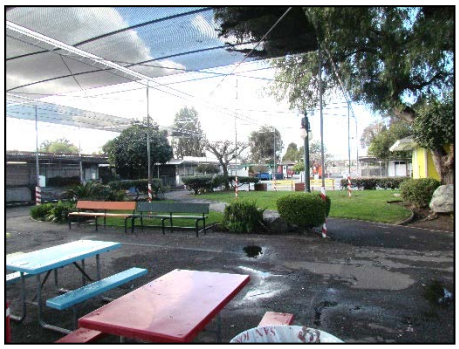
Appendix C

Biological Resources Report



H. T. HARVEY & ASSOCIATES
Ecological Consultants
50 years of field notes, exploration, and excellence

Flea Market South of Berryessa Project
Biological Resources Report

Project # 2486-04

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September 23, 2020

Table of Contents

Figures

Tables

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Section 1. Project Summary

This report describes the biological resources present in the area of the proposed Flea Market South of Berryessa Project, as well as the potential biological impacts of the project and measures necessary to reduce these impacts to less-than-significant levels under the California Environmental Quality Act (CEQA). Two development alternatives are evaluated and compared coequally herein, the Applicant Proposed Project (proposed project, or Option 1) and the City of San Jose's (City's) Preferred Alternative (alternative project, or Option 2). This assessment is based upon the project plans provided to H. T. Harvey & Associates by David J. Powers & Associates on March 10, 2020 and a conversation with HMH Engineers on April 28, 2020 regarding stormwater outfalls.

1.1 Project Location and Description

The approximately 63-acre (ac) project site is located at the confluence of Coyote Creek and Upper Penitencia Creek, north of the Bayshore Freeway (Highway 101) in San Jose, California (Figure 1). The property is located southeast of Berryessa Road and northwest of Mabury Road, between Coyote Creek and the future Berryessa/North San Jose BART station. It is currently the site of the San Jose Flea Market, a commercial enterprise that accommodates up to four million visitors a year, and consists primarily of impervious surfaces (e.g., parking lots). There is currently one pedestrian pathway crossing under Berryessa Road and over Upper Penitencia Creek (via a culvert bridge) in the northwest corner of the property and two bridges that cross over Upper Penitencia Creek and connect to Berryessa Road on the north side of the property. The downstream bridge is a clearspan bridge. The upstream bridge has large concrete footings in the stream channel. The confluence of Upper Penitencia Creek with Coyote Creek is located in the northwest corner of the property immediately southeast of Berryessa Road. The areas of the project site not bounded by Coyote or Upper Penitencia Creeks are adjacent to roads, residential communities, or industrial operations.

Under both Option 1 and Option 2, existing buildings on the project site would be demolished. In addition, both options include an approximately 17-ac open space buffer along Upper Penitencia Creek and Coyote Creek, including a proposed public park. Existing asphalt within this open space area would be removed and the area revegetated. The two existing bridge crossings of Upper Penitencia Creek would be removed and two new crossings (one vehicle bridge and one pedestrian bridge) would be constructed to provide access from Berryessa Road. The proposed vehicle bridge would align with Sierra Road and extend through the project site to connect with Mabury Road. The removal of the two existing bridges would require work below the ordinary high water mark (OHWM) of Upper Penitencia Creek and may require dewatering and tree removal. The proposed vehicle and pedestrian bridges would clear-span the active channel; however, structures may be placed below top of bank on each side of the creek. A trail would be constructed adjacent to (but outside of) the riparian corridors of Coyote and Upper Penitencia Creeks.

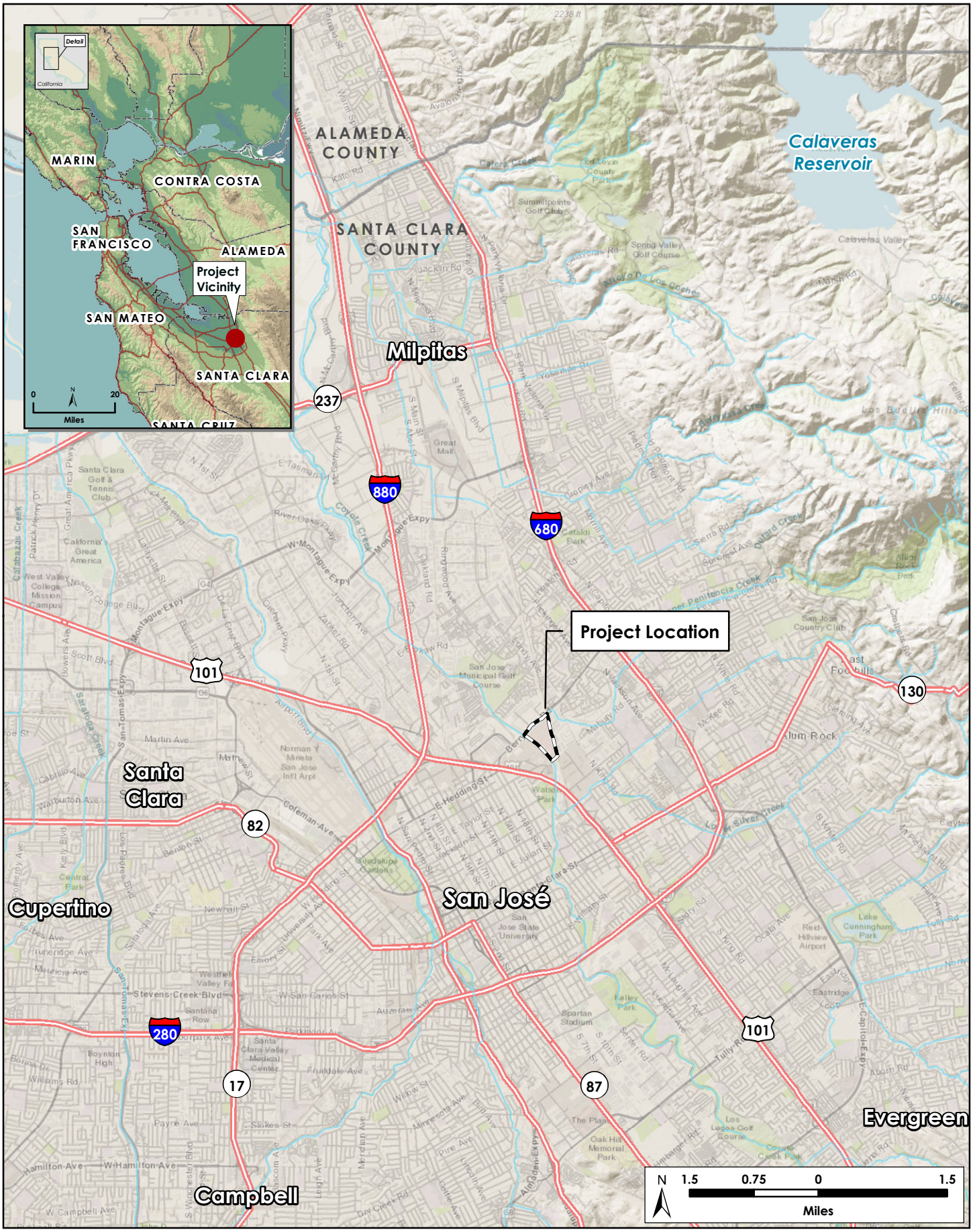

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Figure 1. Vicinity Map
Flea Market South of Berryessa Project Biological Resources Report (2486-04)
September 2020

Two "biocells" (bio-retention basins) would also be constructed on-site for the treatment and filtration of stormwater before it exits the site. In addition, two stormwater outfalls (one to each of the two creeks) will be needed. One outfall to each of these creeks currently exists, and the project would either tie into these outfalls or, if necessary, modify or replace these outfalls. All stormwater facilities will be designed to comply with state post-construction National Pollutant Discharge Elimination System (NPDES) permits and City requirements. During and after project construction, the spillover of lighting into the adjacent riparian corridor would be minimized by the use of low-intensity lighting or other appropriate low-dispersion lighting technology, orientation of lights so that they are placed on the perimeter of the project site and directed inward (rather than directing any lighting toward the riparian corridors adjacent to the site) and downward toward the ground, and shielding of lights from behind. In addition, in-channel construction activities, including channel dewatering, would be limited to the dry season (i.e., June 15 through October 15).

Under both Option 1 and Option 2, building height may be up to 270 feet. Retail development is proposed at the ground level in some of the residential buildings and parking structures.

Although the limits of urban-suburban development and open space are the same under both alternatives, the configuration of proposed residential and commercial buildings within the urban-suburban development area differs. The proposed project includes up to 3,450 residential units and up to 2.2 million square feet of commercial space. The alternative project includes up to 3,450 residential units and up to 3.4 million square feet of commercial space. Parking spaces would number 9,965-10,615 under the applicant's proposed project and a lower number (approximately 7,000) under the City's alternative project. Both projects are consistent with the site's General Plan designation and would require a Planned Development (PD) rezoning and other related approvals by the City.

The project site is located within the Santa Clara Valley Habitat Plan (VHP) permit area, and the proposed project is a "covered project" under the VHP (ICF International 2012). As a result, the project is required by the City to pay VHP fees for land impacts in accordance with the types and acreage of habitat impacted (see Section 4.2), and to implement conservation measures specified by VHP conditions. Thus, all applicable VHP conditions (see Section 4.2), including payment of applicable fees, are considered part of the project description.

Section 2. Methods

H. T. Harvey & Associates ecologists reviewed project plans and the project description provided by David J. Powers & Associates, aerial photos (Google Earth 2020), the California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB; 2020), and VHP information on special-status species and sensitive habitats (ICF International 2012) to assess the potential distribution of special-status plants and animals and sensitive habitats in the project vicinity[1]. In addition, for plants, we reviewed all species on current California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) 1A, 1B, 2A, and 2B lists occurring in the *San Jose West, California* U.S. Geological Survey (USGS) 7.5-minute quadrangle and the surrounding eight quadrangles (*San Jose East, Calaveras Reservoir, Milpitas, Mountain View, Cupertino, Castle Rock Ridge, Los Gatos,* and *Santa Teresa Hills*) (CNPS 2020). Quadrangle-level results are not maintained for CRPR 3 and 4 species, so we also conducted a search of the CNPS records for these species occurring in Santa Clara County (CNPS 2020).

A reconnaissance-level field survey of the project site was conducted by H. T. Harvey & Associates senior plant ecologist Élan Alford, Ph.D., and wildlife ecologist Stephen L. Peterson, M.S., on February 26, 2018. The purpose of this survey was to provide a project-specific impact assessment for the development of the site as described above. Specifically, the survey was 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 and sensitive habitats (such as waters of the U.S./state), although a formal wetland delineation was not conducted. In addition, Mr. Peterson conducted a focused survey for (1) evidence of previous raptor nesting activity (i.e., large stick nests), (2) potential bat roosting habitat, and (3) nests of the San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*). E. Alford and S. Peterson also conducted a focused evaluation of the quality of the riparian habitat within and adjacent to the project site, and E. Alford mapped the limits of the riparian corridor along Coyote Creek and Upper Penitencia Creek by collecting GPS data along the landward extent of riparian vegetation associated with the waterways.

Because the proposed project is a "covered project" under the approved VHP (ICF International 2012), land cover types were mapped based on VHP mapping with modifications based upon site conditions observed during the field survey.

[1] For the purposes of this report, the project vicinity is defined as the area within a 5-mile radius of the project site.

Section 3. Regulatory Setting

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

3.1 Federal Regulations

3.1.1 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). Waters of the U.S. include other waters, such as intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, territorial seas, and wetlands (33 CFR, Part 328). Wetlands are generally identified using the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) using an approach that relies on identification of three parameters: hydrophytic vegetation, hydric soils, and wetland hydrology indicators.

Wetlands established solely due to the presence of irrigation water, irrigated fields, or irrigation ditches do not qualify as Section 404 wetlands; however, the USACE has issued specific guidance stating that "where sufficient information is not available to determine the hydrological contribution of irrigation waters to a particular wetlands (i.e., whether the wetland existed at the location prior to the presence of irrigation activities), such wetlands are not removed from consideration as wetlands or waters of the U.S." (USACE 2007).

Drainage ditches may also be considered waters of the U.S. if they meet the definition of a tributary having a bed and banks and OHWM, and contributing flow directly or indirectly through a traditional navigable water. These include "ditches with perennial flow"; "ditches with intermittent flow that are a relocated tributary, or are excavated in a tributary, or drain wetlands"; and "ditches, regardless of flow, that are excavated in or relocate a tributary" (U.S. Army Corps of Engineers and U.S. Environmental Protection Agency 2015). A *tributary* is defined under Section 404 as "natural, undisturbed waters and those that have been man-altered or constructed, but which science shows function as a tributary."

Construction activities in regulated ditches and jurisdictional wetlands require a Section 404 permit from the USACE. *Construction* as defined under Section 404 includes work that results in an extension or expansion of an existing structure and includes, but is not limited to, activities such as ditch relocation, conversion of a ditch into a pipe, lining ditches with placing impervious materials (e.g., concrete), and the placement of new control structures (USACE 2007).

Project Applicability: The aquatic habitat (extending up to the OHWMs of the perennial streams) and in-channel wetlands in Coyote Creek and Upper Penitencia Creek are considered wetlands and other waters of

the U.S. under the CWA. Any placement of fill within waters of the U.S. would be considered a significant impact under CEQA unless mitigated and would require a Section 404 permit from the USACE.

3.1.2 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 (NMFS) have jurisdiction over federally listed, threatened, and endangered species under FESA. The USFWS also maintains lists of proposed and candidate species. Species on these lists are not legally protected under FESA, but may become listed in the near future and are often included in their review of a project.

Project Applicability: No federally listed or candidate plant species occur on the project site or in adjacent areas that could be substantially impacted by proposed activities under the project. The aquatic habitat within Coyote Creek and Upper Penitencia Creek provides suitable habitat for the federally threatened Central California Coast (CCC) steelhead (*Oncorhynchus mykiss*). The VHP maps Coyote and Upper Penitencia Creeks within the project site as breeding habitat for the federally threatened California red-legged frog (*Rana draytonii*), but the reaches of these channels on and near the site are unsuitable for use by this species, which is considered absent from the project site.

3.1.3 Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA), 16 U.S.C. Section 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 it 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 USFWS in its June 14, 2018 memorandum "Destruction and Relocation of Migratory Bird Nest Contents". Nest starts (nests that are under construction and do not yet contain eggs) and inactive nests are not protected from destruction.

In its June 14, 2018 memorandum, the USFWS clarified that the destruction of an active nest "while conducting any activity where the intent of the action is not to kill migratory birds or destroy their nests or contents" is not prohibited by the MBTA. On February 3, 2020, the USFWS published a proposed rule to codify the scope of the MBTA as it applies to activities resulting in the injury or death of migratory birds (85 FR 5915-5926); the USFWS is currently considering comments on the proposed rule.

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

3.2 State Regulations

3.2.1 Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (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 to regulate activities that could result in a discharge of dredged or fill material comes from the CWA and the 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 and urbanized areas, jurisdiction is taken to the top of bank.

On April 2, 2019, the SWRCB adopted the State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. In these new guidelines, riparian habitats are not specifically described as waters of the state but instead as important buffer habitats to streams that do conform to the State Wetland Definition. The Procedures describe riparian habitat buffers as important resources that may both be included in required mitigation packages for permits for impacts to waters of the state, as well as areas requiring permit authorization from the RWQCBs if impacts to riparian habitats will occur.

Pursuant to Section 401 of the CWA, projects that are regulated by the USACE must obtain a Water Quality Certification 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 Water Quality Act, the SWRCB and the nine regional boards also have the responsibility of granting CWA 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: On the project site, waters of the state include all potential waters of the U.S., including aquatic, wetland, and riparian habitat (extending up to the top of bank or outer edge of riparian canopy) associated with Coyote Creek and Upper Penitencia Creek.

3.2.2 California Endangered Species Act

The California Endangered Species Act (CESA; California Fish and Game Code, Chapter 1.5, Sections 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 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 suitable habitat for any state-listed plant or animal species occurs on the project site, and thus no state-listed plants or animals are reasonably expected to occur on the project site.

3.2.3 California Environmental Quality Act

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. 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 Section 15380(b).

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

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

The CRPRs 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 as CRPR 1B or 2 are, in general, considered to meet CEQA's Section 15380 criteria, and adverse effects to these species may be considered significant. Impacts on plants that are listed by the CNPS on CRPR 3 or 4 are also considered during CEQA review, although because these species are typically not as rare as those of CRPR 1B or 2, impacts on them are less frequently considered significant.

Compliance with CEQA Guidelines Section 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 (CNDDB 2016). Further, the CDFW ranks sensitive vegetation alliances based on their global (G) and state (S) rankings analogous to those provided in the CNDDB. 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 (CDFW 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 in Section 5 below.

3.2.4 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 Section 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 Section 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. 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 Section 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 Section 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 Section 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 Sections 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 Section 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 Section 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: CDFW jurisdiction under Section 1602 of the California Fish and Game Code extend up to the tops of bank of Coyote Creek and Upper Penitencia Creek. In areas where riparian tree canopies extend above the top of bank, the landward canopy edge will demarcate the lateral limit of CDFW jurisdiction. Impacts on these areas would require a LSAA. Most native bird, mammal, and other wildlife species that occur on the project site area and in the immediate vicinity are protected by the California Fish and Game Code.

3.2.5 State Water Resources Control Board Stormwater Regulation

Construction Phase. Construction projects in California causing land disturbances that are equal to 1 ac 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 SWRCB 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.

Standard permit conditions under the Construction General Permit 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 stormwater discharge-related activities are likely to jeopardize the continued existence, or result in take of any federally-listed endangered or threatened species.

Post Construction Phase. In many Bay Area counties, including Santa Clara County, projects must also comply with the California RWQCB, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit (MRP) (Water Board Order No. R2-2009-0074). This permit requires that all projects implement Best Management Practices and incorporate Low Impact Development practices into the design that prevents stormwater 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 NPDES permit thus, construction phase activities would not result in detrimental water quality effects upon biological/regulated resources. Additionally, the project must comply with the MRP for design of appropriate stormwater treatment facilities and incorporate feasible Low Impact Development practices.

3.3 Local Regulations

3.3.1 Santa Clara Valley Habitat Conservation Plan

The VHP (ICF International 2012) provides a framework for promoting the protection and recovery of natural resources, including endangered and threatened species, while streamlining the permitting process for planned development, infrastructure, and maintenance activities. The VHP allows the County of Santa Clara, the Santa Clara Valley Water District (Valley Water), the Santa Clara Valley Transportation Authority, and the cities of Gilroy, Morgan Hill, and San Jose (collectively, the Local Partners or Permittees) to receive endangered species permits for activities and projects they conduct and those under their jurisdiction. The Santa Clara Valley Open Space Authority also contributed to VHP preparation. The VHP will protect, enhance, and restore natural resources in specific areas of Santa Clara County and contribute to the recovery of endangered species. Rather than separately permitting and mitigating individual projects, the VHP evaluates natural-resource impacts and mitigation requirements comprehensively in a way that is more efficient and effective for at-risk species and their essential habitats.

