contaminants such as petrochemicals, herbicides, and fertilizers into regulated habitats could occur. Other project activities such as trenching, tree and plant removal, and other soil disturbances can increase the potential for soil erosion on site. These construction activities could increase the amount of soils and sediments entering waterways, thereby negatively influencing aquatic habitats and water quality. Any contamination of the seasonal wetland features has the potential to migrate into Coyote Creek as a result of the proximity to the low flow channel and existing sloped topography. As a result, the direct impacts on the seasonal wetlands would constitute wetland loss and the indirect impacts would constitute substantial adverse effects on water quality. These adverse effects on water quality could eventually have an indirect impact on aquatic wildlife species occurring in Coyote Creek. However, as described in the project description, during construction the project site would be physically separated from Coyote creek by using fiber rolls, staking, and silt fencing to reduce water quality impacts as required by the NPDES Construction General Permit. The project will conform with

all relevant VHP conditions to protect water quality, including Conditions 3, 4, and 12. VHP Condition 3 requires implementation of design phase, construction phase, and post-construction phase measures, including programmatic BMPs, performance standards, and control measures, to minimize increases of peak discharge of storm drain water and to reduce runoff of pollutants to protect water quality, including during project construction. VHP Condition 4 requires design phase and construction practices to minimize impacts on riparian and aquatic habitats such that the project would avoid or minimize adverse impacts on stream morphology, aquatic and riparian habitat, and flow conditions. Compliance with Condition 4 addresses construction staging, dewatering, sediment management, vegetation management, bank protection, drainage, trail construction, and ground disturbance. VHP Condition 12 requires the implementation of design phase and construction phase measures to avoid and minimize impacts on wetlands and ponds, including erosion control measures, fencing of avoided wetlands during construction, establishment of buffers between wetlands and refueling areas, and measures to minimize the spread of invasive species. Additionally, the neighboring development of the Cilker Property that will generate the runoff to be discharged through this outfall would comply with the Regional MRP for post construction storm water treatment, and as such, deleterious contributions of this outfall to water quality in Coyote Creek would not be substantial, and this impact would be less than significant.

5.2.3 Impacts from Invasive Weeds

The project could potentially have a substantial adverse effect due to the spread of noxious and invasive weeds. The introduction or spread of noxious and invasive species is a special concern for native plant and animals. Noxious and invasive weeds pose a threat to the natural processes of plant community succession, fire frequency, biological diversity, and species composition. Noxious and invasive weeds can affect the persistence of some populations of special-status species by replacing the foraging base, altering habitat structure, or excluding a species by vegetative growth. Invasive weeds occur in all habitat types and can be difficult to eradicate. Many non-native, invasive plant species produce seeds that germinate readily following disturbance. Further, disturbed areas are highly susceptible to colonization by non-native, invasive species that occur locally, or whose propagules are brought in by personnel, vehicles, and other equipment.

A local propagule source of one weed species with “high” impact ratings (Cal-IPC 2016) was observed in the project site vicinity as well as a few plants are currently present in the site. Perennial pepperweed (*Lepidium latifolium*) is present in small quantities at the site and is present in larger quantities in the immediate project vicinity, both on the inboard levee side and outboard levee side. This species could potentially invade and/or spread onto additional areas of the project site. Introduction or spread of invasive weeds could degrade sensitive riparian and wetland habitats, and/or reduce or eliminate their ability to support special-status plant or wildlife species in and downstream of the project site, and as such would be a significant impact. Also, perennial pepperweed from the project site could be spread to other project sites on equipment. However, the project proposes to implement the following BMPs to prevent such introduction or spread of existing weeds.

- During construction of the proposed project, all straw materials used on site will be weed-free rice (or similar material acceptable to the City) straw, and all gravel and fill material will be certified weed free to the satisfaction of the City and any deviation from this will be approved by the City.
- During construction of the proposed project, vehicles and all equipment will be washed (including wheels, undercarriages, and bumpers) before and after entering the proposed project site. Vehicles will be cleaned at existing construction yards or legally operating car washes.
- Following construction of the proposed project, a standard erosion control seed mix (acceptable to the City) from a local source will be planted within the temporary impact zones on any disturbed ground that will not be under hardscape, landscaped, or maintained. This will minimize the potential for the germination of the majority of seeds from non-native, invasive plant species.

