APPENDIX A

Biological Resources Report



Regnart Creek Trail Project Biological Resources Report

Project #4268-01

Prepared for:

Demetri Loukas David J. Powers and Associates 1871 The Alameda, Suite 200 San Jose, CA 95126

Prepared by:

H. T. Harvey & Associates

January 27, 2020











Table of Contents

Section 1. Introduction 1.1 Project Description	3 3
Section 2. Methods 2.1 Background Review 2.2 Site Visit	8 8 8
Section 3. Environmental Setting	9 9 9 0 1 2 2
 Section 4. Special-Status Species and Sensitive Habitats	4 7 9 0
Section 5. Impacts and Mitigation Measures	1222241334557
5.7 Cumulative Impacts	7 8

Figures

Figure 1.	Vicinity Map	4
Figure 2.	Project Site	5
Figure 3.	Biotic Habitats and Impacts Map	6
Figure 4.	CNDDB-Mapped Records of Special-Status Plant Species	15
Figure 5.	CNDDB-Mapped Records of Special-Status Animal Species	16
Figure 6.	Ramp Relocation Impacts	28

Tables

Table 1.	Jurisdictional Area in the Pre- and Post-Construction Conditions ¹	27
Table 2.	Area of Concrete and Native Soil in Jurisdictional Areas in the Pre- and Post-Construction	
	Condition ¹	27
Table 3.	Native Grass and Forb Mix to be used in Revegetation of Disturbed Soils1	30

This report describes the biological resources present in and adjacent to the proposed Regnart Creek Trail Project (Project), as well as the potential impacts of the proposed Project and measures necessary to reduce impacts to less-than-significant levels under the California Environmental Quality Act (CEQA). This report was prepared to facilitate CEQA review of the Project by David J. Powers & Associates and the City of Cupertino.

1.1 Project Description

The proposed Project will construct a shared-use trail along Regnart Creek between Torre Avenue and East Estates Drive in Cupertino, Santa Clara County, California (Figure 1). The purpose of the Project is to construct a paved bicycle and pedestrian trail that connects the Cupertino Library, Civic Center, and City Hall to the west with Wilson Park and Creekside Park to the east. The Project site includes the limits of the Project footprint as well as all potential access and staging areas within adjacent public parks and roadways (Figure 2).

For most of its length, the trail will be constructed on the existing Santa Clara Valley Water District (Valley Water) maintenance road located along Regnart Creek. The proposed trail widths were determined based upon available space and Valley Water creek maintenance needs. The Project will also include curb and gutter improvements, railings, and fence replacements, as necessary, along the length of the trail. No outfalls are proposed as part of the Project and no trees will be removed within the creek corridor.

The Project will also construct pedestrian and road improvements in the vicinity of the trail. Raised, signalized pedestrian crossings will be constructed at South Blaney Avenue and East Estates Drive. The Project includes Americans with Disabilities Act ramp and curb improvements at the South Blaney Avenue/La Mar Drive, East Estates Avenue/Vicksburg Drive, and East Estates Avenue/La Mar Drive intersections.

Between Torre Avenue and Regnart Creek, the existing sidewalk along the north side of Pacifica Drive would be widened and trailheads would be installed at Torre Avenue/Pacifica Drive and Regnart Creek/Pacifica Drive. (Figure 3). No trees will be removed at Cupertino Library Park to accommodate the widened sidewalk.

The proposed north-south trail reach between Pacifica Drive and Rodrigues Avenue will be 10 feet wide and located to the west of the Regnart Creek bank along an existing Valley Water dirt-surfaced maintenance road (Figure 3). Railings will be constructed along the east side of the trail, adjacent to Regnart Creek. Trailheads will connect to Cupertino City Hall and Rodrigues Avenue.



\Projects4200\4268-01\Reports\BRR\Fig 1 Vicinity Map.mxd

Ĩ

H. T. HARVEY & ASSOCIATES

Ecological Consultants

Figure 1. Project Vicinity Map Regnart Creek Trail Project Biological Resources Report (4268-01) January 2020



 \sim

Figure 2. Project Site Regnart Creek Trail Project Biological Resources Report (4268-01) January 2020





Ecological Consultants





Figure 3. Biotic Habitats and Impacts Map Regnart Creek Trail Project Biological Resources Report (4268-01) January 2020 From Rodrigues Avenue to South Blaney Avenue, a trail will be constructed along the north side of Regnart Creek (Figure 3). Railings will be constructed along the south side of the trail, adjacent to Regnart Creek. Trail widths will range from 8 to 10 feet. The trail will utilize the existing De Palma Lane and Valley Water gravelsurfaced maintenance road. Trailheads will be constructed on the east and west sides of South Blaney Avenue. The Project includes a raised pedestrian crossing across South Blaney Avenue, with a ramped speed table, crosswalk markings, and rectangular rapid flash beacon signals.

Between South Blaney Avenue and East Estates Drive, an 8-to-12-foot-wide trail will be constructed along the existing Valley Water maintenance road south of Regnart Creek (Figure 3). Railings will be constructed along the north side of the trail, adjacent to Regnart Creek. The Project will include a raised pedestrian crossing across East Estates Drive, with a ramped speed table, crosswalk markings, and rectangular rapid flash beacon signals. One removable truss bridge will be constructed across Regnart Creek to provide access to Wilson Park (Figure 3). While the exact location of the bridge has not been determined, it is likely to be in the location of the existing Valley Water concrete vehicle ramp. The Project will include a trailhead in Wilson Park.

The new pedestrian bridge will be a single-span structure supported on concrete abutments to be located at the top of the creek banks. No impacts within the bed and banks of Regnart Creek will occur as part of the bridge installation, and no trees within the creek corridor will be removed. The bridge will have timber decks and safety rails. A crane will lift the bridge structure onto the abutments from a location at the top of the creek bank. After construction, the bridge may be temporarily removed, as required, to provide creek access for Valley Water.

The existing Valley Water concrete vehicle ramp on the south side of Regnart Creek between South Blaney Avenue and East Estates Drive would be relocated to the north side of the creek and further west, and would have vehicle access for Valley Water maintenance vehicles from the terminus of Parkside Lane just west of Wilson Park. As part of the grading for the ramp relocation, the northern bank will be laid back. A land swap area would be designated between the Parkside Drive terminus and the new ramp location to provide a staging area for construction equipment. The slope where the relocated ramp existed on the south side of the creek would be reconstructed and the trail would continue past the prior ramp site to its intersection with East Estates Drive to the east. Construction work on the existing and proposed ramps would occur in summer months when the channel bed of Regnart Creek is dry.

2.1 Background Review

Prior to conducting fieldwork, H. T. Harvey & Associates ecologists reviewed the Project plans and description provided by David J. Powers & Associates on November 12, 2018, aerial images (Google Inc. 2019), a U.S. Geological Survey topographic map, the California Department of Fish and Wildlife's (CDFW's) California Natural Diversity Database (CNDDB) (2019), and other relevant scientific literature and technical databases that might provide information on biological resources present in the Project vicinity. In addition, for plants we reviewed all species on the current California Native Plant Society (CNPS) California Rare Plant Rank (CRPR) 1A, 1B, 2A, and 2B lists occurring in the Cupertino, California 7.5-minute U.S. Geological Survey quadrangle in which the Project is located, as well as the surrounding eight quadrangles (Mindego Hill, Palo Alto, Mountain View, Milpitas, San Jose West, Los Gatos, Castle Rock Ridge, and Big Basin). Quadrangle-level results are not maintained for CRPR 3 and 4 species, so we also conducted a search of CNPS Inventory records for these species occurring in Santa Clara County (CNPS 2019). In addition, we queried the CNDDB for natural communities of special concern that occur in the Project vicinity. For the purposes of this report, the "Project vicinity" encompasses a 5-mile radius surrounding the Project site.

2.2 Site Visit

H. T. Harvey & Associates plant ecologist Mark Bibbo, M.S., and wildlife ecologist Emily Malkauskas, B.S., conducted a reconnaissance-level field survey of the Project site on January 8, 2019. The purpose of this survey was to provide a project-specific impact assessment for the proposed Project as described above. Specifically, the survey was conducted to (1) assess existing biotic habitats and general plant and wildlife communities on the Project site, (2) assess the potential for the Project to impact special-status species and/or their habitats, and (3) identify potential jurisdictional habitats, such as waters of the U.S./state and riparian habitat. In addition, Ms. Malkauskas conducted a focused survey for evidence of previous raptor nesting activity (i.e., large stick nests); nests of the San Francisco dusky-footed woodrat (*Neotoma fuscipes annectens*), a California species of special concern; and potential bat roosting habitat. On November 26, 2019, Mr. Bibbo conducted a field survey of the stretch of Regnart Creek between South Blaney Avenue and East Estates Drive where the existing and proposed Valley Water access ramps are located. The purpose of this site visit was to delineate the jurisdictional boundaries of the Regnart Creek channel and its banks, and to survey the area for potential jurisdictional wetlands.

