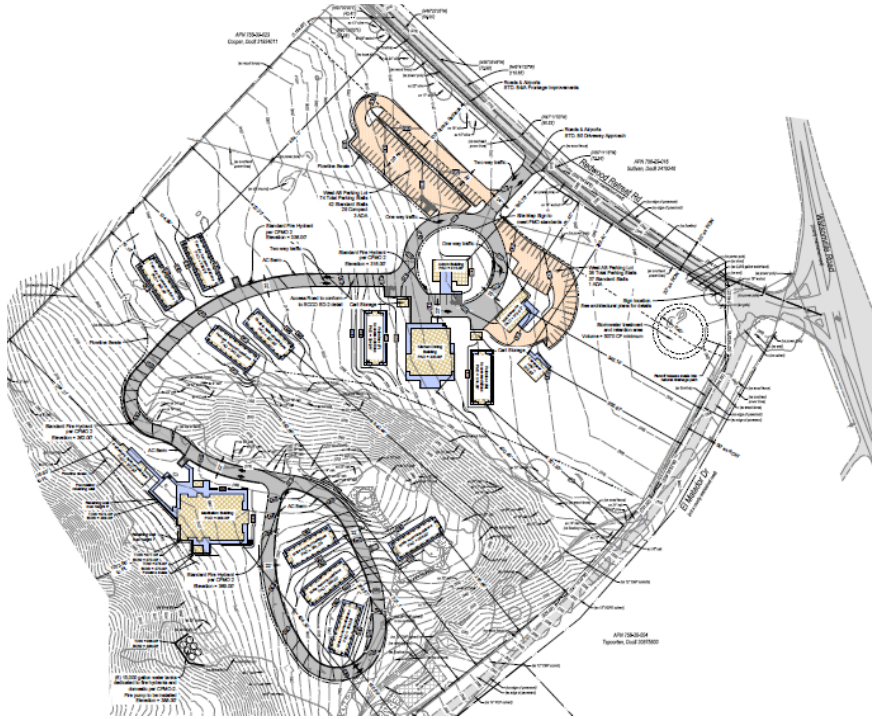


Revised Biological Resources Evaluation
Bay Area Vipassana

9201 El Matador Drive, Santa Clara County

April 14, 2021



Prepared by
EMC Planning Group

REVISED BIOLOGICAL RESOURCES EVALUATION

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Appendices

Appendix A	Special-Status Species with Potential to Occur in the Project Vicinity
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1.0 Introduction

1.1 PROJECT SUMMARY AND REPORT PURPOSE

The proposed project is construction of a meditation retreat center, including approximately 52,720 square feet of single-story buildings including a meditation hall with bathrooms and 120 cells, a kitchen/dining building, an administrative office, a caretaker's residence, 10 accommodations buildings, an instructor's accommodations building, and a maintenance building. The project would include an internal road system, 121 parking spaces (including 10 accessible), and landscaping. [Figure 1-1, Site Plan](#), presents the proposed improvements.

The first evaluation of biological resources was conducted in June 2019 to analyze the potential impacts from the proposed project on special-status biological resources, and to provide specific measures to avoid or minimize these impacts. A second field survey was conducted in September 2020 to assist with locating water tanks within oak woodland southeast of the project site.

The purpose of the revisions to this biological resources evaluation is to consolidate biological survey information and include most recent site plan with water tank locations dated April 1, 2021 (MH engineering Co. 2021).

1.2 LOCATION AND SETTING

The project site is approximately 20 acres within a 54.59-acre parcel (APN 756-30-024), in unincorporated Santa Clara County near Gilroy, California. The subject parcel is located on the Mount Madonna US Geological Survey (USGS) quadrangle in Santa Clara County. [Figure 1-2, Location Map](#), presents the location of the subject parcel. [Figure 1-3, Aerial Photograph](#), presents an aerial view of the existing conditions within the subject parcel and project site.

The subject parcel is located in unincorporated Santa Clara County, at the intersection of Redwood Retreat Road and El Matador Drive. Uvas Reservoir is approximately three miles to the northwest. The subject parcel is located in the eastern foothills of at the southern end of the Santa Cruz Mountains. Rural residences along El Matador Drive are located to the southeast of the subject parcel, rural residences and small agricultural plots are found to the north and northwest, and woodland is located to the east and southeast.

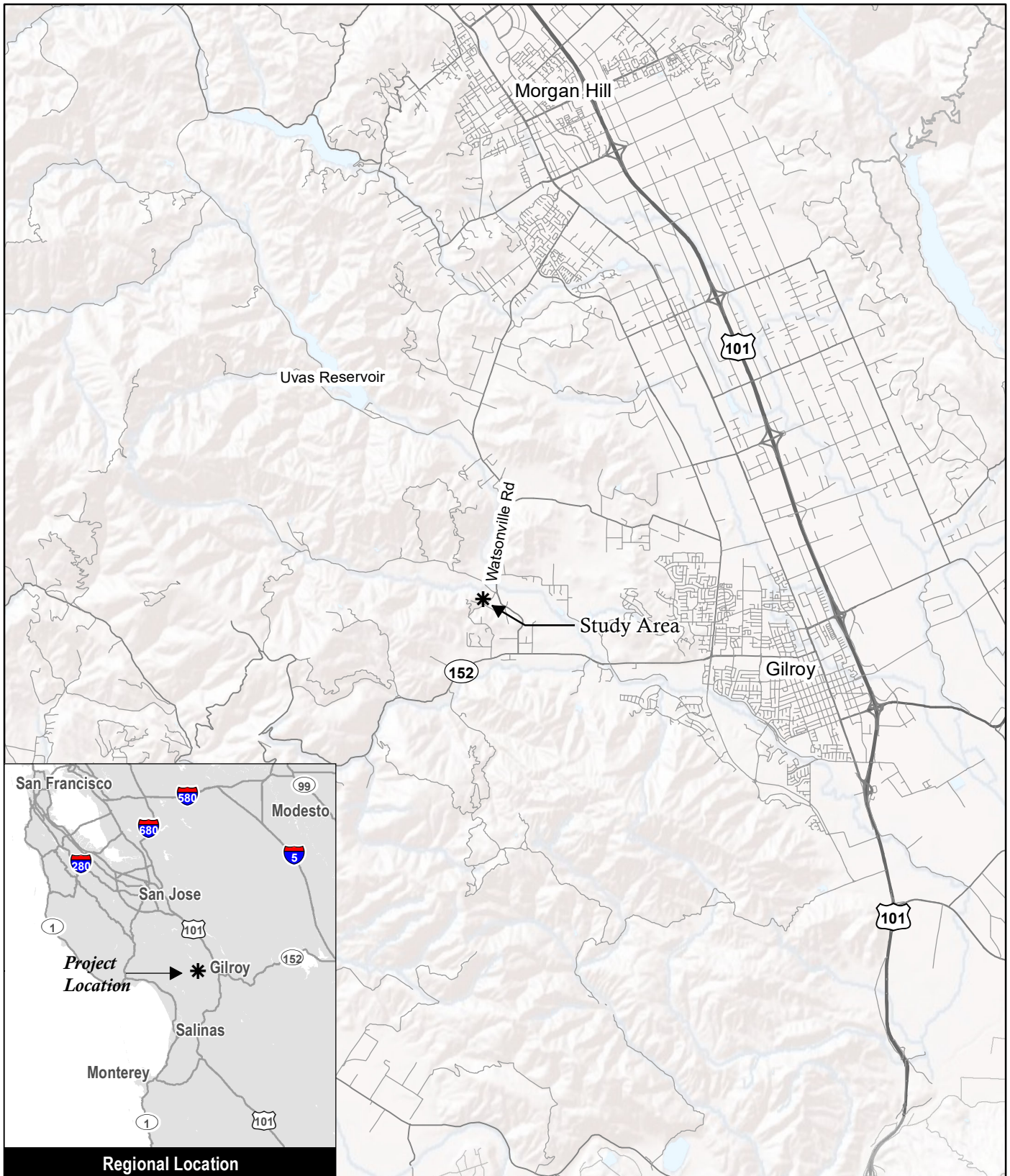
Environmental Setting

This area is within the California Floristic Province, a biodiversity hotspot with a Mediterranean-type climate; dry, hot summers and wet, cool winters. A biodiversity hotspot is a biologically rich region with a large variety of ecosystems. There are two qualifying criteria for a biodiversity hotspot: contain at least 1,500 species of vascular plants found nowhere else on Earth, and have lost at least 70 percent of its primary native vegetation. The California Floristic Province includes most of California and includes ecosystems of sagebrush steppe, prickly pear shrubland, coastal sage scrub, chaparral, juniper-pine woodland, upper montane-subalpine forest, alpine forest, riparian forest, cypress forests, mixed evergreen forests, Douglas fir forests, sequoia forests, redwood forests, coastal dunes, and salt marshes. These natural ecosystems are threatened by human activities and development (Critical Ecosystem Partnership Fund 2018).

The subject parcel is within the San Francisco Bay Area sub-region of the California Floristic Province, which includes the Santa Cruz Mountains and the northern Diablo Range, with its southern boundary east of Castroville, through Hollister and the Pacheco Pass, to the Great Central Valley Region near San Luis Reservoir. This sub-region supports a variety of vegetation types including wet redwood forest to dry oak/pine woodland and chaparral (Jepson 2019).