With implementation of these BMPs, the project will have a less than significant impact on spread or introduction of invasive weeds on sensitive habitats and species within the project region.

5.2.4 Impacts on the Western Pond Turtle

Suitable habitat for the western pond turtle, a California species of special concern, consists of ponds or instream pools (i.e., slack water environments) with available basking sites, nearby upland areas with clay or silty soils for nesting, and shallow aquatic habitat with emergent vegetation and invertebrate prey for juveniles (Jennings and Hayes 1994). Although the reach of Coyote Creek located adjacent to the project site provides suitable aquatic habitat for western pond turtles, populations along the lower reaches of this creek are apparently very low due to the long duration of urban impacts in this part of the Santa Clara Valley. In addition, no suitable aquatic habitat is present on the project site. Therefore, the project would not result in the loss of aquatic foraging or dispersal habitat. Furthermore, due to the hard-packed nature of soils on most of the project site, the very limited extent of the project area, and the very low numbers of western pond turtles in the adjacent reach of the creek, we do not expect this species to nest on the project site. Approximately 0.36 ac of potentially suitable dispersal habitat is present on the project site, and a temporary loss of this habitat will occur during project construction; however, it is unlikely that dispersing individuals or nests would be present within the project impact area due to the limited extent of habitat within the project site and the very low numbers of individuals in the project vicinity. No direct loss of individual western pond turtles is expected to occur as a result of the project. Further, suitable nesting and upland dispersal habitat is abundant in the areas surrounding the project site, and the majority of the site will continue to function as suitable nesting and upland dispersal habitat for this species after the project is constructed. Therefore, potential project impacts on western pond turtle do not meet the CEQA standard of having a *substantial* adverse effect and would not be considered significant under CEQA.

5.2.5 Impacts on Nesting White-tailed Kite, Loggerhead Shrike, Yellow Warbler, and San Francisco Common Yellowthroat

Implementation of the proposed project would result in the permanent loss of 0.11 acre of potential riparian nesting and foraging habitat for the yellow warbler, white-tailed kite, and loggerhead shrike; 0.01 acre of seasonal

wetland nesting and foraging habitat for the San Francisco common yellowthroat; and <0.01 acre of grassland foraging habitat for the loggerhead shrike and white-tailed kite, as well as temporary impacts to limited areas of grassland and seasonal wetland that may be used by these species.

Proposed construction activities could result in the destruction or abandonment of active nests of these species, should they nest on the site during project implementation. However, no more than one pair each of these species is expected to nest on or immediately adjacent to the project site, if these species are present as breeders at all, and thus the loss of individuals potentially resulting from project activities would represent a very small fraction of the regional populations of these species. Further, the annual grassland, seasonal wetland, and riparian woodland habitats within the project site represent a very small proportion of the habitats that support these species regionally.

Therefore, neither the potential loss of individuals of these species, nor the loss of potential nesting habitat for them would rise to the CEQA standard of having a substantial adverse effect, and these impacts would thus not constitute a significant impact on these species or their habitats under the CEQA. However, all native bird species are protected from direct take by federal and state statutes (see Section 5.1, *Regulatory Overview for Nesting Birds*), and compliance with VHP Condition 1 necessitates the implementation of measures to ensure that no take of these species (e.g., disturbance of active nests) occurs.

5.3 Impacts Found to be Less than Significant with Mitigation

5.3.1 Impacts on Waters of U.S./State

Aquatic habitats and wetlands control overall water quality, watershed functions, and provide habitat for plants and animals. Aquatic habitats, such wetlands, facilitate groundwater recharge, and control water quality and watershed functions. Contamination of these habitats with pollutants and sediment can adversely affect ecosystem health and reduce habitat quality for plant and animal species. Loss of these habitats may adversely affect plant and wildlife communities dependent upon water sources and these valuable habitats.

No technical wetland delineation was conducted at the project site during the 2016 survey. However, prior reconnaissance surveys conducted in March 2016, identified aquatic and coastal valley freshwater marsh wetland habitats at the bank toe of slope. These identified areas were used to help define the current project work area and limits of rock slope protection such that that aquatic habitat at the low-flow channel of Coyote Creek and adjoining perennial marsh wetland is avoided by the project. Approximately 0.02 acres of regulated seasonal wetlands habitat occurs in the project site (Figure 2; Table 1). The project area has a more xeric wetland type, a seasonal wetland feature that occurs inland from the edge of the perennial coastal and valley freshwater marsh and the low-flow channel of Coyote Creek that are located outside the project site. Although the seasonal wetland does abut the stream where coastal and valley freshwater marsh and Coyote Creek occur, the seasonal wetland provides medium to low-quality habitat as a result of being dominated by non-native species like poison hemlock. The seasonal wetland habitat extends outside the project site into the adjoining areas downstream.