3.1 General Project Area Description

The 15.20-acre Project site includes the limits of the proposed trail footprint, pedestrian bridge, and access ramp relocation, as well as all potential access and staging areas within adjacent public parks and roadways (Figure 2). A review of limited historical aerial photographs indicates that land use on the Project site since 1991 has been similar to current conditions (i.e., residential neighborhoods and developed roadways, public parks, an intermittent creek and associated riparian habitat). The Project site is currently surrounded by residential land uses, private development, the Cupertino City Hall and Library, as well as various public parks. For most of its length, the proposed trail runs parallel to Regnart Creek, a modified earthen and partially concrete-lined channel managed and maintained by Valley Water. Currently fencing separates a majority of this stretch of the channel from surrounding land uses. Regnart Creek drains into Calabazas Creek approximately 320 feet east of the Project site. From this confluence, Calabazas Creek (an intermittent drainage) flows to the north, emptying into the South San Francisco Bay approximately seven air miles to the north.

Elevations within the Project site range from approximately 205 to 235 feet above sea level (Google Inc. 2019). The site is underlain by three soil types: Urban land-Stevenscreek complex, 0–2% slopes, Urban land-Flaskan complex, 0–2% slopes, and Urban land-Botella complex, 0–2% slopes (Natural Resource Conservation Service [NRCS] 2019a). All three of these soil types are mixes of "Urban land" soils with some other soil type. Urban land soil map units consist primarily of disturbed or human-transported materials into the area. All three of these soil map units are classified as "well-drained" and none are listed as hydric in Santa Clara County on the National Hydric Soils List (NRCS 2019b).

3.2 Biotic Habitats

A reconnaissance-level biological survey identified four habitat/land use types on the Project site: coast live oak woodland (1.31 acres), riparian ruderal grassland (1.85 acres), intermittent creek (0.86 acre), and developed/landscaped (11.46 acres) (Figure 3). The individual habitat acreages add up to more than the total Project site acreage (15.20 acres) because the acreage total for coast live oak woodland includes areas where oak trees overhang the intermittent creek habitat. These habitats are described in detail below.

3.2.1 Riparian Ruderal Grassland

Vegetation. The riparian ruderal grassland habitat on the Project site is found entirely on the banks of Regnart Creek in those areas where the banks are not composed of concrete slopes or wall, or in openings of the coast live oak woodland (Photo 1). The vegetation in this habitat type is dominated by non-native annual grass species, predominantly bromes (Bromus spp.), oats (Avena spp.), and mustards (Hirschfeldia incana and Brassica nigra). Other common ruderal species include mallows (Malva spp.), Bermuda buttercup (Oxalis pes-caprae), fennel (Foeniculum vulgare), and smooth cat's ear (Hypochaeris glabra). The native forb California poppy (Eschscholzia californica) is also present. The "ruderal" qualifier is used to distinguish the degraded quality of the grassland within the Project site, due to regular disturbance from mowing, versus other California annual grasslands in Santa Clara County that support a higher diversity of native plant species. The "riparian" qualifier is used because this habitat type occurs entirely below the top of the bank of Regnart Creek. The vegetation on the



Photo 1. Riparian ruderal grassland habitat on the Project site.

banks of the creek is subject to routine maintenance by Valley Water as part of its Stream Maintenance Program (SMP).

Wildlife. Wildlife use of the riparian ruderal grassland habitat on the Project site is limited by the narrow nature of this habitat, its isolation from more extensive grasslands in the region, and interspersion of concrete and sakrete (i.e., concrete-filled sacks) lined sections of the channel banks within this habitat. As a result, wildlife species associated with more extensive areas of grasslands, such as the grasshopper sparrow (*Ammodramus savannarum*) and western meadowlark (*Sturnella neglecta*), are absent from the Project site. Common ground-nesting bird species that are associated with urbanized areas and can potentially nest in grasslands on the site, especially in areas where this vegetation is at least 6–12 inches tall or taller, include the dark-eyed junco (*Junco hyemalis*), mallard (*Anas platyrhynchos*), and song sparrow (*Melospiza melodia*). However, the majority of the bird species using the ruderal grassland habitat on the site during the breeding season nest in adjacent/overhanging coast live oak woodland or adjacent developed/landscaped areas and use the grassland habitat on the site only for foraging. Such species include the mourning dove (*Zenaida macroura*), lesser goldfinch (*Spinus psaltria*), house finch (*Haemorhous mexicanus*). Brewer's blackbird (*Euphagus cyanocephalus*), barn swallow (*Hirundo rustica*), and black phoebe (*Sayornis nigricans*). Several other species of birds, including the golden-crowned sparrow (*Zonotrichia atricapilla*) and white-crowned sparrow (*Zonotrichia leucophrys*), may forage in the ruderal grassland habitat on the site during the use of birds in the ruderal grassland habitat on the site only to the site of the species of birds including the golden-crowned sparrow (*Zonotrichia atricapilla*) and white-crowned sparrow (*Zonotrichia leucophrys*), may forage in the ruderal grassland habitat on the site during migration and winter.

Reptiles such as the western fence lizard (*Sceloporus occidentalis*) and gopher snake (*Pituophis melanoleucus*), as well as amphibians such as the Pacific treefrog (*Hyliola regilla*), may occur in this habitat. Small mammals expected to be present include the native western harvest mouse (*Reithrodontomys megalotis*) and nonnative house mouse (*Mus musculus*), Norway rat (*Rattus norvegicus*), and roof rat (*Rattus rattus*). Medium-sized mammals, such as the

native striped skunk (*Mephitis mephitis*) and raccoon (*Procyon lotor*) as well as the nonnative Virginia opossum (*Didelphis virginiana*), likely occur here as well.

3.2.2 Coast Live Oak Woodland

Vegetation. Coast live oak woodland biotic habitat occurs along the creek where individual or linear clumps of coast live oak (*Quercus agrifolia*) are rooted on the banks of Regnart Creek below the top of bank (Photo 2). Where they occur, the coast live oaks form a dense and continuous canopy. The understory vegetation consists of either the grassland habitat described above, or other understory species such as English ivy (*Hedera helix*) or passionflower vine (*Passiflora edulis*) growing as a dense ground cover. Coast live oak woodland within the Project site is considered a riparian habitat are either rooted below the



Photo 2. Coast live oak woodland habitat on the Project site.

top of the bank of Regnart Creek or just at the top of bank and have a tree canopy that overhangs the channel. Coast live oaks along the creek and at the top of the banks are regularly pruned by Valley Water crews to maintain clearance along the access road and for maintenance activities.

Wildlife. Despite the linear and fragmented nature of the coast live oak woodland habitat on the site, it supports many of common woodland-associated species that occur in the urbanized Project region. Such species include the California scrub-jay (*Aphelocoma californica*), bushtit (*Psaltriparus minimus*), oak titmouse (*Baeolophus inornatus*), chestnut-backed chickadee (*Poecile rufescens*), and white-breasted nuthatch (*Sitta carolinensis*). Deer mice (*Peromyscus maniculatus*), California mice (*Peromyscus californicus*), and eastern gray squirrels (*Sciurus carolinensis*) nest and forage in this habitat as well, and the reptiles and amphibians found in the riparian ruderal grassland habitat also forage here. A few of the mature trees within this habitat provide potential nesting sites for raptors such as the Cooper's hawk (*Accipiter cooperii*) and red-shouldered hawk (*Buteo lineatus*). However, no old, existing nests of raptors were observed on the site during the reconnaissance survey, indicating that raptors have likely not nested on the site in recent years. Small numbers of individual bats may roost in cavities or crevices in trees on the Project site, but an examination of the trees on the site did not detect any large cavities that might provide suitable habitat for a large roosting or maternity colony of bats.

3.2.3 Developed/Landscaped

Vegetation. The developed/landscaped habitat on the Project site consists of paved and hardscaped areas associated with city streets and residential lots, as well as landscaped areas consisting of commonly planted ornamental trees, shrubs, and lawns associated with the adjacent city parks and residences (Photo 3). Commonly planted ornamental trees include species such as blackwood acacia (*Acacia melanoxylon*), American sweetgum (*Liquidambar styraciflua*), deodar cedar (*Cedrus deodora*), coast redwood (*Sequoia sempervirens*), and Chinese pistache (*Pistacia chinensis*). The dirt and graveled maintenance road on the top of the levee (maintained to be free of vegetation) is contained within this land cover type.



Photo 3. Developed/landscaped habitat on the Project site.

Wildlife. The developed/landscaped habitat on the Project site is of relatively low value to wildlife, but provides nesting and foraging opportunities for some urban-adapted species of birds. Native bird species that nest and forage in these areas include the Anna's hummingbird (*Calypte anna*), house finch, black phoebe, dark-eyed junco, Bewick's wren (*Thryomanes bewickii*), and American crow (*Corvus brachyrhynchos*). The Project site provides nesting habitat for up to several pairs of each of these species along the length of the trail alignment.