Nearby Gilroy has an average rainfall of 20.83 inches per year, with most of the rainfall between November-March. The average annual high temperature is 74.3 degrees Fahrenheit and the average annual low temperature is 46.1 degrees Fahrenheit (Western Regional Climate Center 2019).

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Source: ESRI 2019

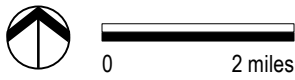


Figure 1-2
Location Map



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0 450 feet



Subject Parcel



Project Site - Surveyed June 2019



Potential Water Tank Locations
Surveyed September 2020

Source: Santa Clara County GIS 2020, ESRI 2021



Figure 1-3
Aerial Photograph

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2.0 Regulatory Setting

2.1 FEDERAL REGULATIONS

Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 protects species that the U.S. Fish and Wildlife Service (USFWS) has listed as Endangered or Threatened. Permits may be required from USFWS if activities associated with a proposed project would result in the “take” of a federally listed species or its habitat. Under the Act, the definition of take is to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” USFWS has also interpreted the definition of “harm” to include significant habitat modification that could result in take. Take of a listed species is prohibited unless (1) a Section 10(a) permit has been issued by the USFWS or (2) an Incidental Take Statement has been obtained through formal consultation between a federal agency and the USFWS pursuant to Section 7 of the Act.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 prohibits killing, possessing, or trading in migratory birds, and protects the nesting activities of native birds including common species, except in accordance with certain regulations prescribed by the Secretary of the Interior. Over 1,000 native nesting bird species are currently protected under the federal law. This Act encompasses whole birds, parts of birds, bird nests, and eggs.

The USFWS published a proposed rule to clarify prohibitions governing the “take” of birds under the Migratory Bird Treaty Act on February 3, 2020. This proposed rule clarifies that the scope of the Migratory Bird Treaty Act applies only to intentional injuring or killing of birds. Conduct that results in the unintentional (incidental) injury or death of migratory birds is not prohibited under the Act. On January 7, 2021, the final regulation defining the scope of the Migratory Bird Treaty Act was published in the Federal Register. The rule goes into effect on February 8, 2021.

With the change of administrations, the future of the new rule is uncertain. The effective date of the rule will likely be extended, along with other rules that have not yet taken effect as the Biden Administration begins in January 2021. With the status of the revised rule unknown, the previous interpretation of the law, which prohibits intentional and unintentional take of migratory birds, remains in effect.

Clean Water Act

Section 404 of the Clean Water Act of 1972 regulates the discharge of dredge and fill material into “Waters of the U.S.”. “Waters of the U.S.” are waters such as oceans, rivers, streams, lakes, ponds, and wetlands subject to U.S. Army Corps of Engineers (USACE) Regulatory Program jurisdiction under Section 404 of the Clean Water Act. Certain artificial drainage channels and wetlands are also considered jurisdictional “Waters of the U.S.” On June 22, 2020, the Environmental Protection Agency and the Department of the Army’s Navigable Waters Protection Rule: Definition of “Waters of the United States” (NWPR) became effective in 49 states and in all US territories. The San Francisco USACE District uses the NWPR definitions of “Waters of the U.S.” when making permit decisions and providing landowners written determinations of the limits of federal jurisdiction on their property.

The USACE determines the extent of its jurisdiction as defined by ordinary high-water marks on channel banks, wetland boundaries, and/or connectivity to a navigable water. Wetlands are habitats with soils that are intermittently or permanently saturated or inundated. The resulting anaerobic conditions naturally select for plant species known as hydrophytes that show a high degree of fidelity to such soils. Wetlands are identified by the presence of hydrophytic vegetation, hydric soils (soils intermittently or permanently saturated by water), and wetland hydrology according to methodologies outlined in the 1987 *Corps of Engineers Wetlands Delineation Manual* and the 2008 *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)*.

Activities that involve the discharge of fill into jurisdictional wetlands or waters are subject to the permit requirements of the USACE. Discharge permits are typically issued on the condition that the project proponent agrees to provide compensatory mitigation which results in no net loss of area, function, or value, either through wetland creation, restoration, or the purchase of credits through an approved mitigation bank. In addition to individual discharge permits, the USACE also issues nationwide permits applicable for certain activities.

2.2 STATE REGULATIONS

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA) and Section 2081 of the California Fish and Game Code, an Incidental Take Permit from the California Department of Wildlife (CDFW) is required for projects that could result in the “take” of a state-listed Threatened or Endangered species. Take is defined under the Act as an activity that would directly or indirectly kill an individual of a species; take is defined in Section 86 of the California Fish

and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." If a proposed project would result in the take of a state-listed species, then a CDFW Incidental Take Permit, including the preparation of a species conservation plan, would be required.

Nesting Birds and Birds of Prey

Sections 3505, 3503.5, and 3800 of the California Fish and Game Code prohibit the take, possession, or destruction of birds, including their nests or eggs. Birds of prey (the orders Falconiformes and Strigiformes) are specifically protected under provisions of the California Fish and Game Code, Section 3503.5. This section of the Code establishes that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this Code. Disturbance that causes nest abandonment and/or loss of reproductive effort, such as construction during the bird nesting season, is considered take by the CDFW.

Streambed Alterations

The CDFW has jurisdiction over the bed and bank of natural drainages according to provisions of Sections 1601 through 1603 of the California Fish and Game Code. Diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California that supports wildlife resources and/or riparian vegetation are subject to CDFW regulations. Activities that would disturb these drainages are regulated by the CDFW; authorization is required in the form of a Streambed Alteration Agreement. Such an agreement typically stipulates certain measures that will protect the habitat values of the drainage in question.

California Porter-Cologne Water Quality Control Act

Under the California Porter-Cologne Water Quality Control Act, the applicable Regional Water Quality Control Board (RWQCB) may necessitate Waste Discharge Requirements for the fill or alteration of Waters of the State, which according to California Water Code Section 13050 includes "any surface water or groundwater, including saline waters, within the boundaries of the state." The RWQCB may, therefore, necessitate Waste Discharge Requirements even if the affected waters are not under USACE jurisdiction. Also, under Section 401 of the Clean Water Act, any activity requiring a USACE Section 404 permit must also obtain a state Water Quality Certification (or waiver thereof) to ensure that the proposed activity will meet state water quality standards. The applicable state RWQCB is responsible for administering the water quality certification program and enforcing National Pollutant Discharge Elimination System permits.

California Environmental Quality Act (CEQA)

CEQA Guidelines Appendix G contains several questions to assist lead agencies with determining whether a project may have a significant effect on biological resources. These questions are presented below.

Would the project:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
- 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 CDFW or USFWS;
- 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;
- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and/or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

2.3 REGIONAL/LOCAL REGULATIONS

Santa Clara Valley Habitat Plan (Habitat Plan)

The Santa Clara Valley Habitat Plan (Habitat Plan) provides a framework to protect, enhance, and restore natural resources in the specific area of Santa Clara County, while improving and streamlining the environmental permitting process for impacts on threatened and endangered species. The Habitat Plan is both a habitat conservation plan (HCP) and a natural community conservation plan (NCCP), and is designed as a framework to promote the protection and recovery of natural resources, which includes threatened and endangered species, and to streamline permitting for development, infrastructure, and maintenance activities. A list of covered activities and 18 listed and non-listed covered species are authorized under the Habitat Plan (Santa Clara Valley Habitat Agency 2019). The project site is within the boundaries of the Habitat Plan.

Santa Clara County General Plan

The Santa Clara County General Plan's Resource Conservation policies include the following for managing resources:

C-RC-1-natural and heritage resources shall be protected and conserved for their ecological, functional, economic, aesthetic, and recreational values.

C-RC-27-habitat types and biodiversity within Santa Clara County and the region should be maintained and enhanced for their ecological, functional, aesthetic, and recreational importance.

CR-RC-33-linkages and corridors between habitat areas should be provided to allow for migration and otherwise compensate for the effects of habitat fragmentation (Santa Clara County).

Tree Ordinance

The County of Santa Clara regulates heritage trees, "...any tree which, because of its history, girth, height, species, or other unique quality, has been recommended for inclusion on the heritage resource inventory by the Historical Heritage Commission and found by the Board of Supervisors to have special significance to the community, and which has therefore been included in the heritage resource inventory adopted by resolution of the Board of Supervisors.

Section C16-3-Administrative Permit/Encroachment for Tree Removal Required, states that it shall be unlawful for any person to remove any protected tree on any private or public property in designated areas of the County without having first obtained an administrative permit from the County Planning Office or an encroachment permit from the Department of Roads and Airports. A protected tree shall consist of any of the following:

- Any tree having a main trunk or stem measuring 37.7 inches or greater in circumference (12 inches or more in diameter) at a height of 4.5 feet above ground level, or in the case of multi-trunk trees, a total of 75.4 inches in circumference (24 inches or more of the diameter) of all trunks in the following areas of the County:
 - Parcels zoned "Hillsides" (three acres or less);
 - Parcels within a-"d" (Design Review) combining zoning district; and/or
 - Parcels within the Los Gatos Hillside Specific Plan Area.
- Any tree having the "-h1) Historic Preservation zoning district for New Almaden;
- Any heritage tree, as that term is defined previously;
- Any tree required to be planted as a replacement for an unlawfully removed tree;

2.0 Regulatory Setting

- Any tree that was required to be planted or retained by the conditions of approval for any use permit, building site approval, grading permit, architectural and site approval, design review, special permit or subdivision; and/or
- Any tree, regardless of size, within road rights-of-way and easements of the County, whether within or without the unincorporated territory of the County.