The VHP was developed in association with the USFWS and CDFW and in consultation with stakeholder groups and the general public. The USFWS has issued the Permittees a 50-year permit that authorizes incidental take of listed species under FESA, while CDFW has issued a 50-year permit that authorizes take of all covered species under the Natural Community Conservation Planning Act. This approach allows the Permittees to streamline future mitigation requirements into one comprehensive program. In addition to obtaining take authorization for each participating agency's respective activities, the cities and County will be able to extend take authorization to project applicants under their jurisdiction.

USFWS and CDFW will also provide assurances to the Permittees that no further commitments of funds, land, or water will be required to address impacts on covered species beyond that described in the Plan to address changed circumstances. In addition to strengthening local control over land use and species protection, the Plan provides a more efficient process for protecting natural resources by creating new habitat reserves that will be larger in scale, more ecologically valuable, and easier to manage than the individual mitigation sites created under the current approach.

The VHP and associated documents are approved and adopted by the six Local Partners (Cities of Gilroy, Morgan Hill and San Jose, County of Santa Clara, Santa Clara Valley Transportation Authority, and Valley Water).

Project Applicability. The project is a covered project under the VHP and would need to comply with VHP conditions.

3.3.2 City of San Jose Tree Ordinance

The City of San Jose promotes the health, safety, and welfare of the city by regulating the planting, removal, and maintenance of trees in the city. The city provides tree protection under the Municipal Code Section 13.28 (street trees, hedges, and shrubs), 13.32 (tree removal controls), and 13.44.220 (damaging park property). The Municipal Code details permit requirements for tree related work, including removal, pruning, and planting. Removal of trees within the street right-of-way are subject to tree removal permitting by the City of San Jose. Street trees are located in the public right-of-way between the curb and the sidewalk. Pruning or removal of street trees is illegal without a permit issued by the City. Replacement trees are required for the removal of ordinance-size street trees. A single trunk tree qualifies as an ordinance-size tree if it measures 38 inches or more in circumference at 4.5 ft above ground. A multi-trunk tree qualifies as ordinance-size if the combined measurement of each trunk circumference (at 4.5 ft above ground) adds up to 38 inches or more. As part of the permit application it is required to contact the planning division with regard to the replacement of ordinance-size trees.

Removal of trees on private property, commercial, and industrial properties are also subject to tree removal permitting by the City of San Jose. A permit is required to remove a tree of "any size" from a commercial and industrial property. A separate "permit adjustment application" is required to be filed for non ordinance-sized trees that will be removed from commercial and industrial property. As part of the permit application it is required to contact the City's planning division with regard to the replacement of trees on private, commercial and industrial properties.

Project Applicability: Ordinance-sized trees are present on the project site. A permit from the City of San Jose would be required for the proposed removal of trees from the project site.

3.3.3 City of San Jose Riparian Policy

Measures to protect riparian corridors are provided in the City's Riparian Corridor Policy Study (City of San Jose 1999), which was incorporated into the City's Envision San Jose 2040 General Plan (City of San Jose 2012); the Zoning Code (Title 20 of the San Jose Municipal Code); and the City Council-adopted VHP, specifically Condition 11. The term "riparian corridor" as defined by the City means any defined stream channel, including the area up to the bank full-flow line, as well as all characteristic streamside vegetation in contiguous adjacent uplands.

In 2016, the City released Council Policy 6-34 to provide guidance on the implementation of riparian corridor protection consistent with all City policies and requirements that provide for riparian protection. Council Policy 6-34 indicates that riparian setbacks should be measured from the outside edges of riparian habitat or the top of bank, whichever is greater, and that development of new buildings and roads generally should be set back 100 ft from the riparian corridor. However, Council Policy 6-34 also indicates that a reduced setback may be considered under limited circumstances, including the existence of legal uses within the minimum setback, and

utility or equipment installations or replacements that involve no significant disturbance to the riparian corridor during construction and operation and that generate only incidental human activity.

Project Applicability: Riparian corridors associated with Coyote Creek and Upper Penitencia Creek are located within the project site, and development would need to comply with the City's riparian corridor policy.

Section 4. Existing Biological Conditions

Based on a review of historical aerial photos (NETR 2020, Google Inc. 2020), the existing developed portion of the project site has been used as a flea market and parking area since 2002. Prior to that, the northern portion was developed and may have served the same purpose since the 1960s while the southern portion appears to have been in agriculture or maintained as a field since the 1960s. The two stream corridors appear to have occurred in the same alignment and have been forested since the 1940s, and the two existing crossings over Upper Penitencia Creek were built by 1980.

Upland portions of the project site are nearly level, ranging from approximately 80 to 90 feet (ft) in elevation. The banks of Upper Penitencia and Coyote Creeks are relatively steep and elevation drops to approximately 65 ft at the creek beds (Google Inc. 2020), with the lowest portion of the project site located at the confluence of Coyote Creek and Upper Penitencia Creek at the Berryessa Road underpass. Coyote Creek and Upper Penitencia Creek are naturally occurring streams that drain nearly 350 square miles (mi) of Santa Clara County and eventually empty into the San Francisco Bay. The riparian habitat of both creeks in the neighborhood of the project site is of moderate quality due to debris, disturbance, and litter associated with the urban setting and proximity to the flea market, and the predominance of non-native trees and understory species.

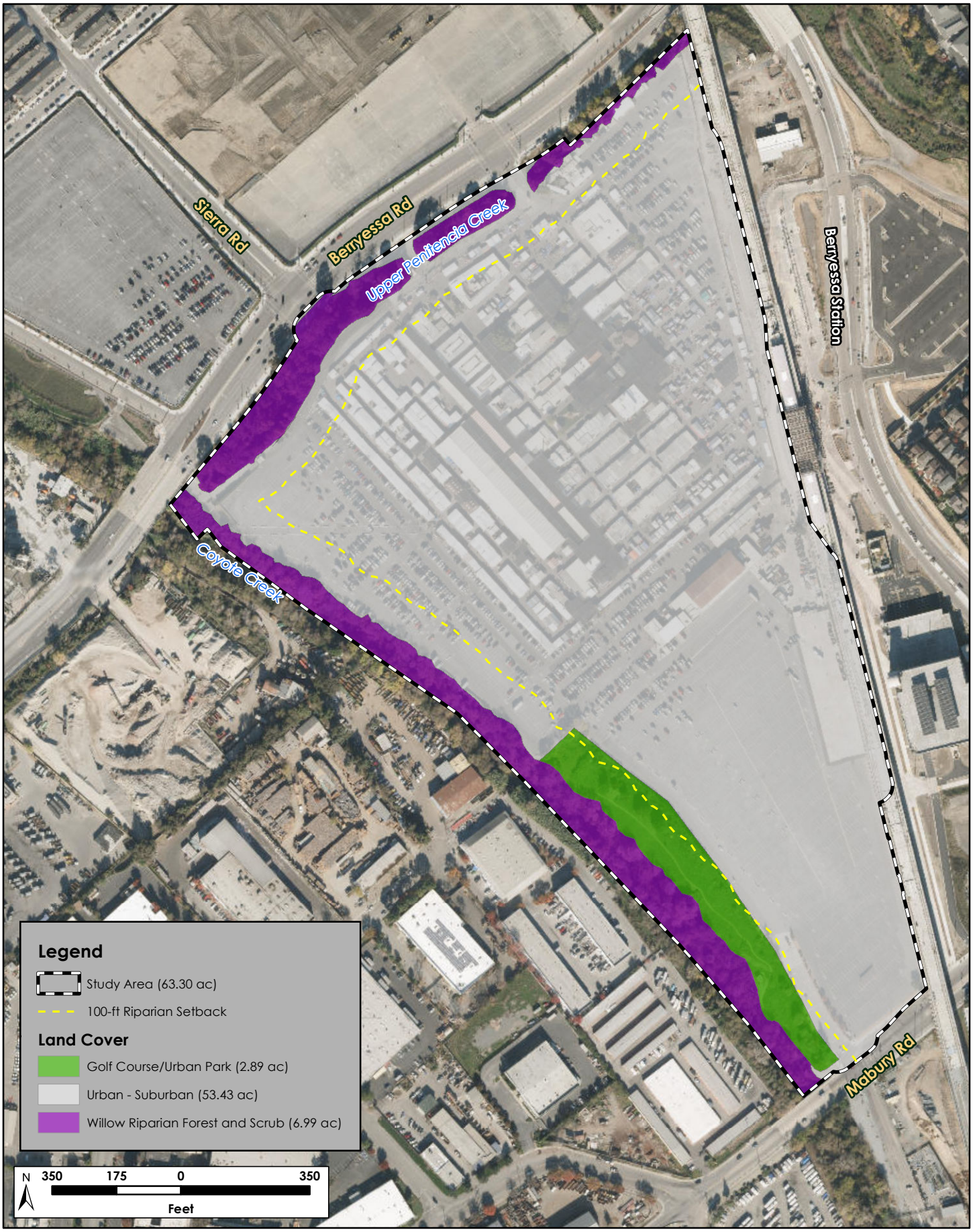
4.1 General Habitat Conditions and Wildlife Use

As described above, habitat and land cover types on the project site are based upon VHP (ICF International 2012) mapping with modifications based upon site conditions observed during the 2018 field survey. The reconnaissance-level field survey identified three general biotic habitat/land use types, as defined by the VHP; urban-suburban, comprising 53.43 ac of the project site; willow riparian forest and scrub, comprising 6.99 ac along the Coyote Creek and Upper Penitencia Creek riparian corridors; and golf course/urban park (2.89 ac). These habitats are described in detail below and are shown in Figure 2. The proposed project impact area, overlaid on the existing habitats, is included as Figure 3.

4.1.1 Urban-Suburban

Vegetation. The urban-suburban land use area is occupied by numerous permanent buildings and temporary structures. It supports little vegetation but instead is dominated by asphalt pavement where the marketplace and parking lot occur (Photo 1). However, a small number of

Photo 1: Urban-suburban land use on the site.



N:\Projects\2486-04\Reports\bioResRpt\Fig 2 Landcover.mxd

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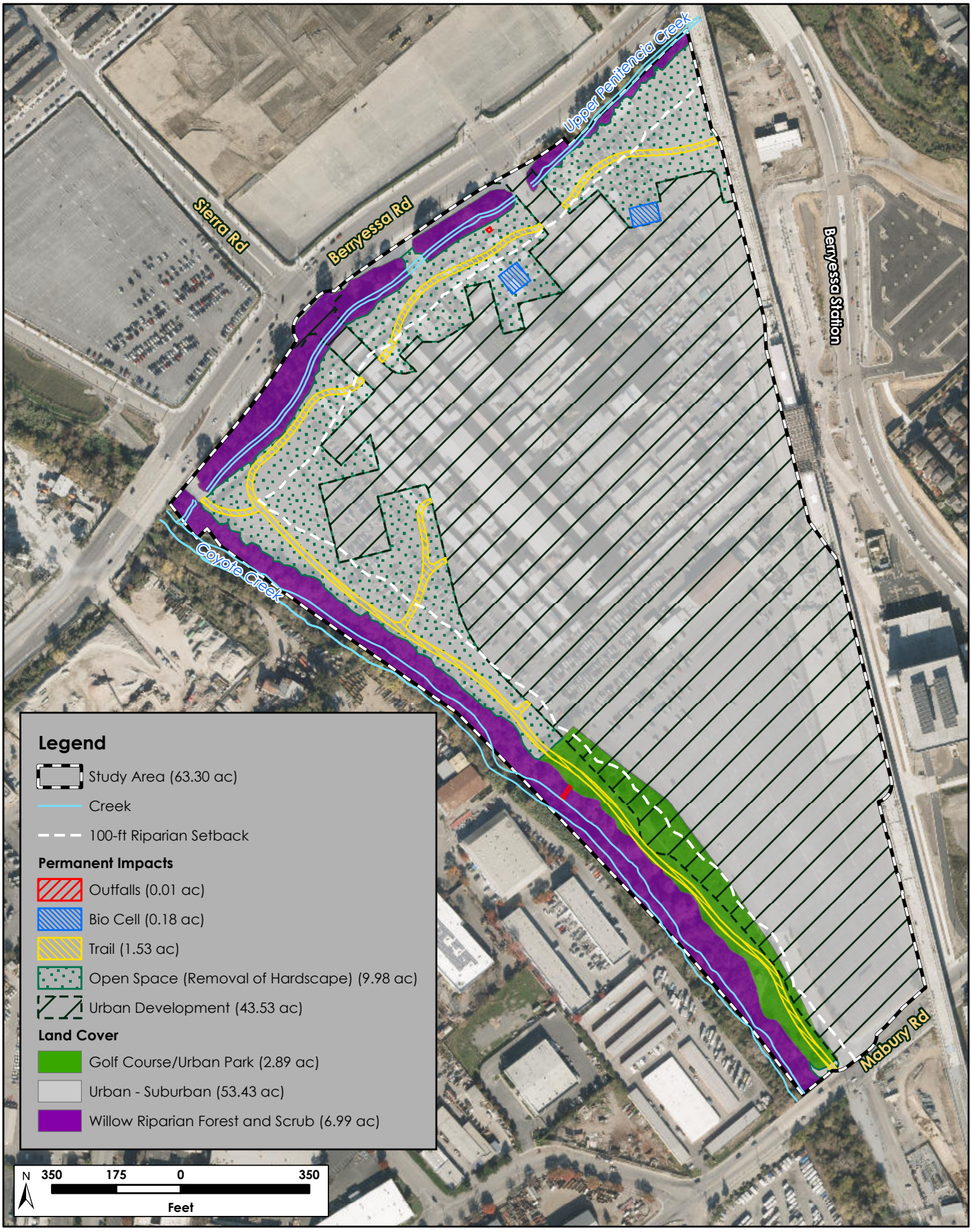
Figure 2. Land Cover Map

Flea Market South of Berryessa Project Biological Resources Report (2486-04)

September 2020



N:\Projects\2486-04\Reports\bioResRpt\Fig 3 Project Impacts and Landcover.mxd

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Figure 3. Project Impacts
Flea Market South of Berryessa Project Biological Resources Report (2486-04)
September 2020

landscaped areas support shrubs and a few mature trees, such as non-native Peruvian peppertree (*Schinus molle*) and native coast live oak (*Quercus agrifolia*) (Photo 2). In addition, along Berryessa Road, between the riparian corridor and the street, the urban-suburban land use type supports a few trees, patches of non-native Algerian ivy (*Hedera canariensis*), and lawn. Included in the asphalt areas comprising the majority of this land use type are one pedestrian pathway leading under Berryessa Road and over Upper Penitencia Creek via a culvert bridge and two bridges that cross over Upper Penitencia Creek and connect to Berryessa Road.

Photo 2: Landscaped vegetation in the picnic and concession area of the Flea Market.

Wildlife. Due to the scarcity of vegetation, the urban-suburban portions of the project site provide relatively low-quality habitat for wildlife species. The wildlife most often associated with urban-suburban areas are those that are tolerant of periodic human disturbances, including introduced species such as the European starling (*Sturnus vulgaris*), rock pigeon (*Columba livia*), house mouse (*Mus musculus*), and Norway rat (*Rattus norvegicus*). Several common native species are also able to use this habitat, including the American crow (*Corvus brachyrhynchos*), which was observed during the reconnaissance survey; black phoebe (*Sayornis nigricans*), northern mockingbird (*Mimus polyglottos*), house finch (*Haemorhous mexicanus*), California towhee (*Melozone crissalis*), and raccoon (*Procyon lotor*). Few birds are likely to nest on the site due to the sparseness of trees, but species such as the mourning dove (*Zenaida macroura*) and Anna's hummingbird (*Calypte anna*) may nest in the few trees present. In addition, the eaves of the buildings on the project site may be attractive to other nesting and/or roosting birds such as the barn swallow (*Hirundo rustica*) and nonnative European starling, and an old black phoebe nest was found underneath the clear span bridge over the downstream portion of Upper Penitencia Creek. A focused survey detected no evidence (i.e., old nests) of raptors having previously nested in the few trees within the urban-suburban area.

No burrows of small mammals, such as the California ground squirrel (*Otospermophilus beecheyi*) or Botta's pocket gopher (*Thomomys bottae*), were observed in the developed portion of the project site during the reconnaissance survey. In addition, a focused survey of the exterior of the buildings and the trees in the urban-suburban area detected no large cavities that might provide suitable bat roosting habitat. Further, an examination of the bridges within the project site, as well as the nearby Berryessa Road bridge over Coyote Creek, detected no evidence of bat activity (i.e., guano or urine staining).

4.1.3 Willow Riparian Forest and Scrub

Vegetation. Within the project site, willow riparian forest and scrub habitat is located at and below the top of bank of Coyote Creek and Upper Penitencia Creek. This habitat is well developed, has an intermittent to closed

canopy, and contains a mixture of mature trees and an understory of smaller stature trees and saplings. Native riparian trees present include willow (*Salix* sp.), coast live oak, California buckeye (*Aesculus californica*), blue elderberry (*Sambucus nigra*), and Fremont cottonwood (*Populus fremontii*). Non-native species include eucalyptus (*Eucalyptus* spp.), date palm (*Phoenix canariensis*), Mexican fan palm (*Washingtonia robusta*), and bottlebrush (*Callistemon* sp.). The herbaceous layer in the understory contains an abundance of Algerian ivy and giant reed (*Arundo donax*). These species are both non-native and ranked as highly invasive by the California Invasive Plant Council (Cal-IPC 2020).

In the riparian corridors there is evidence of some homeless encampment presence (e.g., tents and piles of clothing and materials). Additionally, there is a moderate amount of anthropogenic debris that is indicative of the flood stage wrack that was accumulated and left behind during the 2017 flood flows. Based on the abundance of non-native species that occur in this habitat, and because the riparian corridors are situated in a highly urbanized setting, the riparian habitat is considered to be of moderate quality.

The riparian forest and scrub habitat on the project site includes perennial stream up to the OHWMs of Coyote and Upper Penitencia Creeks. Some transitory, channel-associated wetlands may also occur in areas of intermittent canopy in Coyote Creek or at the confluence of Upper Penitencia Creek, but the closed canopy setting generally limits wetland vegetation establishment along upstream areas of Upper Penitencia Creek. The creek channels contained flowing water at the time of the survey and the streambeds were relatively level and low gradient with cobble beds and steeply sloped banks.

Photo 3: Willow riparian forest and scrub habitat along Upper Penitencia Creek on the north boundary of the project site.

Wildlife. The willow riparian forest and scrub habitat that is found along the banks of Coyote and Upper Penitencia Creeks within the project site provides suitable nesting habitat for a variety of common bird species such as the California scrub-jay (*Aphelocoma californica*), American robin (*Turdus migratorius*), American crow, lesser goldfinch (*Spinus psaltria*), Bewick's wren (*Thryomanes bewickii*), and bushtit (*Psaltriparus minimus*). The red-shouldered hawk (*Buteo lineatus*) and Cooper's hawk (*Accipiter cooperii*) may use larger trees along the riparian forest corridors for nesting. However, no old raptor nests were detected within the riparian forest habitat during a focused survey. Other birds that may forage in this habitat, include the belted kingfisher (*Ceryle alcyon*), mallard (*Anas platyrhynchos*), green heron (*Butorides virescens*), great blue heron (*Ardea Herodias*), great egret (*Ardea alba*), and snowy egret (*Egretta thula*), one of which was observed foraging in Upper Penitencia Creek during the reconnaissance survey.