No signs of the presence of roosting bats (e.g., guano, urine staining, or visual or auditory detections of bats) were observed on the existing buildings on the site. These buildings are unlikely to support roosting bats due to frequent human disturbance and a lack of crevices through which bats could potentially enter, and no suitable roosting habitat for bats (e.g., cavities, crevices or exfoliating bark) was observed in the trees in developed/landscaped areas on the site.

Common urban-adapted mammal species that may occur on the Project site include the native raccoon and nonnative house mouse, Norway rat, black rat, and eastern gray squirrel. The western fence lizard, a common native reptile, may also occur within developed/landscaped areas of the Project site.

3.2.4 Intermittent Creek

Vegetation. The channel bottom of Regnart Creek below the ordinary high water marks was mapped as intermittent creek on the biotic habitat map (Figure 3). Regnart Creek is an engineered, straightened, and trapezoidal (i.e., with steep, engineered banks) channel that is maintained to convey stormwater flows (Photo 4). The channel bottom is predominantly sand and gravel, with short sections that have a concrete bottom or vegetated bottom. Overall, although some reaches support areas meeting the technical definition of vegetated wetlands, the channel bottom is largely lacking perennial, permanent wetland vegetation. There are

discontinuous narrow patches of facultative wetland species such as dock (*Rumex pulcher* and *Rumex crispus*), Bermuda grass (*Cynodon dactylon*), and smilo grass (*Stipa miliacea*) occurring on the fringe of the channel bed (mostly at the ordinary high water mark of the channel). The channel bottom is routinely cleared of vegetation by Valley Water. In addition, the channel is scoured by high flow during storm events in the winter.

Wildlife. The disturbed nature of the creek, coupled with the intermittent and seasonal flow, on the Project site limits its value to wildlife species. When it contains water, the creek provides foraging habitat for some urban-adapted species associated with aquatic habitats, such as mallards (*Anas platyrhynchos*). In addition, small mammals such as raccoons may forage for aquatic invertebrate prey and larvae along this creek during the winter and spring, and aerial foragers such as black phoebes and barn swallows may forage for insects over the creek. Amphibians such as Pacific treefrogs may utilize the creek habitat for foraging, and several pools along the stream likely hold water into the spring and provide opportunities for breeding by this species. During the dry months, this creek



Photo 4. Intermittent creek habitat on the Project site.

provides minimal foraging opportunities for wildlife species due to its dry condition and the presence of limited vegetation in the channel.

Section 4. Special-Status Species and Sensitive Habitats

CEQA requires assessment of the effects of a project on species that are protected by state, federal, or local governments as "threatened, rare, or endangered"; such species are typically described as "special-status species". For the purpose of the environmental review of the Project, special-status species have been defined as described below.

For purposes of this analysis, "special-status" plants are considered plant species that are:

- Listed under the Federal Endangered Species Act (FESA) as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under the California Endangered Species Act (CESA) as threatened, endangered, rare, or a candidate species.
- Listed by the CNPS as CRPR 1A, 1B, 2, 3, or 4.

For purposes of this analysis, "special-status" animals are considered animal species that are:

- Listed under FESA as threatened, endangered, proposed threatened, proposed endangered, or a candidate species.
- Listed under CESA as threatened, endangered, or a candidate threatened or endangered species.
- Designated by the CDFW as a California species of special concern.
- Listed in the California Fish and Game Code as fully protected species (fully protected birds are provided in Section 3511, mammals in Section 4700, reptiles and amphibians in Section 5050, and fish in Section 5515).

Information concerning threatened, endangered, and other special-status species that potentially occur on the Project site was collected from several sources and reviewed by H. T. Harvey & Associates biologists as described in Section 2.1 above. Figure 4 depicts CNDDB records of special-status plant species in the general vicinity of the Project site and Figure 5 depicts CNDDB records of special-status animal species. These generalized maps show areas where special-status species are known to occur or have occurred historically.





H. T. HARVEY & ASSOCIATES

Ecological Consultants

Figure 4. Special-Status Plant Species Regnart Creek Trail Project Biological Resources Report (4268-01) January 2020



H. T. HARVEY & ASSOCIATES

Ecological Consultants

Figure 5. Special-Status Animal Species

Regnart Creek Trail Project Biological Resources Report (4268-01) January 2020

4.1 Special-Status Plant Species

A list of 75 special-status plants with some potential for occurrence in the Project vicinity was compiled using CNPS lists (CNPS 2019) and CNDDB records (CNDDB 2019) and reviewed for each species potential to occur on the Project site. Of these 75 species, the CNDDB includes records for seven CNPS-ranked species—western leatherwood (*Dirca occidentalis*), woodland woollythreads (*Monolopia gracilens*), Santa Clara red ribbons (*Clarkia concinna* ssp. *automixa*), Loma Prieta hoita (*Hoita strobilina*), arcuate bush mallow (*Malacothamnus arcuatus*), hairless popcorn flower (*Plagiobothrys glaber*), and Congdon's tarplant (*Centromadia partyi ssp. congdonii*)—occurring within a 5-mile radius of the Project site (Figure 4). However, based on an analysis of the documented habitat requirements and occurrence records associated with these species, all of these 75 species, including the seven species recorded within the Project vicinity, were determined to be absent from the Project site due to 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 species is presumed extirpated or is not expected to occur in the Project vicinity due to range; and/or (4) the site is too disturbed to be expected to support the species.

4.2 Special-Status Animal Species

A number of special-status animal species are known to occur in the Project vicinity (CNDDB 2019; Figure 5). However, these species are determined to be absent from the Project site because it lacks suitable habitat, is outside the known range of the species, and/or is isolated from the nearest known extant populations by development or otherwise unsuitable habitat. Animal species considered for occurrence but rejected, as well as the reasons for their rejection, include the following (among others):

- The federally threatened Central California Coast steelhead (*Oncorhynchus mykiss*), and Central Valley fallrun Chinook salmon (*Oncorhynchus tshanytscha*) are known to occur in some South Bay streams. Regnart Creek is tributary to Calabazas Creek, which connects downstream to the San Francisco Bay, and the two creeks intersect approximately 320 feet east of the Project site. However, sampling of Calabazas Creek conducted in 1981 and 1987 found no native fish, and habitat in the creek was determined to be unsuitable for steelhead due to channelization (Leidy et al. 2005). Thus, steelhead and Chinook salmon are determined to be absent from Regnart Creek within the Project site.
- The California red-legged frog (*Rana draytonii*), federally listed as threatened and a California species of concern, is known to occur along Permanente Creek and within the Gate of Heaven Cemetery approximately 3.0 miles west of the Project site (CNDDB 2019). However, the species has been extirpated from the urbanized Santa Clara Valley floor due to intensive human development, the alteration of hydrology of its aquatic habitats, and the introduction of nonnative predators such as nonnative fishes and bullfrogs (Lithobates catesbeianus) (H. T. Harvey & Associates 1997 and Valley Water 2011). Further, the Project site is isolated from occurrences of the species to the west and south by several miles of high-intensity urban development including State Route 85 and dense residential and commercial areas (Google Inc. 2019). Thus, California red-legged frogs are determined to be absent from the site.