Section C16.7-Permit Applications-any person desiring to remove any regulated tree shall file an application with the County Planning Office for an administrative permit not less than ten days prior to the date of such planned removal (Santa Clara County 2019).

3.0 Methods

3.1 BACKGROUND RESEARCH

Gail Bellenger, EMC Planning Group senior biologist, reviewed site maps, aerial photographs, electronic database accounts, technical reports, and relevant scientific literature describing natural resources on the subject parcel and on adjacent lands. A search of the CDFW California Natural Diversity Database (CNDDDB) and the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants for the Santa Teresa Hills, Morgan Hill, Mt. Sizer, Loma Prieta, Mt. Madonna, Gilroy, Watsonville West, Watsonville East, and Chittenden U.S. Geological Survey (USGS) quadrangles was conducted to generate lists of potentially occurring special-status species in the project vicinity (CDFW 2019 and CNPS 2019). Species listed by the USFWS that occur in Santa Clara County were also reviewed (USFWS 2019).

Special-status species in this report are those listed as endangered, threatened, or rare, or as candidates proposed for listing by the USFWS and/or CDFW; as Species of Special Concern or Fully Protected species by CDFW; or as Rare Plant Rank 1B or 2B by the CNPS. Special-Status Species Potentially Occurring in the Project Vicinity table are included in Appendix A, which includes special-status species documented within the project vicinity, their listing status and a description of habitat, and their potential to occur within the project site.

Survey requirements and land cover information were obtained from the Santa Clara Valley Habitat Agency *Geobrowser* (Habitat Agency 2019). Information about the specific requirements is presented in Section 4.2. A land cover verification map is presented in [Figure 3-1, Land Cover Map](#).

3.2 FIELD SURVEYS

June 2019

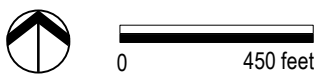
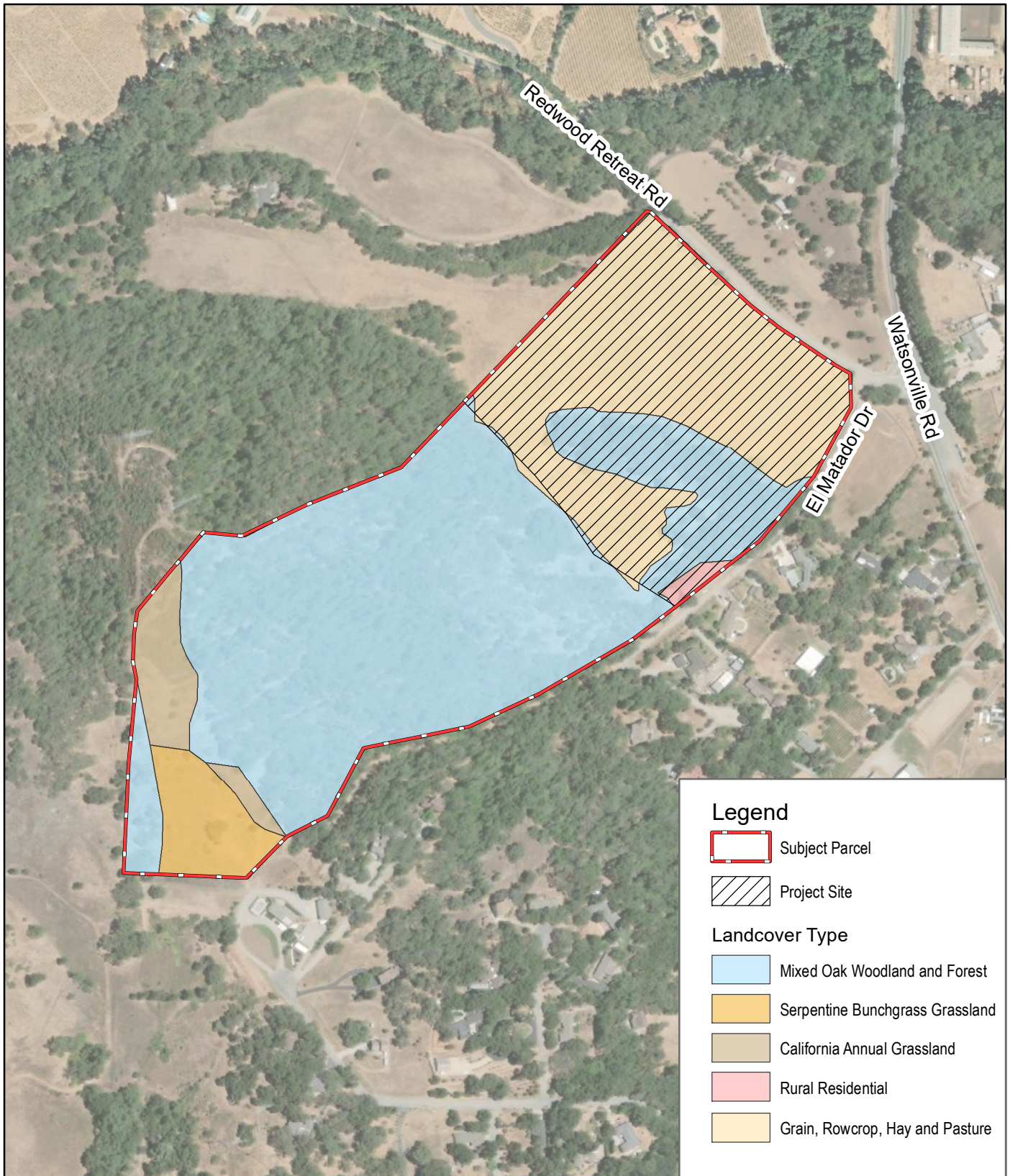
Ms. Bellenger conducted a reconnaissance-level biological field survey on June 18, 2019 for the purpose of documenting existing plant communities and wildlife habitats, and to evaluate the potential for special-status species occurrence in the project site. A land cover verification was also completed.

Biological resources were documented in field notes, including species observed, dominant plant communities, and significant wildlife habitat characteristics. Qualitative estimations of plant cover, structure, and spatial changes in species composition were used to determine plant communities and wildlife habitats. Habitat quality and disturbance level were documented as well.

Additionally, observations of any sensitive habitats, potential jurisdictional wetlands, regulated trees, and wildlife movement corridors were recorded. Representative site photographs were taken at several locations within the project site to document habitat conditions.

September 2020

EMC Planning Group biologist Patrick Furtado conducted a survey on September 18, 2020 to find a location for the water tanks that would not require the removal of any trees or significantly impact the oak woodland. An open location was identified as well as two alternatives (please Figure 1-3, Aerial Photograph to see the survey locations). However, these locations were not chosen as the preferred site for the water tanks (Figure 1-1 Site Plan). A spot check to confirm that conditions within the project site were adequately described in the original report was conducted, however a second biological inventory of the project site was not included.



Source: Santa Clara County GIS 2017, ESRI 2019, USGS 2019

Figure 3-1

Land Cover Map



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Existing Biological Conditions

4.1 EXISTING HABITATS

Plants and Plant Communities

Plant communities in and immediately adjacent to the project site are non-native grassland (matching the Habitat Plan land cover of “Grain, Row-crop, Hay and Pasture, Disked/Short-term Fallowed”) and mixed oak woodland. Trees include native coast live oak (*Quercus agrifolia*), along with non-native ornamental (planted) olive (*Olea* sp.) and English walnut (*Juglans regia*), plus additional species at the eastern edge of the project site, adjacent to El Matador Drive. Plants common in the disturbed grassland areas include non-native oats (*Avena* sp.), barley (*Hordeum murinum*), annual beard grass (*Polypogon monspeliensis*), ripgut brome (*Bromus diadrus*), scarlet pimpernel (*Anagallis arvensis*), English plantain (*Plantago lanceolata*), wild radish (*Raphanus sativus*), cut-leaved plantain (*Plantago coronopus*), shortpod mustard (*Hirschfeldia incana*), and curly dock (*Rumex crispus*); native California poppy (*Eschscholzia californica*) and coyote bush (*Baccharis pilularis*) are also present.

Terrestrial Wildlife Habitats

The project site is composed of oak woodland at the approximate center of the project site with non-native grasses and ruderal (weedy) vegetation within the fallow agricultural field. Grasslands provide habitat for a number of open-country species of birds, including western meadowlark (*Sturnella neglecta*), house finch (*Carpodacus mexicanus*); red-tailed hawk (*Buteo jamaicensis*); small mammals such as California ground squirrel (*Spermophilus beecheyi*), California vole (*Microtus californicus*), Botta’s pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), Virginia opossum (*Didelphis virginiana*), brush rabbit, and deer mouse.