Additional wildlife species that are common within riparian forested areas in urban settings in the area include the native striped skunk (*Mephitis mephitis*) and raccoon and the nonnative Virginia opossum (*Didelphis virginiana*) and eastern gray squirrel (*Sciurus carolinensis*), all of which may use the trees for roosting, foraging, and nesting. No nests of the San Francisco dusky-footed woodrat were detected during a focused survey of the project site; this species has been largely extirpated from the most densely urban areas of the Santa Clara Valley floor, and this species is determined to be absent from the project site. Individual bats may roost in riparian trees on the project site, but an examination of the trees along the banks of both Coyote and Upper Penitencia Creeks detected no large cavities that might provide suitable habitat for a large roosting or maternity colony of bats.

Several species of reptiles and amphibians also occur in riparian corridors. Leaf litter, downed tree branches, and fallen logs provide cover for the arboreal salamander (*Aneides lugubris*), California slender salamander (*Batrachoseps attenuates*), western toad (*Anaxyrus boreas*), and Pacific treefrog (*Hyliola regilla*). In addition, the open water reaches of Coyote and Upper Penitencia Creeks provide habitat for a variety of native fish species such as the CCC distinct population segment (DPS) steelhead, Pacific lamprey (*Entosphenus tridentatus*), prickly sculpin (*Cottus asper*), Sacramento hitch (*Lavinia exilicauda exilicauda*), Central California roach (*Lavinia symmetricus symmetricus*), and Sacramento sucker (*Catostomus occidantalis*), and non-native species including the white catfish (*Ameiurus catus*), largemouth bass (*Micropterus salmoides*), brown bullhead (*Ameiurus nebulosus*), mosquitofish (*Gambusia affinis*), and sunfish (*Lepomis* spp.).

4.1.4 Golf Course/Urban Park

Vegetation. The golf course/urban park habitat on the project site primarily consists of weedy, non-native grasses, such as Smilo grass (*Stipa miliacea*), and native coyote brush (*Baccharis pilularis*) shrubs that grow in the upland area between the riparian corridor along Coyote Creek and the existing parking lot (Photo 4). The area has an existing dirt or gravel path that is located parallel to the adjacent riparian corridor. There is evidence of a current or recent homeless encampment (e.g., tents and piles of clothes and other materials). Large portions of the area support vegetation and can be considered to be a medium to low quality grassland with coyote brush establishing. This area is not a typical urban park with well-manicured lawns or landscaping but rather an area of semi-natural habitat that has not been developed extensively and functions as a buffer between the riparian corridor and surrounding urban development.

Photo 4: Golf course/urban park habitat on the project site.

Wildlife. Wildlife use of the golf course/urban park habitat on the project site is limited by human disturbance, the small extent of low-quality grassland areas, and the isolation of these habitat remnants from more extensive grassland-like habitats. As a result, some of the wildlife species associated with extensive grasslands in the South Bay, such as the Bryant's savannah sparrow (*Passerculus sandwichensis alaudinus*), are absent from the patches of grassland on the project site. Many of the species that occur in this habitat are found primarily in the adjacent urban-suburban and riparian habitats and use this area for foraging. Such species include the house finch, bushtit, and lesser goldfinch, which forage on seeds in weedy/grassy areas, and the black phoebe, barn swallow, and Mexican free-tailed bat (*Tadarida brasiliensis*), which forage aerially over this habitat for insects. In addition, the California towhee may use the coyote shrubs for nesting.

No burrows of small mammals, such as the California ground squirrel or Botta's pocket, were observed in the golf course/urban park portion of the project site during the reconnaissance survey, but mammals such as the striped skunk, raccoon, and nonnative Virginia opossum may use this habitat for foraging. Reptiles such as the western fence lizard (*Sceloporus occidentalis*) and western terrestrial garter snake (*Thamnophis elegans*) frequent such habitats and may occur on the project site.

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 4 and 5 are maps of the CNDDB's special-status plant and animal species records in the general vicinity of the project site. 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.

Special-Status Plants. A list of 75 plant species thought to have some potential for occurrence in the project vicinity was compiled using both CNDDB records (CNDDB 2020; see Figure 4) and CNPS CRPR 1A, 1B, 2A, and 2B lists as described in *Methods* above. Analysis of the documented habitat requirements and occurrence records associated with these species allowed us to reject all 75 species as not having a reasonable potential to occur on the project site for at least one of the following reasons: (1) lack of suitable habitat types; (2) absence of specific microhabitat or edaphic requirements, such as serpentine soils; (3) the elevation range of the species is outside of the range on the site; (4) the site is too disturbed and urbanized to be expected to support the species, and/or (5) the species is presumed extirpated from the project vicinity. In addition, the VHP does not indicate that any covered plant species potentially occur on the project site and does not require special-status plant surveys for the site (SCVHA 2020). Therefore, no special-status plant species are expected to occur on the project site, and no focused rare plant surveys are needed.

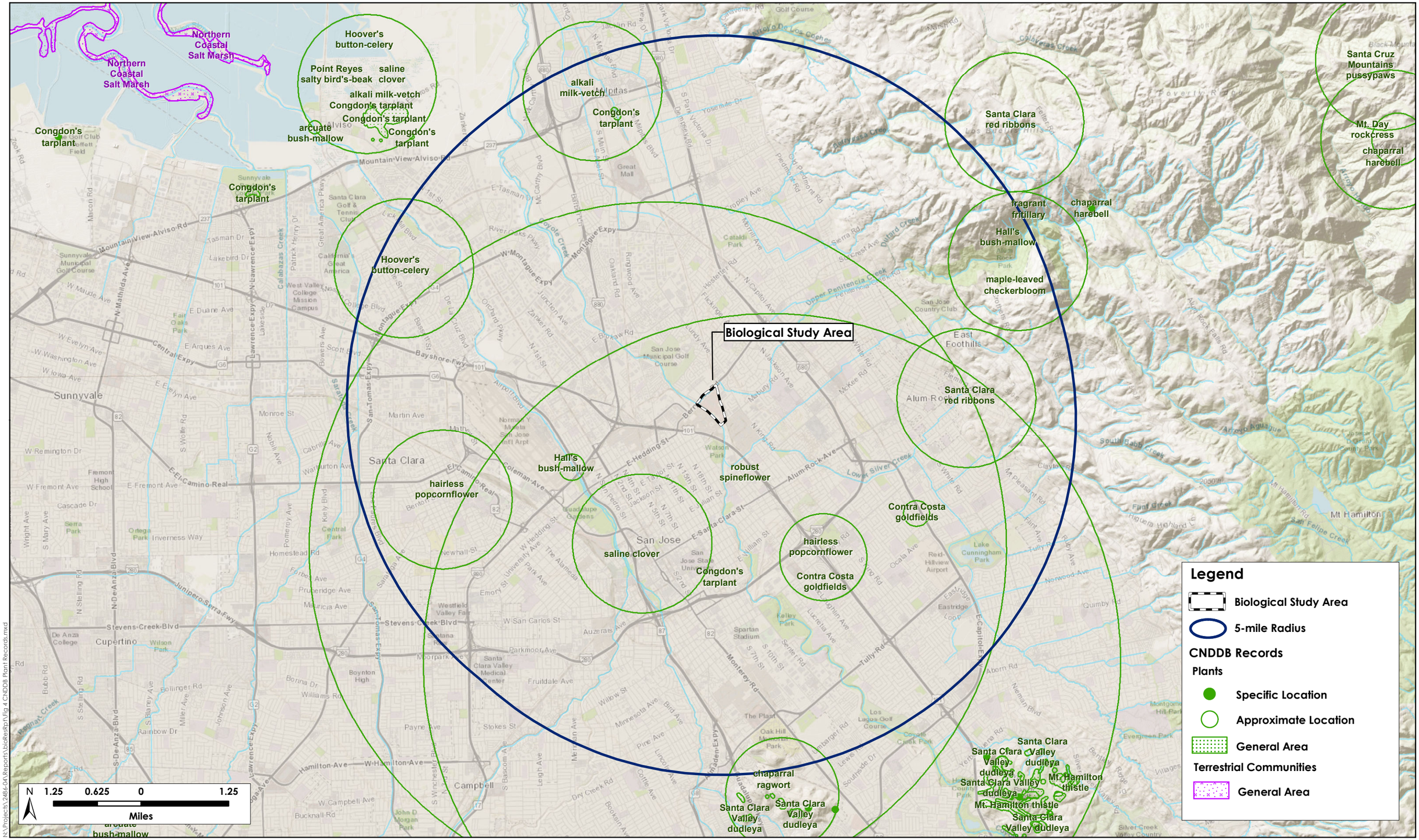

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Figure 4. California Natural Diversity Database Map of Special-Status Plants

Flea Market South of Berryessa Project Biological Resources Report (2486-04)
September 2020

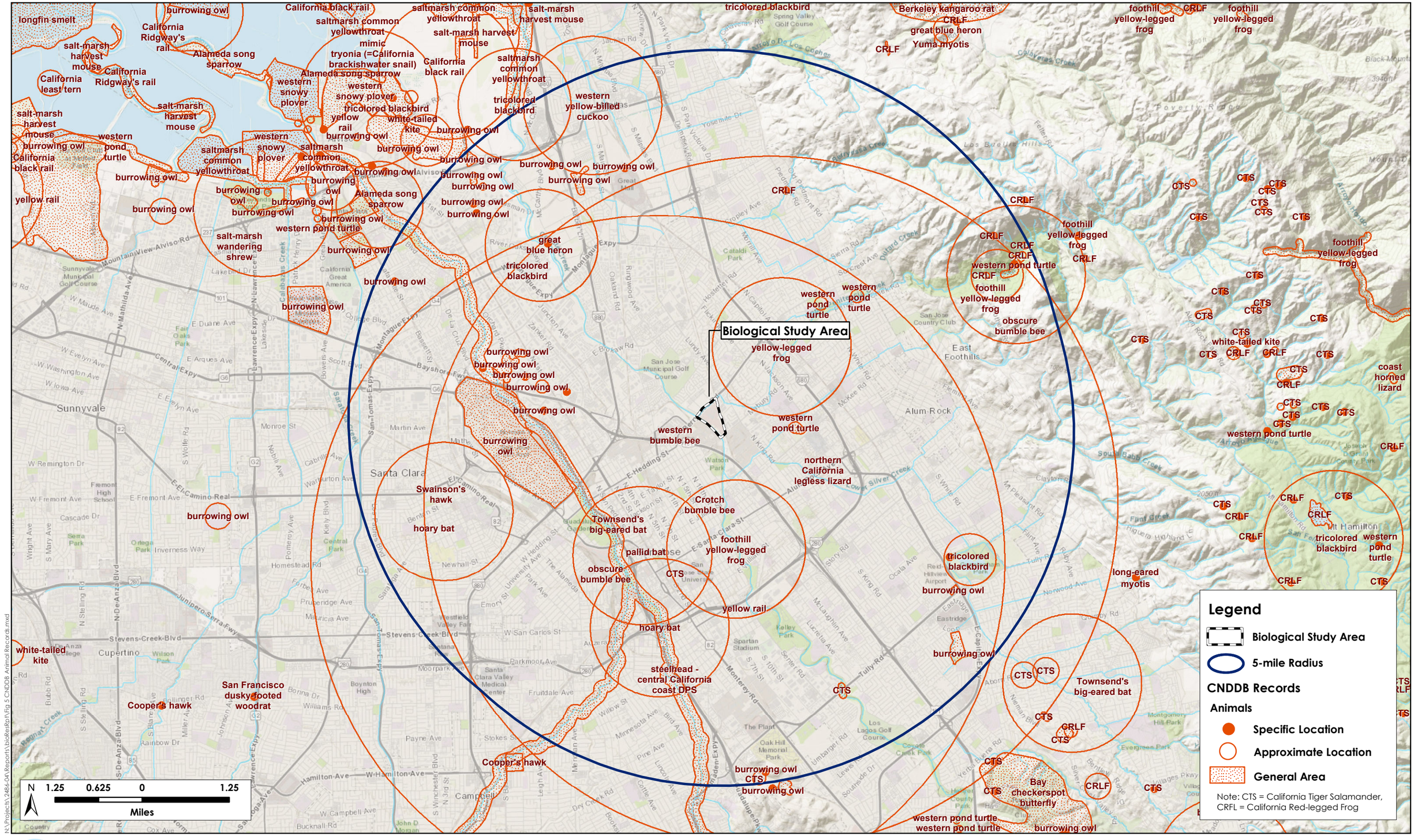

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Figure 5. California Natural Diversity Database Map of Special-Status Animals

Flea Market South of Berryessa Project Biological Resources Report (2486-04)
September 2020

Special-Status Animals. Our background review, as described in the *Methods* section above, identified several special-status animal species as potentially occurring in the project vicinity. However, the majority of these species were determined to be absent from the project site. Species considered for occurrence but rejected, as well as the reasons for their rejection, include the following:

- The California tiger salamander (*Ambystoma californiense*), federally and state listed as threatened, and the California red-legged frog, federally listed as threatened and a California species of special concern, both occurred historically in the project region and are covered species under the VHP (ICF International 2012). The VHP maps Coyote and Upper Penitencia Creeks within the project site as breeding habitat for the California red-legged frog. However, the project site lacks high-quality habitat for both species due to the high levels of disturbance, lack of calm pool habitat (necessary for breeding), and isolation from other natural habitats in the region. Further, the surrounding urbanization precludes overland dispersal onto the site from potential off-site habitat and it is extremely unlikely that an individual from remote portions of the Coyote Creek or Penitencia Creek watersheds would disperse downstream as far as the project site. The nearest potentially extant occurrence of tiger salamanders to the project site is approximately 5.2 mi to the south (CNDDB 2020) and the nearest extant occurrence of California red-legged frogs is approximately 4.7 mi to the east in Alum Rock Park (CNDDB 2020). Thus, there are no known extant occurrences of California tiger salamanders or California red-legged frogs within the potential dispersal distance of these species to the project site (i.e., within 1.3 mi for the California tiger salamander and 2.0 mi for the California red-legged frog). Further, these species are considered extirpated from the urbanized portion of the Santa Clara Valley floor, including the project site (H. T. Harvey & Associates 1997 and 1999). Thus, due to the lack of suitable breeding habitat for the California tiger salamander and California red-legged frog on the project site, the distance from the site to the nearest known occurrences of these species, and the separation of the site from the nearest occurrences and suitable breeding habitat by extensive development and roadways, California tiger salamanders and California red-legged frogs are not expected to occur on the project site.

- The peregrine falcon (*Falco peregrinus anatum*), a California fully protected species, and loggerhead shrike (*Lanius ludovicianus*), a California species of special concern, may occur on the project site as uncommon to rare visitors, migrants, or transients, or may forage on the project site while breeding elsewhere in the vicinity. However, due to a lack of suitable habitat these species are not expected to breed on the project site or to be affected by project activities.

- The yellow warbler (*Setophaga petechia*), a California species of special concern, occurs in riparian habitat on the site as a fairly common migrant, but owing to the heavily urbanized surroundings of this riparian habitat, yellow warblers are not expected to breed on or near the site.

- No suitable nesting or roosting habitat for the burrowing owl (*Athene cunicularia*), a California species of special concern and VHP covered species, was observed on the project site during the reconnaissance survey. In addition, no burrowing owls or signs of recent burrowing owl use of the site (e.g., pellets, fecal material or feathers) were observed. Further, the project site is not mapped as

potential burrowing owl habitat (nesting or wintering) by the VHP, nor is it located adjacent to mapped burrowing owl habitat (SCVHA 2020), and there are no current or historical burrowing owl records from the site (CNDDB 2020). Thus, burrowing owls are determined to be absent from the project site.

- An examination of trees and buildings on the project site detected no cavities or crevices large enough to provide suitable habitat for a roosting or maternity colony of special-status bat species. Further, no sign of bats (e.g., guano, urine staining) was found on the outside of any buildings in the developed portion of the site, nor under either of the two bridges within the project site.

- A focused survey for nests of the San Francisco dusky-footed woodrat, a California species of special concern, detected no nests of the species within the riparian corridors of Coyote and Upper Penitencia Creeks within the project site. Further, no suitable habitat for the woodrat is present in the developed portion of the site. This species has been largely extirpated from the most densely urban areas of the Santa Clara Valley floor, and thus, the San Francisco dusky-footed woodrat is determined to be absent.

- The 2006 Flea Market Transit-Oriented Community Project Biological Impact Assessment (H. T. Harvey & Associates 2006) also identified the merlin (*Falco columbarius*), Cooper's hawk, and sharp-shinned hawk (*Accipiter striatus*) as special-status species potentially occurring on the project site. However, as of 2008, the merlin, Cooper's hawk, and sharp-shinned hawk were removed from the California species of special concern list, as recognized by the CDFW, and are not discussed herein as wildlife with special-status standing. Nonetheless, these three species are protected under the MBTA and California Fish and Game Code.

Six special-status animal species with the potential to occur on or immediately adjacent to the project site and thus to be impacted by project implementation are the CCC steelhead, federally listed as threatened, and the Central Valley fall-run Chinook salmon (*Oncorhynchus tshawytscha*), Central California roach, Sacramento hitch, Pacific lamprey, and western pond turtle (*Actinemys marmorata*), which are California species of special concern. These species are discussed in detail below.

Steelhead (*Oncorhynchus mykiss*), Central California Coast DPS. Federal Listing Status: Threatened; State Listing Status: Species of Special Concern. The steelhead is taxonomically structured on a geographic basis, and a number of DPSs are recognized by NMFS. The CCC steelhead DPS includes all naturally spawned populations of steelhead in coastal streams from the Russian River (inclusive) to Aptos Creek (inclusive), and the drainages of San Francisco, San Pablo, and Suisun Bays eastward to Chipps Island at the confluence of the Sacramento and San Joaquin Rivers; and tributary streams to Suisun Marsh including Suisun Creek, Green Valley Creek, and an unnamed tributary to Cordelia Slough (commonly referred to as Red Top Creek), exclusive of the Sacramento-San Joaquin River Basin of the California Central Valley. The CCC steelhead DPS was listed as a threatened species on August 18, 1997 (NMFS 1997), and the threatened status was reaffirmed on January 5, 2006 (NMFS 2006). Critical habitat was designated for the CCC steelhead on September 2, 2005 (NMFS 2005) and includes the reaches of Coyote Creek and Penitencia Creek within the project site.