- No burrows of California ground squirrels (*Otospermophilus beecheyi*) are present on the Project site to provide suitable nesting or roosting habitat for burrowing owls (*Athene cunicularia*), a California species of special concern. The closest occurrence of this species is a 1983 record located adjacent to Peterson High School in Sunnyvale approximately 2 miles northeast of the Project site (CNDDB 2019). However, burrowing owls no longer occur at this location, which was formerly agricultural but has been intensively developed since 1983, and there are no additional occurrences of burrowing owls in the site vicinity (CNDDB 2019, Cornell Lab of Ornithology 2019, Google Inc. 2019). The lack of suitable burrows on the Project site as well as the site's developed surroundings precludes the presence of suitable habitat for burrowing owls on or near the site, and thus no suitable nesting, roosting, or foraging habitat for burrowing owls is present on or adjacent to the Project site.
- Populations of the California tiger salamander (*Ambystoma californiense*), a state and federally threatened species, have been extirpated from the Santa Clara Valley Floor due to habitat loss, and the species is now considered absent from the majority of the Valley floor, including the Project site (H. T. Harvey & Associates 1999, 2012; Valley Water 2011). No recent records of California tiger salamanders are located in the Project vicinity (CNDDB 2019). Therefore, California tiger salamanders are determined to be absent from the Project site.
- Low-quality dispersal habitat for the western pond turtle (*Actinemys marmorata*), a California species of special concern, is present on the Project site within Regnart Creek when it contains water. No basking structures (such as logs) are present along this section of the creek, and the creek does not pond sufficient water to provide foraging habitat for this species. Pond turtles are not known to occur in Regnart Creek or in the site vicinity, and the nearest record of the species is approximately 6.0 miles southeast of the site at Vasona Reservoir. Pond turtles have been observed infrequently along Stevens Creek by City Staff (Seeds 2020). Thus, pond turtles are not expected to occur on the site due to the 6.0-mile distance separating the site from the nearest recorded occurrence of the species, 1.3-mile distance separating the site from Stevens Creek, and the intervening high-intensity development and multi-lane roadways that individuals would have to cross from these locations to access the site. However, there is a remote possibility that an individual could occasionally disperse from Stevens Creek upstream to the Project site.
- The San Francisco dusky-footed woodrat, a California species of special concern, occurs in a variety of woodland and scrub habitats throughout the South Bay and the adjacent Central Coast Range, south to the Pajaro River in Monterey County (Hall 1981, Zeiner et al. 1990b). It prefers riparian and oak woodland forests with dense understory cover, or thick chaparral habitat (Lee and Tietje 2005). Woodrats also are very adept at making use of human-made structures, and can nest in electrical boxes, pipes, wooden pallets, and even portable storage containers. Although suitable habitat for this species is present within the coast live oak woodland areas on the Project site, a focused survey of the site found that no San Francisco dusky-footed woodrat nests are currently present within the Project boundary. Therefore, this species is not expected to occur on the Project site. However, based on the presence of ostensibly suitable habitat, there is a remote possibility that woodrats may occasionally disperse to the site between the January 2019 site visit and project construction.

- Historically, the pallid bat (*Antrozous pallidus*), a California species of special concern, was likely present in a number of locations throughout the Project region, but its populations have declined in recent decades. This species has been extirpated as a breeder from urban areas on the Santa Clara Valley floor. No high-quality roosting habitat (e.g., caves, rock outcrops, vacant buildings, or hollow trees) are present on or adjacent to the Project site, and no known maternity colonies of this species are present within or adjacent to the Project site. There is a low probability that the species occurs in the site vicinity at all due to urbanization; however, individuals from more remote colonies could potentially forage on the Project site over the creek habitat on rare occasions.
- The white-tailed kite (*Elanus leucurus*), a state fully protected species, is known to nest along the periphery of the urbanized Valley floor in eastern Cupertino (e.g., at Rancho San Antonio Open Space Preserve, along Stevens Creek, and at Fremont Older Open Space Preserve). However, the Project site is separated from these areas by several miles of high-intensity urbanization, and no large, open grassland areas are present within or near the Project site to provide foraging opportunities for this species. Although potentially suitable nesting habitat for white-tailed kites is present on the Project site in the form of mature trees (e.g., oaks and redwoods), the species is not expected to nest on the site due to the lack of foraging opportunities in the vicinity. Further, no old, existing raptor nests were detected on the site during the reconnaissance survey, indicating that raptors have not nested on the site in recent years. Individual white-tailed kites may fly over the site occasionally, but are not expected to make regular use of the site for perching or foraging.
- The yellow warbler (*Setophaga petechia*), a California species of special concern, breeds in certain riparian habitats in Santa Clara County. However, breeding yellow warblers are typically associated with cottonwoods (*Populus* spp.), willows (*Salix* spp.), or western sycamore (*Platanus racemosa*), rather than with coast live oaks or any of the other vegetation present on the Project site. Yellow warblers are common migrants throughout the South Bay in spring and fall, and the species may occur on the site during migration. However, because the yellow warbler is a species of special concern only when breeding, those occurring as migrants are not considered a special-status species.

In conclusion, special-status animal species are unlikely to occur the Project site, and we do not expect any special-status animal species to be affected by the proposed Project. However, due to the remote possibility that an individual western pond turtle and/or San Francisco dusky-footed woodrats may disperse to the site prior to the start of construction, these species are addressed in Section 5 below.

4.3 Sensitive Natural Communities, Habitats, and Vegetation Alliances

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). In addition to tracking sensitive natural communities, the CDFW also ranks vegetation alliances, defined by repeating patterns of plants across a landscape that reflect climate, soil, water, disturbance, and other environmental factors (Sawyer et al. 2009). If an alliance is marked G1–G3, all of the vegetation associations within it will also be of high priority (CDFW 2019). The CDFW provides the Vegetation Classification and Mapping Program's currently accepted list of vegetation alliances and associations (CDFW 2010).

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 U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (waters of the U.S.), the Regional Water Quality Control Board (RWQCB) under Section 401 of the Clean Water Act 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.

4.3.1 Sensitive Habitats (Waters of the U.S./State and Riparian)

Waters of the U.S./State. Based on its direct hydrologic connectivity with Calabazas Creek approximately 320 feet east of the Project site boundary, the intermittent stream channel of Regnart Creek would be considered waters of the U.S./state. Additionally, the RWQCB considers riparian habitat below top of bank to be an important buffer to waters in the creek channel and can regulate impacts to these areas. Any impacts on verified waters of the U.S./state within the Project site would require a Section 404 permit from the USACE and Section 401 Water Quality Certification from the San Francisco RWQCB.

Sensitive Habitats and Alliances. No CDFW-sensitive habitats or alliances were identified within the Project site in the CNDDB Rarefind query (CNDDB 2019).

Riparian. The banks of Regnart Creek between ordinary high water marks and the top of bank, consisting of riparian ruderal grassland and coast live oak woodland habitats rooted within or at top of bank, would be considered jurisdictional riparian habitat by the CDFW. As discussed above, the RWQCB also considers these areas important buffers that are regulated. Riparian habitat extends to the outer edge of the canopy of trees rooted below top of bank of the channel. Any impacts to this habitat would require a Section 401 Water Quality Certification/Waste Discharge Requirement from RWQCB and a Lake and Streambed Alteration Agreement from CDFW.

Section 5. Impacts and Mitigation Measures

CEQA and the State CEQA Guidelines provide direction for evaluating impacts of projects on biological resources and determining which impacts will be significant. CEQA defines a "significant effect on the environment" as "a substantial adverse change in the physical conditions which exist in the area affected by the proposed project." Under State CEQA Guidelines Section 15065, a project's impacts on biological resources are deemed significant if the project would:

- "substantially reduce the habitat of a fish or wildlife species"
- "cause a fish or wildlife population to drop below self-sustaining levels"
- "threaten to eliminate a plant or animal community"
- "reduce the number or restrict the range of a rare or endangered plant or animal"

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

- A. "have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service"
- B. "have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service"
- C. "Have a substantial adverse effect on 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"

Following is a brief assessment of potential Project impacts on biological resources. The impact assessment below is structured based on the six significance criteria (A–F) listed above.

5.1 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (Less than Significant with Mitigation)

5.1.1 Impacts on Special-Status Plant Species (No Impact)

As described above, no special-status plant species are considered to have potential to occur on or adjacent to the Project site. As a result, the proposed Project will have no impact on special-status plant species.

5.1.2 Impacts on the Western Pond Turtle (Less than Significant with Mitigation)

The Project site does not provide important or extensive habitat that is used regularly or by large numbers of western pond turtles, and is not relied upon by breeding individuals of this species. Thus, the Project would not result in impacts to any habitat that is useful to western pond turtles as nesting, foraging, or dispersal habitat. However, there is at least a remote possibility that an individual could disperse to the site from more suitable habitat in Stevens Creek far downstream. In the unlikely event that a western pond turtle is present on the Project site during construction, Project activities could potentially result in the injury or mortality of the individual due to worker foot traffic, equipment use, or vehicle traffic. Petrochemicals, hydraulic fluids, and solvents that are spilled or leaked from construction vehicles or equipment may kill individuals. Additionally, increases in human presence and activity in the vicinity of suitable habitat during construction may result in an increase in native and non-native predators that would be attracted to trash left at the work site. For example, raccoons, American crows (*Corvus brachyrhynchos*), and common ravens (*Corvus corax*) are attracted to trash and may prey opportunistically on western pond turtles.

Due to the regional rarity of this species, project impacts on individual western pond turtles would be considered significant under CEQA. The implementation of Mitigation Measure 1 will reduce potential impacts on western pond turtles to less-than-significant levels.

Mitigation Measure BIO-1. Preconstruction Surveys for Western Pond Turtles. A qualified biologist will conduct a preconstruction survey of the work area for pond turtles within 48 hours prior to the start of work activities. If a western pond turtle is observed within the work area at any time before or during proposed construction activities, all activities will cease until such time that either (1) the pond turtle leaves the area or (2) the qualified biologist can capture and relocate the animal to suitable habitat away from Project activities.