The trees on and around the project site could support nesting birds. Raptors such as red-shouldered hawk (*Buteo linatus*) and red-tailed hawk (*Buteo jamaicensis*) could use trees as foraging and perch sites. Bat species such as hoary bat (*Lasiurus cinereus*), pallid bat (*Antrozous pallidus*), and Townsend’s big-eared bat (*Corynorhinus townsendii*) could roost in trees in and adjacent to the project site, and forage nearby.

There were numerous small mammal burrows ranging in size from approximately one inch to five inches located throughout the grassland areas of the project site. California ground squirrels (*Otospermophilus beecheyi*) were observed in the northeast portion of the project site. [Figure 4-1, Representative Site Photographs](#), offers an overview of area conditions.

Aquatic Habitats

There is a small creek in the southeastern corner of the project site, and a riparian area at the far northern corner. The creek enters the site to the northeast of the existing barn and continues behind the barn. The riparian area is located at the tip of the northern corner of the project site. The location of these features is presented in Figure 1-3, Aerial Photograph.

4.2 HABITAT PLAN

According to the Santa Clara Valley Habitat Agency *Geobrowser* (Habitat Agency 2019), the project site is located within the Habitat Plan permit area, in Fee Zone A (Ranchlands and Natural Lands) and Fee Zone B (agricultural and valley floor lands). The project site (consisting of 20 acres within the overall 55-acre parcel) does not require focused special-status species surveys for any covered plants or wildlife. The small corner at the far northern section of the subject parcel is designated as a required survey for least Bell's vireo (*Vireo bellii pusillus*) and tricolored blackbird (*Agelaius tricolor*); however, because the proposed project does not impact the riparian habitat, no survey is necessary. The 20-acre project site is not located in a priority reserve area or special fee zone. The Habitat Plan land cover mapping data is based on interpretation of aerial imagery and therefore requires on-the-ground verification for specific project sites.

According to the Habitat Plan land cover type data, the entire 55-acre subject parcel is mapped mainly as "Grain, Row-crop, Hay & Pasture, Disked/Short-term Fallowed (15.2 acres)" and "Mixed Oak Woodland and Forest (33.3 acres)", with "California Annual Grassland (2.4 acres)", "Serpentine Bunchgrass Grassland (2.5 acres)", and "Rural Residential (0.4 acres)". Focused plant surveys for the serpentine areas, special serpentine fees, least Bell's vireo and tricolored blackbird surveys in the riparian area at the northern-most corner of the site, and a riparian buffer setback would be required according to the Habitat Plan if the project site analyzed in this report included the 35 acres in the southwestern portion of the parcel. However, none of these would be required as the project site does not include these resource areas. A Habitat Plan permit and associated fees would still be required prior to development. The land cover conditions were verified as accurate during the biological field survey, in addition to the presence of ruderal/weedy vegetation and non-native grassland patches throughout the site, as described above.

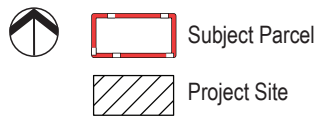
A verification of land cover is presented earlier in Figure 3-1, Land Cover Map.



① Fallow agriculture field, looking northwest



② Large animal burrow



Source: ESRI 2019
Photographs: EMC Planning Group 2019



③ Northern field, looking east



④ Oak woodland, looking north

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Special-Status Biological Resources

This section documents the special-status biological resources observed or having potential to occur in the project site.

5.1 OVERVIEW

Occurrence record data and species natural history accounts were used to determine potentially occurring special-status species for the project site based on observations made during the reconnaissance field survey. [Figure 5-1, CNDDDB Map](#), shows the special-status plant and wildlife species potentially occurring in the project vicinity. Appendix A includes a table listing species known to occur within the project vicinity and their potential to occur in the project site.

5.2 SPECIAL-STATUS PLANTS

Special-status plant species known within in the project vicinity were evaluated for potential to occur within the project site. With all impacts confined to the previously mechanically disturbed non-native grassland areas of the site (fallow agricultural field), and with the serpentine area in the southwestern portion of the site completely avoided, no special-status plants within the project vicinity are expected to occur in the project site due to lack of suitable habitat. No focused botanical surveys are recommended.

5.3 SPECIAL-STATUS TERRESTRIAL WILDLIFE

Special-status terrestrial wildlife species reported in the CNDDDB as occurring within close proximity to the subject parcel were evaluated for their potential to occur within the project site. Information on these special-status terrestrial wildlife species, including listing status, suitable habitat conditions, and potential to occur within the project site is presented below.

American Badger

American badger (*Taxidea taxus*) is a state Species of Special Concern. It is an uncommon, permanent resident found throughout most of the state, except in the northern North Coast area. Typical habitats include drier open areas of most shrub, forest, and herbaceous habitats with friable soils suitable for burrows. Prey species include fossorial rodents such as rats,

mice, chipmunks, ground squirrels, and pocket gophers. Badger diet shifts seasonally depending on the availability of prey and may also include reptiles, insects, earthworms, eggs, birds, and carrion. Mixed oak woodland, coastal scrub, and grassland habitats provide cover, drier soils for burrowing, and prey resources for this species. American badger was recorded in 1995 approximately two miles east of the subject property. The project site contains suitable habitat for badger activity. Because the subject parcel is within the species' known distribution range and suitable habitat is present, American badger has potential to occur on the project site.

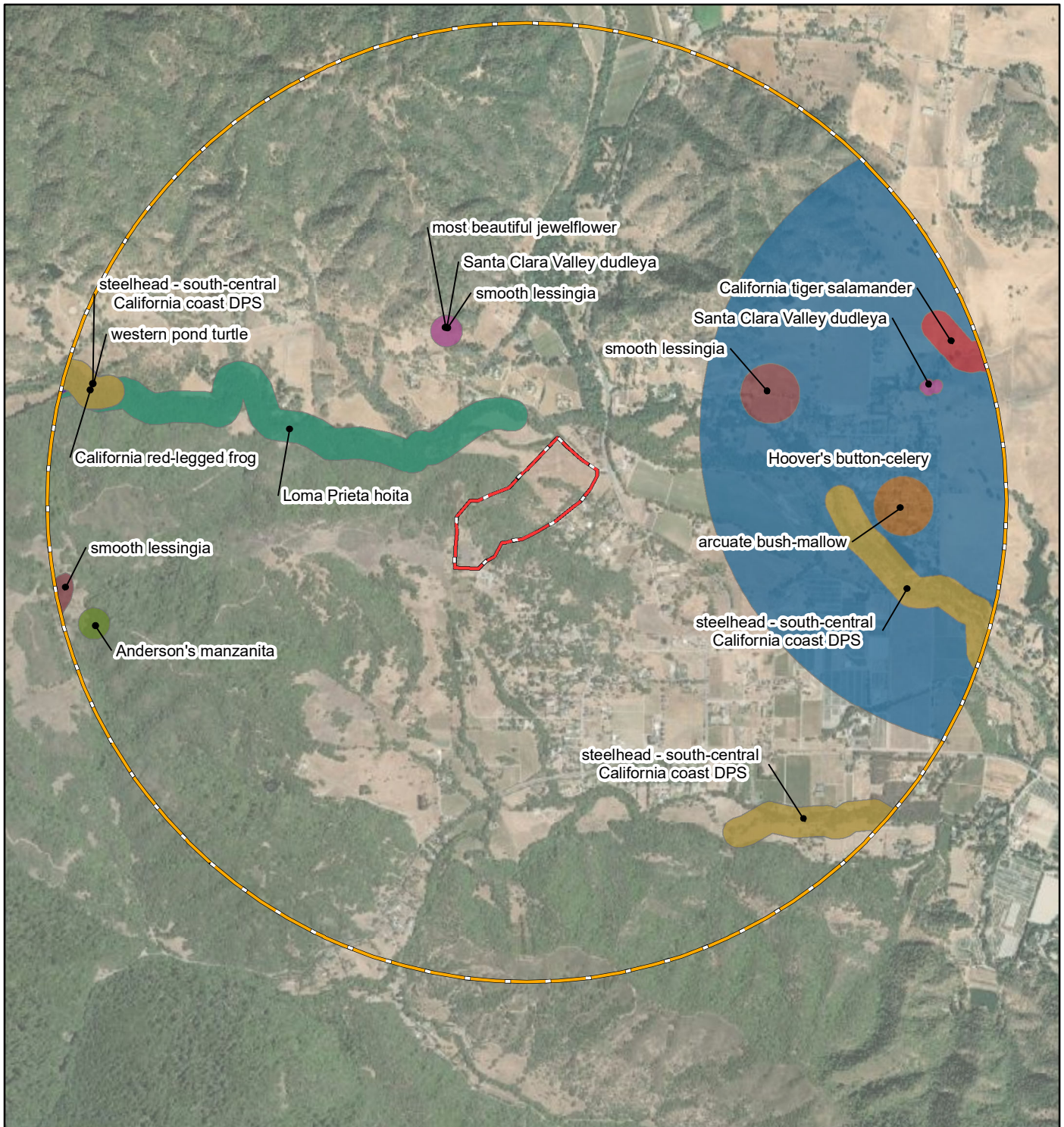
California Tiger Salamander

California tiger salamander (*Ambystoma californiense*) is a federally and state listed threatened species. The project site is not located within federally designated critical habitat for this species. This species is dependent on small shallow bodies of water for breeding. It can be found in grasslands, most frequently within 400 feet of breeding pools or ponds where California ground squirrels are prevalent and active. California tiger salamanders will occupy burrows of ground squirrels during summer and fall months, emerging to move toward breeding sites when the rainy season commences. They typically disperse to burrows and other hiding places in oak woodlands and grasslands within a quarter mile or less by early summer. CNDDDB records indicate that there were known occurrences in 2005 of California tiger salamander approximately 1.3 miles to the northeast.

