Lillian Commons / Morgan Hill Medical Campus Biological Resources Assessment

MORGAN HILL, SANTA CLARA COUNTY, CALIFORNIA

Prepared for:
Maria Kisyova
David J. Powers & Associates
1871 The Alameda, Suite 200
San Jose, California 95126

Prepared by:
WRA, Inc.
2169-G East Francisco Blvd
San Rafael, California 94901
Contact: Élan Alford
alford@wra-ca.com

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ENVIRONMENTAL CONSULTANTS

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LIST OF ACRONYMS

BCC	USFWS Birds of Conservation Concern
BGEPA	Bald and Golden Eagle Protection Act
BIOS	Biogeographic Information and Observation System
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFP	California Fully Protected Species
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPPA	California Native Plant Protection Act
CNPS	California Native Plant Society
County	Santa Clara County
Corps	U.S. Army Corps of Engineers
CSRL	California Soils Resources Lab
CWA	Clean Water Act
EFH	Essential Fish Habitat
EPA	U.S. Environmental Protection Agency
ESA	Federal Endangered Species Act
MBTA	Migratory Bird Treaty Act
NMFS	National Marine Fisheries Service
NWI	National Wetland Inventory
OHWM	Ordinary High Water Mark
PRISM	Parameter-Elevation Regression on Independent Slopes Model
Rank	California Rare Plant Ranks
RWQCB	Regional Water Quality Control Board
SCVHP	Santa Clara Valley Habitat Plan
SSC	Species of Special Concern
SSI	Special-status Invertebrates
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WBWG	Western Bat Working Group
WRA	WRA, Inc.

LIST OF PREPARERS

Leslie Lazarotti – Principal-in-Charge

Élan Alford – Project Manager

Brian Kearns – Wildlife Biologist

Steven Cognac – Plant Biologist

Mikia Weidenbach – Senior GIS Technician

1.0 INTRODUCTION

1.1 Purpose of Assessment

On February 21, 2020, WRA, Inc. (WRA) performed an assessment of biological resources at the proposed Lillian Commons / Morgan Hill Medical Campus (Project Area) located in Morgan Hill, Santa Clara County, California (Appendix A, Figure 1). The Project Area is comprised of three parcels, Assessor's Parcel Numbers (APN) 817-09-039, 817-09-040, and 817-09-041. The purpose of the assessment was to develop and gather information on the potential for sensitive land cover types and special-status plant and wildlife species to support an evaluation of the future proposed project under the California Environmental Quality Act (CEQA). This assessment describes the results of the site visit, which assessed the Project Area, defined as the proposed development footprint for (1) the presence of sensitive biological communities, (2) the potential for sensitive land cover types on the site to support special-status plant and wildlife species, and (3) the presence of any other sensitive natural resources protected by local, state, or federal laws and regulations. The assessment is not an official protocol-level survey for listed species that may be required for project approval by local, state, or federal agencies. Recommendations for any additional studies are provided.

A biological resources assessment provides general information on the presence, or potential presence, of sensitive species and habitats. This biological resources assessment does contain the results of a focused survey for listed plant species previously documented on or near the Project Area. This assessment is not an official wetland delineation that may be required for project approval by local, state, or federal agencies. This assessment is based on information available at the time of the study and on-site conditions that were observed on the dates the site was visited.

1.2 Project Summary

The proposed Project includes construction of a new hospital complex, retail space, and residential apartments on the approximately 19.67-acre Project Area. The hospital complex includes construction of two new medical facilities, a 55-bed hospital and medical office, a passive park, and parking garage. Retail development includes construction of a new 10,000 square foot facility. Elements of residential development include construction of five new apartment buildings, an office building, pool, 359 parking spaces, and 2.42 acres of park and recreation area including a play field, tot lot, and open space. Additional features associated with the development include new internal roadway, stormwater management areas (stormwater basin and bio swales), and walking paths. Trees, shrubs, and ground cover landscape plantings will be installed in the setbacks from curbs and roads that constitute the Project Area perimeter.

2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential project impacts. Table 1 provides a regulatory crosswalk between sensitive resources and applicable agencies and regulations which protect them, as well as which specific question in the Environmental Checklist Form (Appendix G) of the CEQA guidelines relates to the sensitive resource.

Table 1. Regulatory Crosswalk

Feature	Laws and Regulations	Regulatory Agency	CEQA Assessment Category[1] IV. Biological Resources	Examples
Natural Communities				
Sensitive Terrestrial Communities	Oak Woodland Conservation Act Local plans and ordinances	California Department of Fish and Wildlife (CDFW) Local agencies	Question B. Sensitive Natural Communities Question F. Conservation Plans	Vegetation Alliances Ranked G1-G3, S1-S3
Waters of the U.S.	Clean Water Act (CWA) Section 404 Rivers and Harbors Act Section 10	US Army Corps of Engineers (Corps) / Environmental Protection Agency (EPA)	Question C. Section 404 of CWA	Wetlands Open Waters[2]
Waters of the State	Porter-Cologne Act CWA Section 401	Regional Water Quality Control Board (RWQCB)	Not directly addressed under CEQA	Wetlands Open Waters Riparian Areas
Streams, Lakes, and Riparian Habitat	California Fish and Game Code (CFGC) Section 1602	CDFW / RWQCB	Question B. Riparian Habitat	Open Waters Riparian Areas
Special-Status Species				
Special-Status Plants	Endangered Species Act (ESA) Section 7 or 10 California Endangered Species Act (CESA) California Native Plant Protection Act (CNPPA) Local plans and ordinances	U.S. Fish and Wildlife Service (USFWS) CDFW Local agencies	Question A. Special-status Species Question E. Local Policies	ESA Listed Plants CESA Listed Plants CNPPA Listed Plants California Native Plant Society (CNPS) Rank 1, 2, & 3 Plants CNPS Rank 4 Plants (sometimes, analysis required) Locally listed Plants (sometimes, analysis required) Locally Listed Trees (local ordinance)

[1] Descriptions have been summarized; see Section 6.2 for details.
[2] Includes, but not limited to: streams, creeks, rivers, ponds, lakes

Table 1. Regulatory Crosswalk

Feature	Laws and Regulations	Regulatory Agency	CEQA Assessment Category[1] IV. Biological Resources	Examples
Special-status Wildlife	ESA Section 7 or 10 CESA CFGC Migratory Bird Treaty Act (MBTA) Bald and Golden Eagle Protection Act (BGEPA) Local plans and ordinances	USFWS National Marine Fisheries (NMFS) CDFW Local agencies	Question A. Special-status Species Question E. Local Policies	ESA Listed Wildlife CESA Listed Wildlife CDFW Fully Protected Species CDFW Species of Special Concern Native Nesting birds Bald and Golden Eagles
Critical Habitat	ESA	USFWS NMFS	Question A. Special-status Species Question F. Conservation Plans	Critical Habitat is only designated for ESA listed species such as: California red-legged frog, marbled murrelet etc.

2.1 Land Cover Types

Land cover types are herein defined as those areas of a particular vegetation type, soil or bedrock formation, aquatic features, and/or other distinct phenomenon. Typically, land cover types have identifiable boundaries that can be delineated based on changes in plant assemblages, soil or rock types, soil surface or near-surface hydroperiod, anthropogenic or natural disturbance, topography, elevation, etc. Many land cover types are not considered sensitive or otherwise protected under the environmental regulations discussed here. However, these land cover types typically provide essential ecological and biological functions for plants and wildlife, including special-status species. Land cover types that are considered protected under one or more environmental regulations are discussed below.

Sensitive Natural Communities

Sensitive natural communities include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by CDFW. CDFW ranks sensitive communities as "threatened" or "very threatened" (CDFW 2020a) and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2020b). CNDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2020) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or U.S. Fish and Wildlife Service (USFWS) must be considered and evaluated under the California Environmental Quality Act (CEQA) (CCR Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in city or county general plans or ordinances.

Non-sensitive land cover types include vegetation alliances and associations on the CDFW Natural Communities List with a rarity ranking of 4 or 5, as well as other Semi-natural (non-native species dominated) Stands and non-sensitive land use designations such as agriculture, developed areas, etc. These land covers and land uses are not protected by federal, state, or local laws and are not considered sensitive under CEQA.