5.1.3 Impacts on the San Francisco Dusky-Footed Woodrat (Less than Significant with Mitigation)

Habitat on the Project site is unsuitable for maintenance of a viable woodrat population, but there is a very remote possibility that an individual could disperse to the site from more suitable habitat elsewhere. If one or more nests of San Francisco dusky-footed woodrats becomes established on the Project site prior to the start

of construction, Project implementation could result in the injury or mortality of individual dusky-footed woodrats as a result of clearing and grading, Project vehicle traffic, equipment use, and worker foot traffic, particularly if disturbance occurs when woodrats are taking refuge in their stick nests. San Francisco dusky-footed woodrat movements within individual home ranges could be temporarily affected during work activities as a result of disturbance of habitat, and Project-related disturbances may cause woodrats to flee their nests, exposing them to a greater risk of predation. Additionally, displacement of woodrats into adjacent habitats as a result of Project-related disturbance could result in indirect impacts as a result of increased intraspecific competition (resulting from individuals in disturbed habitat moving to areas that are already occupied) and pressure on available resources. However, Project impacts are expected to result in only minimal indirect disturbance of this species, as dusky-footed woodrats are tolerant of proximate activities (especially diurnal activities) that do not directly disturb their nest structures.

Project construction could also result in the temporary disturbance of suitable breeding and foraging habitat for woodrats. However, given the extent of suitable habitat available in the Project region, disturbance to and loss of regionally common natural habitats as a result of Project implementation is considered a less-thansignificant impact on habitat for the San Francisco dusky-footed woodrat.

San Francisco dusky-footed woodrats are ecologically important because they serve as prey for a variety of predatory birds and mammals, and because their nests may provide structure and refugia for other animals. Therefore, impacts on woodrat nests would be significant. Implementation of Mitigation Measures 2, 3, and 4 below to avoid and minimize direct impacts on woodrats and their nests will reduce impacts on this species to less-than-significant levels.

Mitigation Measure BIO-2. Preconstruction Surveys for San Francisco Dusky-Footed Woodrats. A qualified wildlife ecologist will conduct a preconstruction survey for active nests of San Francisco dusky-footed woodrats within the Project work area within 30 days prior to the start of construction within non-developed habitats on the Project site. If active woodrat nests are determined to be present in, or within 10 feet of, Project impact areas, Measures BIO-3 and BIO-4 below will be implemented, as appropriate.

Mitigation Measure BIO-3. Avoidance of Active Woodrat Nests. Active woodrat nests that are detected within Project work areas will be avoided to the extent feasible. Ideally, a minimum 10-foot buffer will be maintained between Project activities and woodrat nests to avoid disturbance. In some situations, a smaller buffer may be allowed if, in the opinion of a qualified biologist, nest relocation (Measure BIO-4 below) would represent a greater disturbance to the woodrats than the adjacent work activities.

Mitigation Measure BIO-4. Woodrat Nest Relocation. If avoidance of active woodrat nests within and immediately adjacent to (within 10 feet of) the work areas is not feasible, then nest materials will be relocated to suitable habitat as close to the Project site as possible (ideally, within or immediately adjacent to the site). One or both of the following two relocation measures will be implemented, depending on whether existing woodrat nest sites are connected by suitable dispersal habitat to the nest relocation sites.

- A. If the woodrat nest site and the proposed relocation area are connected by suitable dispersal habitat for the woodrat, as determined by a qualified biologist, the following relocation methodology will be used. Prior to the start of construction activities, a qualified biologist will disturb the woodrat nest to the degree that all woodrats leave the nest and seek refuge outside of the construction area. Relocation efforts will avoid the peak nesting season (February–July) to the maximum extent feasible. Disturbance of the woodrat nest will be initiated no earlier than one hour before dusk to minimize the exposure of woodrats to diurnal predators. Subsequently, the biologist will dismantle and relocate the nest material by hand. During the deconstruction process, the biologist will attempt to assess if there are juveniles in the nest. If immobile juveniles are observed, the deconstruction process will be discontinued until a time when the biologist believes the juveniles will be capable of independent survival (typically after 2 to 3 weeks). A no-disturbance buffer will be established around the nest until the juveniles are mobile. The nest may be dismantled once the biologist has determined that adverse impacts on the juveniles would not occur.
- B. If a qualified biologist determines that the woodrat relocation area is separated from the nest site by major impediments, or a complete barrier, to woodrat movement, trapping for woodrats will be conducted prior to relocation of nest material. Prior to the start of nest relocation activities, artificial pine box shelters will be placed at each of the sites selected for relocation of nest materials. The dimensions of the artificial shelters will be approximately 8-inch long by 8-inch wide by 6-inch high. Each shelter will include two interior chambers connected by an opening. At the relocation sites, the artificial pine box shelters will provide basement structures for the relocated woodrat nest materials, allowing woodrats to enter, use, and modify the relocated nests.

A qualified biologist will set two traps around each of the woodrat nests to be relocated. Traps will be set within one hour prior to sunset, and baited with a mixture of peanut butter, oats, and apples. Traps will also be equipped with cotton bedding and covered with cardboard. The traps will be checked the following morning, within one-and-a-half hours of sunrise. If a woodrat is captured it will be placed in a quiet area while its nest material is relocated; the animal will then be released at the relocated nest. If no woodrats are captured after the first night, the biologist will set the traps for one additional evening to increase the probability of capturing an animal and ensuring a safe relocation. If no woodrats are captured at a given location after two nights, it will be assumed that the nest is not currently occupied.

Trapping will only be conducted outside the peak breeding season, which for woodrats is from February through the end of July. If a litter of young is found or suspected while dismantling a nest for relocation, the nest material will be replaced, any trapped woodrats will be returned to the nest, and the nest will be left alone for 2 to 3 weeks, after which time the nest would be rechecked to verify that the young are capable of independent survival, as determined by the biologist, before proceeding with nest dismantling.

5.2 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)

Though limited in acreage throughout the county, riparian communities serve important ecological function in the landscape given their position as a linkage between terrestrial and aquatic communities, and the various ecological functions they serve for many species providing foraging opportunities, and diverse habitat structure for cover and nesting opportunities. Statewide, riparian communities are particularly threatened by development activities given their limited distribution and sensitivity to disturbance.

The Project site contains a single waterway, Regnart Creek, which meets the physical criteria of waters of the U.S./state (i.e., jurisdictional waters). The ordinary high water mark of Regnart Creek was mapped in the field with a submeter GPS unit based on field observations and is shown on Figure 3 and Figure 6 corresponding with the boundary of the intermittent creek habitat. Due to its connectivity to Calabazas Creek, this intermittent drainage would likely be claimed as waters of the U.S. by the USACE and as waters of the state by the RWQCB. In addition, it is expected this channel would be subject to jurisdiction by CDFW under Section 1600 of the California Fish and Game Code. The top of bank of Regnart Creek corresponds to the outer edge of the riparian ruderal grassland as shown on Figure 3 or the outer edge of the coast live oak woodland where it extends beyond that edge and was mapped in the field based on the distinct break (i.e. change) in slope.

Because riparian habitats are limited in extent in the state, are considered sensitive habitats, and provide a wide range of biological functions for wildlife, such as nesting habitat for birds, and provide important water quality buffering functions, any loss in riparian habitat may be considered significant (Significance Criterion B). The Project has been designed to avoid all impacts to riparian habitats including the coast live oak habitat and riparian ruderal grassland habitat occurring on the banks of Regnart Creek to the greatest extent possible. The pedestrian bridge over Regnart Creek will be installed so that all disturbance for bridge footings is situated outside the top of bank of the creek, and no in channel access will be required to place the clear-span bridge decks on the abutments. No coast live oak trees will be removed as part of the Project implementation, and abutments would not be placed within the driplines of any riparian trees. Where the proposed trail alignment is close to the top of bank, particularly in the stretch of trail alignment east of South Blaney Avenue, the jurisdictional habitat will be shown clearly and marked for avoidance on plan sets, and temporary Environmental Sensitive Area (ESA) fencing (i.e. a temporary fencing erected during construction work activities to clearly define work area and prevent encroachment of construction vehicles or workers into environmentally sensitive areas) will be used during construction to protect adjacent bank areas that are not proposed to be disturbed as part of the project. In addition, the Project will comply with comply with state requirements to control the discharge of stormwater pollutants under the National Pollutant Discharge Elimination System (NPDES)/Construction General Permit (described in more detail in Section 5.3). The Project will implement all measures outlined in Chapter 9.18 "Stormwater Pollution Prevention and Watershed Protection" of the City of Cupertino Municipal Code, as applicable, and the most current Municipal Regional Stormwater NPDES permit. Finally, construction plans will include the City of Cupertino, Public Works Department "Construction Best Management Practices" plan sheet.