This is a covered species in the Habitat Plan, and by completing the Habitat Plan Coverage application process the project will receive incidental take authorization for impacts to this species. No additional analysis or mitigation measures are needed.

California Red-Legged Frog

California red-legged frog (*Rana draytonii*) is federally listed as Threatened and is a California Species of Special Concern. The subject parcel is not located within federally designated critical habitat for this species. California red-legged frog is California's largest native frog, and is generally restricted to riparian and lacustrine (lake) habitats. This species prefers deep, still pools, usually greater than two feet in depth, in creeks, rivers or lakes below 5,000 feet in elevation. Breeding habitats require freshwater emergent vegetation or thick riparian vegetation, especially willow thickets adjacent to shorelines. California red-legged frogs can survive in seasonal bodies of water that dry up for short periods if a permanent water body or dense vegetation is nearby. Dispersal distances are typically less than 0.3-mile (0.5 kilometer) from a pond, with a few individuals moving up to 1.2–1.9 miles (2–3 kilometers) overland, with movement occurring predominantly along creek drainages. Individuals are often found during the summer in foraging habitat not suitable for breeding, and therefore are presumed to move seasonally between summer foraging and winter breeding habitats. CNDDDB records indicate that there were known occurrences in 2001 of this species approximately 0.5 mile to the northwest of the subject parcel.



Note: This figure presents California Natural Diversity Database (CNDDDB) occurrence records maintained by the California Department of Fish and Wildlife. Species records indicate positive occurrences only; lack of occurrence data does not indicate species are not present. Some records represent historical and/or extirpated occurrences. There may be additional special-status species occurrences within this area which have not been observed or reported.

Source: Santa Clara County GIS 2017, ESRI 2019, California Department of Fish and Wildlife 2019



Figure 5-1

California Natural Diversity Database Map

Bay Area Vipassana Revised Biological Resources Evaluation



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This is a covered species in the Habitat Plan, and by completing the Habitat Plan Coverage application process the project will receive incidental take authorization for impacts to this species. No additional analysis or mitigation measures are needed.

Western Pond Turtle

Western pond turtle (*Emys marmorata*) is a CDFW Species of Special Concern. It occurs in permanent or nearly permanent aquatic features in a wide variety of habitats throughout California, west of the Sierra-Cascade crest; it is absent from desert regions, except the Mojave Desert along the Mojave River and its tributaries. Its elevation range extends from near sea level to 1,430 meters (4,690 feet). Western pond turtles require basking sites such as partially submerged logs, rocks, mats of floating vegetation, or open mud banks. The home range of western pond turtles is typically quite restricted; however, ongoing research indicates that in many areas, turtles may leave the watercourse in late fall and move into upland habitats where they burrow into duff and/or soil and overwinter. They remain active year-round and may move several times during the course of overwintering. CNDDDB records indicate that there were known occurrences in 2001 of this species approximately 0.5 mile to the northwest of the subject parcel.

This is a covered species in the Habitat Plan, and by completing the Habitat Plan Coverage application process the project will receive incidental take authorization for impacts to this species. No additional analysis or mitigation measures are needed.

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is a state Species of Special Concern. Burrowing owls live and breed in burrows in the ground, especially in abandoned ground squirrel burrows. Optimal habitat conditions include large open, dry, and nearly level grasslands or prairies with short to moderate vegetation height and cover, areas of bare ground, and populations of burrowing mammals. Areas with active colonies of California ground squirrels or human-made structures such as culverts that could be utilized for nesting, provide suitable nesting habitat. Burrowing owls may occur in areas with burrows and suitable foraging habitat, which includes grassland or ruderal vegetation found within the project site. Approximately 10 small mammal burrows were found in the project site during field surveys. CNDDDB records indicate that there were known occurrences in 2009 of this species approximately 1.8 miles to the northeast of the subject parcel.

This is a covered species in the Habitat Plan, and by completing the Habitat Plan Coverage application process the project will receive incidental take authorization for impacts to this species. No additional analysis or mitigation measures are needed.

Nesting Migratory Birds and Raptors

Many bird species are migratory and fall under the jurisdiction of the Migratory Bird Treaty Act, protections for birds of prey, and/or are considered Fully Protected Species (discussed further in Regulatory Setting Section 2.0, above). Several avian species were observed in the project site during the reconnaissance field survey, including passerines, scrub jay (*Aphelocoma californica*), turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), and American crows (*Corvus brachyrhynchos*). No nesting activity was observed during the survey, however trees, shrubs, and grassland found in the project site could provide suitable nesting habitat for a variety of bird species.

Bats

Of the 25 native bat species in California, 17 receive some level of state or federal protection (CDFW 2018). Trees within or adjacent to the project site could provide roosting habitat for pallid bat and Townsend's big-eared bat, both considered state-listed species of special concern. Pallid bats prefer desert, grassland, shrubland, woodland and forest. They are most common in open, dry habitats with rocky areas for roosting. Townsend's big-eared bat is found in a variety of habitats, most commonly near mesic sites. They can be found in the open or hanging from walls and ceilings. Because open grassland and oak trees are found within the project site, these two species have the potential to occur.

5.4 SPECIAL-STATUS NATURAL COMMUNITIES

Special-status natural communities are those that are considered rare in the region, support special-status plant or wildlife species, or receive regulatory protection (i.e., wetlands under Section 404 of the Clean Water Act and/or Section 1600 of the California Fish and Game Code). Riparian, aquatic, and serpentine communities present in the greater subject parcel are considered sensitive; however, the serpentine area is outside of the project site and the small riparian and aquatic areas within the project site will be avoided. No impacts to special-status natural communities are anticipated.

5.5 JURISDICTIONAL WETLANDS AND WATERS

The small creek and riparian area within the project site may be considered jurisdictional by the USACE, CDFW, and/or RWQCB. Impact to jurisdictional features may require one or more permits from the respective agencies. The proposed project does not include disturbance in the areas where these features occur. There are no proposed improvements within the vicinity of the creek, and the nearest proposed improvement (replacement leach field) is located a minimum of 300 feet from the riparian area. Therefore, impacts to potentially jurisdictional features are not anticipated.

5.6 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors provide connectivity between habitat areas, enhancing species richness and diversity, and usually also provide cover, water, food, and breeding sites. Wildlife movement includes migration (i.e., usually movement one way per season), inter-population movement (i.e., long-term dispersal and genetic flow), and small travel pathways (i.e., daily movement within an animal's territory). While small travel pathways usually facilitate movement for daily home range activities, such as foraging or escape from predators, they also provide connection between outlying populations and the main populations, permitting an increase in gene flow among populations.

These habitat linkages can occur on a large scale throughout the greater region. Habitat linkages/corridors facilitate wildlife movement between populations located in discrete locales. Habitat fragmentation due to development and the creation of human-made impassable barriers can impede wildlife movement.

The project vicinity includes important wildlife movement corridors. The oak and other trees are potentially important for roosting birds and possibly bats. The non-native grasslands can provide both stopover and nesting habitat for migrating birds and small mammals.

Figure 1-1, Site Plan, presents the proposed development of the subject area and does not impact the oak woodland at the approximate center of the project site, and additional woodland areas exist immediately to the west. There is ample land surrounding the project site that can continue to provide alternate routes for wildlife movement. Therefore, impact to wildlife movement should be negligible.

5.7 REGULATED TREES

The County of Santa Clara regulates heritage and protected trees, as discussed in Section 2.3 Regional/Local Regulations. According to the site plan, no live trees are to be removed and the water tanks have been sited specifically to avoid tree removal or disturbance to oak woodland. Therefore, no permits should be required.

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Conclusions and Avoidance/Minimization Measures

6.1 CONCLUSIONS

Development within the project site has a low potential to impact biological resources. However, in addition to participation and compliance with the Habitat Plan, recommended measures are identified in this section to avoid or minimize any potential impacts that may occur as a result of development of the project site.

6.2 AVOIDANCE/MINIMIZATION MEASURES

The following impact avoidance/minimization measures are recommended to protect special-status wildlife species and regulated trees.

Special-Status Species

American Badger

Potential habitat for the state-listed species of concern American badger was identified within the project site. If badgers or denning activity is present on or adjacent to the area during soil-disturbing or construction activities, including vegetation removal and site preparation, development within the project site may directly result in the loss of individuals.

Recommended measures to avoid or minimize impacts to American badger include:

- No less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities, a qualified biologist shall conduct pre-construction surveys for American badger throughout the project site.
- If present, occupied badger dens shall be flagged and ground-disturbing activities avoided within 50 feet of the occupied den avoided. Maternity dens shall be avoided during pup-rearing season (February 15 through July 1) and a minimum 200-foot buffer established. Buffers may be modified with the concurrence of CDFW.