The steelhead is an anadromous form of rainbow trout that migrates upstream from the ocean to spawn. All the steelhead in the CCC DPS are winter-run. Winter-run steelhead enter rivers and streams in the late fall and winter months when higher flows and associated lower water temperatures occur. Spawning usually occurs in gravel substrates in clear, cool, perennial sections of relatively undisturbed streams. In addition, preferred streams typically support dense canopy cover that provides shade, woody debris, and organic matter, and are usually free of rooted or aquatic vegetation. Steelhead usually cannot survive long in pools or streams with water temperatures above 23 °C (Moyle 2002), and the optimal temperature for growth is 15 to 18 °C (Moyle 2002). Spawning occurs between December and June. Steelhead eggs remain in gravel depressions, known as redds, for 1.5 to 4 months before hatching. After hatching, young steelhead use the deeper reaches of streams as rearing areas. Juvenile steelhead typically rear in fresh water or estuarine habitats for three years before migrating to the ocean (Moyle 2002). Because of this multi-year rearing period, steelhead can only spawn in tributaries that maintain suitable temperature and other water quality parameters year-round. After migration, steelhead typically grow rapidly for two to three years before returning to freshwater streams to spawn. Unlike other salmonids, steelhead do not necessarily die after spawning. Many adults survive and return to the ocean after spawning, coming back to spawn for one or more additional seasons.

Relatively low numbers of steelhead occur in both Coyote Creek and Upper Penitencia Creek (Leidy et al. 2003). However, in the Coyote Creek system, Anderson Dam blocks steelhead access to upper reaches of the watershed that likely provided spawning habitat historically. As a result, most steelhead spawning within the Coyote Creek watershed is thought to occur along Upper Penitencia Creek upstream to the natural waterfall. Thus, the majority of the Upper Penitencia Creek steelhead population has to migrate through the site between marine areas and spawning/rearing areas upstream. Steelhead also have access to a short reach of Arroyo Aguague, which is a tributary of Upper Penitencia Creek. Although the portions of these creeks on the project site are likely used primarily as rearing habitat for juveniles and as migration routes for adults spawning farther upstream, a steelhead redd was found near the confluence of Coyote Creek and Upper Penitencia Creek in 1990 (Leidy et al. 2003).

Central Valley Fall-Run Chinook salmon (*Oncorhynchus tshawytscha*). Federal Listing Status: None; State Listing Status: Species of Special Concern. Like the steelhead, the Chinook salmon is an anadromous salmonid. Adults of the Central Valley fall-run Evolutionarily Significant Unit (ESU) migrate from the ocean to spawning streams in fall and begin spawning in beds of coarse river gravels between October and December. Chinook salmon generally spawn in cool waters providing incubation temperatures no warmer than 55 °F. Compared to steelhead, Chinook salmon are more likely to spawn in coarse gravels and lower in the watershed.

Chinook salmon may not have historically spawned in streams flowing into South San Francisco Bay. Since the mid-1980s, however, small numbers of fall-run Chinook salmon have been found in several such streams, including Coyote Creek, Los Gatos Creek, and the Guadalupe River (Leidy et al. 2003), and the species has recently been recorded along lower Alameda Creek as well. However, genetic analysis, timing of spawning, and the detection of coded wire-tagged hatchery fish in the project area suggests that these fish are derived from Central Valley fall-run stock (Garcia-Rossi and Hedgecock 2002), possibly hatchery releases. Conditions for

successful spawning in the project area are marginal at best, since these fish spawn during fall when streamflow is at its lowest. Chinook salmon are known to spawn in lower parts of the Coyote Creek watershed, but it is not known whether spawning occurs along the reach of Coyote Creek on the project site. Chinook salmon have similar spawning substrate requirements to steelhead, and thus could potentially spawn in or near the project reaches. It is also possible that small numbers of salmon will use the project site during migration between the ocean and upstream spawning and rearing areas.

Pacific lamprey (*Entosphenus tridentatus*). Federal Listing Status: None; State Listing Status: Species of Special Concern. Pacific lampreys are anadromous fish, spawning in freshwater, nontidal streams and living for several years as larvae (ammocoetes) in soft stream substrates before metamorphosing into juveniles. They are parasitic and attach themselves to larger fish, often steelhead and salmon, feeding on body fluids of the host fish. They typically spend one to two years in the ocean before returning to freshwater streams to spawn; upstream spawning migration may start as early as January but typically occurs March through June (Moyle et al. 2015). Pacific lampreys are typically found in streams that are suitable for their host species - medium and large, low-gradient cold rivers and streams, with a wide range of habitats (e.g., gravel, low-gradient riffles). The Pacific lamprey is known to be present in Coyote Creek, where it spawns primarily in cooler, upstream waters (Buchan et al. 2002, Valley Water 2008). Waters on the project site, in both Coyote Creek and Upper Penitencia Creek, are warmer waters that would not be suitable for use by spawning lampreys, and it is likely that lampreys are present in the reaches on the site only for relatively brief periods during upstream or downstream migration.

Central California roach (*Lavinia symmetricus symmetricus*). Federal Listing Status: None; State Listing Status: Species of Special Concern. Central California roach are opportunistic, widespread fish that occur in a wide variety of streams (Moyle et al. 2015). This species is most abundant in warm streams, where it grazes on filamentous algae, but it also feeds on invertebrates. Roach are well adapted to intermittent watercourses, as they are tolerant of high temperatures and low oxygen levels. This species is known to be present in Coyote Creek (Buchan et al. 2002, Leidy 2007, Valley Water 2008). It occurs widely, often in unshaded pools with warm temperatures, and it is expected to occur within Coyote Creek and the reach of Upper Penitencia Creek on the project site.

Sacramento hitch (*Lavinia exilicauda exilicauda*). Federal Listing Status: None; State Listing Status: Species of Special Concern. Sacramento hitch occur in a wide variety of waterbodies, including clear streams, turbid sloughs, lakes, and reservoirs. It has a high tolerance for varying stream conditions and water temperature, being able to withstand water temperatures higher than those tolerated by most other native fish in the South Bay. This species is known to be present in Coyote Creek (Buchan et al. 2002, Leidy 2007, Valley Water 2008, Smith 2017, Smith 2018). It has been recorded upstream nearly to Anderson Dam, and with its high tolerance of stream conditions and water temperatures it is expected to occur within Coyote Creek and the reach of Upper Penitencia Creek on the project site.

Western Pond Turtle (*Actinemys marmorata*). Federal Listing Status: None; State Listing Status: Species of Special Concern. The western pond turtle occurs in ponds, streams, and other wetland habitats in

the Pacific Slope drainages of California and northern Baja, Mexico. Adult western pond turtles occur in a variety of aquatic habitats, including streams and ponds. Ponds or slack-water pools with suitable basking sites (such as logs) are an important habitat component, and western pond turtles do not occur commonly along high-gradient streams. Breeding occurs in late spring or early summer (typically May-June). Females lay eggs in upland habitats, in clay or silty soils in unshaded (often south-facing) areas. Breeding habitat is typically found within 600 ft of aquatic habitat, but if no suitable breeding habitat can be found close by, adults may travel overland considerable distances to breed (Jennings and Hayes 1994). Juveniles feed and grow in shallow aquatic habitats (often creeks) with emergent vegetation and ample invertebrate prey.

In Santa Clara County, all perennial creeks, many intermittent creeks, and most ponds that are not completely isolated by development have some potential to support the western pond turtle. However, the cumulative stressors of urbanization, including release of non-native turtles, predation and harassment by pets and non-native mammals, capture by humans, degradation of water quality, loss of upland nesting habitat because of development, and the construction of barriers between creeks and nesting areas have reduced western pond turtle populations, and few areas exist where the species can be considered common. In particular, the scarcity of suitable expanses of nesting habitat makes the maintenance of viable populations unlikely along reaches of many creeks in the County.

Although pond turtles typically occur in ponds, they may also occur in perennial streams and could occur in Coyote Creek and Upper Penitencia Creek within the project site. The VHP maps both Coyote and Upper Penitencia Creeks within the project site as primary habitat for the western pond turtle. Pond turtles have been documented less than 1.0 mi east of the site, off McKee Road, and have been found at two locations in Coyote Creek, one upstream of the project site and one downstream, and both less than 5.0 mi from the project site (CNDDB 2020). Within the project site, habitat along Upper Penitencia Creek is too narrow and impacted by human use to allow for turtle nesting and there is a very low probability that turtles could nest within the riparian corridor of Coyote Creek due to it highly disturbed nature.

4.3 Sensitive and Regulated 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 CNDDB. 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 CEQA (California Code of Regulations: Title 14, Div. 6, Chap. 3, Appendix G). Furthermore, aquatic, wetland and riparian habitats are also afforded protection under applicable federal, state, or local regulations, and are generally subject to regulation, protection, or consideration by the USACE under Section 401 of the Clean Water Act (CWA) (waters of the U.S.), the RWQCB under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (waters of the state), the CDFW under Sections 1601–1603 of the Fish and Game Code, and/or the USFWS.

CDFW Sensitive Habitats. A query of sensitive habitats in the CNDDB (2020) identified no communities of special concern as occurring in the project vicinity (Figure 4) or in the *San Jose West, California* USGS quadrangle in which the project site is located. The CDFW also maintains a list of vegetation alliances and associations within the state of California (CDFW 2020). 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. Urban-suburban land uses, such as that present on the project site, have relatively little vegetation, do not conform to a defined, native-dominated CDFW alliance or association, nor do they have an associated rarity rank. The willow riparian forest and scrub habitat on the project site is highly altered by the surrounding urbanization with an abundance of non-native trees present in the overstory layer and thus is not considered to conform to native willow alliances. The golf courses/urban parks area is a non-native grassland and is not considered a sensitive alliance.

Nevertheless, riparian habitat under the jurisdiction of the CDFW is present on the project site along Coyote Creek and Upper Penitencia Creek in areas mapped as willow riparian forest and scrub. Impacts on riparian habitats along stream and drainage corridors are typically regulated by CDFW because these habitats offer such valuable resources for wildlife. Section 1602 of the Fish and Game Code establishes jurisdiction over the bed, channel, or bank of any river, stream, or lake. For the two streams on the project site, CDFW riparian jurisdiction extends from the channel to top of bank or the outer extent of riparian tree or shrub canopy, whichever is greater.

Riparian Corridors. As described in Section 3.3.3, riparian corridors associated with Coyote Creek and Upper Penitencia Creek are located within the project site. Measures to protect riparian corridors are provided in the City's Riparian Corridor Policy Study (City of San Jose 1999), which was incorporated into the City's Envision San Jose 2040 General Plan (City of San Jose 2012); the Zoning Code (Title 20 of the San Jose Municipal Code); and the City Council-adopted VHP, specifically Condition 11.

Waters of the U.S./State. The aquatic habitat (extending up to the OHWMs of the perennial streams) and in-channel wetlands in Coyote Creek and Upper Penitencia Creek are considered wetlands and waters of the U.S. under the CWA. The aquatic, wetland, and riparian habitat (extending up to the top of bank or outer edge of riparian canopy) associated with Coyote Creek and Upper Penitencia Creek is considered waters of the State under the Porter-Cologne Water Quality Control Act.

Section 5. Biological Impacts and Mitigation Measures

5.1 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."

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 (Chapter IV) 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 state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means"

D. "interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of 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"

Potential impacts on biological resources as a result of the proposed project were systematically evaluated at the project level. These impacts were first evaluated to qualitatively describe how proposed project activities could impact biological resources, and whether impacts would be temporary (i.e., occurring only during project construction and the period immediately following) or permanent. Impacts were then evaluated with the application of any applicable VHP conditions (see below) with which the proposed project must comply to determine whether the impacts were significant (and thus required mitigation).

5.2 Santa Clara Valley Habitat Plan

The proposed project is a "covered project" under the VHP (ICF International 2012). The Santa Clara Valley Habitat Agency (SCVHA) leads the implementation of the VHP. It is a regional partnership between six local partners (i.e., the County of Santa Clara; Santa Clara Valley Transportation Authority; the Santa Clara Valley Water District; and the Cities of San Jose, Gilroy, and Morgan Hill); the CDFW; and the 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 it describes how reserves would be managed and monitored to ensure that they benefit those species. In providing a long-term, coordinated planning effort 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 measures to avoid, minimize, and mitigate impacts on covered species and their habitats while allowing for the implementation of certain "covered projects". Chapter 6 of the VHP includes detailed and comprehensive conditions to avoid and minimize impacts on the 18 "covered species" (nine animal species and nine plant species) included in the plan area, which is comprised of 519,506 ac, or approximately 62% of Santa Clara County. These conditions are designed to achieve the following objectives:

- Provide avoidance of covered species during implementation of covered activities throughout the project site.
- Prevent take of individuals from covered activities as prohibited by law (e.g., take of fully protected species).
- Minimize impacts to natural communities and covered species where conservation actions would take place.
- Avoid and minimize impacts to jurisdictional wetlands and waters throughout the study area to facilitate project-by-project wetland permitting.

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 SCVHA has mapped three fee zones in the VHP area: (1) ranchland and natural lands, (2), agricultural and valley floor lands, and (3) small vacant sites, as well as one no fee zone (Urban Areas) (SCVHA 2020). Within the three fee zones, 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 through C on parcels less than 0.5 ac
- Additions to structures within 50 ft of an existing structure that result in less than 5,000 ft 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.

Additional fees in-lieu of providing compensatory mitigation are imposed for projects that impact serpentine habitat; wetlands, ponds, streams, and riparian woodlands; and burrowing owls, and for certain projects that result in atmospheric nitrogen emissions, although in some cases, project proponents may provide land to restore or create habitats types protected by the VHP in lieu of payment of fees.

The project site is located in the Urban Service Area for the City of San Jose. In regards to the VHP's land cover fee zones, the majority of the site falls within the Urban Areas zone (i.e., no fee zone) except for the two riparian corridors along Upper Penitencia Creek and Coyote Creek, which are in fee zone B (SCVHA 2020). In addition, the portions of the project site along Upper Penitencia and Coyote Creeks are within a specialty fee zone associated with willow riparian forest and scrub habitat. There is no serpentine habitat fee zone or burrowing owl habitat fee zone mapped on the project site. Because the project includes construction of new residences and office space, which will generate new vehicle trips, a nitrogen emissions fee would also apply to the project.

This impact assessment summarizes the conservation measures that are required by the VHP for the proposed project. Other conditions that are species-specific are described in the appropriate sections in this chapter based on the project-specific assessment of potential impacts.

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

Wildlife Species Protected Under State or Federal Laws. No state or federally protected plant species occur on the project site; however, several wildlife species that potentially occur on the project site are protected under state and federal laws. Steelhead, a federally threatened species, is protected under the federal endangered species act and is listed as a California species of special concern; and the western pond turtle, a VHP covered species, is listed as a state species of special concern. Further, all migratory bird species and their nests are protected under the 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.

Condition 3. Maintain Hydrologic Conditions and Protect Water Quality

This condition applies to all projects covered by the VHP and helps protect watershed health, primarily through reducing stormwater discharge and pollutant runoff from project sites. The project has been designed to avoid direct impacts on wetlands. Impacts on water quality will be avoided and minimized to the greatest extent practical through the implementation of applicable measures from Table 6-2 of the VHP, and through

compliance with post-construction requirements under the project's Municipal Regional Stormwater NPDES Permit.

Condition 4. 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. The proposed project is considered an in-stream project because removal of the existing bridges over Penitencia Creek and construction of two new bridges, and possible modification or reconstruction of one or two outfalls, would result in direct impacts on the creek channel and the associated riparian corridor. 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.

Condition 11. Stream and Riparian Setbacks

Condition 11 applies to covered projects that may affect streams and associated riparian vegetation within the VHP plan area. This condition requires new covered projects to adhere to setbacks from creeks and streams and associated riparian vegetation to minimize and avoid impacts on aquatic and riparian land cover types, covered species, and wildlife corridors. The standard required setback for the reach of Coyote Creek and Upper Penitencia Creek (both are Category 1 streams) on the project site is defined as the larger of the areas encompassed by either a 35-ft buffer from the outer edge of riparian vegetation or a 100-ft buffer from top of bank. Some exemptions to the required setback may be applicable depending on the nature of the channel. Further, as described in Section 3.3, City Council Policy 6-34 provides guidance on the implementation of riparian corridor protection consistent with all City policies and requirements that may provide for riparian protection, including those contained in the Council-adopted VHP, and calls for a setback of 100 ft from the edge of riparian canopy rather than from top of bank (or 35 ft from edge of canopy) in accordance with VHP Condition 11. Under both City policies and the VHP, exceptions to the riparian setback requirements may be granted under certain circumstances.

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. The proposed project would not result in direct impacts on wetlands.

5.3 Impacts on Special-Status Species: 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 CDFW or USFWS (Less than Significant with Mitigation)

5.3.1 Impacts on Special-Status Fish (Less than Significant)

The reaches of Coyote Creek and Upper Penitencia Creek on the project site have been designated as critical habitat for the CCC steelhead, a federally threatened species and California species of special concern. Although the portions of these creeks on the project site are likely used primarily as rearing habitat for juvenile steelhead and as migration routes for adults spawning farther upstream, a steelhead redd was found near the confluence of Coyote Creek and Upper Penitencia Creek in 1990 (Leidy et al. 2003). Central Valley fall-run Chinook salmon are known to spawn in lower parts of the Coyote Creek watershed, but conditions for successful spawning in the project area are marginal at best, since these fish spawn during fall when streamflow is at its lowest. Nevertheless, small numbers of Chinook salmon could occur in the reaches of Coyote Creek and Upper Penitencia Creek on and adjacent to the project site. In addition, Pacific lamprey occur in the reaches of Coyote Creek and Upper Penitencia Creek on the project site during migration, and both the Central California roach and Sacramento hitch could be present in these stream reaches year-round. Proposed project activities, including the removal of two existing bridges over Upper Penitencia Creek, construction of a new vehicular bridge and a new pedestrian bridge over Upper Penitencia Creek, and modification or replacement of two stormwater outfalls (one along each creek) could result in direct and indirect impacts on these five special-status fish species and their habitat.

If lighting associated with the proposed project, including construction of new bridges, were to result in an increase in light levels in Coyote Creek or Upper Penitencia Creek, the vulnerability to predation of special-status fish could be significantly increased, and increased lighting could potentially result in changes in fish behavior. However, the project description includes measures to ensure that a substantial new source of light and glare within the riparian corridors would not be created. During and after project construction, the spillover of lighting into the adjacent riparian corridors would be minimized by the use of low-intensity lighting or other appropriate low-dispersion lighting technology, orientation of lights so that they are placed on the perimeter of the project site and directed inward (rather than directing any lighting toward the riparian corridors on site) and downward toward the ground, and shielding of lights from behind. Thus, changes in lighting as a result of the proposed project are not expected to result in a significant impact on special-status fish or their habitat.

The only project activity that could potentially result in the permanent loss of aquatic habitat for special-status fish is the modification or construction of stormwater outfalls (one along each of the two creeks). Whether or not the project will be able to tie into the two existing outfalls, or whether modification or reconstruction of

one or both outfalls will be necessary, will be determined in coordination with Valley Water. If the project will simply tie into the existing outfalls, no direct impacts to aquatic habitat of these fish, nor any indirect impacts that may occur during construction of outfall components outside the low-flow channel, will occur. However, modification or reconstruction of outfalls could potentially necessitate the placement of outfall structures, as well as riprap for energy dissipation and erosion control, within the low-flow channel, resulting in the loss of aquatic habitat and natural substrate within a limited portion of the creek. The extent of this habitat loss, and whether such habitat loss would need to occur at all, is unknown but is unlikely to exceed 0.01 acre between both outfalls combined. It is also unknown whether dewatering will be necessary for outfall construction. However, if dewatering is needed, it could potentially result in stranding, injury, or mortality of special-status fish in the absence of mitigation measures.