The proposed Valley Water channel maintenance access ramp components of the Project (as detailed on Figure 6) will involve reconfiguration of an existing access ramp that is currently largely situated below the top of bank and within the ordinary water mark of Regnart Creek, as well as the establishment of a new channel maintenance access ramp on the opposite (north) side of the channel and approximately 400 feet to the west. As shown on Figure 6 and in Tables 1 and 2, the replacement access ramp has been designed so that there will be no net loss of jurisdictional area (either area below top of bank and subject to jurisdiction by the RWQCB and CDFW, or area below the OHWM and subject to jurisdiction by the USACE). There will be an increase in area below OHWM, as well as an increase in riparian grassland habitat as a result of laying back the north bank, with approximately 0.014 acres of additional riparian bank habitat created between OHWM and the top of bank over the existing condition.

Table 1 lists the acreage of jurisdictional areas within the footprint of the two ramp locations in the existing conditions versus the post construction condition. Table 2 shows the amount of concrete below the OHWM or within riparian ruderal grassland habitat in the existing condition versus the amount that will be present within those jurisdiction following construction. As shown in Table 1, due to the design of the new ramp and the way the existing ramp will be reconstructed, there will be a slight increase of 0.014 acre in the area of riparian bank jurisdiction in the channel between OHWM and top of bank. There will also be a reduction in hardscape (concrete lining or ramp surface) within riparian habitats, with 149 square feet less hardscape covering riparian banks after the ramp relocation compared to the current condition (Table 2). Figure 6 shows the location and extent of the proposed and existing ramp with respect to the channel banks and intermittent creek channel bottom. The amount of concrete in the proposed access ramp configuration will not be any greater than that shown in Figure 6 and conveyed in Table 2.

Jurisdictional area	Pre-Construction (ac)	Post-Construction (ac)
USACE 404 (Below OHWM)	0.152	0.153
RWQCB 401/CDFW (Below Top of Bank)	0.312	0.326
Non-jurisdictional Area	0.466	0.451
Total	0.930	0.930

Table 1. Jurisdictional Area in the Pre- and Post-Construction Conditions¹

¹ The area evaluated in these calculations include the work area encompassing the existing and proposed ramps as shown on Figure 6.

Table 2. Area of Concrete and Native Soil in Jurisdictional Areas in the Pre- and Post-Construction Condition¹

Jurisdictional area	Pre-Construction (sq. ft.)	Post-Construction (sq. ft.)
Area of concrete within USACE jurisdiction	599	674
Area of concrete within RWQCB 401/CDFW jurisdiction	1166	1017
Area of native soil within USACE jurisdiction	312	256
Area of native soil within RWQCB 401/CDFW jurisdiction	2006	2800

¹ The area of groundcover type in these calculations only includes the work areas as shown on Figure 6.

LOCATION 1	ORDINARY HIGH WATER MARK
	TOP OF BANK
19925	19901 19885 PLAN 19967 SCALE: 1" = 20' PRE-CONSTRUCTION



TABLE 1

JURISDICTIONAL AREA	PRE-CONSTRUCTION CONDITION (AC)	POST-CONSTRUCTION CONDITION (AC)
USACE 404 (BELOW OHWM)	0.152	0.153
RWQCB 401/CDFW (BELOW TOB)	0.312	0.326
NON-JURISDICTIONAL AREA	0.466	0.451
TOTAL	0.930	0.930
NOTE: THE AREA EVALUATED IN THESE CALCULATIONS INCLUDES THE WORK AREA ENCOMPASSING THE EXISTING AND		
PROPOSED RAMPS AS SHOWN ABOVE		

TABLE 2: AREA OF CONCRETE AND NATIVE SOIL IN JURISDICTIONAL AREAS IN THE PRE- AND POST-CONSTRUCTION			
	PRE-CONSTRUCTION (SF)	POST-CONSTRUCTION (SF)	
AREA OF CONCRETE BELOW OHWM	599	674	
AREA OF CONCRETE BELOW TOB	1166	1017	
AREA OF NATIVE SOIL BELOW OHWM	312	256	
AREA OF NATIVE SOIL BELOW TOB	2006	2800	
NOTE: THE AREA OF GROUNDCOVER TYPE IN THESE CALCULATIONS ONLY INCLUDES THE WORK AREA			



ISOMETRIC VIEW SCALE: 1" = 20'





Ecological Consultants

REGNART CREEK TRAIL City of Cupertino

Figure 6. Ramp Relocation Impacts Regnart Creek Trail Project Biological Resources Report (4268-01) January 2020

1 INCH = 20 FEET

In the location of the existing access ramp, some amount of the existing concrete will be removed, the existing ramp area will be back-filled with native soil, and the bank will be re-contoured to match the existing slope upstream and downstream of the ramp. The existing concrete skirt that is present along the south edge of the channel bed and bank on either side of the existing ramp will be tied together in the same configuration. In the process of abandoning and re-contouring the existing ramp and constructing the proposed ramp on the opposite side of Regnart Creek, although ultimately the amount of jurisdictional riparian habitat will be permanently increased by 0.014 acre, there will be temporary impacts to the riparian ruderal grassland habitat from the ramp re-configuration work. With implementation of Mitigation Measures BIO-5 through BIO-9, the significance of these temporary impacts would be reduced to a less than significant level. In addition the Project will comply with all regulatory permitting requirements, which are expected to include seeking and obtaining the following permits; a Section 404 permit from the USACE, a Section 401 Water Quality Certification/Waste Discharge Requirement from RWQCB and a Lake and Streambed Alteration Agreement from CDFW.

Mitigation Measure BIO-5: Minimize the Area of Disturbance - To minimize impacts to riparian habitat, soil disturbance will be kept to the minimum footprint necessary to abandon the existing ramp and install the proposed ramp. The ramp relocation has been designed to minimize the area of disturbance to riparian ruderal grassland habitat in the existing ramp location. In addition, the proposed ramp location has been designed to have as minimal a footprint as possible. As explained above, and shown on Figure 6, the ultimate square footage of jurisdictional area following construction of the proposed ramp will be greater than the existing condition. In addition, due to the revegetation of this area with native grasses (see Mitigation Measure BIO-5 below), the ecological function of the riparian ruderal grassland habitat will be greater following completion of the project.

Mitigation Measure BIO-6: In-Channel Work Window. The proposed access ramp relocation work will occur between May 15 and October 31 when the channel bed is dry. This will prevent unintended run-off of sediment into creek waters, and will ensure that there are no adverse effects to any aquatic life that may be seasonally present in the intermittent creek. Work will not proceed if there is an out-of-season storm that deposits more than 0.5 inches of rain in 24 hours until the site has dried down again.

Mitigation Measure BIO-7: Staging and Stockpiling of Materials: To protect on-site vegetation and water quality, the staging area for the ramp relocation will be located on the access road to the north of the channel in Wilson Park, at least 100 feet outside the top of bank, in an area that currently supports either hardscape, landscaping or ruderal vegetation. Similarly, all equipment and materials (e.g., road rock and project spoil) will be contained within existing disturbed areas outside of the riparian zone in a pre-determined staging area. Erosion control measures will be installed around the staging area to prevent runoff from the staging areas to enter the Regnart Creek channel. Any landscape areas that are affected by staging shall be restored. No staging shall occur within driplines of trees to remain.

Mitigation Measure BIO-8: Bank Stabilization Design to Prevent Erosion Downstream – The ramp relocation will be fully designed to prevent bank failure. Following construction and to further prevent potential downstream erosion impacts, the site design will provide proactive protection of vulnerable areas within the

reach of the worksite. Such measures could include, but are not limited to, appropriately keyed-in coir logs, strategic placement of rock, and flow deflectors. Bank stabilization will include appropriate transition designs upstream and downstream of the work site to prevent potential erosion impacts.

Mitigation Measure BIO-9: Revegetation with Native Seed Mix – Following ramp relocation all nonhardscaped areas that have exposed soil will be stabilized to prevent erosion. These areas shall be seeded with native species seed down to the OHWM as soon as is appropriate following completion of the Project. Grassland revegetation will be most effective if the seed is applied in the fall (after September 1 and before December 1), so until that time the area will achieve erosion control via use of temporary BMPs such as jute netting or fiber rolls, etc. These BMPs must be removed prior to seeding. The seed mix will be broadcast seeded onto prepared (decompacted and scarified) soil surface and then lightly raked to maximize seed/soil contact. The seed mix should consist of the California native grasses and forbs and application rates as shown below in Table 3.

Scientific Name ¹	Common Name	Seeding Rate (pounds PLS/acre) ²
Elymus glaucus	Blue wildrye	4.0
Eschscholzia californica	California poppy	1.0
Festuca microstachys	Small fescue	6.0
Hordeum brachyantherum	Meadow barley	10.0
Lupinus bicolor	Annual lupine	1.0

Table 3. Native Grass and Forb Mix to be used in Revegetation of Disturbed Soils¹

¹Names derived from *The Jepson Manual* (Baldwin et al. 2012).