- Maternity dens shall be flagged for avoidance, identified on construction maps, and a biological monitor shall be present during construction. If avoidance of a non-maternity den is not feasible, badgers shall be relocated by slowly excavating the burrow (either by hand or mechanized equipment under the direct supervision of the biologist, removing no more than four inches at a time) before or after the rearing season (February 15 through July 1). Any relocation of badgers shall occur only after consultation with the CDFW.

Nesting Birds

If project-related work is scheduled during bird nesting season, January 15-September 15 (February 15 to August 30 for small bird species such as passerines; January 15 to September 15 for owls; and February 15 to September 15 for other raptors), a qualified biologist shall conduct preconstruction nesting bird surveys to ensure that no nests would be disturbed during construction activities.

Recommended surveys include:

- Two surveys for active nests of such birds shall occur within 14 days prior to start of construction, with the second survey conducted with 48 hours prior to start of construction. An appropriate minimum survey radius surrounding each work area is typically 250 feet for passerines, 500 feet for smaller raptors, and 1,000 feet for larger raptors. Surveys shall be conducted at the appropriate times of day to observe nesting activities.
- If the qualified biologist documents active nests within the project site or in nearby surrounding areas, an appropriate buffer between each nest and active construction shall be established. The buffer shall be clearly marked and maintained until the young have fledged and are foraging independently. Prior to construction, the qualified biologist shall conduct baseline monitoring of each nest to characterize “normal” bird behavior and establish a buffer distance, which allows the birds to exhibit normal behavior. The qualified biologist shall monitor the nesting birds daily during construction activities and increase the buffer if birds show signs of unusual or distressed behavior (e.g. defensive flights and vocalizations, standing up from a brooding position, and/or flying away from the nest). If buffer establishment is not possible, the qualified biologist or construction foreman shall have the authority to cease all construction work in the area until the young have fledged and the nest is no longer active. If pre-construction nesting bird surveys are necessary, then a survey report shall be prepared prior to commencement of construction activities.

Bats

Prior to any ground disturbing activities, tree, or brush removal, the following measures are recommended:

- Approximately 14 days prior to tree removal activities, a qualified biologist shall conduct a habitat assessment for bats and potential roosting sites in trees to be removed, in trees within 50 feet of the development footprint, and within and surrounding any structures that may be disturbed by the project. The entire project site will be included in these surveys. These surveys will include a visual inspection of potential roosting features (bats need not be present) and a search for presence of guano within the project site, construction access routes, and 50 feet around these areas. Cavities, crevices, exfoliating bark, and bark fissures that could provide suitable potential nest or roost habitat for bats shall be surveyed. Assumptions can be made on what species is present due to observed visual characteristics along with habitat use, or the bats can be identified to the species level with the use of a bat echolocation detector such as an “Anabat” unit. Potential roosting features found during the survey shall be flagged or marked.
- If no roosting sites or bats are found, a letter report confirming absence will be prepared and no further mitigation is required.
- If bats or roosting sites are found, bats will not be disturbed without specific notice to and consultation with CDFW.
- If bats are found roosting outside of the nursery season (May 1 through October 1), CDFW will be consulted prior to any eviction or other action. If avoidance or postponement is not feasible, a Bat Eviction Plan will be submitted to CDFW for written approval prior to project implementation. A request to evict bats from a roost includes details for excluding bats from the roost site and monitoring to ensure that all bats have exited the roost prior to the start of activity and are unable to re-enter the roost until activity is completed. Any bat eviction will be timed to avoid lactation and young-rearing. If bats are found roosting during the nursery season, they will be monitored to determine if the roost site is a maternal roost. This could occur by either visual inspection of the roost bat pups, if possible, or by monitoring the roost after the adults leave for the night to listen for bat pups. Because bat pups cannot leave the roost until they are mature enough, eviction of a maternal roost cannot occur during the nursery season. Therefore, if a maternal roost is present, a 50-foot buffer zone (or different size if determined in consultation with the CDFW) will be established around the roosting site within which no construction activities including tree removal or structure disturbance will occur until after the nursery season.

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Report Preparers and References

7.1 REPORT PREPARERS

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7.2 REFERENCES

California Department of Fish and Wildlife (CDFW). California Natural Diversity Database.

Records of occurrence for Santa Teresa Hills, Morgan Hill, Mt. Sizer, Loma Prieta, Mt. Madonna, Gilroy, Watsonville West, Watsonville East, and Chittenden quadrangle maps. Sacramento, CA. Accessed 6/28/19.

<http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>

California Department of Fish and Wildlife (CDFW2). October 24, 2018. *Be A Hero for Bats!*

<https://cdfgnews.wordpress.com/tag/california-bats/>

California Native Plant Society (CNPS). Inventory of Rare and Endangered Plants. Records

of occurrence for Santa Teresa Hills, Morgan Hill, Mt. Sizer, Loma Prieta, Mt. Madonna, Gilroy, Watsonville West, Watsonville east, and Chittenden quadrangle maps. Sacramento, CA. Accessed 6/28/19. <http://www.cnps.org/inventory>.

Critical Ecosystem. 2018. California Floristic Province. [https://www.cepf.net/our-](https://www.cepf.net/our-work/biodiversity-hotspots/california-floristic-province)

[work/biodiversity-hotspots/california-floristic-province](https://www.cepf.net/our-work/biodiversity-hotspots/california-floristic-province)

7.0 Report Preparers and References

- Jepson Herbarium. *Geographic Subdivisions of California*. Accessed 6/28/19.
<http://ucjeps.berkeley.edu/eflora/geography.html>
- MH engineering Co. 2021. *Preliminary Grading Plan*. April 1, 2021.
- Santa Clara Valley. Habitat Agency Geobrowser. Accessed 6/28/19.
<http://www.hcpmaps.com/habitat/>
- Santa Clara Valley Habitat Agency. *Final Santa Clara Valley Habitat Plan*. Accessed 6/27/19.
<https://scv-habitatagency.org/178/Santa-Clara-Valley-Habitat-Plan>
- Santa Clara County. 1994. General Plan Book A. Accessed 7/1/19.
https://www.sccgov.org/sites/dpd/DocsForms/Documents/GP_Book_A.pdf
- Santa Clara County. 2019. California Public Resources Code. Accessed 7/1/19.
https://library.municode.com/ca/santa_clara_county/codes/code_of_ordinances?nodeId=TITCCODELAUS_DIVC16TRPRRE_SC16-3ADPEENTRRERE
- U.S. Fish and Wildlife Service. Endangered Species Program. Washington, D.C.
<http://www.fws.gov/endangered/>. Accessed 6/27/19.
- US Fish & Wildlife Service. National Wetlands Inventory. <https://www.fws.gov/wetlands/>.
Accessed 6/27/19.
- Western Regional Climate Center. *Western U.S. Climate Historical Summaries: Period of Record Monthly Climate Summary for Gilroy*. Accessed online 6/28/19 at:
<https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca6599>

APPENDIX A

SPECIAL-STATUS SPECIES WITH POTENTIAL TO OCCUR IN THE
PROJECT VICINITY

APPENDIX A

Special-Status Species with Potential to Occur in the Project Vicinity

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Plants			
Anderson's manzanita (<i>Arctostaphylos andersonii</i>)	--/--/1B.2	Broadleaved upland forest, chaparral, and North Coast coniferous forest. Known only from the Santa Cruz Mountains. Prefers open sites in redwood forest; elevation 180-800m.	Unlikely. Species known to occur at higher elevations than the impact area.
Arcuate bush-mallow (<i>Malacothamnus arcuatus</i>)	--/--/1B.2	Chaparral, in gravelly alluvium; elevation 80-355m.	Unlikely. Suitable habitat not found within the impact area.
Big-scale balsamroot (<i>Balsamorhiza macrolepis</i>)	--/--/1B.2	Valley and foothill grassland, and cismontane woodland; sometimes on serpentine; elevation 35-1000m.	Unlikely. Suitable habitat not found within the impact area.
California alkali grass (<i>Puccinellia simplex</i>)	--/--/1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Alkaline, vernal mesic. Sinks, flats, and lake margins; elevation 1-915m.	Unlikely. Suitable habitat not found within the impact area.
Choris' popcorn-flower (<i>Plagiobothrys chorisianus</i> var. <i>chorisianus</i>)	--/--/1B.2	Chaparral, coastal scrub, coastal prairie, mesic sites; elevation 15-100m.	Unlikely. Suitable habitat not found within the impact area.
Congdon's tarplant (<i>Centromadia parryi</i> spp. <i>congdonii</i>)	--/--/1B.1	Valley and foothill grassland (alkaline); elevation 1-230m. Known to occur on various substrates, and in disturbed and ruderal (weedy) areas.	Unlikely. Suitable habitat not found within the impact area.
Coyote ceanothus (<i>Ceanothus ferrisiae</i>)	FE/--/1B.1	Serpentine sites in chaparral, coastal scrub, and valley and foothill grassland; elevation 120-460m.	Unlikely. Suitable habitat not found within the impact area.
Dudley's lousewort (<i>Pedicularis dudleyi</i>)	--/SR/1B.2	Chaparral, North Coast coniferous forest, valley and foothill grassland. Deep shady woods of older coast redwood forests, also in maritime chaparral; elevation 100-490m.	Unlikely. Suitable habitat not found within the impact area.