The project would permanently impact a seasonal wetland that lines the edge of the coastal and valley freshwater marsh outside the project site. Areas in the aquatic habitat at Coyote Creek outside the project site, the adjoining perennial marsh habitat directly outside the project site, and the seasonal wetland habitat in the project site are likely considered jurisdictional habitats by various state and federal resource/regulatory agencies. Project implementation could result in potentially significant direct impacts to seasonal wetlands. Indirect impacts to water quality in the seasonal wetlands on site and the off site perennial marsh and aquatic habitat could potentially occur through project implementation.

The proposed project would have direct permanent impacts on 0.01 acre of seasonal wetland features from the installation of hardscape as rock slope protection armoring the outfall pipe opening and temporary impacts to 0.01 acre from trenching and construction access (Figure 2; Table 4). The seasonal wetlands are potentially regulated habitats and are considered waters of the U.S./State. Though the wetlands on site are not of high quality, and the project will conform with Conditions 3, 4, and 12 of the VHP, permanent and temporary direct impacts on the seasonal wetland would be considered significant without mitigation because of the limited distribution of wetland habitats within the project region and the important ecological functions and values provided by wetland habitats. Implementation of Mitigation Measure 1 will avoid indirect impacts on Coyote Creek and mitigate water quality impacts to a less-than-significant level.

Mitigation Measure 1. Compliance with VHP and Wetland Impact Fee Payment Implementation of Conditions 3, 4, and 12 (Chapter 6 of the Final VHP), as well as payment of wetland fees for impacts will reduce impacts on waters of the U.S./State to a less-than-significant level.

5.3.2 Impacts to Mixed Riparian Forest from Tree Removal

The existing trees on site are a mixture of native species and include Fremont cottonwood, buckeye, and coast live oaks. Because riparian communities are considered sensitive habitats and provide a wide range of biological functions for wildlife, such as nesting habitat for birds, any tree loss in riparian habitats may be considered significant. The removal of riparian trees at this site would have a significant impact on wildlife because the trees are mature native species in an extensive riparian setting, and because riparian habitat along lower Coyote Creek is known to support high densities of nesting, wintering, and migrant birds. Because riparian tree removal occurs in a sensitive habitat with important ecological values for common and rare wildlife species, project-specific impacts to the mixed riparian forest and woodland habitat would be significant if not mitigated.

Project implementation would result in permanent impacts to approximately 0.11 acre of existing mixed riparian forest and woodland in the project site from project trenching and installation of a new storm drain outfall (Figure 2; Table 4). The project would remove numerous trees that have root systems within the proposed trench excavation area. Tree loss resulting from project implementation was estimated conservatively by counting the number of trees that would be impacted by trenching. Any tree where trenching would occur to roots located in the root crown directly underneath the tree canopy were considered to be severely impacted. In this manner, all trees with trenching within the crown limits were determined to be lost trees that would be removed by the project. Therefore, six mature trees were determined to be lost as a result of trenching activities.

This includes two Fremont cottonwoods, one buckeye, and three coast live oak trees. In addition, nine sapling trees were also determined to be lost, including two Fremont cottonwood, two buckeye, and five coast live oak saplings.

Based on canopy extent from the loss of trees, the entire area of mixed riparian woodland (0.11 acre) is considered permanently impacted as well as canopy area outside of the project site (Figure 2; Table 4). Tree canopy outside the project site was added in the permanent impact area because some larger trees would be trenched through such that the entire tree, including canopy outside the project site, was considered impacted and lost. Loss of additional tree canopy outside the project site would result in the additional loss of 0.05 acre (Figure 2; Table 4). Project specific impacts to 0.16 acre of mixed riparian forest and woodland habitat would be significant if not mitigated.