² PLS (pure live seed) = the proportion of total seed that is pure and viable. To find the total weight of raw seed needed to achieve the application rate in the table, find %PLS as follows: [(% purity of seed lot) (% germination rate of species)/100]. Then divide the application rate in the table (pounds) by the %PLS (expressed as a decimal) to find total weight of raw seed applied per acre for each species.

The City will monitor the reseeded riparian bank areas annually for two years to ensure that the percent vegetation cover reaches at least 75 percent of the cover in the adjacent undisturbed reaches, and will control any infestations of Cal-IPC rated moderate or high weeds comprising greater than 5 percent of the total cover in the recovering areas. If after two years, these success criteria have not been met, the City will implement remedial measures, such as re-seeding the area, and monitoring for another two years

With the implementation of the above avoidance and minimization measures, temporary impacts on riparian habitat from the relocation of the Valley Water channel maintenance access ramp will be less than significant.

5.3 Impacts on Wetlands: Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (Less than Significant)

As stated above Regnart Creek would be considered a waters of the U.S./state based on its intermittent flow and its direct hydrologic connectivity to Calabazas Creek. The OHWM of Regnart Creek was mapped in the field with a sub-meter Trimble unit based on observations of the following indicators of high flow; water staining on the concrete, erosional shelving, change in vegetation, and sediment deposits. The Regnart Creek channel in this stretch of the Project is a straightened, trapezoidal channel, so the OHWMs are relatively straight line features bounding an aquatic channel approximately seven feet wide. No wetlands were observed within this stretch of the channel bed. This is likely due to the straightened nature of the channel and the fact that majority of the flow in the channel consists of high velocity, scouring, flows following storm events in the winter months. The Project has been largely designed to avoid direct impacts to the bed or banks of Regnart Creek. However, in the same manner as was described above under the discussion related to riparian habitat, the relocation of the Valley Water channel maintenance access ramp will result in temporary impacts to waters of the U.S. In the location of the existing access ramp the OHWM "bends" out to include a portion of the access ramp that is at a lower elevation (see Figure 6). This area will be temporarily removed when the existing ramp is abandoned and the bank is re-configured. However, an equivalent area will be gained in the location of the proposed access ramp on the opposite side of the channel.

Wetlands and waters serve a variety of important functions, such as sediment stabilization, sediment/toxicant retention, nutrient removal/transformation, and aquatic and terrestrial wildlife species habitat. If these functions were to be impacted as a result of Project activities, this would be considered a significant impact. With implementation of Mitigation Measures BIO-5 through BIO-9 described above in Section 5.2, temporary impacts on waters of the U.S. will be less than significant.

Reductions in ambient light levels in wetland habitat can lead to a decrease in the amount of aquatic vegetation present, which results in a reduction in primary production, as well as the amount of cover and herbaceous food available in the wetland habitat. The proposed pedestrian bridge over Regnart Creek would result in a new source of shading in the form of a 12-foot wide span across the creek. Thus, the Project has the potential to affect vegetation directly under the span or within its shadow due to changes in ambient lighting (i.e., shading). However, there is presently no wetland vegetation within the intermittent channel bed of Regnart Creek underneath the proposed pedestrian bridge location. Therefore, this impact would not be considered significant.

As shown above in Figure 6 and summarized in Table 2, the project will result in an increase of 75 square feet of hardscape (i.e. concrete) within the OHWM of Regnart Creek due to the relocation and reconfiguration of the Valley Water channel maintenance access ramp. The design of the proposed access ramp on the north side of the channel matches what currently exists on the south side. On the south side in the location of the existing ramp, the banks will be re-configured so that the existing slope upstream and downstream of the ramp will

match. Due to more gradual slope on the north side of channel, with re-configuration of the bank to accommodate the new ramp, there will be a slight increase in area that will ultimately be "below OHWM"¹. Therefore there will be an increase of concrete below the OHWM in the channel under the proposed ramp configuration as compared to the existing ramp configuration. Although there is functionally an increase of hardscape within waters of the U.S., because the area of waters of U.S. is increasing, the minor increase in concrete below OHWM in this case does not represent a net loss of waters of the U.S. or waters of the state. In addition, the overall amount of hardscape within the channel below top of bank will be reduced by 74 square feet, meaning a slight increase in native soil banks above the channel. Overall, with the small increase in riparian habitat area below top of bank as discussed above, an overall net increase of jurisdictional area below the OHWMs of 0.001 acre (Table 1), and an overall decrease in hardscape within the complete creek channel, the small increase in hardscape below OHWMs is considered less than significant.

The trail creation work has the potential to cause indirect impacts on water quality within Regnart Creek based on site runoff patterns. Projects causing land disturbances that are equal to 1 acre or greater must comply with state requirements to control the discharge of stormwater pollutants under the National Pollutant Discharge Elimination System (NPDES)/Construction General Permit. Prior to the start of construction/demolition, a Notice of Intent must be filed with the RWQCB describing the Project. In complying with state requirements to control the discharge of stormwater pollutants under the NPDES/Construction General Permit, the Project will be required to develop and maintain a Storm Water Pollution Prevention Plan, which would include the use of best management practices (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 California Regional Water Quality Control Board, 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 will prevent water quality impacts and improve stormwater runoff compared to existing conditions at the Project site, and further avoid impacts on Regnart Creek and its associated riparian habitat.

¹ The boundary of the OHWM as shown in the location of the proposed ramp, represents a future event, and as such is a projection of a likely boundary based on the elevation in the channel of the OHWM immediately upstream of the proposed ramp, which was measured in the field as 207 feet elevation NAVD88.

BMPs implemented during Project implementation as part of the compliance with a Storm Water Pollution Prevention Plan will prevent any indirect impacts to water quality in Regnart Creek. Thus, the Project's impact on jurisdictional waters and/or wetlands would be considered less than significant.

5.4 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)

5.4.1 Impacts on Wildlife Movement (Less than Significant)

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, disjunct 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 grassland, oak woodland, and intermittent creek habitat along Regnart Creek serve as a movement pathway for terrestrial species, providing vegetative cover and foraging opportunities. Common, urban-adapted species such as raccoons and striped skunks may use the vegetation along Regnart Creek to move east and west through the Cupertino area. Small mammals, such as mice and shrews, will also use this vegetation to move between habitats. The removal of a portion of this habitat during bridge construction as well as ramp construction and removal will create gaps of open, developed habitat along this corridor, which any wildlife species traveling along this corridor must cross in order to traverse the Project site. However, this habitat is already patchy within the Project site (Figure 3) and the creation of new gaps in this habitat is not expected to isolate contiguous, high-quality areas of these habitats or substantially inhibit the movement of wildlife species. Rather, terrestrial species such as mammals and reptiles that move along the creek are likely to move under the bridge. Because the many terrestrial wildlife species that use this habitat are acclimated to high levels of disturbance and existing fragmented habitats in the Cupertino area, bridge construction and ramp construction and removal are not expected to result in significant impacts on the movements of individuals, and would not rise to the level of a substantial adverse effect on habitat connectivity and wildlife movement under CEQA.

Similarly, the habitats along Regnart Creek provide a movement pathway for birds through urban areas of Cupertino. However, the oak woodland habitat on the Project site is of limited extent, as previous disturbances have reduced and fragmented this habitat. Thus, the proposed bridge crossing and ramp removal and construction will affect a segment of Regnart Creek with only limited, low-quality habitat for birds due to past disturbances. Although the Project will result in some habitat loss that will affect bird use along Regnart Creek, due to the low quality of the habitat that will be affected, the lack of tree removal within the creek corridor, and because ample riparian habitat will remain elsewhere along Regnart Creek, the overall, larger reach of creek that includes the Project site will still be valuable to breeding and migratory birds following Project construction.

This impact would not rise to the level of a substantial adverse effect on habitat connectivity and wildlife movement under CEQA.

Project construction could temporarily disrupt wildlife movement pathways through the Regnart Creek corridor. Increased human activity during construction could deter terrestrial and aquatic wildlife from moving through the construction area. However, these common wildlife species would continue to use the area during the night and other non-working hours of the day when human activity is relatively low, such as early morning and evening. In addition, the areas along the Regnart Creek corridor are already frequented daily by pedestrians, cyclists, and vehicles traveling along adjacent roadways, and wildlife species occurring in the corridor are habituated to this human presence. Thus, the addition of the proposed bridge crossing and relocation of the vehicle ramp would not result in a substantial increase in interruption of use of the creek by aquatic wildlife or upland reptiles and mammals. Thus, potential impacts on wildlife movement resulting from Project construction do not meet the CEQA standard of having a substantial adverse effect, and would not be considered significant under the CEQA.