Appendix A

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Dwarf soaproot (<i>Chlorogalum pomeridianum</i> var. <i>minus</i>)	--/--/1B.2	Chaparral, serpentine; elevation 120-1220m.	Unlikely. Suitable habitat not found within the impact area.
Fragrant fritillary (<i>Fritillaria liliacea</i>)	--/--/1B.2	Coastal scrub, valley and foothill grassland, and coastal prairie. Often on serpentine; various soils reported though usually clay in grassland; elevation 3-410m.	Unlikely. Suitable habitat not found within the impact area.
Hall's bush-mallow (<i>Malacothamnus hallii</i>)	--/--/1B.2	Chaparral, some populations on serpentine; elevation 10-550m.	Unlikely. Suitable habitat not found within the impact area.
Hooker's manzanita (<i>Arctostaphylos hookeri</i> ssp. <i>hookeri</i>)	--/--/1B.2	Sandy soils in coastal scrub, chaparral, and closed-cone forest habitats; evergreen; elevation 45-215m.	Unlikely. Suitable habitat not found within the impact area.
Hoover's button-celery (<i>Eryngium aristulatum</i> var. <i>hooveri</i>)	--/--/1B.1	Vernal pools. Alkaline depressions, roadside ditches, and other wet places near the coast; elevation 5-45m.	Unlikely. Suitable habitat not found within the impact area.
Kellogg's horkelia (<i>Horkelia cuneata</i> ssp. <i>sericea</i>)	--/--/1B.1	Closed-cone coniferous forest, maritime chaparral, coastal scrub, sandy or gravelly openings; elevation 10-200m.	Unlikely. Suitable habitat not found within the impact area.
Kings Mountain manzanita (<i>Arctostaphylos regismontana</i>)	--/--/1B.2	Broadleaved upland forest, chaparral, North Coast coniferous forest. Granitic or sandstone outcrops; elevation 305-730m.	Unlikely. Species known to occur at higher elevations than the impact area.
Legenere (<i>Legenere limosa</i>)	--/--/1B.1	In beds of vernal pools; elevation 1-880m.	Unlikely. Suitable habitat not found within the impact area.
Loma Prieta hoita (<i>Hoita strobilina</i>)	--/--/1B.1	Wet areas on serpentine substrate in chaparral, cismontane woodland, and riparian woodland; elevation 30-860m.	Unlikely. Suitable habitat not found within the impact area.
Metcalf Canyon jewel-flower (<i>Streptanthus albidus</i> ssp. <i>albidus</i>)	FE/--/1B.1	Valley and foothill grassland. Endemic to Santa Clara County. Relatively open areas in dry grassy meadows on serpentine soils/serpentine balds; elevation 45-245m.	Unlikely. Suitable habitat not found within the impact area.
Monterey gilia (<i>Gilia tenuiflora</i> ssp. <i>arenaria</i>)	FE/ST/1B.2	Maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, sandy openings; elevation 0-45m.	Unlikely. Suitable habitat not found within the impact area.

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Monterey spineflower (<i>Chorizanthe pungens</i> var. <i>pungens</i>)	FT/--/1B.2	Sandy openings in maritime chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland; elevation 3-450m.	Unlikely. Suitable habitat not found within the impact area.
Most beautiful jewel-flower (<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>)	--/--/1B.2	Chaparral, valley and foothill grassland, and cismontane woodland; serpentine outcrops, on ridges and slopes; elevation 120-730m.	Unlikely. Suitable habitat not found within the impact area.
Mt. Hamilton fountain thistle (<i>Cirsium fontinale</i> var. <i>campylon</i>)	--/--/1B.2	Serpentine seeps in chaparral, cismontane woodland, and valley and foothill grassland; elevation 100-890m.	Unlikely. Suitable habitat not found within the impact area.
Mt. Hamilton jewel-flower (<i>Streptanthus callistus</i>)	--/--/1B.3	Chaparral, cismontane woodland. Open slopes on shale with grey pine and/or black oak; elevation 600-790m.	Unlikely. Species known to occur at higher elevations than the impact area.
Pajaro manzanita (<i>Arctostaphylos pajaroensis</i>)	--/--/1B.1	Sandy soils in chaparral habitat; evergreen; elevation 30-760m.	Unlikely. Suitable habitat not found within the impact area.
Pink creamsacs (<i>Castilleja rubicundula</i> ssp. <i>rubicundula</i>)	--/--/1B.2	Chaparral, meadows and seeps, and valley and foothill grassland. Openings in chaparral or grasslands on serpentine soils; elevation 20-900m.	Unlikely. Suitable habitat not found within the impact area.
Robust spineflower (<i>Chorizanthe robusta</i> var. <i>robusta</i>)	FE/--/1B.1	Sandy or gravelly openings in cismontane woodland, coastal dunes, and coastal scrub; prefers sandy terraces and bluffs or loose sand; elevation 3-300m.	Unlikely. Suitable habitat not found within the impact area.
Rock sanicle (<i>Sanicula saxatilis</i>)	--/SR/1B.2	Rocky sites in broadleaved upland forest, chaparral, and valley and foothill grassland; prefers bedrock outcrops and talus slopes; elevation 620-1175m.	Unlikely. Species known to occur at higher elevations than the impact area.
Saline clover (<i>Trifolium hydrophilum</i>)	--/--/1B.2	Marshes and swamps, valley and foothill grassland, and vernal pools. Prefers wet, alkaline sites; elevation 0-300m.	Unlikely. Suitable habitat not found within the impact area.
San Francisco collinsia (<i>Collinsia multicolor</i>)	--/--/1B.2	Serpentine sites in closed cone coniferous forest and coastal scrub. Prefers decomposed shale (mudstone) mixed with humus; elevation 30-250m.	Unlikely. Suitable habitat not found within the impact area.

Appendix A

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
San Francisco popcornflower (<i>Plagiobothrys diffusus</i>)	--SE/1B.1	Valley and foothill grassland, and coastal prairie. Historically from grassy slopes with marine influence; elevation 60-485m.	Unlikely. Suitable habitat not found within the impact area.
Sand-loving wallflower (<i>Erysimum ammophilum</i>)	--/--1B.2	Maritime chaparral, coastal dunes, coastal scrub, sandy openings; elevation 0 – 60m.	Unlikely. Suitable habitat not found within the impact area.
Santa Clara Valley dudleya (<i>Dudleya abramsii</i> ssp. <i>setchellii</i>)	FE/--1B.1	Valley and foothill grassland, and cismontane woodland. Endemic to serpentine outcrops and on rocks within grassland or woodland in Santa Clara County; elevation 80-335m.	Unlikely. Suitable habitat not found within the impact area.
Santa Cruz clover (<i>Trifolium buckwestiorum</i>)	--/--1B.1	Broadleaved upland forest, cismontane woodland, and coastal prairie; prefers moist grassland and gravelly margins; elevation 105-610m.	Unlikely. Suitable habitat not found within the impact area.
Santa Cruz Mountains beardtongue (<i>Penstemon rattanii</i> var. <i>kleei</i>)	--/--1B.2	Chaparral and lower montane coniferous forest. Sandy shale slopes in transition zone between forest and chaparral; elevation 400-1100m.	Unlikely. Species known to occur at higher elevations than the impact area.
Santa Cruz Mountains pussypaws (<i>Calyptidium parryi</i> var. <i>hesseae</i>)	--/--1B.1	Sandy or gravelly openings in chaparral and cismontane woodland; elevation 305-1530m.	Unlikely. Species known to occur at higher elevations than the impact area.
Santa Cruz tarplant (<i>Holocarpha macradenia</i>)	FT/SE/1B.1	Coastal prairie, coastal scrub, and valley and foothill grassland; often on clay or sandy soils; elevation 10-220m.	Unlikely. Suitable habitat not found within the impact area.
Smooth lessingia (<i>Lessingia micradenia</i> var. <i>glabrata</i>)	--/--1B.2	Chaparral; endemic to Santa Clara County. Serpentine, often on roadsides; elevation 120-485m.	Unlikely. Suitable habitat not found within the impact area.
Tiburon paintbrush (<i>Castilleja affinis</i> ssp. <i>neglecta</i>)	FE/ST/1B.2	Valley and foothill grassland (serpentine); elevation 60-400m.	Unlikely. Suitable habitat not found within the impact area.
Two-fork clover (<i>Trifolium amoenum</i>)	--/--1B.1	Coastal bluff scrub, valley and foothill grassland, sometimes serpentinite; elevation 5-415m.	Unlikely. Suitable habitat not found within the impact area.
Woodland woollythreads (<i>Monolopia gracilens</i>)	--/--1B.2	Serpentine, open sites in broadleaved upland forest, chaparral, cismontane woodland, North Coast coniferous forest, and valley and foothill grassland; elevation 100-1200m.	Unlikely. Suitable habitat not found within the impact area.