Applicable conditions and BMPs required by the VHP would be implemented for impacts to riparian habitats resulting from the project. These include Condition 3 (Maintain Hydrologic Conditions and Protect Water Quality) and Condition 4 (Stream Avoidance and Minimization for In-stream Projects). In particular, the proposed project complies with the following applicable impact avoidance conditions and design criteria:

- Removal of riparian vegetation and trees will be limited to the minimum extent required to construct the project,
- The project will comply with all conditions required by the project-specific LSAA issued by CDFW, and
- Seed mixtures used for revegetation of the impacted riparian habitat will not contain invasive non-native species but will be composed of native or sterile non-native species. If sterile non-native mixtures must be used for temporary erosion control, native seed mixtures will be used in subsequent treatments to provide long-term erosion control and prevent colonization by invasive non-native species.

Mitigation for direct impacts to mixed riparian forest and woodland habitat is required to remain consistent with the conditions and recommendation of the VHP. With the implementation of mitigation measure 1 above (Implementing VHP Conditions 3, 4, and 12), the following mitigation measure, and the measures described below in Section 5 to avoid direct impacts to nesting birds, the significance of these impacts would be reduced to a less than significant level.

Mitigation Measure 2: VHP Fee Payment. An impact fee specific to the riparian habitat impacts will be calculated based on the permanent and temporary riparian habitat impacts from the proposed project at on site and off site canopy impact area. Compensatory mitigation for the permanent impacts to approximately 0.11 acres on site and 0.05 acres off site will be provided for a total of 0.16 acres through payment of impact fees per the VHP.

5.3.3 Impacts on the Burrowing Owl

California annual grassland habitats in the project vicinity that support California ground squirrels provide potential nesting, wintering, and foraging habitat for burrowing owls. Although no ground squirrel burrows were observed on the project site during focused surveys conducted in July 2016, numerous ground squirrel burrows were observed within 250 feet of the project site, in grassland habitats located along the levee slopes, and squirrels in the area could excavate new burrows within the project site in the future. If active burrowing owl nests are present on the project site at the time of construction, construction-related disturbance could result in injury or mortality of an owl. In addition, construction-related disturbance to a burrowing nest in the surrounding areas could lead to the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Even if burrowing owls are not breeding on the site, construction could result in injury or mortality of individual owls if construction activities were to fill or compact an occupied burrow. The project would also result in permanent impacts to <0.01 acre and temporary impacts to 0.24 acre of annual grasslands that provide potential nesting, wintering, and foraging habitat for burrowing owls, and the entire project site is mapped by the VHP as occupied burrowing owl habitat and within the VHP Burrowing Owl Fee zone. However, the removal of 0.16 acres of riparian woodland habitat and the implementation of the erosion control measures described above in Section 4.3.3 would result in an equivalent increase in annual grassland habitats, potentially suitable for burrowing owl nesting, wintering, and foraging, within the project site. Therefore, the project is expected to result in a temporary loss of 0.24 acres and a potential increase of 0.16 acres of suitable habitat for burrowing owls. In addition, the project will result in temporary and permanent impacts on up to 0.43 acres of VHP-mapped occupied burrowing owl habitat, including developed roads and riparian woodlands within the site.

Given the regional rarity of burrowing owls, and recent population declines in the Bay Area, any loss of burrowing owls, any activities resulting in the destruction of occupied burrowing owl burrows, or the loss of occupied burrowing owl habitat would substantially impact the species, a significant impact under CEQA. Implementation of the following mitigation measures will reduce impacts on the burrowing owl to a less-than-significant level.

Mitigation Measure BIO-4a: Pre-construction Surveys for Burrowing Owls. Prior to any ground disturbance related to covered activities, a qualified biologist will conduct preconstruction surveys in all suitable habitat areas as identified during habitat surveys. The purpose of the preconstruction surveys is to document the presence or absence of burrowing owls on the project site, particularly in areas within 250 feet of construction activity.

To maximize the likelihood of detecting owls, the preconstruction survey will last a minimum of three hours. The survey will begin 1 hour before sunrise and continue until 2 hours after sunrise (3 hours total) or begin 2 hours before sunset and continue until 1 hour after sunset. Additional time may be required for large project sites. A minimum of two surveys will be conducted (if owls are detected on the first survey, a second survey is not needed). All owls observed will be counted and their location will be mapped.

Surveys will conclude no more than 2 calendar days prior to construction. Therefore, the project proponent must begin surveys no more than 4 days prior to construction (2 days of surveying plus up to 2 days between surveys and construction). To avoid last minute changes in schedule or contracting that may occur if burrowing owls are found, the project proponent may also conduct a preliminary survey up to 14 days before construction. This preliminary survey may count as the first of the two required surveys as long as the second survey concludes no more than 2 calendar days in advance of construction.