Waters of United States

The United States Army Corps of Engineers (Corps) regulates "Waters of the United States" (WOUS) under Section 404 of the Clean Water Act (CWA). Waters of the United States are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3). Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the Corps Wetlands Delineation Manual (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into WOUS generally requires an individual or nationwide permit from the Corps under Section 404 of the CWA.

Waters of the State

The term "Waters of the State" (WOS) is defined by the Porter-Cologne Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the Corps under Section 404. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act. Projects that require a Corps permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to comply with the terms of the Water Quality Certification determination. If a project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by the California Department of Fish and Wildlife (CDFW) under Sections 1600-1616 of California Fish and Game Code (CFGC). Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term "stream", which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). "Riparian" is defined

as “on, or pertaining to, the banks of a stream.” Riparian vegetation is defined as “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG 1994). Removal of riparian vegetation may also require a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

Essential Fish Habitat

Essential Fish Habitat (EFH) is regulated through the National Marine Fisheries Service (NMFS), a division of the National Oceanic and Atmospheric Administration (NOAA). Protection of EFH is mandated through changes implemented in 1996 to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) to protect the loss of habitat necessary to maintain sustainable fisheries in the United States. The Magnuson-Stevens Act defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity" [16 USC 1802(10)]. NMFS further defines essential fish habitat as areas that "contain habitat essential to the long-term survival and health of our nation's fisheries" (NMFS 2007). EFH can include the water column, certain bottom types such as sandy or rocky bottoms, vegetation such as eelgrass or kelp, or structurally complex coral or oyster reefs. Under regulatory guidelines issued by NMFS, any federal agency that authorizes, funds, or undertakes action that may affect EFH is required to consult with NMFS (50 CFR 600.920).

2.2 Special-status Plants

Special-status species include those taxa that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the Federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). The ESA affords protection to federally listed species. The CESA affords protection to both state-listed species and those that are formal candidates for state listing. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory with California Rare Plant Ranks of 1, 2, and sometimes 3 are also considered special-status plant species and must be considered under CEQA. Rank 4 species and some Rank 3 species are typically only afforded protection under CEQA when such species are particularly unique to the locale (e.g., range limit, low abundance/low frequency, limited habitat) or are otherwise considered locally rare. Rank 3 and Rank 4 species are included in this analysis for completeness. A description of the CNPS Ranks is provided below in Table 2.

Table 2. CNPS Ranking List

California Rare Plant Ranks (formerly known as CNPS Lists)	
Rank 1A	Presumed extirpated in California and either rare or extinct elsewhere
Rank 1B	Rare, threatened, or endangered in California and elsewhere
Rank 2A	Presumed extirpated in California, but more common elsewhere
Rank 2B	Rare, threatened, or endangered in California, but more common elsewhere
Rank 3	Plants about which more information is needed - A review list
Rank 4	Plants of limited distribution - A watch list
Threat Ranks	
0.1	Seriously threatened in California

0.2	Moderately threatened in California
0.3	Not very threatened in California

CNPPA

The California Native Plant Protection Act (CNPPA) affords protection to plant species designated rare or endangered by the Fish and Game Commission through prohibition of "take," with some exceptions. Plants designated as rare or endangered through CNPPA are subject to review through CEQA.

2.3 Special-status Wildlife

Special-status wildlife species include those species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the ESA or CESA. These acts afford protection to both listed species and those that are formal candidates for listing. The federal Bald and Golden Eagle Protection Act (BGEPA) also provides broad protections to both eagle species that in some regards are similar to those provided by ESA. Additionally, CDFW Species of Special Concern (SSC) and California Fully Protected Species (CFP) are considered special-status species. Although these aforementioned species generally have no special legal status, they are given special consideration under CEQA. Bat species are evaluated for conservation status by the Western Bat Working Group (WBWG), a non-governmental entity. Bats named as a "High Priority" or "Medium Priority" species for conservation by the WBWG are typically considered special-status under CEQA.

In addition to regulations for species that carry a special designation, most native birds in the United States (including non-status species) are recommended for protection by the federal Migratory Bird Treaty Act of 1918 (MBTA) and protected by the CFGC under sections 3503, 3503.5 and 3513. Under these laws, deliberately or incidentally destroying active bird nests, eggs, and/or young is illegal.

Critical Habitat

Critical habitat is a term defined in the ESA as a specific and designated geographic area that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection. The ESA requires federal agencies to consult with the USFWS to conserve listed species on their lands and to ensure that any activities or projects they fund, authorize, or carry out will not jeopardize the survival of a threatened or endangered species. In consultation for those species with critical habitat, federal agencies must also ensure that their activities or projects do not adversely modify critical habitat to the point that it will no longer aid in the species' recovery. In many cases, this level of protection is similar to that already provided to species by the ESA jeopardy standard. However, areas that are currently unoccupied by the species but which are needed for the species' recovery are protected by the prohibition against adverse modification of critical habitat.

Wildlife Corridors

Wildlife movement between suitable habitat areas typically occurs via wildlife movement corridors. The primary function of wildlife corridors is to connect two larger habitat blocks, also referred to as core habitat areas (Beier 1992, Soulé and Terbough. 1999). Core habitat areas are important for wildlife that may travel between different types of habitat in order to complete various stages

of their lifecycle and maintain genetic diversity. Wildlife corridors must be considered under CEQA.

2.3 Local Ordinances

2.3.1. City Tree Ordinance

The City of Morgan Hill has a tree ordinance that protects certain trees within the City limits on City and private property. Chapter 12.32, "Restrictions on Removal of Significant Trees" of the Morgan Hill Municipal code protects and defines the following:

(1) Ordinance sized trees – woody plants with a circumference of 40 inches or more for non-indigenous species and 18 inches or more for indigenous species;
(2) Street trees – a tree of any size, situated within the public street right-of-way or publicly accessible private street or within five feet of a publicly accessible sidewalk; and
(3) Communities of trees – a group of trees of any size which are ecologically or aesthetically related to each other such that loss of several of them would cause a significant ecological, aesthetic, or environmental impact to the immediate area.

The City of Morgan Hill Restrictions on Removal of Significant Trees ordinance requires a permit be obtained for the cutting down, removal, poisoning, or other destruction of protected trees as well as any tree removal or pruning that would reduce the canopy area by more than 25 percent of any ordinance sized trees. Protected trees include but are not limited to indigenous trees including all oak (*Quercus* sp.), California bay (*Umbellularia californica*), madrone (*Arbutus menziesii*), sycamore (*Platanus racemosa*), and alder (*Alnus* sp.) species.

2.3.2. Natural Resource Setback

The City of Morgan Hill has a natural resource/hazard setback for all development in all zoning districts within the City. Chapter 18.92.110, "Natural Resource and Hazard Setbacks" of the Morgan Hill Municipal Code provides the following minimum setbacks from natural resource/hazards;

(1) Ridgelines – 80 feet;
(2) Category 2 Stream – 35 feet;
(3) Category 1 Stream – 0-30% slope: 100 feet (inside USA[3]) / 150 feet (outside USA); >30% slope: 150 feet (inside USA) / 200 feet (outside USA);
(4) 100-year Floodplain – Outside of floodplain unless development is consistent with the limitations contained in the City's Flood Damage Prevention requirements (Chapter 15.80).

Category 2 streams include intermittent and ephemeral streams where water is present during the wet season only during normal rain years. Category 1 streams include perennial streams where water is present year-round during normal rain years.

2.3.3. Habitat Conservation Plans or Natural Community Conservation Plans

The Santa Clara Valley Habitat Plan (SCVHP, Habitat Plan; ICFI 2012) is a regional planning document that allows covered projects to use a streamlined process for permitting and mitigation.

[3] Urban Service Area (USA) – Defined as the current (i.e. 2012) boundary of urban development for cities covered under the Final Santa Clara Valley Habitat Plan (ICFI 2012).