Upon its completion, the project would improve fish passage through the project site. Currently, the footings of the upstream bridge over Upper Penitencia Creek encroach into the channel. This narrowing of the channel at the bridge crossing constricts the channel flow and fish passage through the site. The project would remove the existing footings and place all new bridge structures outside of the active channel, facilitating fish movement through the site, a long-term beneficial impact for special-status fish.

Nevertheless, during project construction, activities such as outfall modification or construction, removal of the in-stream bridge footings, grading, and other soil disturbances would increase the potential for soil erosion on-site. In the absence of VHP compliance measures as discussed below, these construction activities could increase the amount of soils and sediments entering Coyote and Upper Penitencia Creeks, thereby negatively impacting riparian habitats and contributing to significant water quality impacts. Increases in turbidity and sediment input may cause stress on special-status fish because of feeding difficulties or displacement, and increases in sedimentation may have adverse effects on habitat for steelhead and Chinook salmon by filling in spaces between gravels and cobbles. Further, removal of the upstream bridge over Penitencia Creek may require temporary dewatering of the affected portion of the channel.

In-channel construction activities, including channel dewatering, would be limited to the dry season (i.e., June 15 through October 15; see condition of approval in Section 5.4.1 below) to reduce the potential for steelhead, Chinook salmon, and Pacific lampreys to be present in the project area when these activities are undertaken. Nevertheless, in the absence of VHP compliance measures as discussed below, if special-status fish were to occur in the reach to be dewatered, dewatering activities could result in injury or mortality of individuals due to degraded water quality, temporary blockage of migration, stranding in isolated pools, and desiccation. Construction activities may also necessitate the operation of heavy equipment within the streambed (after dewatering). Movement of heavy equipment may compact the substrate, potentially killing lamprey larvae and benthic invertebrates (which may serve as prey for steelhead and Chinook salmon), embedding gravel within finer sediments, and otherwise altering habitat for special-status fish and their prey. Further, removal of the upstream bridge's in-channel footings and loss of vegetation on channel banks may result in an increase in erosion and sedimentation. Streambank erosion is a natural process that can be beneficial to fish by providing a source of gravel necessary for high-quality habitat. However, when natural levels of erosion are exceeded,

increases in turbidity and sediment input may stress fish because of feeding difficulties or displacement. Additionally, minor spills of petrochemicals, hydraulic fluids, and solvents may occur during vehicle and equipment refueling or because of leaks, adversely affecting water quality and potentially killing or injuring special-status fish. Thus, in the absence of VHP compliance measures, project construction activities could result in potentially significant impacts on special-status fish and their habitat through impacts on water quality, degradation of habitat, and impairment of health of individuals. Impacts under the alternative project would not differ substantially from those described for the proposed project.

Both project alternatives would comply with the requirements of VHP Conditions 3 and 4. Condition 3 requires that development projects avoid or minimize water quality impacts, consistent with existing NPDES standards required by the San Francisco and Central Coast RWQCBs. It identifies a set of programmatic best management practices (BMPs) (see Appendix A), performance standards, and control measures to minimize increases of peak discharge of stormwater and to reduce runoff of pollutants to protect water quality, including during project construction. These requirements include preconstruction, construction site, and post-construction actions. Preconstruction conditions are site design planning approaches that protect water quality by preventing and reducing the adverse impacts of stormwater pollutants and increases in peak runoff rate and volume. They include hydrologic source control measures that focus on the protection of natural resources, including fish, as well as the preparation of a native fish and aquatic vertebrate relocation plan. 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, as well as maintenance of ambient stream flow below the work area and maintenance of fish passage through the work area if the dewatered area exceed 500 ft in length and/or the length of time the stream is dewatered exceeds two weeks. Post-construction conditions include measures for stormwater treatment and flow control. VHP Condition 4 requires in-stream projects (including bridge construction and outfall modification/reconstruction) to be designed to minimize adverse impacts on stream morphology, aquatic and riparian habitat, and flow conditions by implementing construction and avoidance measures.

The project would also be required to comply with the conditions of any permits from the USACE, RWQCB, and/or CDFW necessary to impact stream and riparian habitats along Upper Penitencia Creek and Coyote Creek, as well as any biological opinion from the National Marine Fisheries Service, if one is required/issued during USACE permitting.

Project Condition of Approval: The project would comply with applicable Habitat Plan conditions and fees prior to issuance of any grading permits. The project applicant is required to submit the Santa Clara Valley Habitat Plan Coverage Screening Form to the Director of Planning, Building and Code Enforcement or the Director's designee for approval and payment of applicable fees prior to the issuance of a grading permit. The Habitat Plan and supporting materials can be viewed at www.scv-habitatagency.org. Habitat Plan conditions applicable to the project include:

- Condition 1, Avoid Direct Impacts on Legally Protected Plant and Wildlife Species
- Condition 3, Maintain Hydrologic Conditions and Water Quality

- Condition 4, Avoidance and Minimization for In-Stream Projects
- Condition 11, Stream and Riparian Setbacks
- Condition 12, Wetland and Pond Avoidance and Minimization

Nevertheless, the proposed project (both Option 1 and Option 2) could result in residual impacts on special-status fish because complete avoidance of individuals may not be accomplished while still meeting the proposed project goals, and because outfall modification or construction could potentially result in the loss of some aquatic habitat. As a result, impacts on special-status fish are considered significant for the purpose of this analysis. Mitigation Measure BIO-1.1 would be implemented to exclude special-status fish from the project area before dewatering begins, thereby minimizing the potential for loss of individuals. Note that implementation of Mitigation Measure BIO-1.1 may result in an increased concentration of fish immediately downstream of the project area. Thus, some potential would exist for changes in densities of predators or competitors to result in increased stress, injury, or mortality of individual special-status fish. However, the benefits of the mitigation measure would far outweigh the loss of individuals that would occur if special-status fish were not excluded from the project area prior to dewatering. Further, the use of block nets to exclude fish from the construction area does not result in entrapment or physical handling of fish. Rather, this approach simply encourages fish to move out of the project's dewatering area on their own without allowing them to re-enter. As a result, this mitigation measure is not expected to result in the take of special-status fish. Mitigation Measure BIO-1.2 would be implemented to avoid and minimize impacts from outfall modification or construction. Implementation of Mitigation Measures BIO-1.1 and BIO-1.2, and the condition of approval above, would reduce this impact to less than significant for both Option 1 and Option 2.

Mitigation Measure BIO-1.1. Exclude Fish Prior to Dewatering Activities. Dewatering of Upper Penitencia Creek or Coyote Creek shall occur only during the period June 15 through October 15 (or as otherwise specified by resource agency permits for the project) when special-status fish are least likely to be present. Prior to conducting dewatering activities, the project applicant shall hire a qualified biologist who will use block nets to exclude fish from the reach of Upper Penitencia Creek to be dewatered during removal of the existing bridges (and, if necessary, from the segment of Upper Penitencia Creek and/or Coyote Creek that would be dewatered for outfall modification or construction). If the entire reach is going to be dewatered, such as for bridge removal, a block net will be placed at the upper end of the reach to be dewatered. Subsequently, qualified biologists will walk from the upper to lower end of the reach with a seine stretched across the channel to encourage fish to move out of the construction area. When the lower end of the construction area is reached, a second block net will be installed to isolate the construction reach. This procedure will be repeated a minimum of three times on each dewatered reach to ensure that no fish remain in the construction area. The coffer dam used for dewatering will then be constructed within the limits delineated by the two block nets.

If only a small portion of one side of the channel needs to be dewatered, such as for outfall construction, a block net shall be used to encourage fish to move out of the dewatering area by expanding the net from the shoreline where outfall construction will occur outward into the channel. Both ends of the net shall be

anchored to the shoreline, and the weighted net bottom shall be moved outward until it reaches the limits of dewatering. This shall be repeated a minimum of three times to ensure that no fish remain in the area to be dewatered. The coffer dam used for dewatering shall then be constructed within the area delineated by the block net.

In each case, a qualified biologist shall inspect the area within the block nets thoroughly to ensure that no fish are present prior to coffer dam construction and dewatering.

Mitigation Measure BIO-1.2. Outfall Impact Avoidance and Minimization. In determining whether modification or reconstruction of the existing outfalls is necessary, and designing new outfalls, the applicant applicant's design team shall avoid and minimize any impacts to aquatic and riparian habitat. If complete avoidance of impacts to these sensitive habitats is determined to be infeasible by the applicant, the City will review the outfall designs and work with the applicant to ensure that no further avoidance or minimization of impacts to aquatic and riparian habitat can be achieved. In particular, permanent impacts, such as placement of hardened structures such as concrete or riprap, in the channel shall be avoided or minimized. If concrete is placed in an area where it will come into contract with the creek, it shall be allowed to cure before it comes into contact with creek waters. Energy dissipation shall be provided to minimize erosion and scour from water emanating from the outfall, but the amount of riprap or other hardened structures placed in aquatic habitat for energy dissipation shall be minimized with respect to the volume or cross-sectional area of the channel occupied by such structures.

5.3.2 Impacts on Western Pond Turtles (Less than Significant)

Both Coyote and Upper Penitencia Creeks are mapped by the VHP as primary habitat for the western pond turtle (ICF International 2012), and individual turtles have been found less than 1.0 mi east of the site and in Coyote Creek within 5 miles upstream and downstream of the site (CNDDB 2020). Western pond turtles are unlikely to nest on the project site because habitat along Upper Penitencia Creek is too narrow and impacted by human use to be suitable for nesting. Similarly, there is a very low possibility that turtles could nest within the riparian corridor of Coyote Creek due to it highly disturbed nature. Thus, the proposed project is not expected to result in impacts on western pond turtle nesting habitat. Nevertheless, proposed project construction activities could result in potentially significant impacts on the western pond turtle through impacts on water quality and degradation of habitat, in the absence of VHP compliance measures as discussed below. In addition, proposed project construction activities within the riparian corridor (i.e., bridge demolition and construction, and outfall modification/construction) could also result in the injury or mortality of a small number of western pond turtles. For example, individual turtles might be directly harmed or killed due to crushing by construction personnel or equipment. Due to the regional rarity of this species, the injury or mortality of western pond turtles would be a potentially significant impact in the absence of VHP compliance measures, as discussed below. Impacts under the alternative project would not differ substantially from those described for the proposed project.

The VHP does not provide species-level avoidance and minimization measures for the western pond turtle. Nevertheless, the project would adhere to general conditions of the VHP described previously, which would help to reduce proposed project impacts on the western pond turtle and its habitats. For example, VHP Condition 3 requires implementation of numerous aquatic avoidance and minimization measures, described in Table 6-2 of the VHP (see Appendix A), which would avoid and minimize impacts on aquatic habitat for this species. VHP Condition 4 requires that in-stream projects (including bridge construction and outfall modification/construction) must be designed to minimize adverse impacts on stream morphology, aquatic and riparian habitat, and flow conditions by implementing construction and avoidance measures. In addition, the project proponent would pay VHP impact fees for this project; these fees would contribute to the VHP's conservation program, which includes habitat acquisition, restoration, preservation, and management targeted at the western pond turtle.

Compliance with VHP conditions would minimize potential impacts on western pond turtles and their habitats due to project implementation, and payment of VHP impact fees would help to compensate for any residual impacts through conservation of this species' populations and habitats. As a result, with implementation of the above condition of approval, impacts on the western pond turtle would be less than significant for both Option 1 and Option 2.

5.4 Impacts on Sensitive Communities: Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (Less than Significant with Mitigation)

5.4.1 Impacts on Willow Riparian Forest and Scrub (Less than Significant)

Because riparian communities are considered sensitive habitats and provide a wide range of biological functions for wildlife, such as nesting habitat for birds, any loss of riparian trees and shrubs may be considered significant. The removal of riparian trees along Upper Penitencia Creek (for construction of the new bridges, and possible outfall modification/reconstruction) and Coyote Creek (for possible outfall modification/reconstruction) on the project site could have a significant impact on wildlife because the trees include mature native species in an extensive riparian setting, and because riparian habitat along these creeks is known to support moderate densities of nesting, wintering, and migratory birds. Because riparian tree removal occurs in a sensitive habitat with important ecological values for common and rare wildlife species, project-specific impacts on the willow riparian forest and scrub habitat would be significant in the absence of additional measures, as discussed below.

Implementation of either Option 1 or Option 2 would result in permanent impacts on approximately 0.32 ac of existing willow riparian forest and scrub habitat on the project site as a result of the demolition of the two existing bridges, the construction of the two new bridges over Upper Penitencia Creek, and the possible outfall modification/reconstruction along both creeks (Figure 3). Although the footprint of these improvements within the willow riparian forest and scrub habitat totals 0.32 acres, construction will likely require some tree

and shrub removal, and the canopies of those trees and shrubs would extend beyond the immediate footprint of these impact areas. Even trees that do not need to be removed may have their roots impacted by construction to the point that they may need to be removed, they may die, or their health may be impaired. Activities that compact soil, trench through roots, or pile soil up around the base of trees may adversely affect the health of these trees. The proposed trails along Upper Penitencia and Coyote Creeks will be located on currently developed lands, completely outside the riparian habitat, and therefore will not directly impact riparian habitat.[2]

The proposed project would be required to comply with the requirements of the VHP, including Conditions 3 and 4, as described above. The project would also be subject to the applicable Habitat Plan impact avoidance conditions and design criteria, as listed below, and incorporated into the project as a condition of approval:

Project Condition of Approval:

- The removal of riparian vegetation and trees shall 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 the CDFW.
- Seed mixtures, and if needed, shrubs and trees 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.
- The project will prepare and implement sediment erosion control plans to prevent erosion or other disturbance-related impacts within the riparian corridor.
- All construction within the riparian habitat will take place during the dry season from June 15 to October 15.
- Immediately after completion of project components located in the riparian habitat, and before the close of the seasonal work window, all exposed soil will be stabilized with mulch, seeding, and/or placement of erosion control blankets.

The project proponent would compensate for the permanent loss of willow riparian forest and scrub habitat through the payment of VHP riparian impact fees, which are intended to fund the restoration, creation, or protection and enhancement of this habitat type within the VHP preserve system. Compliance with relevant VHP conditions and payment of VHP fees, along with implementation of the above condition of approval, would reduce impacts on riparian willow forest and scrub habitat due to implementation of both Option 1 and Option 2 to less-than-significant levels.

[2] Trail alignments adjacent to (1) the Upper Penitencia Creek and Coyote Creek confluence and (2) Mabury Road have not been fully developed.

5.4.3 Impacts due to Encroachment into the Riparian Setback (Less than Significant with Mitigation)

As described above, City policies and regulations, including the Envision San Jose 2040 General Plan (City of San Jose 2012), the Zoning Code (Title 20 of the San Jose Municipal Code), and the City Council-adopted VHP, specifically Condition 11, include measures meant to limit development and protect sensitive riparian resources. City Council Policy 6-34 (issued August 23, 2016) provides guidance on the implementation of riparian corridor protection consistent with all City policies and requirements that provide for riparian protection. The policy indicates that riparian setbacks should be measured from the outside edges of riparian habitat or the top of bank, whichever is greater, and that development of new buildings and roads generally should be set back 100 ft from the riparian corridor defined by the outer edge of riparian vegetation.

For the purposes of the project site, the City's riparian setback extends 100 ft landward from the outer edge of the riparian canopies of Coyote Creek and Upper Penitencia Creek (demarcated using methods developed and approved by resource and regulatory agencies with jurisdiction within such channels [i.e., CDFW, USACE, and RWQCB]), and includes a portion of the project site nearest these creeks (Figures 2 and 3). The setback is applicable to all proposed development with the exception of the proposed bridge crossings over Upper Penitencia Creek, which are required to cross the riparian corridor; the stormwater outfalls, which by necessity need to be located within the setback; and the trails, which are allowable uses in a riparian setback. These project features are exempt from the riparian setback requirements. In contrast, urban development, including new hardscape and landscaping associated with the proposed recreation area and arterial road that parallels Coyote Creek along the southwestern edge of the site, is not exempt from riparian setback requirements. Council Policy 6-34 explains that the City's riparian setback requirements supplement the VHP-required riparian setbacks on Category 1 streams on parcels with slopes less than 30%, for which the VHP only requires a setback of 35 ft from the riparian canopy or 100 ft from top of bank, whichever is greater. In the case of this Flea Market project, the VHP-required setback for both creeks is fully contained within the City's larger setback area, so only the City's 100-ft setback is depicted on Figures 2 and 3.

Under both the Option 1 and Option 2 proposed site plans, the entire 100-ft riparian setback (10.08 ac) would be modified in some way. Currently, this area is composed of urban-suburban (i.e., asphalt) (7.52 ac) and golf course/urban park (2.56 ac) habitats that are highly disturbed by human activity. The majority of the 100-ft riparian setback would be used as open space (including trails) under both project alternatives, but a total of 1.36 ac of other urban uses are also proposed in the setback along Coyote Creek. These urban uses, which include a very small portion of a recreation area and an arterial road that parallels Coyote Creek along the southwestern edge of the site, would consist of 1.02 acres of new hardscape and 0.34 acres of landscaping.

Project implementation (both Option 1 and Option 2) would result in the construction of 1.42 ac of new hardscape within the 100-ft setback. Of this acreage, 0.40 ac of new hardscape would result from trails constructed in areas that are not currently hardscaped, and 1.02 ac would result from other urban development; this 1.02 ac represents new urban development that will require a riparian setback exception (as trails are allowable uses in riparian setbacks). However, the project would also remove 5.52 ac of existing hardscape (i.e.,

asphalt) from within the 100-foot riparian buffer and replace it with vegetated open space, resulting in a substantial net decrease (4.10 ac) in impervious surface within the setback, a beneficial impact. In addition, construction of two bio-retention basins which would implement post-construction measures for stormwater treatment for runoff from the project area before it exits the site, consistent with the requirements for a Municipal Regional Stormwater NPDES Permit, would also result in a beneficial impact on the riparian corridors because it is expected to improve the quality of runoff entering the creeks from the project site over existing conditions. The replacement of hardscape with vegetated open space would also improve the quality of the habitat within the setback for use by wildlife.

Despite these potentially beneficial effects, encroachment into the riparian setback under both Option 1 and Option 2 would conflict with the City's riparian policy and the VHP by constructing 1.36 ac of surfacing and non-structural improvements. These 1.36 acres of encroachment from uses that are not considered allowable within riparian setbacks include 1.02 acres of new hardscape and 0.34 acres of landscaping, all associated with the proposed recreation area and an arterial road that parallels Coyote Creek along the southwestern edge of the site. In contrast, the proposed bridge crossings, stormwater outfalls, and trails are allowable uses in riparian setbacks and are exempt from setback requirements. The minimum setback between the edge of the riparian canopy and the closest proposed non-exempt use would be 18 ft, between the riparian canopy and the arterial road proposed to run parallel to Coyote Creek in the southwestern part of the site (Figure 3). Owing to the importance of maintaining setbacks between new development and riparian habitat, encroachment so close to Coyote Creek would be a significant impact under CEQA.