Mitigation Measure BIO-4b: Avoidance Measures for Burrowing Owls.

Breeding Season. If evidence of western burrowing owls is found during the breeding season (February 1–August 31), the project proponent will avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young (occupation includes individuals or family groups foraging on or near the site following fledging). Avoidance will include establishment of a 250-foot non-disturbance buffer zone around nests. Construction may occur outside of the 250-foot non-disturbance buffer zone. Construction may occur inside of the 250-foot non-disturbance buffer during the breeding season if:

- the nest is not disturbed, and
- the project proponent develops an avoidance, minimization, and monitoring plan that will be reviewed by the Implementing Entity and the Wildlife Agencies prior to project construction based on the following criteria.
 - The Implementing Entity and the Wildlife Agencies approves of the avoidance and minimization plan provided by the project applicant.
 - A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline nesting and foraging behavior (i.e., behavior without construction).
 - The same qualified biologist monitors the owls during construction and finds no change in owl nesting and foraging behavior in response to construction activities.
 - If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer. Construction cannot resume within the 250-foot buffer until the adults and juveniles from the occupied burrows have moved out of the project site.
 - If monitoring indicates that the nest is abandoned prior to the end of nesting season and the burrow is no longer in use by owls, the non- disturbance buffer zone may be removed. The biologist will excavate the burrow to prevent reoccupation after receiving approval from the Wildlife Agencies.

The Implementing Entity and the Wildlife Agencies have 21 calendar days to respond to a request from the project proponent to review the proposed construction monitoring plan. If these parties do not respond within 21 calendar days, it will be presumed that they concur with the proposal and work can commence.

Non-Breeding Season. During the non-breeding season (September 1–January 31), the project proponent will establish a 250-foot non-disturbance buffer around occupied burrows as determined by a qualified biologist. Construction activities outside of this 250-foot buffer are allowed. Construction activities within the non-disturbance buffer are allowed if the following criteria are met in order to prevent owls from abandoning important overwintering sites.

- A qualified biologist monitors the owls for at least 3 days prior to construction to determine baseline foraging behavior (i.e., behavior without construction).
- The same qualified biologist monitors the owls during construction and finds no change in owl foraging behavior in response to construction activities.
- If there is any change in owl nesting and foraging behavior as a result of construction activities, these activities will cease within the 250-foot buffer.
- If the owls are gone for at least one week, the project proponent may request approval from the Implementing Entity that a qualified biologist excavate usable burrows to prevent owls from re-occupying the site. After all usable burrows are excavated, the buffer zone will be removed and construction may continue.

Monitoring must continue as described above for the non-breeding season as long as the burrow remains active.

Mitigation Measure BIO-4c: Construction Monitoring for Burrowing Owls. Based on the avoidance, minimization, and monitoring plan developed (as required in the above section), during construction, the non-disturbance buffer zones will be established and maintained if applicable. A qualified biologist will monitor the site consistent with the requirements described above to ensure that buffers are enforced and owls are not disturbed. The biological monitor will also conduct training of construction personnel on the avoidance procedures, buffer zones, and protocols in the event that a burrowing owl flies into an active construction zone.

Because the project site is mapped as burrowing owl habitat by the VHP, the project proponent will be required to pay a burrowing owl fee. The fee will help fund the VHP conservation program, including requirements for the use of impact fees toward both preservation and management of 5,300 acres of occupied or potential burrowing owl nesting habitat, and an aggressive suite of measures aimed at reversing the declining trend of the burrowing owl population in Santa Clara County. Contributions to the VHP conservation program will further mitigate potential project impacts on the western burrowing owl and its habitat.

5.4 Cumulative Impacts

Cumulative impacts arise due to the linking of impacts from past, current, and reasonably foreseeable future projects in the region. The proposed project, in combination with other projects in the area and other activities that impact the species and habitats that are affected by this project, could contribute to cumulative effects on special-status species and sensitive habitats. Other projects in the area include both development and maintenance projects (such as the neighboring Cilker Property project) that could adversely affect these species and habitats as well as restoration projects that will benefit these species.