The SCVHP is both a Habitat Conservation Plan (HCP) and a Natural Community Conservation Plan (NCCP) that provides a higher level of environmental protection and conservation for 18 species of plants and wildlife including eight that are listed as threatened or endangered, under either the federal Endangered Species Act (ESA), the California Endangered Species Act (CESA) or both. The SCVHP also protects wetland, streams, and riparian habitats that are subject to the federal Clean Water Act (CWA) and California's Porter-Cologne Water Quality Control Act, and Section 1600-1616 of the CFGC, and other sensitive biological communities as defined by the NCCP. The SCVHP also includes an agreement between state/federal wildlife and wetland regulators and local jurisdictions, which allow public and private entities to engage in the "incidental take" of listed species (i.e., to destroy or degrade habitat) in exchange for the implementation of SCVHP-prescribed measures to avoid, minimize or compensate for adverse effects on endangered species and natural communities.

The geographic scope of the SCVHP extends from the Santa Clara/Alameda County border south to the Santa Clara/San Benito County border and from the western edge of San Jose east to the eastern edge of the Coyote Creek watershed or the County boundary. The SCVHP covers approximately 510,000 acres, primarily within south Santa Clara County. The entire Project Area is located within the SCVHP area, and thus, our analysis is inclusive of covered species and habitats as defined by and potential mitigation measures that may be required through the SCVHP.

2.3.4. Morgan Hill Citywide Burrowing Owl Habitat Mitigation Plan

The City of Morgan Hill has a Citywide Burrowing Owl Habitat and Mitigation Plan (Citywide Plan; City of Morgan Hill 2003) that requires burrowing owl (*Athene cunicularia*) surveys before land is disturbed or graded as well as assesses fees for burrowing owl mitigation. Per recent changes to the City's policy, the fees are provided to the Santa Clara Valley Habitat Agency for managing burrowing owl habitat under the SCVHP. Collection of fees is based upon the degree to which a parcel is considered to be suitable habitat under the SCVHP.

3.0 ENVIRONMENTAL SETTING

3.1 Soils and Topography

3.1.1 Soils

The U.S. Department of Agriculture (USDA) *Soil Survey of Eastern Santa Clara County* (USDA 1974) and California Soils Resources Lab (CSRL) SoilWeb (CSRL 2020) indicates the Project Area is composed of two mapping units composed of two soil series: *Arbuckle gravelly loam, 0 to 2 percent slopes* and *San Ysidro loam, 0 to 2 percent slopes*. The soil series are described below (Appendix A, Figure 2).

Arbuckle series: The Arbuckle series consists of well-drained gravelly sandy loams that have a gravelly clay loam subsoil. These soils formed in alluvium from sedimentary and metamorphic rock. They are on smooth terraces, above stream channels, or on toe slopes of low-lying hills surrounding the main valleys of Santa Clara County. Slopes range from 0 to 75 percent. Elevation ranges from 50 to 500 feet. Mean annual precipitation ranges from 10 to 35 inches with annual temperatures between 57 to 64 degrees Fahrenheit. Natural vegetation consists of annual grasses and forbs, either alone or as understory with blue oaks. Most areas are typically cleared for dryland and irrigated orchards, row and field crops, or rangeland. A typical profile includes seven soil horizons: A1, A2, A3, Bt1, Bt2, Btk, and BCk.

The A1 to A3 horizons consist of dark yellowish brown (10YR 4/4) slightly acid (pH 6.2-6.1) sandy loams from 0 to 13, 13 to 25, and 25 to 43 inches. Beneath this is the Bt1 layer, from 43 to 66 inches, is a dark yellowish brown (10YR 3/4) slightly acid (pH 6.2) gravelly sandy loam. This is underlain by Bt2, from 66 to 86 inches, another dark yellowish brown (10YR 3/4) gravelly sandy loam. Beneath this is Btk, from 86 to 112 inches, a 10YR 3/4slightly acid (pH 6.3) gravelly loam. The deepest horizon, from 112 to 173 inches, is the BCk horizon, a yellowish brown (10YR 5/4) slightly acid (pH 6.5) very gravelly sandy clay loam containing 50 percent or more gravel.

San Ysidro series: The San Ysidro series consists of very deep, moderately well drained soils that formed in alluvium from sedimentary rocks. San Ysidro soils are found on fan remnants and stream terraces usually with slopes of 0 to 9 percent at elevations of less than 1,500 feet. Mean annual precipitation is about 20 inches with mean annual air temperatures of about 59 degrees F. San Ysidro soils exist in a dry, subhumid, mesothermal climate with hot dry summers and cool moist winters. Native vegetation typically consists of annual grasses and forbs, but the soil is commonly used for growing dryland grains and shallow rooted crops. A typical profile includes six soil horizons: Ap, A, Bt1, Bt2, Bt3, and Bt4.

The Ap horizon consists of a brown (10YR 4/3) with few fine distinct mottles of brownish yellow (10YR 6/6) slightly acidic (pH 6.5) fine sandy loam from 0 to 7 inches. This is underlain by the A horizon which consists of a dark brown (10YR 3/3) moderately acidic (pH 6.0) fine sandy loam. The A horizon ranges from 7 to 14 inches. Below that are the Bt1 and Bt2 horizons which consist of brown (7.5YR 4/4) sandy clay loam of neutral pH (7.0) ranging from 14 to 28 inches and 28 to 40 inches, respectively. The Bt1 horizon also has a thin ¼ inch bleached layer of light brownish gray (10YR 6/2) horizon. This is underlain by the Bt3 horizon which consists of a dark yellowish brown (10YR 4/4) light sandy clay loam of neutral pH (7.0). The Bt2 horizon ranges from 40 to 54 inches. The deepest horizon, from 54 to 68 inches is the Bt4 horizon, a dark yellowish brown (10YR 4/4) moderately alkaline (pH 8.0) light clay loam.

3.1.2 Topography

The Project Area consists of a flat, open, field that has historically been used for agricultural purposes. There is an elevated berm approximately 2 to 3 feet higher than the surrounding grades running east-west through the site north of the existing medical building on-site. Elevations in the Project Area range from 337 to 342 feet.

3.2 Climate and Hydrology

3.2.1 Climate

The Project Area is located in the center of the Santa Clara Valley between the Santa Clara Mountains and Diablo Range. The area has a cool-summer Mediterranean climate where winters and summers both cool due to the due to sea breeze and ocean influence. Seasonal temperature ranges are reasonably minimal due to maritime influence which controls temperature extremes. Average maximum temperatures range from 58 to 82 degrees Fahrenheit and average minimum temperatures range from 38 to 58 degrees Fahrenheit. The prevailing wind pattern is a north-northwesterly sea breeze during the afternoon and early evening and a light south-southeasterly flow during the late evenings and early mornings. Wind speeds are greatest in spring and summer, and least in the fall and winter (ICFI 2012). Precipitation typically occurs during the winter months, with little rainfall in the spring and summer. Average annual rainfall is 20.92 inches (NACSE 2020).

3.2.2 Hydrology

The primary hydrological source for the Project Area is precipitation and surface run-off from on-site and adjacent lands. According to the Mount Madonna U.S. Geological Survey (USGS) 7.5-minute quadrangle and the USFWS National Wetlands Inventory (NWI) (USFWS 2020a), no stream or wetland features are located within the Project Area. The eastern border of the Project Area is comprised of Highway 101. On the other side of the highway, approximately 355 feet from the Project Area, lies Little Llagas Creek, a USGS intermittent stream feature. Little Llagas Creek headwaters rise on the eastern side of Crystal Peak and flow southward where it is culverted for long distances (> 0.5 mile) and channelized through the City of Morgan Hill.

3.3 Vegetation and Land-use

3.3.1 Vegetation

Vegetation within the Project Area is predominantly non-native annual grassland, located on a flat field. Small portions of the Project Area include isolated shrubs and trees. Vegetation was highly degraded or absent along the sidewalks around the Project Area. This denuded area extends approximately 5 feet into the non-native grassland. Vegetation types are described further in Section 4 and Appendix A, Figure 3.

3.3.2 Land-Use

From 1953 up to the early 1990s, the Project Area supported various agricultural practices including row crops and orchards (NETR 2020). Apart from a medical complex constructed in 1985 (RealtyTrac 2020), the Project Area consists of flat, grassy field and a grouping of trees associated with a residence (NETR 2020). The residence on-site was demolished between 1993 and 1998. From 1998 onward, the Project Area consisted of fallow fields and the medical complex (Google 2020). The Project Area is bordered by Highway 101 to the east. To the north and west of the Project Area, land use consists of residential and light commercial properties. To the south of the Project Area, is a non-native grassland.