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Yadon's rein orchid (<i>Piperia yadonii</i>)	FE/--/1B.1	Sandy sites in coastal bluff scrub, closed cone coniferous forest, maritime chaparral; elevation 10-510m.	Unlikely. Suitable habitat not found within the impact area.
Wildlife			
American badger (<i>Taxidea taxus</i>)	--/SSC	Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats. Need sufficient food and open, uncultivated ground with friable soils to dig burrows. Prey on burrowing rodents.	Low potential. Open areas and large burrows within impact area are potential habitat for this species.
Bank swallow (<i>Riparia riparia</i>)	--/ST	Highly colonial species that nests in alluvial soils along rivers, streams, lakes, and ocean coasts. Nesting colonies only occur in vertical banks or bluffs of friable soils at least one meter tall, suitable for burrowing with some predator deterrence values. Breeding colony present in Salinas River.	Unlikely. Suitable bank or bluff habitat not found within the impact area.
Bay checkerspot butterfly (<i>Euphydryas editha bayensis</i>)	FT/--	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant; <i>Castilleja densiflora</i> and <i>C. exserta</i> are secondary host plants.	Unlikely. Suitable host plants not found within the impact area.
Black swift (<i>Cypseloides niger</i>)	--/SSC	Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea bluffs above surf; forages widely.	Unlikely. Suitable habitat not found within the impact area.
Burrowing owl (<i>Athene cunicularia</i>)	--/SSC	Open, dry, annual or perennial grasslands, desert, or scrubland, with available small mammal burrows.	Low potential. Suitable open grasslands and small mammal burrows within the impact area are potential habitat for this species.
California giant salamander (<i>Anodonta californiensis</i>)	--/SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	Unlikely. Suitable aquatic habitat not found within the impact area.

Appendix A

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
California red-legged frog (<i>Rana draytonii</i>)	FT/SSC	Rivers, creeks, and stock ponds with pools and overhanging vegetation. Requires dense, shrubby or emergent riparian vegetation, and prefers short riffles and pools with slow-moving, well-oxygenated water. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter.	Low potential. Species known to occur in project vicinity.
California tiger salamander (<i>Ambystoma californiense</i>)	FT/ST	Grasslands and oak woodlands near seasonal pools and stock ponds in central and coastal California. Needs upland habitat to aestivate (remain dormant during dry months) in small mammal burrows, cracks in the soil, or moist leaf litter. Requires seasonal water sources that persist into late March for breeding habitat.	Low potential. Species known to occur in project vicinity.
Coast horned lizard (<i>Phrynosoma blainvillii</i>)	--/SSC	Arid grassland and scrubland habitats; prefers lowlands along sandy washes with scattered low bushes. Requires open areas for sunning, bushes for cover, patches of loose soil for burrowing, and abundant supply of ants and other insects for feeding.	Unlikely. Suitable arid habitats not found within the impact area.
Foothill yellow-legged frog (<i>Rana boylei</i>)	--/SSC	Partly shaded, shallow streams and riffles with rocky substrate in a variety of habitats. Requires at least some cobble-sized substrate for egg-laying and 15 weeks of available water to attain metamorphosis.	Unlikely. Suitable aquatic habitat not found within the impact area.
Golden eagle (<i>Aquila chrysaetos</i>)	--/SFP	Rolling foothill mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range. Also uses large trees in open areas.	Low potential. Species could forage through impact area.
Grasshopper sparrow (<i>Ammodramus savannarum</i>)	--/SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered scrubs. Loosely colonial when nesting.	Low potential. Species could forage through impact area.
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE/SE	Summer resident of southern and central California in riparian habitats below 2,000 feet in elevation. Often nests in large shrubs, along margins of bushes or on twigs projecting into pathways.	Unlikely. Suitable contiguous riparian habitat not found within the impact area.

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Loggerhead shrike (<i>Lanius ludovicianus</i>)	--/--	(Nesting) Broken woodlands, savannah, pinyon-juniper, Joshua tree and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning and fairly dense shrubs and brush for nesting.	Low potential. Species known to occur in project vicinity.
Monterey roach (<i>Lavinia szmmetricus subditus</i>)	--/SSC	Found in tributaries to Monterey Bay, specifically the Salinas, Pajaro, and San Lorenzo River drainages. Prefer small warm streams but are capable of thriving in larger colder streams with diverse conditions.	Unlikely. Suitable aquatic habitat not found within the impact area.
Northern california legless lizard (<i>Anniella pulchra</i>)	--/SSC	Sandy or loose loamy soils under sparse vegetation, moist soils. <i>Anniella pulchra</i> is traditionally split into two subspecies: <i>A. pulchra pulchra</i> (silvery legless lizard) and <i>A. pulchra nigra</i> (black legless lizard), but these subspecies are typically no longer recognized.	Unlikely. Suitable loose soil habitat not found within the impact area.
Pallid bat (<i>Antrozous pallidus</i>)	--/SSC	Deserts, grasslands, scrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures.	Low potential. Species known to occur in project vicinity.
San Francisco dusky-footed woodrat (<i>Neotoma fuscipes annectens</i>)	--/SSC	Forest habitats of moderate canopy and moderate to dense understory. Constructs nest of shredded grass, leaves, and other materials.	Low potential. Species known to occur in project vicinity.
San Joaquin kit fox (<i>Vulpes macrotis mutica</i>)	FE/ST	Annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose-textured sandy soils for burrowing, and suitable prey base.	Unlikely. Impact area outside of species' known range.
Santa Cruz black salamander (<i>Aneides flavipunctatus niger</i>)	--/SSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara Counties. Adults found under rocks, talus, and damp woody debris.	Unlikely. Suitable aquatic habitat not found within the impact area.
Santa Cruz long-toed salamander (<i>Ambystoma macrodactylum croceum</i>)	FE/SE	Wet meadows near sea level in a few restricted locales in Santa Cruz and Monterey Counties. Aquatic larvae prefer shallow (<12 inches) water; use clumps of vegetation or debris for cover. Adults use mammal burrows.	Unlikely. Suitable aquatic habitat not found within the impact area.

Appendix A

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Smith's blue butterfly (<i>Euphilotes enoptes smithi</i>)	FE/--	Coastal dunes and coastal sage scrub plant communities. Host plants include <i>Eriogonum latifolium</i> and <i>E. parvifolium</i> for larval and adult stages.	Unlikely. Suitable host plants not found within the impact area.
Steelhead (<i>Oncorhynchus mykiss irideus</i>)	FT/--	Coastal stream with clean spawning gravel. Requires cool water and pools. Needs migratory access between natal stream and ocean.	Unlikely. Suitable aquatic habitat not found within the impact area.
Swainson's hawk (<i>Buteo swainsoni</i>)	--/ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas, such as grasslands or agricultural fields supporting rodent populations.	Low potential. Species could forage and nest in impact area.
Tidewater goby (<i>Eucyclogobius newberryi</i>)	FE/SSC	Brackish water habitats, found in shallow lagoons and lower stream reaches, still but not stagnant water with high oxygen levels.	Unlikely. Suitable aquatic habitat not found within the impact area.
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	--/SCT	Inhabits a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Low potential. Species known to occur in project vicinity.
Tricolored blackbird (<i>Agelaius tricolor</i>)	--/SE	Areas adjacent to open water with protected nesting substrate, which typically consists of dense, emergent freshwater marsh vegetation.	Unlikely. Suitable marsh habitat not found within the impact area.
Western pond turtle (<i>Emys marmorata</i>)	--/SSC	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Needs basking sites (such as rocks or partially submerged logs) and suitable upland habitat for egg-laying (sandy banks or grassy open fields).	Low potential. Species known to occur in project vicinity.
Western snowy plover (<i>Charadrius alexandrinus nivosus</i>)	FT/SSC	Sandy beaches, salt pond levees, shores of large alkali lakes; sandy, gravelly, or friable soils for nesting.	Unlikely. Suitable shoreline habitat not found within the impact area.
White-tailed kite (<i>Elanus leucurus</i>)	--/SFP	Rolling foothills and valley margins with scattered oaks, and river bottomlands or marshes next to deciduous woodlands. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Low potential. Species could forage and nest in impact area.

Species	Status (Federal/State/ CNPS)	Suitable Habitat Description	Potential to Occur on Project Site
Yellow-breasted chat (<i>Icteria virens</i>)	--/SSC	Summer resident. Inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian vegetation consisting of willow, blackberry, and wild grape. Forages and nests within 10 feet off the ground.	Unlikely. Suitable dense riparian habitat not found within the impact area.

SOURCE: CDFW CNDDDB 2019, CNPS 2019

NOTE: Status Codes:

Federal (USFWS)

FE: Listed as Endangered under the Federal Endangered Species Act.

FT: Listed as Threatened under the Federal Endangered Species Act.

FC: A Candidate for listing as Threatened or Endangered under the Federal Endangered Species Act.

FSC: Species of Special Concern.

FD: Delisted under the Federal Endangered Species Act.

State (CDFW)

SE: Listed as Endangered under the California Endangered Species Act.

ST: Listed as Threatened under the California Endangered Species Act.

SR: Listed as Rare under the California Endangered Species Act.

SC: A Candidate for listing as Threatened or Endangered under the California Endangered Species Act.

SSC: Species of Special Concern.

SFP: Fully Protected species under the California Fish and Game Code.

SD: Delisted under the California Endangered Species Act.

CNPS Rare Plant Ranks and Threat Code Extensions

1B: Plants that are considered Rare, Threatened, or Endangered in California and elsewhere.

2B: Plants that are considered Rare, Threatened, or Endangered in California, but more common elsewhere.

.1: Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat).

.2: Fairly endangered in California (20-80% occurrences threatened).

.3: Not very endangered in California (<20% of occurrences threatened or no current threats known).