Locally, the SCVWD's Stream Maintenance Program (SMP) involves maintenance activities in SCVWD flood control channels, creeks, and canals within jurisdictional waters of the U.S. The maintenance activities include, bank stabilization, sediment removal, minor in-channel maintenance activities, and mitigation projects. Implementation of the SMP BMPs will avoid or minimize impacts on sensitive habitats and special-status species associated with these habitats.

Many projects in the region that impact resources similar to those impacted by the proposed project will be covered activities under the VHP and will mitigate impacts on sensitive habitats and many special-status species through that program, which will require payment of fees for habitat restoration and conservation.

Further, the project would implement a number of BMPs and mitigation measures to reduce impacts on sensitive habitats, such as Coyote Creek, and to both common and special-status species, as described above. Thus, provided that this project successfully incorporates the mitigation measures described in this biological resources report, the project will not make a cumulatively considerable contribution to substantial cumulative effects on biological resources.

Section 6. Compliance with Additional Laws and Regulations Applicable to Biotic Resources of the Site

6.1 Regulatory Overview for Nesting Birds

Construction disturbance during the nesting season (February 1 through August 31, for most species) could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. This type of impact would not be significant under CEQA for the species that could potentially nest in the project site due to the local and regional abundances of these species and/or the low magnitude of the potential impact of the project on these species (i.e., the project is only expected to impact one or two individual pairs of these species, which is not a significant impact to their regional populations). However, VHP Condition 1 requires all actions conducted under the VHP to comply with the provisions of the MBTA and California Fish and Game Code. Thus, the project will implement the following measures to ensure that project activities comply with the MBTA and California Fish and Game Code:

Measure 1a. Avoidance. To the extent feasible, construction activities should be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31.

Measure 1b. Pre-construction/Pre-disturbance Surveys. If it is not possible to schedule construction activities between September 1 and January 31, then pre-construction surveys for nesting birds should be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. We recommend that these surveys be conducted no more than seven days prior to the initiation of construction activities. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., shrubs, ruderal grasslands, and buildings) in and immediately adjacent to the impact areas for nests.

Measure 1c. Buffers. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.

Measure 1d. Inhibition of Nesting. If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1). This will preclude the initiation of nests in this vegetation, and minimize the potential delay of the project due to the presence of active nests in these substrates.

Section 7. Literature Cited

- Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken (eds.) 2012. The Jepson Manual: Vascular Plants of California. 2nd Edition. University of California Press, Berkeley.
- Bousman, W. G. 2007a. Tricolored blackbird *Agelaius tricolor*. Pages 426-427 in W. G. Bousman, editor. Breeding Bird Atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Bousman, W. G. 2007b. Swainson's hawk *Buteo swainsoni*. Pages 506-507 in W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Bousman, W. G. 2007c. Loggerhead shrike *Lanius ludovicianus*. Pages 288-289 in W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Bousman, W. G. 2007d. Yellow warbler *Dendroica petechia*. Pages 376-377 in W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Bousman, W. G. 2007e. Common yellowthroat *Geothlypis trichas*. Pages 386-387 in W. G. Bousman, editor. Breeding bird atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Bousman, W. G. 2007f. White-tailed Kite *Elanus leucurus*. Pp 172-173 in Bousman, W. G., editor. Breeding Bird Atlas of Santa Clara County. Santa Clara Valley Audubon Society, Cupertino, California.
- Cade, T. J. and C. P. Woods. 1997. Changes in distribution and abundance of the loggerhead shrike. Conservation Biology 11:21-31.
- Cain, J. W., M. L. Morrison, and H. L. Bombay. 2003. Predator activity and nest success of willow flycatchers and yellow warblers. Journal of Wildlife Management 67:600-610.
- California Department of Fish and Game. 2010. List of Vegetation Alliances and Associations. Vegetation Classification and Mapping Program, California Department of Fish and Game. Sacramento, CA. September 2010.
- [Cal-IPC] California Invasive Plant Council. 2016. California Invasive Plant Inventory Database. Accessed July 2016. <http://www.cal-ipc.org/paf/>
- City of San José. 1999. Riparian Corridor Policy Study. Prepared with The Habitat Restoration Group and Jones and Stokes Associates, Inc. Approved by the City Council.
- City of San José. 2012. Envision San José 2040: General Plan.