4.0 ASSESSMENT METHODOLOGY

Prior to the site visit, WRA biologists reviewed the following literature and performed database searches to assess the potential for sensitive land cover types and special-status species:

- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- Aerial photographs (Google 2020, NETR 2020)
- Breeding Bird Atlas of Santa Clara County (Bousman 2007)
- CNPS Inventory of Rare and Endangered Plants of California (CNPS 2020a)
- CNDDB (CDFW 2020a)
- CDFG publication “California’s Wildlife, Volumes I-III” (Zeiner et al. 1990)
- CDFW and University of California Press publication *California Amphibian and Reptile Species of Special Concern* (Thomson et al. 2016)
- CDFW Publication, *California Bird Species of Special Concern in California* (Shuford and Gardali 2008)
- Consortium of California Herbaria (CCH 2020)
- NWI (USFWS 2020a)
- SCVHP (ICFI 2012)
- *Soil Survey of Eastern Santa Clara County* (USDA 1974)

- USFWS Information for Planning and Consultation (IPac) (USFWS 2020b)
- WBWG, Species Accounts Region 5 (WBWG 2020)

Database searches (i.e., CNDDB, CNPS) focused on the Mount Madonna U.S. Geological Survey 7.5-minute quadrangles and the surrounding eight quadrangles. Appendix A, Figures 4 and 5 contain observations of special-status plant species and wildlife species documented within a five-mile radius of the Project Area.

Following the remote assessment, one wildlife biologist and one botanist with a minimum of 40-hr Corps wetland delineation training traversed the entire Project Area on foot to document: (1) terrestrial land cover types; (2) existing conditions and to determine if such provides suitable habitat for any special-status plant or wildlife species; (3) if and what type of aquatic land cover types (e.g., wetlands) are present; and (4) if special-status species or habitats are present.

Critical Habitat

During the search of background literature, prior to the site visit the USFWS Critical Habitat Mapper was referenced to determine if critical habitat for any species occurs within the Project Area (USFWS 2020c).

Wildlife Corridors

Prior to the site assessment, biologists reviewed maps from the California Essential Connectivity Project and associated habitat connectivity or mapping data available through the CDFW Biogeographic Information and Observation System (BIOS) (CDFW 2020b). In addition, aerial imagery (Google 2020) for the local area was referenced to determine if core habitat areas were present within, or connected to the Project Area.

4.1 Land Cover Types

The Project Area's land cover types were evaluated to determine if such areas have the potential to support special-status plants or wildlife. In most instances, communities are delineated based on distinct shifts in plant assemblage (vegetation), and follow the *California Natural Community List* (CDFW 2018) and *A Manual of California Vegetation, Online Edition* (CNPS 2020b). In some cases, it may be necessary to identify variants of land cover types or to describe non-vegetated areas that are not described in the literature; should an undescribed variant be used, it will be noted in the description.

Vegetation alliances (land cover) with a CDFW Rank of 1 through 3 (globally critically imperiled (S1/G1), imperiled (S2/G2), or vulnerable (S3/G3), were considered as part of this evaluation[4]

The Project Area was also surveyed to determine if any wetlands and waters potentially subject to jurisdiction by the Corps, RWQCB, or CDFW were present. The assessment was based primarily on the presence of wetland plant indicators, but may also include any observed indicators of wetland hydrology or wetland soils.

[4] Ranking of CDFW List of Vegetation Alliances is based on NatureServe Rankings (NatureServe 2020)

4.2 Special-status Species

4.2.1 General Assessment

Potential occurrence of special-status species in the Project Area was evaluated by first determining which special-status species occur in the vicinity of the Project Area through a literature and database review. Database searches for known occurrences of special-status species focused on the 7.5-minute USGS quadrangles mentioned above.

A site visit was made to the Project Area to search for suitable habitats for special-status species. Habitat conditions observed at the Project Area were used to evaluate the potential for presence of special-status wildlife based on these searches and the professional expertise of the investigating biologists. The potential for each special-status species to occur in the Project Area was then evaluated according to the following criteria:

- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- Present. Species is observed on the site or has been recorded (i.e. CNDDB, other reports) on the site in the recent past.

The site assessment is intended to identify the presence or absence of suitable habitat for each special-status species known to occur in the vicinity in order to determine its potential to occur in the Project Area. Methods for these assessments are described below. If a special-status species was observed during the site visit, its presence was recorded and discussed.

In cases where little information is known about species occurrences and habitat requirements, the species evaluation was based on best professional judgment of WRA biologists with experience working with the species and habitats. If necessary, recognized experts in individual species biology were contacted to obtain the most up-to-date information regarding species biology and ecology.

If a special-status species was observed during the site visit, its presence is recorded and discussed below in Section 5.2.1 or 5.2.2. For some species, a site assessment visit at the level conducted for this report may not be sufficient to determine presence or absence of a species to the specifications of regulatory agencies. In these cases, a species may be assumed to be present or further protocol-level special-status species surveys may be necessary. Special-status species for which further protocol-level surveys may be necessary are described in Section 5.0.

4.2.2 Special-status Plants

Focused Survey

No previous protocol-level surveys, or focused surveys have been completed within the Project Area.

Protocol-level Survey

No protocol-level surveys were conducted in the Project Area.

4.2.3 Special-status Wildlife

Targeted Assessment

No previous protocol-level surveys, or targeted assessments have been completed within the Project Area.

5.0 ASSESSMENT RESULTS

The Project Area is set in a largely open area surrounded by a mix of residential housing, open fields, and highway. The Project Area is bounded by the Highway 101 south off-ramp for Tennant Avenue to the east, Barrett Avenue to the north, Juan Hernandez Drive to the west, and open fields to the south. Evidence of past ground disturbance was found throughout much of the Project Area, including evidence of past agricultural activities, construction staging, discing, mowing, stormwater infrastructure, and placement of fill. A description of the results of the site assessment are provided in the following sections.

A list of plant and wildlife species observed within and around the Project Area is in included in Appendix B. Representative photographs of the Project Area are provided as Appendix C. Appendix D lists all special-status plant and wildlife species with potential to occur in and around the Project Area.

5.1 Land Cover Types

There were no potentially sensitive land cover types identified within the Project Area. The Project Area is dominated by non-native annual grassland with few scattered coyote brush (*Baccharis pilularis*) shrubs and trees insufficient to form separate community structures. No special-status plant species have a moderate or high potential to occur.

Table 3 summarizes the area of the two non-sensitive land cover types observed in the Project Area. Land cover types mapped in the Project Area are shown in Appendix A, Figure 3. A description of the land cover types is contained in the following sections.

Table 3. Land Cover Types Observed within the Project Area

Vegetation Structure/ Land Use	Community (Holland 1986)	Vegetation Alliance/Association (CNPS 2020b)	Sensitive Status	Rarity Ranking	Acres within Project Area
Non-Sensitive					
Non-native Annual Grassland	Non-native grassland	Wild oat (*Avena* spp.) and annual brome (*Bromus* spp.) Herbaceous Semi-Natural Alliance	Non-sensitive	None	17.50
Landscaped/Developed	Ornamental / None	None	N/A	N/A	2.17
Sensitive					
None	None	None	N/A	N/A	N/A

5.1.1 Non-Sensitive Land Cover Types

Non-native Annual Grassland (Wild Oat [*Avena* spp.] and Annual Brome [*Bromus* spp.] Herbaceous Semi-Natural Alliance)**.** CDFW Rank None

Non-native annual grassland present within the Project Area best fit the wild oat (*Avena* spp.) and annual brome (*Bromus* spp.) grassland Herbaceous Semi-Natural Alliance (CNPS 2020b). These grasslands occur throughout cismontane California, particularly in the Sierra Foothills, Coast Range, Transverse Range, and Peninsular Ranges. They are situated on a variety of landscapes including coastal terraces, valley bottoms, rangelands, waste places, and foothills underlain by a variety of soil types (CNPS 2020b). Grassland is the dominate ground cover and is comprised of a variety of non-native annual grass and forb species. Due to the assessment timing, not all species were readily identifiable; however, early senescent individuals containing diagnostic characteristics made positive identification possible. Observed common species included wild oat (*Avena barbata*), slim oat (*Avena fatua*), soft chess (*Bromus hordeaceus*), ripgut brome (*Bromus diandrus*), field barley (*Hordeum* sp.), Harding grass (*Phalaris aquatica*), and Italian rye grass (*Festuca perennis*). Grasses are the dominant cover within the grassland, however several native and non-native forbs are also present within the grassland, including fiddleneck (*Amsinckia menziesii*), yellow star thistle (*Centaurea solstitialis*), filaree (*Erodium cicutarium*), jointed charlock (*Raphanus raphanistrum*), prickly lettuce (*Lactuca serriola*), and curly dock (*Rumex crispus*).