According to the VHP, riparian setback exceptions for development adjacent to Category 1 streams should not reduce the setback to less than 35 ft from the top of bank for previously developed areas. According to Council Policy 6-34, the City will consider a reduction in the required riparian setback requirement under specific circumstances, including the following that apply to the project site:

- Sites that are being redeveloped with uses that are similar to the existing uses or are more compatible with the Riparian Corridor than the existing use, and where the intensity of the new development will have significantly less environmental impacts on the Riparian Corridor than the existing development.
- The existence of legal uses within the minimum setback.

In considering whether to grant a setback reduction, the City considers whether a project meets some or all of the following conditions. In the following list, text in italics indicates the conditions, and non-italicized text indicates how the Flea Market project meets these conditions:

- *There is no reasonable alternative for the proposed riparian project that avoids or reduces the encroachment into the setback area* – this would be determined by the City based on the overall project design and project objectives. For example, the City would consider whether relocation of the arterial road and recreation area further from the edge of the riparian corridor is feasible while maintaining appropriate circulation, land massing/land uses, and other factors affecting the feasibility of the rest of the project.

- *The reduced setback will not significantly reduce or adversely impact the riparian corridor* – Along the project's upstream segment of Coyote Creek frontage, the setback in limited areas will be reduced (relative to baseline conditions) as a result of construction of the arterial road and associated landscaping in areas that are currently unpaved (i.e., golf course/urban park). This encroachment of hardscape and landscaping may result in indirect adverse effects on a portion of the Coyote Creek corridor by removing habitat that could be used by riparian-associated species and introducing vehicular traffic closer to the riparian corridor than currently exists within that limited encroachment area. However, this encroachment by the arterial road and associated landscaping will not result in any direct loss of riparian habitat, so the riparian habitat itself will not be reduced by the proposed activities for which a setback reduction is necessary. A recreation area near the confluence of Coyote Creek and Upper Penitencia Creek will encroach a very short distance into the riparian setback, albeit in an area that is currently paved; this very limited encroachment will not reduce or results in substantial adverse effects on the riparian corridor. No buildings are proposed within the riparian setback.

  Conversely, the project will result in an improvement of habitat conditions within the setback along the remainder of the Coyote Creek and Upper Penitencia Creek segments adjacent to the project site that would more than compensate for adverse effects of the reduced setback. Under baseline conditions, asphalt extends to the edge of the riparian corridor along the entire segment of Upper Penitencia Creek, and approximately half of the segment of Coyote Creek, on the project site (Figure 3). The project proposes to remove asphalt and restore vegetation in most of the area within the riparian setback, resulting in a substantial net decrease (4.10 ac) in impervious surface and increase in vegetated area within the setback – even when accounting for the encroachment of the recreation area, arterial road, and associated landscaping. As discussed in Mitigation Measure BIO-2.2 below, native trees and shrubs will be planted within the areas where asphalt is converted to vegetated habitat. This will result in a substantial improvement in habitat conditions within the setback, and it will benefit the riparian corridor and its associated animal communities by providing additional foraging, breeding, and roosting habitat. The net result of the project, when considering both the riparian setback encroachment along portions of Coyote Creek and habitat enhancement along the remainder of the Coyote Creek and Upper Penitencia Creek segments adjacent to the project site, will be a substantial benefit to the riparian corridor.

- *The proposed uses are not fundamentally incompatible with riparian habitats* – under baseline conditions, animals using the riparian habitat adjacent to the project site make some use of the golf course/urban park land along the project's upstream segment of Coyote Creek frontage, where construction of the arterial road and associated landscaping in areas that are currently unpaved will encroach into the riparian setback. For example, some of the animal species that breed in the riparian corridor may forage in the golf course/urban park areas that will be subject to encroachment, and vice versa. However, the value to riparian plant and animal communities of the golf course/urban park area where encroachment will

occur is low due to the absence of trees, paucity of shrubs, dominance by non-native herbaceous vegetation, and intensity of disturbance by flea market visitors and homeless (see Section 4.1.4). Although replacement of portions of this golf course/urban park land by hardscape and landscaping will reduce the ability of riparian animals to use that habitat, the effect of such encroachment on any one species or community will be low. A recreation area near the confluence of Coyote Creek and Upper Penitencia Creek will encroach a very short distance into the riparian setback; however, this encroachment will occur in an area that is currently paved and that therefore provides no benefit to riparian plants and animals under baseline conditions. No buildings are proposed within the riparian setback.

In contrast, the benefits to riparian communities from the removal of asphalt and revegetation with natives throughout most of the remainder of the riparian setback will be substantial, as discussed in the previous bullet. Overall, considering both the encroachment and enhancement, proposed land uses within the setback will be more compatible with riparian habitats than baseline conditions. There would be more native-dominated habitat, with more trees and shrubs, within the riparian setbacks along Coyote and Upper Penitencia Creeks than is currently present, providing more breeding, roosting, and foraging opportunities for riparian-associated animals and possibly more opportunities for expansion of native vegetation from the riparian corridor. As a result, the proposed uses would collectively benefit the riparian corridor rather than being fundamentally incompatible with riparian habitats.

- *There is no evidence of stream bank erosion or previous attempts to stabilize the stream banks that could be negatively affected by the proposed development within the setback area* – during project surveys, we observed no evidence of substantial stream bank erosion on or immediately downstream from the project site. Encroachment into the riparian corridor is not expected to cause or exacerbate any erosion, as the encroachment along Coyote Creek would occur on a terrace well above the elevation of the creek, in an area that is currently exposed to creek flow very infrequently. Therefore, no adverse impacts of the features that would encroach within the setback area on stream bank erosion or previous attempts to stability the stream banks are anticipated.

- *The granting of the exception will not be detrimental or injurious to adjacent and/or downstream properties* – Granting a riparian setback exception will not be detrimental or injurious to adjacent and/or downstream properties. Although the project would reduce the setback along the project's upstream segment of Coyote Creek frontage, this setback reduction would not affect adjacent properties closest to the area of setback reduction along Coyote Creek (i.e., properties immediately upstream). Even when reduced, the setback on the project site would still be greater than that immediately upstream from the project site along Coyote Creek, where existing industrial land uses encroach right to the edge of the riparian corridor. Also, the riparian corridor along the on-site segment of Coyote Creek is separated from upstream properties by Mabury Road. Due to the direction of creek flow, no flow-related impacts (e.g.,

from trash, runoff, or stormwater discharge) of the project would affect properties upstream from the project site.

Granting a riparian setback exception would also not be detrimental or injurious to adjacent properties across Coyote Creek from the site. The physical separation of the setback encroachment area from those properties by the creek and its riparian corridor prevents any direct or indirect adverse effect of the riparian setback exception on properties across the creek.

Similarly, the riparian setback exception would not adversely affect downstream properties. The area in which setback encroachment will occur is separated from downstream properties by an area of extensive asphalt removal and revegetation on the project site, and by Berryessa Road. The project will implement measures, as described in Section 5.5, to avoid and minimize adverse effects on water quality. Also, construction of two bio-retention basins, which would implement post-construction measures for stormwater treatment for runoff from the project area before it exits the site, would result in a beneficial impact on the riparian corridors by improving the quality of runoff entering the creeks from the project site over existing conditions.

In general, the project is anticipated to improve habitats within much of the City and VHP-required riparian setback areas, and most impacts will be mitigated to less than significant levels through the payment of VHP riparian impact fees and compliance with VHP conditions. However, the encroachment of new urban development into a currently non-hardscaped setback area will require compensatory mitigation to offset the impacts on the riparian corridor. With the incorporation of Mitigation Measures BIO-2.1 and BIO-2.2 below, the impact to riparian habitat and on riparian setbacks from both Option 1 and Option 2 will be reduced to less-than-significant levels.

Mitigation Measure BIO-2.1. Obtain a Reduction in the City's Required Setback and a Riparian Setback Exception under the VHP. Prior to issuance of a Planned Development permit for the construction of any non-exempt uses (i.e., the recreational area, the arterial roadway, and non-native landscaping) within the City's 100-foot setback and the VHP's 35-foot setback, the applicant shall request and obtain a riparian setback exception in accordance with City Council Policy 6-34 and the outlined factors of the Santa Clara Valley Habitat Plan. As part of the exception review process and prior to a determination on the setback exception request, the Director of Planning, Building and Code Enforcement or Director's designee shall provide the exception request and proposed decision to both the Implementing Entity and the Wildlife Agencies for review and comment.

Mitigation Measure BIO-2.2. Compensate for New Urban Development within Setback. To compensate for the degradation of setback functions in this area, the project shall restore native habitat at a two to one (restored area to impacted area) ratio, on an acreage basis, within other planned open space areas in the 100-foot riparian setbacks on the site (e.g., within portions of the setback where hardscape will be removed). Native trees and shrubs appropriate to the area, such as coast live oak and coyote brush, shall

be planted and maintained to provide additional wildlife habitat adjacent to the creeks on the site. A qualified restoration ecologist shall develop a Riparian Setback Enhancement and Monitoring Plan, which shall contain the following components (or as otherwise modified by regulatory agency permitting conditions):

1. Goal of the restoration to achieve no net loss of habitat functions and values.

2. Restoration design:
    - Planting plan
    - Soil amendments and other site preparation elements as appropriate
    - Maintenance plan
    - Remedial measures/adaptive management
3. Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.). At a minimum, success criteria shall include elimination of non-native woody species from within the enhancement area and establishment of a native tree and shrub canopy providing at least 50% canopy coverage of the mitigation area within 10 years of mitigation implementation.

4. Contingency plan for mitigation elements that do not meet performance or final success criteria.

The Riparian Setback Enhancement and Monitoring Plan must be approved by the City prior to grading, demolition, tree removal, or initiation of impacts to currently undeveloped habitat within the riparian setback.

5.4.5 Impacts Caused by Non-Native and Invasive Species (Less than Significant with Mitigation)

Several non-native invasive species occur on the project site (see Section 3.1). 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 transported by personnel, vehicles, and other equipment. Activities such as trampling, equipment staging, and vegetation removal are all factors that would contribute to disturbance. Areas of disturbance could serve as the source for promoting the spread of non-native species, which could degrade the ecological values of riparian and wetland habitat and adversely affect native plants and wildlife that occur there. Invasive species can have an adverse effect on native species and habitats in several ways, including by altering nutrient cycles, fire frequency and/or intensity, and hydrologic cycles; by creating changes in sediment deposition and erosion; by dominating habitats and displacing native species; by hybridizing with native species; and by promoting non-native animal species (Bossard et al. 2000).

The project site contains invasive species, such as giant reed and Algerian ivy, both of which have an impact rating of "high" (Cal-IPC 2020), with the potential to spread in the sensitive riparian corridors. Ground disturbing activities within existing weed stands during proposed project construction could result in the unintentional spread of these weed species into additional areas of the riparian corridors. In addition, proposed project construction activities (both Option 1 and Option 2) could potentially introduce new weeds that could spread to the sensitive riparian corridor. Introduction or spread of invasive weeds would be a significant impact (Significance Criteria E and F) due to potential adverse effects on native species.

Implementation of Mitigation Measure BIO-3 would reduce potential weed-related impacts on sensitive habitats and the species they support to a less-than-significant level for both Option 1 and Option 2.

Mitigation Measure BIO-3. Prevent Spread of Weeds and Invasive Species. The project proponent shall employ the following best management practices for weed control to avoid and minimize the spread of invasive plant species.

- Prior to grading or soil disturbance, infestations of Algerian ivy and giant reed within areas of direct permanent or temporary disturbance will be removed and all vegetative material will be incinerated off-site or disposed of in a high-temperature composting facility that can compost using methods known to kill weed seeds, taking care to prevent any seed dispersal during the process by bagging material or covering trucks transporting such material from the site.
- All ground disturbing equipment used adjacent to the riparian corridors will be washed (including weeks, tracks, and undercarriages) at a legally operating equipment yard both before and after being used at the site.
- All applicable construction materials used on site, such as straw wattles, mulch, and fill material, will be certified weed free.
- The project will follow a Stormwater Pollution Prevention Plan as per 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).
- All disturbed soils will be stabilized and planted with a native seed mix from a local source following construction.
- If excavating, soil and vegetation removed from weed-infested areas will not be used in general soil stockpiles and will not be redistributed as topsoil cover for the newly filled areas. All weed-infested soil will be disposed of off-site at a landfill or buried at least 2.5 ft below final grade.

5.5 Impacts on Jurisdictional Waters: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh,

vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (Less than Significant with Mitigation)

Project construction activities may result in permanent impacts on jurisdictional waters of the U.S./state if modification or reconstruction of outfalls to Coyote Creek and/or Upper Penitencia Creek necessitates placement of concrete, rock, or other hardened structures within jurisdictional habitats. Modification or construction of outfalls could potentially result in the permanent loss of up to approximately 0.01 ac of jurisdictional aquatic habitat.

Additionally, the project would result in temporary disturbance of the aquatic community in Coyote Creek (e.g., during outfall work) and in Upper Penitencia Creek during removal of existing bridges and associated dewatering. Proposed in-channel activities would result in the direct modification of aquatic communities on the project site, as well as potential indirect impacts on downstream aquatic communities due to mobilization of sediment. In addition, riparian habitat, which is considered waters of the State, may be impacted by vegetation removal, placement of abutments, and/or bridge deck construction over the creek (as described in Section 5.4.1 above). Thus, the perennial streams may also be indirectly affected by tree and plant removal at the site, as well as other soil disturbances that would increase the potential for soil erosion, thereby negatively influencing aquatic habitats and water quality. Contamination of these habitats with pollutants and sediment can adversely affect ecosystem health and reduce habitat quality for plant and animal species. As a result, direct and indirect project impacts on the perennial streams and direct impacts on willow riparian forest and scrub would constitute a substantial adverse effect, in the absence of compliance with VHP conditions, and with any necessary federal and state permit requirements, as discussed below. Impacts under the alternative project would not differ from those described above for the proposed project.

Construction projects in California causing land disturbances that are equal to 1.0 ac or greater must comply with State requirements to control the discharge of stormwater pollutants under NPDES/Construction General Permit. 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 BMPs to protect water quality until the site is stabilized. Standard permit conditions under the NPDES/Construction General Permit require 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, in many Bay Area counties, including Santa Clara County, projects must also comply with the RWQCB, San Francisco Bay Region, Municipal Regional Stormwater NPDES Permit (Water Board Order No. R2-2009-0074). This permit requires that all projects implement BMPs and incorporate Low Impact Development practices into the design that prevents stormwater 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. Compliance with both of these permits would prevent water quality impacts due to project implementation.

In addition, the project would comply with the requirements of VHP Conditions 3 and 4 as conditions of approval. As described above, 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 water and to reduce runoff of pollutants to protect water quality, including during project construction. Condition 4 requires in-stream projects (including bridge construction and outfall modification/reconstruction) to be designed to minimize adverse impacts on stream morphology, aquatic and riparian habitat, and flow conditions by implementing construction and avoidance measures. Compliance with VHP Conditions 3 and 4; requirements to control the discharge of stormwater pollutants during and following construction under the NPDES Construction General Permit and Municipal Regional Stormwater NPDES Permit; and the RWQCB required Storm Water Pollution Prevention Plan (SWPPP) would reduce the project's potential impact on water quality to a less-than-significant level.

The project proponent would compensate for permanent and temporary impacts on jurisdictional waters and riparian habitat through the payment of VHP stream and willow riparian forest and scrub impact fees, which are intended to fund the restoration, creation, or protection and enhancement of these habitats within the VHP preserve system. The project proponent would also need to comply with the conditions of any permits from the USACE, RWQCB, and/or CDFW necessary to impact stream and riparian habitats along Upper Penitencia Creek and Coyote Creek. Compliance with relevant VHP conditions and payment of VHP fees would minimize and compensate for impacts on jurisdictional waters (i.e., Upper Penitencia Creek and Coyote Creek), and Mitigation Measure BIO-1.2 would be implemented to avoid and minimize impacts from outfall modification/reconstruction to the extent feasible, collectively reducing impacts on these waters to less-than-significant levels for both Option 1 and Option 2.

5.6 Impacts on Wildlife Movement: 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 (Less than Significant with Mitigation)

For many species, the landscape is a mosaic of suitable and unsuitable habitat types. Environmental corridors are segments of land that provide a link between these different habitats while also providing cover. Development that fragments natural habitats (i.e., breaks them into smaller, disjointed pieces) can have a twofold impact on wildlife: first, as habitat patches become smaller they are unable to support as many individuals (patch size); and second, the area between habitat patches may be unsuitable for wildlife species to traverse (connectivity).

The riparian habitats of both Coyote Creek and Upper Penitencia Creek provide important movement corridors, connecting the upper reaches of both creeks and their collective watershed to the open waters of the southern San Francisco Bay. Fish, as well as several species of reptiles, amphibians, birds, and mammals use

aquatic habitat in both creeks for dispersal, and terrestrial reptiles, birds, and mammals use upland areas along the creek banks for dispersal.

Demolition of two existing bridges and construction of two new bridges over Upper Penitencia Creek, as well as possible outfall modification/reconstruction along both creeks, may result in a temporary impact on fish and amphibian movement within the channel due to dewatering. However, the project would result in only very limited permanent loss of aquatic and riparian habitat, if any, from outfall modification/reconstruction, and thus outfall modification/reconstruction would result in only minor long-term impacts (e.g., loss of habitat for dispersing animals) to the associated riparian corridor. In addition, aquatic and terrestrial species would continue to be able to move along both creeks following project development. Further, upon its completion, the project (both Option 1 and Option 2) would improve fish passage through the project site. Currently, the upstream bridge footings encroach into the channel. This narrowing of the channel at the bridge crossing constricts the channel flow and fish passage through the site. The project would remove the existing footings and place all new bridge structures outside of the active channel facilitating fish movement through the site, a long-term beneficial impact. Mitigation Measure BIO-1.2 would be implemented to avoid and minimize impacts from outfall modification/reconstruction to the extent feasible, including avoidance of creating fish passage impediments.

Both Option 1 and Option 2 would create approximately 9.98 ac of additional open space adjacent to the existing riparian habitat of both Coyote and Upper Penitencia Creeks through removal of existing hardscape. The additional open space would benefit wildlife movement along the northern and western boundary of the project site by providing an additional vegetated buffer between the riparian corridors and areas of more intensive human use. Further, the project proponent would compensate for impacts on stream habitat and willow riparian forest and scrub habitat through the payment of VHP impact fees (see condition of approval under checklist question a), which are intended to fund the restoration, creation, or protection and enhancement of these habitat types within the VHP preserve system.

Because the reaches of Coyote Creek and Upper Penitencia Creek near the project site are lined on both sides by dense urban-suburban land uses, overland wildlife movement between the riparian corridors within the project site is limited. Further, species that move through this developed habitat are all regionally abundant, common species that are expected to continue to use the developed portions of the site for movement after project construction is complete.