- [CNDDB] California Natural Diversity Data Base. 2016. Rarefind. California Department of Fish and Wildlife.
- [CNPS] California Native Plant Society. 2016. Inventory of Rare and Endangered Plants of California (7th edition). Rare Plant Scientific Advisory Committee.
- Coulombe, H. N. 1971. Behavior and population ecology of the burrowing owl, *Speotyto cunicularia*, in the Imperial Valley of California. *Condor* 73:162-176.
- Dunk, J. R. 1995. White-tailed Kite (*Elanus leucurus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/178>.
- Dunk, J. R. and R. J. Cooper. 1994. Territory-size regulation in black-shouldered kites. *Auk* 111:588-595.
- Erichsen, E. L., K. S. Smallwood, A. M. Commandatore, B. W. Wilson, and M. D. Fry. 1996. White-tailed kite movement and nesting patterns in an agricultural landscape in D. Bird, D. Varland, and J. Negro, editors. *Raptors in Human Landscapes*. Academic Press, San Diego, California.
- Gardali, T., and J. G. Evens. 2008. San Francisco common yellowthroat (*Geothlypis trichas sinuosa*) in W. D. Shuford and T. Gardali, editors. *California bird species of special concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California*. Western Field Ornithologists and California Department of Fish and Game, Camarillo and Sacramento, California.
- Gleason, R. L. and T. H. Craig. 1979. Food habits of burrowing owls in southeastern Idaho. *Great Basin Naturalist* 39:274-276.
- Google Inc. 2016. Google Earth Pro (Version 7.1.5.1557) [Software]. Available from www.google.com/earth.
- Gorman, L. R., D. K. Rosenberg, N.A. Ronan, K.L. Haley, J. A. Gervais, and V. Franke. 2003. Estimation of reproductive rates of burrowing owls. *Journal of Wildlife Management* 67:493-500.
- Grinnell, J., and A. H. Miller. 1944. *The distribution of the birds of California*. Cooper Ornithological Club, Berkeley, California.
- Guzy, M. J., and G. Ritchison. 1999. Common yellowthroat (*Geothlypis trichas*) in A. Poole and F. Gill, editors. *The Birds of North America*. The Birds of North America, Inc., Philadelphia
- H. T. Harvey & Associates. 1997. Santa Clara Valley Water District California Red-legged Frog Distribution and status – 1997. June.

- H. T. Harvey & Associates. 1999. Santa Clara Valley Water District California Tiger Salamander Distribution and Status – 1999. Prepared for the Santa Clara Valley Water District.
- H. T. Harvey & Associates. 2010a. Santa Clara Valley Water District San Francisco Dusky-footed Woodrat Distribution and Status – 2010. Prepared for the Santa Clara Valley Water District.
- H. T. Harvey & Associates. 2010b. Lower Llagas Creek Least Bell’s Vireo Surveys. Prepared for the Santa Clara Valley Water District.
- H. T. Harvey & Associates 2012. Santa Clara Valley Water District California Tiger Salamander Surveys and Site Assessments at Selected Santa Clara County Locations. Prepared for the Santa Clara Valley Water District. August 2012.
- Haug, E. A. and L. W. Oliphant. 1990. Movements, activity patterns, and habitat use of burrowing owls in Saskatchewan. *Journal of Wildlife Management* 54:27-35.
- Heath, S. K. 2008. Yellow warbler (*Dendroica petechia*) in W. D. Shuford and T. Gardali, editors. California bird species of special concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Western Field Ornithologists and California Department of Fish and Game, Camarillo and Sacramento, California.
- Hobbs, J. A., P. Moyle, and N. Buckmaster. 2012. Monitoring the Response of Fish Communities to Salt Pond Restoration: Final report. Prepared for the South Bay Salt Pond Restoration Program and Resource Legacy Fund. University of California, Davis, California.
- Holland, R. F. 1986. Preliminary descriptions of the terrestrial natural communities of California. California Department of Fish and Game.
- Humple, D. 2008. Loggerhead shrike (*Lanius ludovicianus*) (mainland populations) in W. D. Shuford and T. Gardali, editors. California bird species of special concern: A ranked assessment of species, subspecies, and distinct populations of birds of immediate conservation concern in California. Western Field Ornithologists and California Department of Fish and Game, Camarillo and Sacramento, California.
- ICF International. 2012. Final Santa Clara Valley Habitat Plan, Santa Clara County, California. Prepared for the County of Santa Clara, City of San José, City of Morgan Hill, City of Gilroy, Santa Clara Valley Water District, and Santa Clara Valley Transportation Authority.
- Jennings, M. R. and M. P. Hayes. 1994. Amphibian and reptile species of special concern in California. California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, California. iii+255 p.