Coyote brush shrubs underlain by grasses are present at low cover in the northwest corner of the Project Area. A grouping of planted trees including coast live oak (*Quercus agrifolia*), Monterey pine (*Pinus radiata*), and Peruvian pepper (*Schinus molle*) are located in the north central portion of the Project Area. The trees appear to be planted and associated with a previous residence on the property that was demolished in the 1990s (NETR 2020). All shrub and tree cover occur onsite at low percent cover, insufficient to be considered individual land cover types.

Landscaped/Developed (no alliance)**.** CDFW Rank None

Landscaped/Developed land was mapped in areas that are planted with decorative plants and/or are developed with impervious surfaces or anthropogenic activity and are terrestrial in nature.

This land cover type was mapped in the southwest corner of the Project Area where existing structures with impervious surfaces and landscaping are present. Ornamental plantings observed within the landscaped portion occur in groupings such as perimeter rows and include species such as oleander (*Nerium oleander*), English ivy (*Hedera helix*), and rosemary (*Rosmarinus officinalis*).

5.1.2 Sensitive Land Cover Types

There are no sensitive land cover types located within the Project Area.

5.2 Special-status Species

5.2.1 Special-status Plants

Potential for Occurrence

A five-mile radius search resulted in fifty-seven (57) species being identified as known from around the Project Area (CNDDB 2018, 2020a, CNPS 2020). Appendix D summarizes the potential occurrence for each special-status plant species documented in the vicinity of the Project Area. Special-status plants which have been recorded within 5 miles of the Project Area are shown in Figure 3. No special-status plant species were present or determined to have a moderate or high potential to occur within the Project Area. All 57 species were determined to have no potential to occur within the Project Area due to one or more of the following:

- Specific edaphic conditions, such as soils derived from serpentine or volcanics, are absent;
- Specific hydrologic conditions, such as brackish waters or tidal action, are absent;
- Specific habitats such as coastal scrub, chaparral, woodland, and cistmontane, coniferous, or broadleaf forest is absent from the Project Area;
- The Project Area is outside the documented elevation range of the species;
- Lack of a viable seed bank due to historic and contemporary soil alterations;
- Non-native species competition;
- Regular disturbance, such as fire-break mowing, of the Project Area; and
- Depauperate habitat is unsuitable for the species.

Observations and Recommendations

All special status plant species documented to occur in the vicinity of the Project Area are unlikely or have no potential to occur; the Project Area does not have the potential to support any of these species due to the lack of necessary habitat and ruderal grassland habitat. No special-status plant species were observed in the Project Area during the assessment and no protocol-level rare plant surveys are recommended.

5.2.2 Special-status Wildlife

Fifty two (52) special-status species of wildlife have been recorded in the vicinity of the Project Area. Appendix D summarizes the potential for each of these species to occur in the Project Area. No special-status wildlife species were observed in the Project Area during the site assessment. Two special-status wildlife species were determined to have high potential to occur

in the Project Area, and one was determined to have moderate potential. Special-status wildlife species that have a moderate potential to occur in the Project Area are listed in Table 4 and discussed in further detail below.

Table 4. Potential Special-Status Wildlife

SCIENTIFIC NAME	COMMON NAME	CONSERVATION STATUS	POTENTIAL
Lanius ludovicianus	Loggerhead shrike	SSC, BCC	High
Elanus leucurus	White tailed Kite	CFP	High
Ammodramus savannarum	Grasshopper sparrow	SSC	Moderate
Other Wildlife			
Various	Native nesting birds	CFGC, MBTA	Moderate

Loggerhead shrike (*Lanius ludovicianus*). CDFW Species of Special Concern. Loggerhead shrike is a year-round resident and winter visitor in lowlands and foothills throughout California. This species is associated with open country with short vegetation and scattered trees, shrubs, fences, utility lines and/or other perches. Although they are songbirds, shrikes are predatory and forage on a variety of invertebrates and small vertebrates. Captured prey items are often impaled for storage purposes on suitable substrates, including thorns or spikes on vegetation, and barbed wire fences. Shrikes nest in trees and large shrubs; nests are usually placed three to ten feet off the ground (Shuford and Gardali 2008).

This species prefers open grasslands with scattered trees or shrubs, a habitat type which is present throughout the Project Area in the non-native annual grassland community. Additionally, this species is known to occur in the vicinity of the Project Area (Bousman 2007). Because the species is known to occur in the vicinity, and typical nesting and foraging habitat is present, the species has high potential to occur.

White-tailed Kite (*Elanus leucurus*). CDFW Fully Protected Species. White-tailed kite is resident in open to semi-open habitats throughout the lower elevations of California, including grasslands, savannahs, woodlands, agricultural areas, and wetlands. Vegetative structure and prey availability seem to be more important habitat elements than associations with specific plants or vegetative communities (Dunk 1995). Nests are constructed mostly of twigs and placed in trees, often at habitat edges. Nest trees are highly variable in size, structure, and immediate surroundings, ranging from shrubs to trees greater than 150 feet tall (Dunk 1995). This species preys upon a variety of small mammals, as well as other vertebrates and invertebrates.

Non-native annual grasslands within the Project Area and nearby fallow agricultural fields, orchards, and riparian habitat are likely to provide suitable foraging habitat for this species. Though small mammals are not active on the Project Area, extensive California ground squirrel (*Otospermophilus beecheyi*) activity was observed on adjacent parcels to provide a prey base. Several shrubs and trees are present on the Project Area that are suitably sized and positioned to provide suitable nesting substrates. Because suitable nesting substrates and foraging habitat are both present on and in the immediate vicinity of the Project Area, there is high potential for white-tailed kite to occur within the Project Area.

Grasshopper sparrow (*Ammodramus savannarum*). CDFW Species of Special Concern. Grasshopper sparrow is a summer resident in California, wintering in Mexico and Central

America. This species occurs in open grassland and prairie-like habitats with short- to moderate-height vegetation, and often scattered shrubs (Shuford and Gardali 2008). Both perennial and annual (non-native) grasslands are used. Nests are placed on the ground and well concealed, often adjacent to grass clumps (Shuford and Gardali 2008). Grasshopper sparrows are secretive and generally detected by voice. Insects comprise the majority of the diet.

Non-native annual grasslands on the Project Area provide somewhat marginal but suitable nesting and foraging habitat for this species. Given that the Project Area appears to be only partially mowed on a semi-routine basis, grasses and forbs are present that could conceal ground nests for this species. Scattered shrubs on the Project Area may additionally provide suitable cover. Given the presence of both breeding and foraging habitat, this species has moderate potential to occur on the Project Area.

The only other special-status species that has been historically documented in the vicinity but is unlikely to occur is burrowing owl. This species is discussed in greater detail below.

Burrowing Owl (*Athene cunicularia*), CDFW Species of Special Concern; USFWS Bird of Conservation Concern. Burrowing owl typically favors flat, open grassland or gentle slopes and sparse shrub land ecosystems. These owls prefer annual or perennial grasslands, typically with sparse or nonexistent tree or shrub canopies; however, they also colonize debris piles and old pipes. In California, burrowing owls are found in close association with California ground squirrels. Burrowing owl exhibits high site fidelity and usually use the abandoned burrows of ground squirrels for shelter and nesting (Poulin et al 2011).