Once the proposed residential and office buildings are constructed, they would increase the risk of avian mortality due to collisions, as they would occupy airspace that birds can currently use to fly through the site. Glass building facades can result in injury or mortality of birds due to birds' collisions with these surfaces. Because birds do not perceive glass as an obstruction the way humans do, they may collide with glass when the sky or vegetation is reflected in glass (e.g., they see the glass as sky or vegetated areas); when transparent windows allow birds to perceive an unobstructed flight route through the glass (such as at corners); and when the combination of transparent glass and interior vegetation (such as in planted atria) results in attempts by

birds to fly through glass to reach that vegetation. The majority of avian collisions with buildings occur within the first 60 ft of the ground (City of San Francisco 2011), where birds spend the majority of their time engaged in foraging, territorial defense, nesting, and roosting activities, and where vegetation is most likely to be reflected in glazed surfaces. However, very tall buildings (e.g., buildings 500 ft or higher) may pose a threat to birds that are migrating through the area, particularly to nocturnal migrants that may not see the buildings or that may be attracted to lights on the buildings.

Maximum heights for the new buildings under both Option 1 and Option 2 would be capped at 270 ft, which is much lower than the heights at which most bird migration occurs, but by necessity, the proposed buildings would be within the "Bird Collision Zone" (i.e., within the first 60 ft above the ground). The species that would be most affected, if building facades consist of reflective glass, include the common, urban-adapted species that currently use the developed portions of the site, as these are the species that would spend the most time in the vicinity of the new buildings. However, a wide variety of migrant birds may also be affected. Riparian habitats in California, such as the habitat along Coyote Creek and Upper Penitencia Creek, generally support exceptionally rich bird communities and contribute a disproportionately high amount to landscape-level species diversity. The presence of year-round water and abundant invertebrate fauna provide foraging opportunities, and the diverse habitat structure provides cover and nesting opportunities. Due to the higher quality of habitat along Coyote Creek and Upper Penitencia Creek compared to habitats in surrounding urban areas, songbirds that migrate along the Pacific Flyway disperse and forage along these creeks in relatively large numbers. Resident birds that are present in the vicinity year-round are similarly attracted to this riparian habitat in relatively large numbers for foraging and nesting opportunities. However, due to the absence of particularly high-quality native habitat, more sensitive or rarer bird species are not expected to nest on the project site or to occur frequently or in large numbers.

Birds using riparian habitat along the creeks, such as migrants that are initially attracted to the vicinity of the project site as a migratory stopover location due to the abundance of riparian vegetation, may then disperse outward from the creeks into vegetated areas. During such dispersal, some birds will move toward and into the developed portions of the project site (i.e., towards the buildings) to look for feeding and resting opportunities in landscape vegetation. If the newly constructed buildings have extensive glass facades, birds are likely to collide with these facades for the following reasons:

- Vegetation adjacent to buildings could reflect in the glass of the building's facades, potentially causing birds to attempt to fly in to the reflected "vegetation" and strike the glass. As a result, some birds that are attracted to the trees and other landscaping that is adjacent to the glass facades are expected to collide with the glass.
- Night lighting associated with new buildings has some potential to disorient birds, especially during inclement weather when night migrating birds descend to lower altitudes. As a result, some birds moving through the area at night may be disoriented by night lighting and potentially collide with buildings.

Thus, some of the birds using habitats on the project site are expected to strike the buildings, resulting in injury or death.

The proposed site plan (for both Option 1 and Option 2) would increase the width of the vegetated corridors along Coyote Creek and Upper Penitencia Creek in most areas. The width of these vegetated corridors would provide sufficient space for birds to use when flying along Coyote Creek and Upper Penitencia Creek, for the most part. However, one building is proposed to "stick out" from the rest of the development immediately adjacent to the confluence of the two creeks, so that birds flying along one creek and then turning to follow the other are particularly susceptible to collision with this building.

Building collisions are a leading cause of anthropogenic-related avian mortality in the United States, second only to predation by free-ranging domestic cats (Loss et al. 2014). Buildings are estimated to result in the mortality of 365 to 988 million birds per year, or 2 to 9% of all North American birds, with low-rise buildings such as the proposed project accounting for the mortality of between 62 and 664 million birds per year (Loss et al. 2014). Most birds that are vulnerable to collisions with low-rise buildings are migrants that move through during the spring and fall (Loss et al. 2014). However, certain groups of birds are also more vulnerable to collisions, including hummingbirds, swifts, waxwings, warblers, nuthatches, tits, and creepers (Loss et al. 2014), all of which occur in the moderate-quality riparian habitat on the project site either as migrants or year-round residents. Considering the moderate-quality habitat along the on-site reaches of Coyote Creek and Upper Penitencia Creek, relatively large numbers of birds compared to other areas of San Jose and surrounding areas can potentially be attracted to the site over the long term. As a result, construction of the project (both Option 1 and Option 2) could potentially result in the mortality of large numbers of birds relative to the size of regional populations, and enough individuals of common bird species could potentially strike the buildings over the long term to result in a significant impact under CEQA. Implementation of Mitigation Measure BIO-4 would incorporate bird-safe design elements into the building design, and reduce this impact to a less-than-significant level under both Option 1 and Option 2.

Mitigation Measure BIO-4. Bird Safe Design. Due to the potential for the proposed buildings to result in high numbers of bird collisions, the project shall implement the following bird-safe building design considerations, which shall be reviewed and approved for effectiveness by a qualified ornithologist:

- On the buildings that front on Coyote Creek or Upper Penitencia Creek, no more than 10% of the surface area of the exterior building facades facing either creek will have untreated glazing between the ground and 60 ft above ground. Bird-safe glazing treatments may include fritting, netting, permanent stencils, frosted glass, exterior screens, and/or physical grids placed on the exterior of glazing or ultraviolet patterns visible to birds. Vertical elements of the window patterns should be at least 0.25-inch wide at a maximum spacing of 4 inches or have horizontal elements at least ⅛-inch wide at a maximum spacing of 2 inches (Klem et al. 2009).
- All glazing panels at corners of façades facing Coyote Creek or Upper Penitencia Creek between the ground and 60 ft above ground will be 100% treated.

- For the residential building H5, located on the southwest side of the proposed arterial road, the requirements in the two previous bullets will be implemented for all facades of the building, from the ground to the top floor.
- Any free-standing glass walls, wind barriers, skywalks, balconies, greenhouses, or similar structures that are included as part of the project design and that have unbroken glazed segments 24 square ft or larger in size will be 100% treated, regardless of their location on the project site.
- Exterior lighting on the northern and western perimeters of the development footprint will be minimized to the extent feasible, except as needed for safety. All exterior lights will be directed toward facilities on the project site (e.g., rather than directed upward or outward) and shielded to ensure that light is not directed outward toward Coyote Creek or Upper Penitencia Creek.
- Exterior up-lighting will be avoided.
- Occupancy sensors or other switch control devices will be installed on interior lights of office buildings, with the exception of emergency lights or lights needed for safety purposes. These lights will be programmed to shut off during non-work hours and between 10:00 p.m. and sunrise.

5.7 Impacts due to Conflicts with Local Policies: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (Less than Significant with Mitigation)

Implementation of either Option 1 or Option 2 would remove the few ordinance-sized trees that occur in the urban-suburban land cover type. The removal of ordinance sized trees and non ordinance-size trees in the urban-suburban land covert would not have a significant impact on wildlife because they include many non-native species, and the wildlife supported by these species are not regionally limited.

Implementation of the project (both Option 1 and Option 2), specifically construction of the two new bridges, may require removal of a small number of trees in the riparian portion of the project site. These trees include native species that are more valuable to wildlife. Trees that are to remain on the site following construction could be impacted indirectly if impacts to root zones occur, potentially degrading these trees' health and eventually necessitating their removal.

Because removal of ordinance-sized trees in both urban-suburban and riparian land cover types is governed by the City of San José Municipal Code, such tree removal would be considered a significant impact under CEQA in the absence of mitigation measures.

Mitigation Measure BIO-5.1: Tree Protection Zones. Trees that are intended to remain in the project site shall be protected during project construction to the extent feasible. Protection will include the establishment of Tree Protection Zones (TPZs), which at a minimum will include the installation of a fence around the drip line of ordinance sized trees, restricted construction activity within the dripline, and the posting of appropriate signage on the fence. These measures create an area of protection around the trees and reduce the threat of damage. Trees that are subject to ground-disturbing construction activities within

any portion of their dripline will be considered lost, unless a certified arborist determines that the tree is unlikely to be severely damaged or killed by such activities.

Mitigation Measure BIO-5.2: Tree Protection Plan (TPP). All trees to be removed, avoided, or protected shall be depicted on project plans. A TPP shall be generated by a certified arborist to include all trees that are to be avoided or protected on the project site.

In addition, the project applicant would be required to implement the following standard permit condition as a condition of approval.

Standard Permit Condition: The removed trees would be replaced according to tree replacement ratios required by the City, as provided in Table 1 below. The total number and species of replacement trees to be planted would be determined in consultation with the City Arborist and the Department of Planning, Building and Code Enforcement. In the event that the project site does not have sufficient area to accommodate the required tree mitigation, one or more of the following measures will be implemented, to the satisfaction of the Director of Planning, Building and Code Enforcement, at the development permit stage:

- The size of a 15-gallon replacement tree may be increased to a 24-inch box and count as two replacement trees to be planted on the project site, at the development permit stage.
- Pay off-site tree replacement fee(s) to the City, prior to the issuance of Public Works grading permit(s), in accordance to the City Council-approved Fee Resolution. The City will use the off-site tree replacement fee(s) to plant trees at alternative sites.

Table 1. Tree Replacement Ratios

Circumference of Tree to be Removed	Type of Tree to be Removed			Minimum Size of Each Replacement Tree
	Native	Non-Native	Orchard	
38 inches or more	5:1*	4:1	3:1	15-gallon
19 to 38 inches	3:1	2:1	None	15-gallon
Less than 19 inches	1:1	1:1	None	15-gallon

* x:x = tree replacement to tree loss ratio

Notes: Trees greater than or equal to 38 inches in circumference shall not be removed unless a Tree Removal Permit, or equivalent, has been approved for the removal of such trees. For multi-family residential, commercial, and industrial properties, a Tree Removal Permit is required for removal of trees of any size.
A 38-inch tree equals 12.1 inches in diameter.
One 24-inch box tree = two 15-gallon trees.

5.8 Impact due to Conflicts with an Adopted Habitat Conservation Plan: Conflict with the provisions of an adopted habitat conservation plan,

natural community conservation plan, or other approved local, regional, or state habitat conservation plan (Less than Significant with Mitigation)

Both the applicant's proposed Option 1 and the maximum development Option 2 are considered covered projects under the VHP and are therefore required to comply with all applicable VHP conditions (see condition of approval under checklist question a). Conditions applicable to the proposed project (both Option 1 and Option 2) include Conditions 1 (avoid direct impacts to legally protected plant and wildlife species), 3 (maintain hydrologic conditions and protect water quality), 4 (design and construction requirements for in-stream projects), 11 (stream and riparian setbacks), and 12 (wetland and pond avoidance and minimization).

VHP Condition 11 requires new covered projects to adhere to setbacks from creeks and streams and associated riparian vegetation to minimize and avoid impacts on aquatic and riparian land cover types, covered species, and wildlife corridors. The standard required setback for the reach of Coyote Creek and Upper Penitencia Creek (Category 1 streams) adjacent to the project site is 100 ft from the top of bank and 35 ft from the edge of riparian vegetation, whichever is greater. The project (both Option 1 and Option 2) would result in encroachment on the standard VHP stream setback as described under Section 4.4.2 *Encroachment into the Riparian Corridor*. However, implementation of Mitigation Measures BIO-2.1 and BIO-2.2 would reduce this impact to a less than significant level. Further, the project proposes to remove asphalt and restore vegetation in most of the area within the riparian setback, resulting in a substantial net decrease (4.10 ac) in impervious surface and increase in vegetated area within the setback – even when accounting for the encroachment of the arterial road and associated landscaping. As discussed in Mitigation Measure BIO-2.2, native trees and shrubs (including oaks and other site-appropriate species that would complement the adjacent riparian habitat) will be planted within the areas where asphalt is converted to vegetated habitat. This will result in a substantial improvement in habitat conditions within the setback, and it will benefit the riparian corridor and its associated animal communities by providing additional foraging, breeding, and roosting habitat. The net result of the project, when considering both the riparian setback encroachment along portions of Coyote Creek and habitat enhancement along the remainder of the Coyote Creek and Upper Penitencia Creek segments adjacent to the project site, will be a substantial benefit to the riparian corridor. Although the areas of habitat enhancement will not become part of the VHP's Reserve System, this revegetation will contribute to a number of the VHP's goals and objectives related to habitats and communities within the Reserve System, including the following:

- Goal 3, related to enhancement or restoration of representative natural and semi-natural landscapes to maintain or increase native biological diversity.

- Objective 3.1, related to enhancement of terrestrial, aquatic, and stream habitat (including riparian habitat)

- Goal 6, related to the maintenance and enhancement of functional oak woodland communities

- Goal 8, related to improving the quality of streams and riparian communities

- Objective 8.3, related to enhancement of streams

- Goal 9, related to maintaining a functional riparian forest and scrub community

- Objective 9.1, related to protection of existing riparian habitat and maximizing the width of native vegetation

Construction disturbance and project tree removal during the avian breeding season (February 1 through August 31 inclusive, 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. Because such an impact would conflict with Condition 1 of the VHP, it would be considered a significant impact under CEQA. Mitigation Measures BIO-6.1 and BIO-6.2 would be implemented to reduce impacts due to conflicts with Condition 1 of the VHP to a less-than-significant level.

Mitigation Measure BIO-6.1. Nesting-Season 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 would be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31, inclusive.

Mitigation Measure BIO-6.2. Preconstruction/Pre-disturbance Surveys and Buffers. If it is not possible to schedule construction activities and/or tree removal between September 1 and January 31, preconstruction surveys for nesting birds will be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. These surveys will be conducted no more than seven days prior to the initiation of demolition or construction activities, including tree removal and pruning. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests. 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 ft for raptors and 100 ft 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.

Mitigation Measure BIO-6.3. Reporting. Prior to issuance of any grading or building permit, the project applicant shall submit to the Director of Planning, Building and Code Enforcement or the Director's designee, a plan prepared by a qualified biologist for completing the preconstruction surveys to meet the requirements set out above. Subsequent to the preconstruction surveys, and prior to ground disturbance, the qualified biologist or ornithologist shall submit a written report indicating the results of the survey, a map of identified active nests, and any designated buffer zones or other protective measures to the Director of Planning, Building and Code Enforcement or the Director's designee.

5.9 Cumulative Impacts

Cumulative impacts arise due to the linking of impacts from past, current, and reasonably foreseeable future projects in the region. Future development activities in the City of San Jose and development activities covered by the VHP will result in impacts on the same habitat types and species that would be affected by Option 1 and Option 2. The project, in combination with other projects in the area and other activities that impact the species that are affected by this project, could contribute to cumulative effects on special-status species. Other projects in the area include both development and maintenance projects that could adversely affect these species and restoration projects that will benefit these species.

The cumulative impact on biological resources resulting from implementation of either Option 1 or Option 2 in combination with other projects in the region would be dependent on the relative magnitude of adverse effects of these projects on biological resources compared to the relative benefit of impact avoidance and minimization efforts prescribed by planning documents, CEQA mitigation measures, and permit requirements for each project; compensatory mitigation and proactive conservation measures associated with each project; and the benefits to biological resources accruing from the VHP. In the absence of such avoidance, minimization, compensatory mitigation, and conservation measures, cumulatively significant impacts on biological resources would occur.

However, the Envision San José San Jose General Plan contains conservation measures that would benefit biological resources, as well as measures to avoid, minimize, and mitigate impacts on these resources and the VHP includes numerous conservation measures to offset adverse effects on covered activities. 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.

Further, both Option 1 and Option 2 would implement standard permit conditions, conditions of approval, and mitigation measures (as listed above) to reduce impacts on 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 proposed project (both Option 1 and Option 2) would not result in a cumulatively significant impact to biological resources.

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Appendix A. VHP Aquatic Avoidance and Minimization Measures

Table 6-2. Aquatic Avoidance and Minimization Measures

ID	Avoidance and Minimization Measure
	General
1	Minimize the potential impacts on covered species most likely to be affected by changes in hydrology and water quality.
2	Reduce stream pollution by removing pollutants from surface runoff before the polluted surface runoff reaches local streams.
3	Maintain the current hydrograph and, to the extent possible, restore the hydrograph to more closely resemble predevelopment conditions.
4	Reduce the potential for scour at stormwater outlets to streams by controlling the rate of flow into the streams.
5	Invasive plant species removed during maintenance will be handled and disposed of in such a manner as to prevent further spread of the invasive species.
6	Activities in the active (i.e., flowing) channel will be avoided. If activities must be conducted in the active channel, avoidance and minimization measures identified in this table will be applied.
7	Personnel shall prevent the accidental release of chemicals, fuels, lubricants, and non-storm drainage water into channels.
8	Spill prevention kits shall always be in close proximity when using hazardous materials (e.g., crew trucks and other logical locations).
9	Personnel shall implement measures to ensure that hazardous materials are properly handled and the quality of water resources is protected by all reasonable means when removing sediments from the streams.
10	If ground disturbing activities are planned for a stream channel that is known or suspected to contain elevated levels of mercury, the following steps should be taken. 1. Avoid disturbing soils in streams known or suspected to contain high levels of mercury. 2. Soils that are likely to be disturbed or excavated shall be tested for mercury. Soils shall be remediated if: a. disturbed or excavated soils exposed to flood flows below the 2.33-year channel flow level exceed 1 ppm Hg, or b. disturbed or excavated soils above the 2.33-year flow level exceed 20 ppm Hg.
11	Vehicles shall be washed only at approved areas. No washing of vehicles shall occur at job sites.
12	No equipment servicing shall be done in the stream channel or immediate flood plain, unless equipment stationed in these locations cannot be readily relocated (i.e., pumps, generators).
13	Personnel shall use the appropriate equipment for the job that minimizes disturbance to the stream bottom. Appropriately-tired vehicles, either tracked or wheeled, shall be used depending on the situation
14	If high levels of groundwater in a work area are encountered, the water is pumped out of the work site. If necessary to protect water quality, the water shall be directed into specifically constructed infiltration basins, into holding ponds, or onto areas with vegetation to remove sediment prior to the water re-entering a creek.