- Lowther, P. E., C. Celada, N. K. Klein, C. C. Rimmer, and D. A. Spector. 1999. Yellow warbler (*Dendroica petechia*) in A. Poole and F. Gill, editors. The Birds of North America. The Birds of North America, Inc., Philadelphia.
- Lutz, R. S. and D. L. Plumpton. 1999. Philopatry and nest site reuse by burrowing owls: Implications for productivity. *J. Raptor Research* 33:149-153.
- Martin, D. J. 1973. Selected aspects of burrowing owl ecology and behavior. *Condor* 75:446-456.
- Menges, T. 1998. Common yellowthroat (*Geothlypis trichas*) in The riparian bird conservation plan: A strategy for reversing the decline of riparian-associated birds in California. California Partners in Flight.
- Nationwide Environmental Title Research. 2016. Historic Aerials Website. Available from <http://www.historicaerials.com/>.
- Natural Resources Conservation Service. 2016. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>. Accessed July 2016.
- Nur, N., S. Zack, J. Evans, and T. Gardali. 1997. Tidal marsh birds of the San Francisco Bay region: Status distribution, and conservation of five Category 2 taxa. PRBO Conservation Science final draft report to the United States Geological Survey.
- Plumpton, D. L. and R. S. Lutz. 1993. Nesting habitat use by burrowing owls in Colorado. *Journal of Raptor Research* 27:175-179.
- Polite, C. 1990. Black-shouldered Kite *Elanus caeruleus*. In California's Wildlife, Vol II: Birds. D. C. Zeiner, W. F. Laudenslayer Jr., K. E. Mayer, and M. White, Eds. California Department of Fish and Game, California Statewide Wildlife Habitat Relationships System. Pp 120-121.
- PRISM Climate Group. 2016. Online PRISM Data Explorer. Oregon State University, Corvallis, OR. Accessed July 2016 from <http://www.prism.oregonstate.edu/normals/>.
- Rich, T. 1984. Monitoring burrowing owl populations: implications of burrow re-use. *Wildlife Society Bulletin* 12:178-180.
- Rosier, J. R., N. A. Ronan, and D. K. Rosenberg. 2006. Post-breeding dispersal of burrowing owls in an extensive California grassland. *American Midland Naturalist* 155:162-167.
- San Francisco Bay Bird Observatory. 2012. Determining the Breeding Extent of the San Francisco Common Yellowthroat and the Alameda Song Sparrow in Santa Clara County, California. Final Report. 17 December 2012.

[SCVHA] Santa Clara Valley Habitat Agency. 2016. Geobrowser. Accessed July 2016 at <http://www.hcpmaps.com/habitat/>.

[SCVWD] Santa Clara Valley Water District. 2011. Stream Maintenance Program Update 2011-2022. Final Subsequent Environmental Impact Report.

[SCVWRP Collaborative] Santa Clara Valley Water Resources Protection Collaborative. 2007. Guidelines & Standards for Land Use Near Streams. A Manual of Tools, Standards and Procedures to Protect Streams and Streamside Resources in Santa Clara County. Revised July 2006.

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evans. 2009. A Manual of California Vegetation Second Edition. California Native Plant Society Press Sacramento, CA.

Skonieczny, M. F., and J. R. Dunk. 1997. Hunting synchrony in white-tailed kites. *Journal of Raptor Research*.

Trulio, L. A. 2007. Burrowing owl *Athene cunicularia*. Pages 236-237 in W. G. Bousman, editor. *Breeding Bird*

[USACE] U. S. Army Corps of Engineers. 1987. Corps of Engineers Wetlands Delineation Manual. Environmental Laboratory U.S. Army Corps of Engineers, Waterways Experiment Station, Wetlands Research Program Technical Report Y-87-1. Vicksburg, MS

Yosef, R. 1996. Loggerhead shrike in A. Poole and F. Gill, editors. *The Birds of North America*. The Birds of North America, Inc., Philadelphia.

Zeiner, D. C., W. F. Laudenslayer Jr., K. E. Mayer, and M. White, editors. 1990. *California's Wildlife*. Volume II: Birds. California Department of Fish and Game, Sacramento, California.