Increased human activity along trails post-construction, including pedestrians walking dogs, could affect the movements and activities of terrestrial wildlife species and birds on the site over the long-term. However, the common terrestrial wildlife and bird species that occur on site are expected to continue to use the area during the night and other hours of the day when human activity is relatively low, such as early mornings and evenings. In addition, the areas adjacent to the Regnart Creek corridor are already frequented daily by pedestrians, cyclists, and vehicles traveling along roadways, and wildlife species that currently occur along the corridor are habituated to this disturbance. Any increase in pedestrians, dogs, and bicyclists along the trail over the long term is not expected to exceed these species' tolerance for disturbance; woodland habitats with immediately adjacent trails in the larger region are regularly used by the common terrestrial wildlife species and birds that occur on the Project site. Further, the common species of birds that nest along the creek are highly tolerant of human disturbance, and are expected to habituate to any increase in disturbance due to pedestrians, dogs, and bicycles along the trail and continue to nest and forage along the creek following Project construction. Thus, potential impacts on wildlife use of the creek due to trail use following Project construction do not meet the CEQA standard of having a substantial adverse effect, and would not be considered significant under CEQA.

5.4.2 Impacts on Nesting Birds (Less than Significant)

Construction disturbance during the avian breeding season (February 1 through August 31, for most species) could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests on or near the Project site. However, the habitats on the Project site represent a very small proportion of the habitats that support these species regionally and are relatively degraded due to the intensity of surrounding human disturbance. In addition, all species of birds currently using the Project site are expected to continue to nest and forage on the site after Project construction is completed because this habitat will still be available. Therefore, Project impacts on nesting and foraging birds currently using the site, due to habitat impacts or disturbance of nesting birds, would not rise to the CEQA standard of having a *substantial* adverse effect, and these impacts would not constitute a significant impact on

these species or their habitats under CEQA. However, all native bird species are protected from direct take by federal and state statutes. Therefore, we recommend that the following measures be implemented (at the discretion of the applicant and the lead agency) to ensure that Project activities comply with the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code:

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

Measure 2. Preconstruction/Pre-disturbance Surveys. If it is not possible to schedule construction activities between September 1 and January 31 then preconstruction surveys for nesting birds should be conducted by a qualified ornithologist to ensure that no nests will be disturbed during Project implementation. We recommend that these surveys be conducted no more than seven days prior to the initiation of construction activities. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, grasslands, buildings) in and immediately adjacent to the impact areas for nests.

Measure 3. Buffers. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during Project implementation.

Measure 4. Inhibition of Nesting. If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the Project may be removed prior to the start of the nesting season (e.g., prior to February 1). This will preclude the initiation of nests in this vegetation, and prevent the potential delay of the Project due to the presence of active nests in these substrates.

5.5 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)

5.5.1 Impacts Related to Compliance with Municipal Code Chapter 25 (Less than Significant)

The City of Cupertino recognizes the substantial economic, environmental, and aesthetic importance of its tree population. The City finds that the preservation of "protected trees" on private and public property, and the

protection of all trees during construction, is necessary for the best interests of the City and of the citizens and public (Municipal Code Chapter 14.18).

The City's Municipal Code calls for protection of "protected" trees and requires a permit prior to their removal. Pursuant to Municipal Code Chapter 14.18.050, protected trees include:

- Heritage trees in all zoning districts. Heritage trees are defined by the City as any tree or grove of trees which, because of factors including, but not limited to, its historic value, unique quality, girth, height, or species, has been found by the Architectural and Site Approval Committee to have a special significance to the community;
- Specimen trees are all trees of the following species that have a minimum single-trunk diameter of 10inches (31-inches in circumference) or minimum multi-truck diameter of 20-inches (63-inches in circumference) measured at 4.5 feet from natural grade: oak (including coast live oak, valley oak, black oak, blue oak, and interior live oak), California buckeye, big leaf maple, deodar cedar, blue atlas cedar, bay laurel or California bay, and western sycamore;
- Any tree required to be planted or retained as part of an approved development application, building permit, tree removal permit, or code enforcement action in all zoning districts; and
- Approved privacy protection planting in R-1 zoning districts.

Any protected tree in any zoning district shall not be removed without first obtaining a tree removal permit (Municipal Code Chapter 14.18.030). Replacement trees, of a species and size as designated by the approval authority and consistent with the replacement value of each tree to be removed, shall be planted on the subject property on which the tree(s) are to be removed.

If a replacement tree for the removal of a protected tree cannot be reasonably planted on the subject property, an in-lieu tree replacement fee shall be paid to the City's tree fund to add or replace trees on public property in the vicinity of the subject property or add trees or landscaping on City property (Municipal Code Chapter 14.18.160).

The Project will require the removal of a single tree for construction of the trail and the access road in Wilson Park (see Figure 3). The one tree is a planted ornamental tree and is not located within the riparian corridor of Regnart Creek (i.e. not considered riparian trees), however, it would likely be considered "protected trees" under City municipal code due to its size. The removal or damage of trees protected by the City municipal code would be considered potentially significant under CEQA. However, the Project will comply with the City's municipal code, including obtaining a permit from the City and replacing any protected trees removed as required by the municipal code. Therefore, impacts related to conflict with local policies or ordinances would be less than significant.

5.6 Impacts 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 (No Impact)

The Project site is not located within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the Project would not conflict with any such plans.

5.7 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 Cupertino will result in impacts on the same habitat types and species that will be affected by the proposed Project. The proposed 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 potential office/retail/commercial development, mixed use and/or residential projects that could adversely affect these species.

The cumulative impact on biological resources resulting from the Project in combination with other projects in the Project vicinity and larger 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, including compensatory mitigation and proactive conservation measures associated with each project. In the absence of such avoidance, minimization, compensatory mitigation, and conservation measures, cumulatively significant impacts on biological resources would occur.

However, the City of Cupertino General Plan contains conservation measures that would benefit biological resources. Further, the Project would implement a number of measures to reduce impacts on both common and special-status species, as described above. Thus, the Project would not contribute to substantial cumulative effects on biological resources.

- [CDFW] California Department of Fish and Wildlife. 2010. Vegetation Classification and Mapping Program: Natural Communities List. Accessed January 2019 from <u>https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities</u>.
- [CDFW] California Department of Fish and Wildlife. 2019. Vegetation Classification and Mapping Program: California Natural Community List. Accessed January 2019 from <u>https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities</u>.
- [Cal-IPC] California Invasive Plant Council. 2019. California Invasive Plant Inventory Database. Accessed January 2019 from <u>http://www.cal-ipc.org/paf/</u>.
- [CNDDB] California Natural Diversity Database. 2019. Rarefind 5.0. California Department of Fish and Wildlife. Accessed May 2019 from https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data.
- [CNPS] California Native Plant Society. 2019. Inventory of Rare and Endangered Plants (7.0 and 9.0 online editions). Accessed January 2019 from <u>http://rareplants.cnps.org/.</u>
- Cornell Lab of Ornithology. 2019. eBird. http://www.ebird.org/. Accessed May 2019.
- Google Inc. 2019. Google Earth (Version 7.3.1.4507) [Software]. Available from earth.google.com.
- H. T. Harvey & Associates. 1997. Red-legged frog distribution and status 1997. Prepared for the Santa Clara Valley Water District.
- H. T. Harvey & Associates. 1999. Santa Clara Valley Water District California tiger salamander distribution and status—1999. Prepared for the Santa Clara Valley Water District.
- H. T. Harvey & Associates. 2012. Santa Clara Valley Water District California Tiger Salamander Surveys and Site Assessments at Selected Santa Clara County Locations. Prepared for the Santa Clara Valley Water District. August 2012.
- Hall, E. R. 1981. The mammals of North America. 2nd edition. Volume II. John Wiley and Sons, New York, New York.
- Lee, D. E., and W. D. Tietje. 2005. Dusky-footed woodrat demography and prescribed fire in a California oak woodland. Journal of Wildlife Management 69(3):1211-1220.
- Leidy, R.A., G.S. Becker, and B.N. Harvey. 2005. Historical Distribution and Current Status of Steelhead (Oncorhynchus mykiss), Coho Salmon (O. kisutch), and Chinook Salmon (O. tshawytscha) in Streams of the

San Francisco Estuary, California. Center for Ecosystem Management and Restoration, Oakland, California.

- [NRCS] Natural Resources Conservation Service. 2019a. Web Soil Survey. U.S. Department of Agriculture. Accessed January 2019_from <u>http://websoilsurvey.nrcs.usda.gov</u>.
- [NRCS] National Resource Conservation Service. 2019b. National Hydric Soils List. Accessed January 2019 from <u>http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/</u>.
- Sawyer, J. O., T. Keeler-Wolf and J. M. Evens. 2009. A Manual of California Vegetation [online]. Second Edition. California Native Plant Society.
- [Valley Water] Santa Clara Valley Water District. 2011. Final Subsequent Environmental Impact Report for the Multi-Year Stream Maintenance Program Update 2012–2022.
- Zeiner, D. C., W.F. Laudenslayer Jr., K.E. Mayer, and M. White, editors. 1990b. California's wildlife. Volume III: Mammals. California Department of Fish and Game, Sacramento, California.