Table 6-2. Continued

ID	Avoidance and Minimization Measure
15	If native fish or non-covered, native aquatic vertebrates are present when cofferdams, water bypass structures, and silt barriers are to be installed, a native fish and aquatic vertebrate relocation plan shall be implemented when ecologically appropriate as determined by a qualified biologist to ensure that significant numbers of native fish and aquatic vertebrates are not stranded. Prior to the start of work or during the installation of water diversion structures, native aquatic vertebrates shall be captured in the work area and transferred to another reach as determined by a qualified biologist. Timing of work in streams that supports a significant number of amphibians will be delayed until metamorphosis occurs to minimize impacts to the resource. Capture and relocation of aquatic native vertebrates is not required at individual project sites when site conditions preclude reasonably effective operation of capture gear and equipment, or when the safety of biologist conducting the capture may be compromised. Relocation of native fish or aquatic vertebrates may not always be ecologically appropriate. Prior to capturing native fish and/or vertebrates, the qualified biologist will use a number of factors, including site conditions, system carrying capacity for potential relocated fish, and flow regimes (e.g., if flows are managed) to determine whether a relocation effort is ecologically appropriate. If so, the following factors will be considered when selecting release site(s): 1. similar water temperature as capture location; 2. ample habitat availability prior to release of captured individuals; 3. presence of other same species so that relocation of new individuals will not upset the existing prey/predation function; 4. carrying capacity of the relocation location; 5. potential for relocated individual to transport disease; and 6. low likelihood of fish reentering work site or becoming impinged on exclusion net or screen. Proposals to translocate any covered species will be reviewed and approved by the Wildlife Agencies.
16	When work in a flowing stream is unavoidable, the entire streamflow shall be diverted around the work area by a barrier, except where it has been determined by a qualified biologist that the least environmentally disruptive approach is to work in a flowing stream. Where feasible, water diversion techniques shall allow stream flows to gravity flow around or through the work site.
17	Coffer dams shall be installed both upstream and downstream not more than 100 feet from the extent of the work areas. Coffer dam construction shall be adequate to prevent seepage into or from the work area. Stream flow will be pumped around the work site using pumps and screened intake hoses. All water shall be discharged in a non-erosive manner (e.g., gravel or vegetated bars, on hay bales, on plastic, on concrete, or in storm drains when equipped with filtering devices, etc.).
18	Small in-channel berms that deflect water to one side of the channel during project implementation may be constructed of channel material in channels with low flows.
19	Sumps or basins may also be used to collect water, where appropriate (e.g., in channels with low flows).
20	Diversions shall maintain ambient stream flows below the diversion, and waters discharged below the project site shall not be diminished or degraded by the diversion. All materials placed in the channel to dewater the channel shall be removed when the work is completed. Normal flows shall be restored to the affected stream as soon as is feasible and safe after completion of work at that location.
21	To the extent that stream bed design changes are not part of the project, the stream bed will be returned to as close to pre-project condition as appropriate.
22	To the extent feasible, all temporary diversion structures and the supportive material shall be removed no more than 48 hours after work is completed.
23	Temporary fills, such as for access ramps, diversion structures, or cofferdams, shall be completely removed upon finishing the work.
24	To prevent increases in temperature and decreases in dissolved oxygen (DO), if bypass pipes are used, they shall be properly sized (i.e., larger diameter pipes to better pass the flows). Use of bypass pipes may be avoided by creating a low-flow channel or using other methods to isolate the work area.

Table 6-2. Continued

ID	Avoidance and Minimization Measure
25	Diversions shall maintain fish passage when the project meets the following conditions: 1) the length of the area dewatered exceeds 500 feet, and/or 2) the length of time the stream is dewatered exceeds two weeks in length. Conditions for fish passage shall be met as long as the diversion 1) maintains contiguous flows through a low flow channel in the channel bed or an artificial open channel, 2) presents no vertical drops exceeding six (6) inches and follows the natural grade of the site, 3) maintains water velocities that shall not exceed eight feet per second (8 ft/sec), and 4) maintains adequate water depths consistent with normal conditions in the project reach. An artificial channel used for fish passage shall be lined with cobble/gravel. A closed conduit pipe shall not be used for fish passage. The inlets of diversions shall be checked daily to prevent accumulation of debris.
26	Any sediment removed from a project site shall be stored and transported in a manner that minimizes water quality impacts.
27	Sediment from the San Francisco Bay Watershed, including that for reuse, will not be removed to areas any farther south than Metcalf Road in south San Jose.
28	Where practical, the removed sediments and gravels will be re-used.
29	Existing native vegetation shall be retained by removing only as much vegetation as necessary to accommodate the trail clearing width. Maintenance roads should be used to avoid effects on riparian corridors.
30	Vegetation control and removal in channels, on stream banks, and along levees and maintenance roads shall be limited to removal necessary for facility inspection purposes, or to meet regulatory requirements or guidelines.
31	When conducting vegetation management, retain as much understory brush and as many trees as feasible, emphasizing shade producing and bank stabilizing vegetation. If riparian vegetation is to be removed with chainsaws, consider using saws currently available that operate with vegetable-based bar oil.
32	In-channel vegetation removal may result in increased local erosion due to increased flow velocity. To minimize the effect, the top of the bank shall be protected by leaving vegetation in place to the maximum extent possible.
33	Regional Board objectives for temperature change in receiving waters (measured 100 feet downstream of discharge point) shall not be exceeded. Receiving water and discharge water may be monitored for temperature changes after a comparison of ambient temperature to pipeline water temperature suggests the potential for change.
	Project Design
34	Use the minimum amount of impermeable surface (building footprint, paved driveway, etc.) as practicable.
35	Use pervious materials, such as gravel or turf pavers, in place of asphalt or concrete to the extent practicable.
36	Use flow control structures such as swales, retention/detention areas, and/or cisterns to maintain the existing (pre-project) peak runoff.
37	Direct downspouts to swales or gardens instead of storm drain inlets.
38	Use flow dissipaters at runoff inlets (e.g., culvert drop-inlets) to reduce the possibility of channel scour at the point of flow entry.
39	Minimize alterations to existing contours and slopes, including grading the minimum area necessary.
40	Maintain native shrubs, trees and groundcover whenever possible and revegetate disturbed areas with local native or non-invasive plants.
41	Combine flow-control with flood control and/or treatment facilities in the form of detention/retention basins, ponds, and/or constructed wetlands.
42	Use flow control structures, permeable pavement, cisterns, and other runoff management methods to ensure no change in post-construction peak runoff volume from pre-project conditions for all covered activities with more than 5,000 square feet of impervious surface.
43	Site characteristics will be evaluated in advance of project design to determine if non-traditional designs, such as bioengineered bank treatments that incorporate live vegetation, can be successfully utilized while meeting the requirements of the project.
44	Maintenance of natural stream characteristics, such as riffle-pool sequences, riparian canopy, sinuosity, floodplain, and a natural channel bed, will be incorporated into the project design.

Table 6-2. Continued

ID	Avoidance and Minimization Measure
45	Stream crossings shall incorporate a free-span bridge unless infeasible due to engineering or cost constraints or unsuitable based on minimal size of stream (swale without bed and banks or a very small channel). If a bridge design cannot free-span a stream, bridge piers and footings will be designed to have minimum impact on the stream. A hydraulics analysis must be prepared and reviewed by the jurisdictional partner, including SCVWD as appropriate, demonstrating that piers or footings will not cause significant scour or channel erosion. Whenever possible, the span of bridges will also allow for upland habitat beneath the bridge to provide undercrossing areas for wildlife species that will not enter the creek. Native plantings, natural debris, or scattered rocks will be installed under bridges to provide wildlife cover and encourage the use of crossings.
46	Whenever possible, the span of bridges will also allow for upland habitat beneath the bridge to provide undercrossing areas for wildlife species that will not enter the creek.
47	If a culvert is used, up- and downstream ends of the culvert must be appropriately designed so that the stream cannot flow beneath the culvert or create a plunge pool at the downstream end. Preference will be given to designs that allow a natural bottom (arch culvert) and/or which do not alter natural grade.
48	Trails will be sited and designed with the smallest footprint necessary to cross through the in-stream area. Trails will be aligned perpendicular to the channel and be designed to avoid any potential for future erosion. New trails that follow stream courses will be sited outside the riparian corridor.
49	The project or activity must be designed to avoid the removal of riparian vegetation, if feasible. If the removal of riparian vegetation is necessary, the amount shall be minimized to the amount necessary to accomplish the required activity and comply with public health and safety directives.
50	If levee reconstruction requires the removal of vegetation that provides habitat value to the adjacent stream (e.g., shading, bank stabilization, food sources, etc.), then the project will include replacement of the vegetation/habitat that was removed during reconstruction unless it is determined to be inappropriate to do so by the relevant resource agencies (e.g., CDFG and USFWS).
51	All projects will be conducted in conformance with applicable County and/or city drainage policies.
52	Adhere to the siting criteria described for the borrow site covered activity (see Chapter 2 for details).
53	When possible, maintain a vegetated buffer strip between staging/excavation areas and receiving waters.
54	When not within the construction footprint, deep pools within stream reaches shall be maintained as refuge for fish and wildlife by constructing temporary fencing and/or barrier so as to avoid pool destruction and prevent access from the project site.
55	For stream maintenance projects that result in alteration of the stream bed during project implementation, its low flow channel shall be returned to its approximate prior location with appropriate depth for fish passage without creating a potential future bank erosion problem.
56	Increased water velocity at bank protection sites may increase erosion downstream. Therefore, bank stabilization site design shall consider hydraulic effects immediately upstream and downstream of the work area. Bank stabilization projects will be designed and implemented to provide similar roughness and characteristics that may affect flows as the surrounding areas just upstream and downstream of the project site.
57	When parallel to a stream or riparian zone and not located on top of a levee, new trails shall be located behind the top of bank or at the outside edge of the riparian zone except where topographic, resource management, or other constraints or management objectives make this not feasible or undesirable.
58	Existing access routes and levee roads shall be used if available to minimize impacts of new construction in special status species habitats and riparian zones.
59	Trails in areas of moderate or difficult terrain and adjacent to a riparian zone shall be composed of natural materials or shall be designed (e.g., a bridge or boardwalk) to minimize disturbance and need for drainage structures, and to protect water quality.
60	Trail crossings of freshwater stream zones and drainages shall be designed to minimize disturbance, through the use of bridges or culverts, whichever is least environmentally damaging. Structures over water courses shall be carefully placed to minimize disturbance. Erosion control measures shall be taken to prevent erosion at the outfalls of drainage structures.

Table 6-2. Continued

ID	Avoidance and Minimization Measure
	Construction
61	Minimize ground disturbance to the smallest area feasible.
62	Use existing roads for access and disturbed area for staging as site constraints allow. Off-road travel will avoid sensitive communities such as wetlands and known occurrences of covered plants.
63	Prepare and implement sediment erosion control plans.
64	No winter grading unless approved by City Engineer and specific erosion control measures are incorporated.
65	Control exposed soil by stabilizing slopes (e.g., with erosion control blankets) and protecting channels (e.g., using silt fences or straw wattles).
66	Control sediment runoff using sandbag barriers or straw wattles.
67	No stockpiling or placement of erodible materials in waterways or along areas of natural stormwater flow where materials could be washed into waterways.
68	Stabilize stockpiled soil with geotextile or plastic covers.
69	Maintain construction activities within a defined project area to reduce the amount of disturbed area.
70	Only clear/prepare land which will be actively under construction in the near term.
71	Preserve existing vegetation to the extent possible.
72	Equipment storage, fueling and staging areas will be sited on disturbed areas or non-sensitive habitat outside of a stream channel.
73	Avoid wet season construction.
74	Stabilize site ingress/egress locations.
75	Dispose of all construction waste in designated areas and prevent stormwater from flowing onto or off of these areas.
76	Prevent spills and clean up spilled materials.
77	Sweep nearby streets at least once a day.
78	In-stream projects occurring while the stream is flowing must use appropriate measures to protect water quality, native fish and covered wildlife species at the project site and downstream of the project site.
79	If mercury contamination may be present, the channel must be dewatered prior to commencement of the activity.
80	All personnel working within or adjacent to the stream setback (i.e., those people operating ground-disturbing equipment) will be trained by a qualified biologist in these avoidance and minimization measures and the permit obligations of project proponents working under this Plan.
81	Temporary disturbance or removal of aquatic and riparian vegetation will not exceed the minimum necessary to complete the work.
82	Channel bed temporarily disturbed during construction activities will be returned to pre-project or ecologically improved conditions at the end of construction.
83	Sediments will be stored and transported in a manner that minimizes water quality impacts. If soil is stockpiled, no runoff will be allowed to flow back to the channel.
84	Appropriate erosion control measures (e.g., fiber rolls, filter fences, vegetative buffer strips) will be used on site to reduce siltation and runoff of contaminants into wetlands, ponds, streams, or riparian vegetation. Fiber rolls used for erosion control will be certified as free of noxious weed seed. Filter fences and mesh will be of material that will not entrap reptiles and amphibians. Erosion control measures will be placed between the outer edge of the buffer and the project site.
85	Seed mixtures applied for erosion control will not contain invasive nonnative species and will be composed of native species or sterile nonnative species. If sterile nonnative species are used for temporary erosion control, native seed mixtures must be used in subsequent treatments to provide long-term erosion control and slow colonization by invasive nonnatives.
86	Topsoil removed during soil excavation will be preserved and used as topsoil during revegetation when it is necessary to conserve the natural seed bank and aid in revegetation of the site.
87	Vehicles operated within and adjacent to streams will be checked and maintained daily to prevent leaks of materials that, if introduced to the water, could be deleterious to aquatic life.

Table 6-2. Continued

ID	Avoidance and Minimization Measure
88	Vehicles and equipment will be parked on pavement, existing roads, and previously disturbed areas.
89	The potential for traffic impacts on terrestrial animal species will be minimized by adopting traffic speed limits.
90	All trash will be removed from the site daily to avoid attracting potential predators to the site. Personnel will clean the work site before leaving each day by removing all litter and construction-related materials.
91	To prevent the spread of exotic species and reduce the loss of native species, aquatic species will be netted at the drain outlet when draining reservoirs or ponds to surface waters. Captured native fish, native amphibians, and western pond turtles will be relocated if ecologically appropriate. Exotic species will be dispatched.
92	To minimize the spread of pathogens all staff working in aquatic systems (i.e., streams, ponds, and wetlands)—including site monitors, construction crews, and surveyors—will adhere to the most current guidance for equipment decontamination provided by the Wildlife Agencies at the time of activity implementation. Guidance may require that all materials that come in contact with water or potentially contaminated sediments, including boot and tire treads, be cleaned of all organic matter and scrubbed with an appropriate cleansing solution, and that disposable gloves be worn and changed between handling equipment or animals. Care should be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat.
93	When accessing upland areas adjacent to riparian areas or streams, access routes on slopes of greater than 20% should generally be avoided. Subsequent to access, any sloped area should be examined for evidence of instability and either revegetated or filled as necessary to prevent future landslide or erosion.
94	Personnel shall use existing access ramps and roads if available. If temporary access points are necessary, they shall be constructed in a manner that minimizes impacts to streams.
95	To prevent inadvertent entrapment of animals during excavation, all excavated, steep-walled holes or trenches more than 2-feet deep will be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks.
96	Isolate the construction area from flowing water until project materials are installed and erosion protection is in place.
97	Erosion control measures shall be in place at all times during construction. Do not start construction until all temporary control devices (straw bales, silt fences, etc.) are in place downstream of project site.
98	When needed, utilize in-stream grade control structures to control channel scour, sediment routing, and headwall cutting.
	Post-Construction
99	Conduct street cleaning on a regular basis
100	Potential contaminating materials must be stored in covered storage areas or secondary containment that is impervious to leaks and spills
101	Runoff pathways shall be free of trash containers or trash storage areas. Trash storage areas shall be screened or walled
102	Immediately after project completion and before close of seasonal work window, stabilize all exposed soil with mulch, seeding, and/or placement of erosion control blankets .
103	All disturbed soils will be revegetated with native plants and/or grasses or sterile nonnative species suitable for the altered soil conditions upon completion of construction. Local watershed native plants will be used if available. If sterile nonnative species are used for temporary erosion control, native seed mixtures must be used in subsequent treatments to provide long-term erosion control and slow colonization by invasive nonnatives. All disturbed areas that have been compacted shall be de-compacted prior to planting or seeding. Cut-and-fill slopes will be planted with local native or non-invasive plants suitable for the altered soil conditions.
104	Measures will be utilized on site to prevent erosion along streams (e.g., from road cuts or other grading), including in streams that cross or are adjacent to the project proponent's property. Erosion control measures will utilize natural methods such as erosion control mats or fabric, contour wattling, brush mattresses, or brush layers. For more approaches and detail, please see the *Bank Protection/ Erosion Repair Design Guide* in the Santa Clara Valley Water Resources Protection Collaborative's *User Manual: Guidelines & Standards for Land Use Near Streams* (Santa Clara Valley Water Resources Protection Collaborative 2006).

Table 6-2. Continued

ID	Avoidance and Minimization Measure
105	Vegetation and debris must be managed in and near culverts and under and near bridges to ensure that entryways remain open and visible to wildlife and that passage through the culvert or bridge remains clear.
106	Prior to undertaking stream maintenance activities, reach conditions will be assessed to identify tasks that are necessary to maintain the channel for the purpose for which it was designed and/or intended (e.g., flood control, groundwater recharge). Only in-stream work that is necessary to maintain the channel will be conducted.
107	On streams managed for flood control purposes, when stream reaches require extensive vegetation thinning or removal (e.g., when the channel has been fully occluded by willows or other vegetation), removal will be phased so that some riparian land cover remains and provides some habitat value. In addition, vegetation removal will be targeted and focused on removing the least amount of riparian vegetation as possible while still meeting the desired flood control needs. For example, vegetation removal should be focused on shrubby undergrowth at the toe-of-slope that is most likely to increase roughness and create a flooding hazard. Vegetation on the upper banks, particularly mature tree canopy, should be maintained to the extent possible to provide habitat for birds and small mammals and shading for the active channel.
108	When reaches require sediment removal, approaches will be considered that may reduce the impacts of the activity. Examples of potential approaches include phasing of removal activities or only removing sediment along one half of the channel bed, allowing the other half to remain relatively undisturbed.
109	In streams not managed for flood control purposes, woody material (including live leaning trees, dead trees, tree trunks, large limbs, and stumps) will be retained unless it is threatening a structure, impedes reasonable access, or is causing bank failure and sediment loading to the stream.
110	If debris blockages threaten bank stability and may increase sedimentation of downstream reaches, debris will be removed. When clearing natural debris blockages (e.g., branches, fallen trees, soil from landslides) from the channel, only remove the minimum amount of debris necessary to maintain flow conveyance (i.e., prevent significant backwatering or pooling). Non-natural debris (e.g., trash, shopping carts, etc.) will be fully removed from the channel.
111	If bank failure occurs due to debris blockages, bank repairs will only use compacted soil, and will be re-seeded with native grasses or sterile nonnative hybrids and stabilized with natural erosion control fabric. If sterile nonnative species are used for temporary erosion control, native seed mixtures must be used in subsequent treatments to provide long-term erosion control and slow colonization by invasive nonnatives. If compacted soil is not sufficient to stabilize the slope, bioengineering techniques must be used. No hardscape (e.g., concrete or any sort of bare riprap) or rock gabions may be utilized in streams not managed for flood control except in cases where infrastructure or human safety is threatened (e.g., undercutting of existing roads). Rock riprap may only be used to stabilize channels experiencing extreme erosion, and boulders must be backfilled with soil and planted with willows or other native riparian species suitable for planning in such a manner. If available, local native species will be utilized as appropriate.
112	Pumps and generators shall be maintained and operated in a manner that minimizes impacts to water quality and aquatic species.
113	The channel bottom shall be re-graded at the end of the work project to as close to original conditions as possible.
114	Erosion control methods shall be used as appropriate during all phases of routine maintenance projects to control sediment and minimize water quality impacts.
115	All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods will be thoroughly inspected for wildlife by properly trained construction personnel before the pipe is subsequently buried, capped, or otherwise used or moved in anyway.