No ground squirrel burrows were observed on the Project Area during the site visit. In addition, no burrow surrogates such as piles of broken concrete, small culverts etc. were observed. With the lack of burrows, or burrow surrogates, this species cannot nest or winter within the Project Area. Parcels directly adjacent to the Project Area exhibit a high number of active ground squirrels and burrows of suitable size for burrowing owl occupation. In regions with extant populations of burrowing owl, this might be cause to designate a moderate or higher potential for this species to occur on the Project Area. However, according to the Western Burrowing Owl Conservation Strategy (Appendix M) of the SCVHP, no burrowing owl nests have been documented in the Morgan Hill burrowing owl conservation region since 2002. Although suitable habitat is present for burrowing owl in the region and in the vicinity of the Project Area, the area is not considered to be within the burrowing owl's range, and is only considered to be a location for potential population expansion. Given the lack of nearby source populations and overall species status in the vicinity, burrowing owl is unlikely to occur on the Project Area despite the presence of adjacent suitable habitat.

Critical Habitat

No critical habitat is present within the Project Area.

Wildlife Corridors

A review of the California essential connectivity project (CDFW 2020b) showed that the Project Area is not located within areas previously identified as an essential connectivity area, core reserve or corridor, landscape block, or general wildlife corridors identified in the BIOS system. While habitat connectivity areas are mapped surrounding the City of Morgan Hill, the Project Area does not overlap with any of them.

The Project Area is a ruderal agricultural field and is bordered on all sides by roads including highway 101. Most of these roads provide major barriers to dispersal. Residential urban development is present to the west and north. Areas surrounding the Project Area are also similarly composed of a mixture of developed uplands, and agricultural operations. The presence of anthropogenic features such as roads, housing tracks etc., and lack of connectivity with natural communities or other areas that would provide necessary elements for wildlife to successfully move between two core habitats, mean that the Project Area does not likely function as a wildlife corridor. The Project Area does not connect two core habitats or provide a linkage between areas commonly used by wildlife for daily activities.

6.0 PROJECT ANALYSIS AND RECOMMENDATIONS

6.1 CEQA Analysis Methodology

Pursuant to Appendix G, Section IV of the State CEQA Guidelines, a project would have a significant impact on biological resources if it 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 CDFW or USFWS;
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 CDFW or USFWS;
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (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; and/or,
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.

This report utilizes these thresholds in the analysis of impacts and determination of the significance of those impacts. The assessment of impacts under CEQA is based on the changes caused by the Project relative to the existing conditions in the Project Area. The existing conditions in the Project Area are described above, based on surveys conducted in 2019. In applying CEQA Appendix G, the terms “substantial” and “substantially” are used as the basis for significance determinations in many of the thresholds, but are not defined qualitatively or quantitatively in CEQA or in technical literature. In some cases, such as direct impacts to special-status species listed under the CESA or ESA, the determination of a substantial impact may be relatively straightforward. In other cases, the determination is less clear, and requires application of best professional judgment based on knowledge of site conditions as well as the ecology and physiology of biological resources present in a given area. Determinations of whether or not Project activities will result in a substantial adverse effect to biological resources are discussed in the following sections for sensitive biological communities, special-status plant species, and special-status wildlife species.

6.2 Impacts Assessment and Mitigation Measures

Using the CEQA analysis methodology outlined in Section 6.2 above, the following section describes potential significant impacts to sensitive resources within the Project Area as well as suggested mitigation measures which are expected to reduce impacts to less than significant.

The entirety of Project impacts are proposed within non-sensitive land cover types, including non-native annual grassland and landscaped/developed area. Project activities include permanent impact to 16.52 acres of non-native annual grassland and 0.54 acres of landscaped/developed area (Figure 6). Permanent impacts within non-native annual grassland are associated with the central elements of the new hospital complex, retail space, and residential apartments. Permanent impacts within landscaped/developed area would occur from constructing new buildings in currently landscaped or parking areas. In addition, work includes temporary impacts to approximately 1.52 acres of non-native annual grassland and 1.63 acres of landscaped/developed area. Temporary impact within non-native annual grassland would occur from landscape planting and worker access on areas outside the final development footprint and will remain vegetated upon completion of construction. Temporary impact within landscaped/developed area occur in areas of existing parking lot and/or areas with ornamental plantings that will remain as developed or landscaped after work is completed. Table 5 provides a summary of impacts proposed within the Project Area.

Table 5. Summary of Project Area Impacts

LAND COVER TYPE	IMPACT (acre)	
	PERMANENT	TEMPORARY
Non-native Annual Grassland	15.98	1.52
Landscaped/Developed	0.54	1.63
Total	16.52	3.15

Overall, habitats observed on-site are considered unsuitable for local special status plant species and thus no impacts to special status plant species are anticipated as a result of the proposed project. With the implementation of mitigation measures described below, no significant impacts to special-status wildlife species are expected to occur. An assessment of the potentially significant Project-related impacts and their associated mitigation measures are provided below.

6.2.1 Sensitive Land Cover Types

No sensitive terrestrial or aquatic land cover types occur in the Project Area and none will be impacted by the proposed Project.

6.2.2 Special-status Plants

Of the 57 special status plant species known to occur in the vicinity of the Project Area, none have the potential to occur in the Project Area. Most of the species found in the review of background literature occur in high quality vernal pools or other aquatic habitat, chaparral, coastal habitats, or on special soil types such as alkali or serpentine often found in the foothills east and west of the Project Area. The grassland areas within the Project Area are frequently disturbed or dominated by weedy species, and are therefore unlikely to support most of the special status plant species

found in the literature review. The Project Area is unlikely to support any special status plant species; therefore, no impacts to special status plants are anticipated. No additional surveys or mitigation measures are recommended to address sensitive plant issues within the Project Area.

6.2.3 Special-status Wildlife

Of the 52 special-status wildlife species known to occur in the vicinity of the Project Area, three were determined to have the potential to occur in the Project Area. Most of the species found in the review of background literature occur in habitats not found in the Project Area. Habitat suitability for grassland-associated species in the Project Area is reduced due to the ruderal and compacted nature of the site, as well as the adjacent development and presence to major barriers to dispersal in the form of large roads. No wetlands are present on the Project Area, and thus no connectivity value is provided for aquatic species. Special-status wildlife species on-site may fall under the jurisdiction of CDFW under the CFGC.

Table 6 outlines the special-status wildlife that may be directly or indirectly impacted by the Project. No other special-status wildlife species were determined to have a moderate or high potential to occur and therefore impacts to special-status wildlife are limited to those included below.

Table 6. Potential Special-Status Wildlife Impacted by Project

SCIENTIFIC NAME	**COMMON NAME**
Special-status Wildlife (CEQA, other)	
Lanius ludovicianus	loggerhead shrike
Elanus leucurus	white-tailed kite
Ammodramus savannarum	grasshopper sparrow
various	Native nesting birds

BIO IMPACT 1: Nesting Birds

This assessment determined that three species of special-status birds may use the Project Area for breeding and foraging including white-tailed kite, loggerhead shrike, and grasshopper sparrow. These species may forage or nest in the non-native annual grassland in the Project Area, and may also find nesting habitat in trees and shrubs within the Project Area. Grading and development proposed within the Project Area may reduce nesting and foraging habitat for special-status species, or may impact these species through visual and auditory disturbance sufficient to cause nest abandonment. Such impacts would be considered significant under CEQA.

In addition to special-status nesting birds, common avian species may also nest within the Project Area and may be similarly affected by project activities. Due to the protected status of these species under both the MBTA and CFGC, impacts to common native nesting birds would also be considered a significant impact under CEQA.

BIO MM 1.0: Nesting Birds Mitigation Measure

It is recommended that pre-construction nesting bird surveys be conducted within 14 days of ground disturbance to avoid disturbance to active nests, eggs, and/or young of nesting birds. It is also recommended that any trees and shrubs in or adjacent to the Project Area that are proposed for removal and that could be used as avian nesting sites be removed during the non-breeding season (September 1 through February 1).

In the event that a nest of a protected species is located, a no disturbance buffer shall be established around the nest until all young have fledged or the nest otherwise becomes inactive (e.g. due to predation). Suggested buffer zone distances differ depending on species, location, and placement of nest and will be determined and implemented in the field by a qualified biologist.

Minimization measures for both special-status species and native nesting birds are the same and implementation of Measure BIO MM-1 would reduce impacts to nesting birds to less than significant levels.

6.2.5 Local Policies or Ordinances

There are multiple ordinance sized trees, as defined by the City of Morgan Hill, in the Project Area. Ordinance sized trees are located in the center portion of the Project Area in non-native annual grassland and along the perimeter of the landscape/developed area. The approximate number of individual trees protected by the ordinance include sixteen trees total; fourteen coast live oaks, one Peruvian pepper, and one Monterey pine. Indigenous trees include coast live oak tree. Ordinance sized coast live oak trees contained an approximate circumference ranging from 18 to 70 inches. Nonindigenous trees include Monterey pine and Peruvian pepper tree. Ordinance sized nonindigenous sized trees contained an approximate circumference ranging from 50 to 70 inches. In addition, there are three protected Street Trees, as defined by the City ordinance within the southwest perimeter of the Project Area. All trees within a public right-of-way, no matter the species, are protected by the City ordinance. No other protected trees as defined by the City of Morgan Hill occur in the Project Area. Proposed activities will directly impact ordinance-sized trees on the site.

<u>BIO IMPACT 2: Local Tree Ordinance</u>

The removal, cutting down, poisoning, or other destruction of protected trees, including pruning that would reduce the canopy area by more than 25 percent of any Ordinance sized tree, would require permits or mitigation measures under the City Municipal Code (Chapter 12.32). In addition, activities that compact soil, trench through roots, or pile soil up around the base of trees out to the dripline may adversely affect the health of these trees.

The following measures shall be implemented to assure that impacts to ordinance sized trees are less than significantly impacted. Implementation of the following measures will reduce impacts on protected trees to a less-than-significant level by bringing the project into compliance with all local ordinances.

BIO MM 2.0

To the extent feasible, activities will avoid impacts to protected trees. Avoidance is considered to be completely avoiding any work or staging under the dripline of trees. The boundary of the designated avoidance buffer will be flagged or fenced prior to initial ground disturbance. If complete avoidance is not feasible, BIO MM 2.1 will be implemented.

BIO MM 2.1

The project proponent will comply with the local ordinances and submit permit applications for removal, trimming, damage, or relocation of all trees covered by the City ordinance. Any trees to be removed may require replacement according to the discretion of the City. This discretion may include requiring replacement of any and all trees on a comparable ratio of size or quantity. The replacement trees will be planted on site to the extent feasible and the project proponent will comply with all other replacement requirements imposed by the City.

6.2.6 Habitat Conservation Plans or Natural Community Conservation Plans

The Project Area is located in the SCVHP area (ICFI 2012). The entirety of the mapped Project Area is non-native annual grassland or developed/landscaped area located within the Land Cover Fee Zones Urban Areas (No Land Cover Fee) and Fee Zone B (Agriculture and Valley Floor Lands) of the SCVHP. A Land Cover development fee applies to the Project Area based on Fee Zone B. The Project Area is located outside of Burrowing Owl Fee Zones, Wetland Fee Zones, Serpentine Fee Zones, Valley Oak and Blue Oak Woodland Fee Zone, and does not require plant or wildlife surveys for designated species. The Project Area is located entirely outside of the SCVHP's Geobrowser mapped Category 1 and 2 stream buffer setback areas.

<u>BIO IMPACT 3: SCVHP</u>

The proposed Project would include private development, adding more than a 5,000 square feet of impervious surface on more than 2 acres, and is thus considered to be an eligible "covered Project" in the SCVHP. The SCVHP requires submittal of a SCVHP application for private projects when submitting planning or building applications at the local jurisdiction office. Implementation of the following measure will reduce impacts related to habitat conservation plans to a less-than-significant level by bringing the Project into compliance with all local ordinances.

BIO MM 3.0

Comply with SCVHP requirements for private projects, including completing the SCVHP application and payment of any applicable Project fees.

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Appendix A

Figures

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Sources: National Geographic, WRA | Prepared By: mweidenbach, 2/26/2020

Figure 1. Project Area Regional Location Map

Lilian Commons Morgan Hill Medical Campus
Morgan Hill, Santa Clara County, California

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Sources: Esri World Imagery - DigitalGlobe 2017, SSURGO, WRA | Prepared By: mweidenbach, 2/26/2020

Figure 2. Soils Map

Lilian Commons Morgan Hill Medical Campus
Morgan Hill, Santa Clara County, California

0 100 200 Feet

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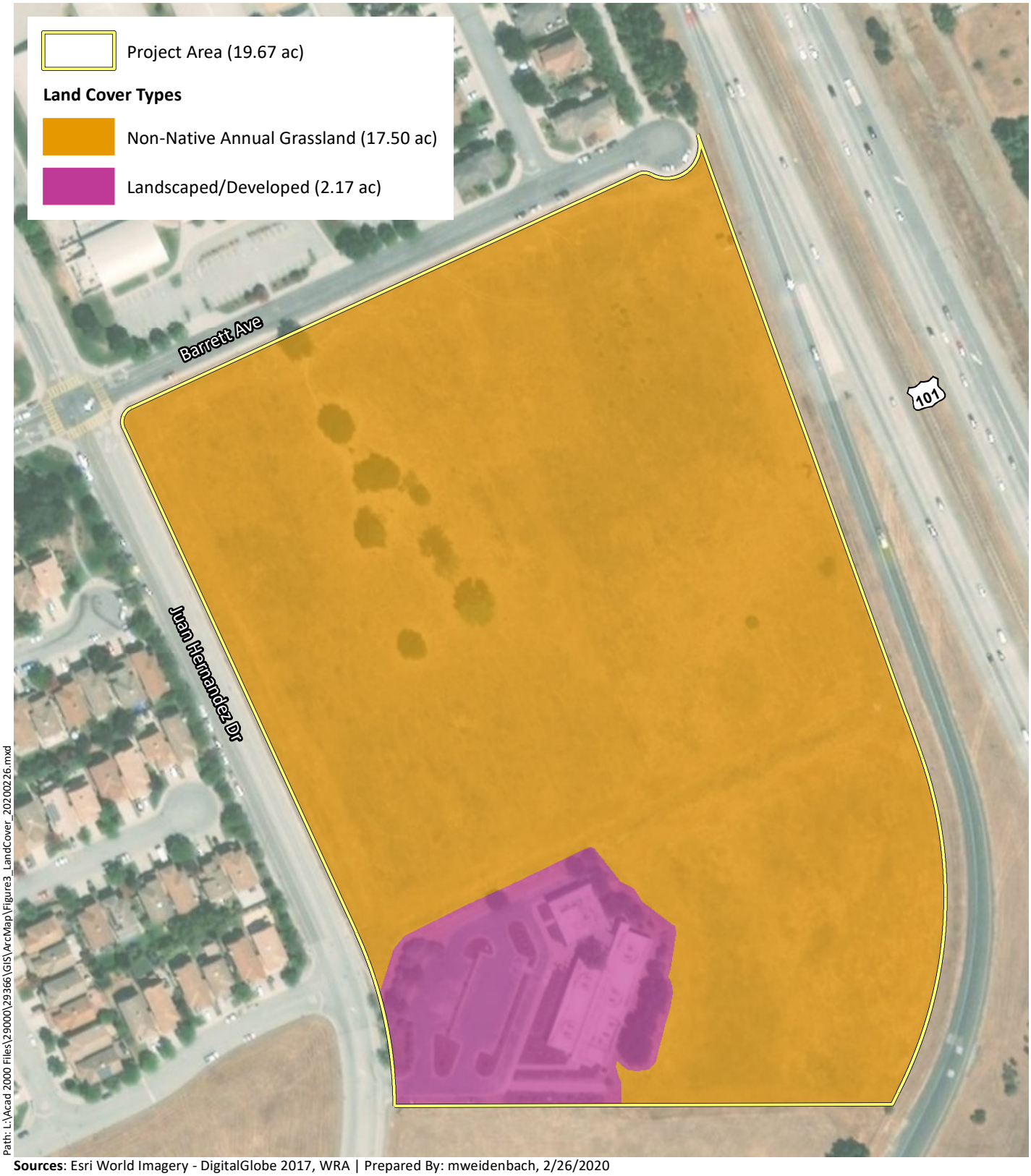

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Sources: Esri World Imagery - DigitalGlobe 2017, WRA | Prepared By: mweidenbach, 2/26/2020

Figure 3. Land Cover Types

Lilian Commons Morgan Hill Medical Campus
Morgan Hill, Santa Clara County, California

0 100 200 Feet

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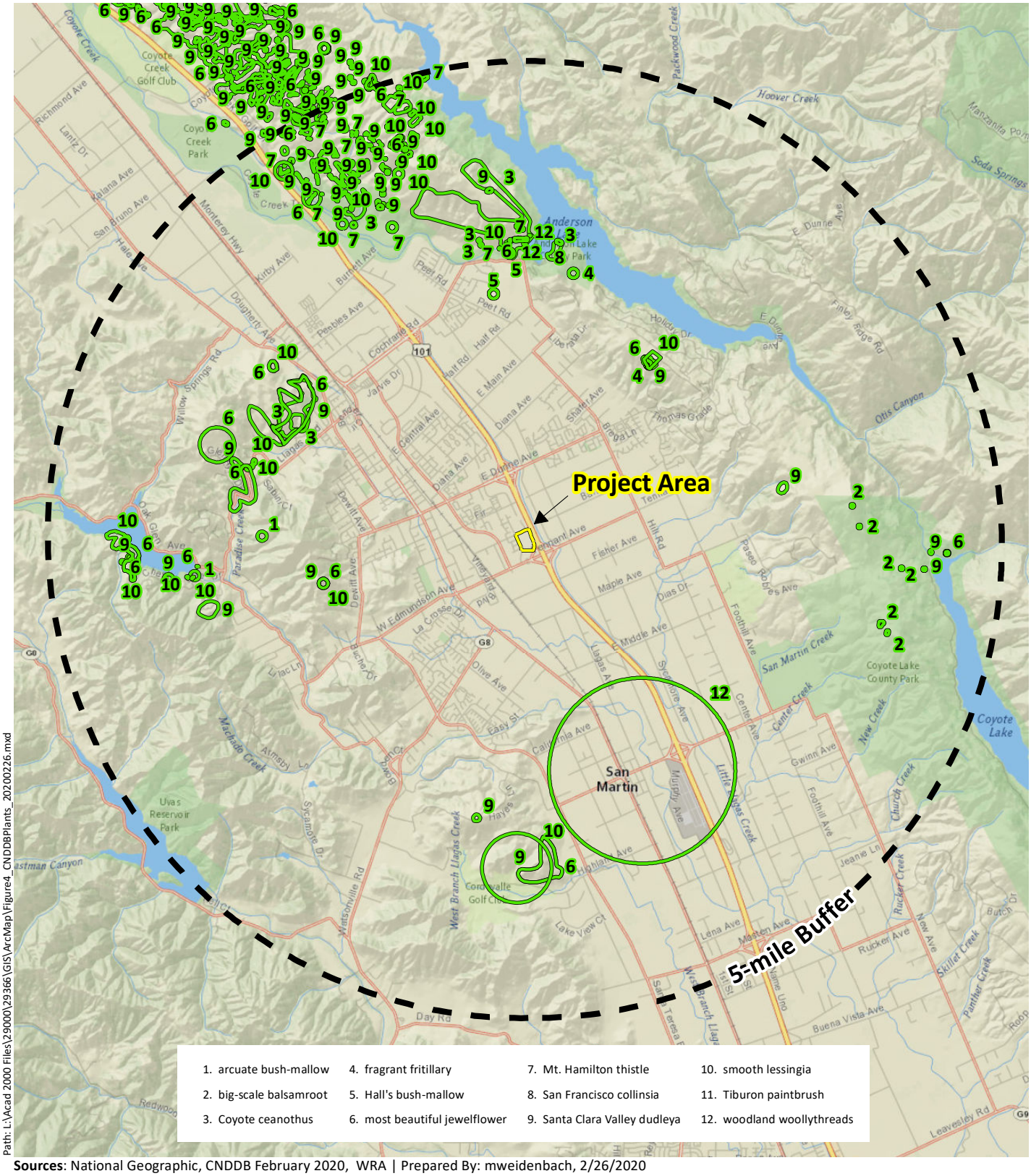

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Sources: National Geographic, CNDDB February 2020, WRA | Prepared By: mweidenbach, 2/26/2020

Figure 4. Special-Status Plant Species Documented within 5 miles of the Project Area

Lilian Commons Morgan Hill Medical Campus
Morgan Hill, Santa Clara County, California

0 1 2 Miles

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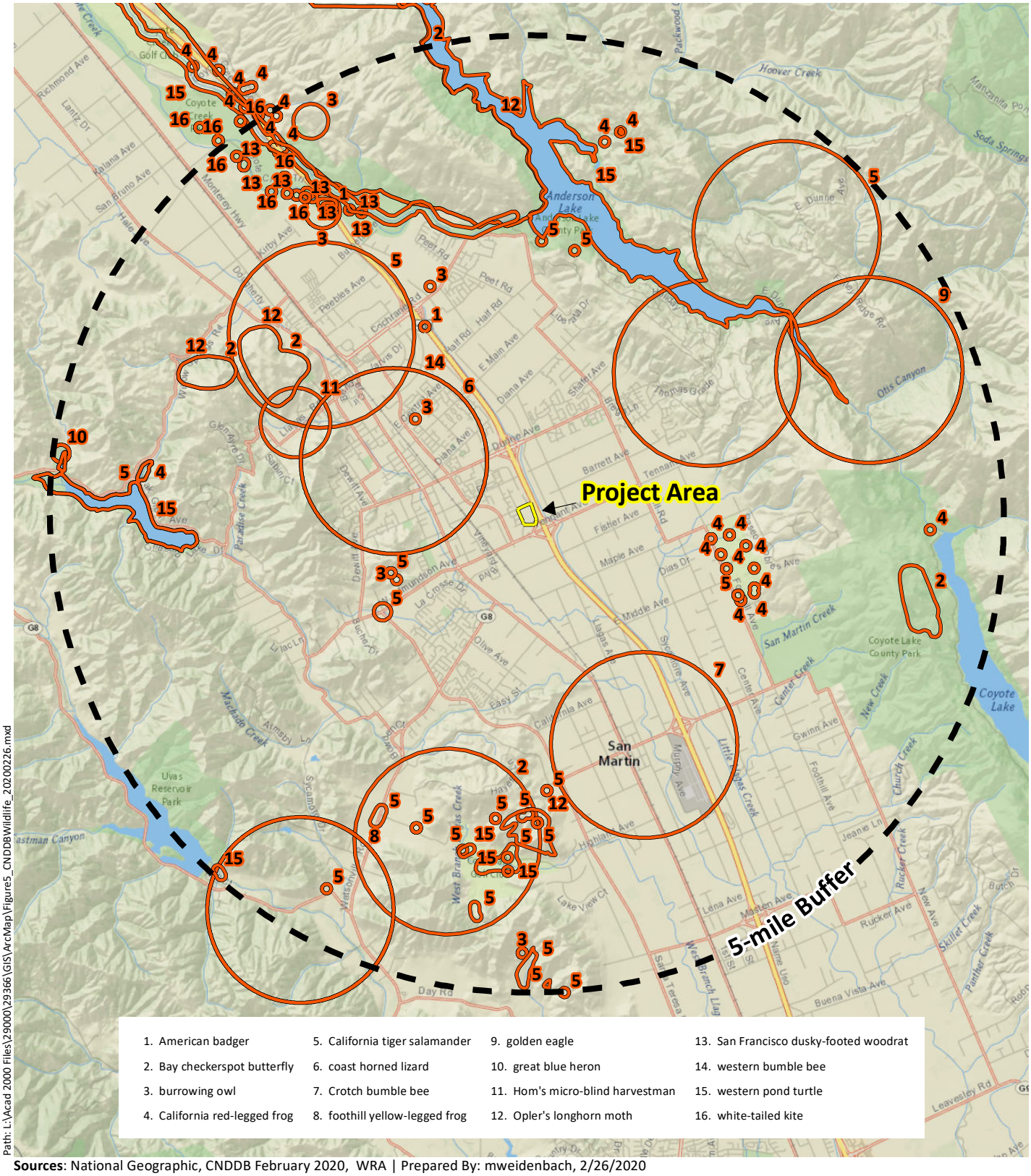

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Sources: National Geographic, CNDDB February 2020, WRA | Prepared By: mweidenbach, 2/26/2020

Figure 5. Special-Status Wildlife Species Documented within 5 miles of the Project Area

Lilian Commons Morgan Hill Medical Campus
Morgan Hill, Santa Clara County, California

0 1 2 Miles

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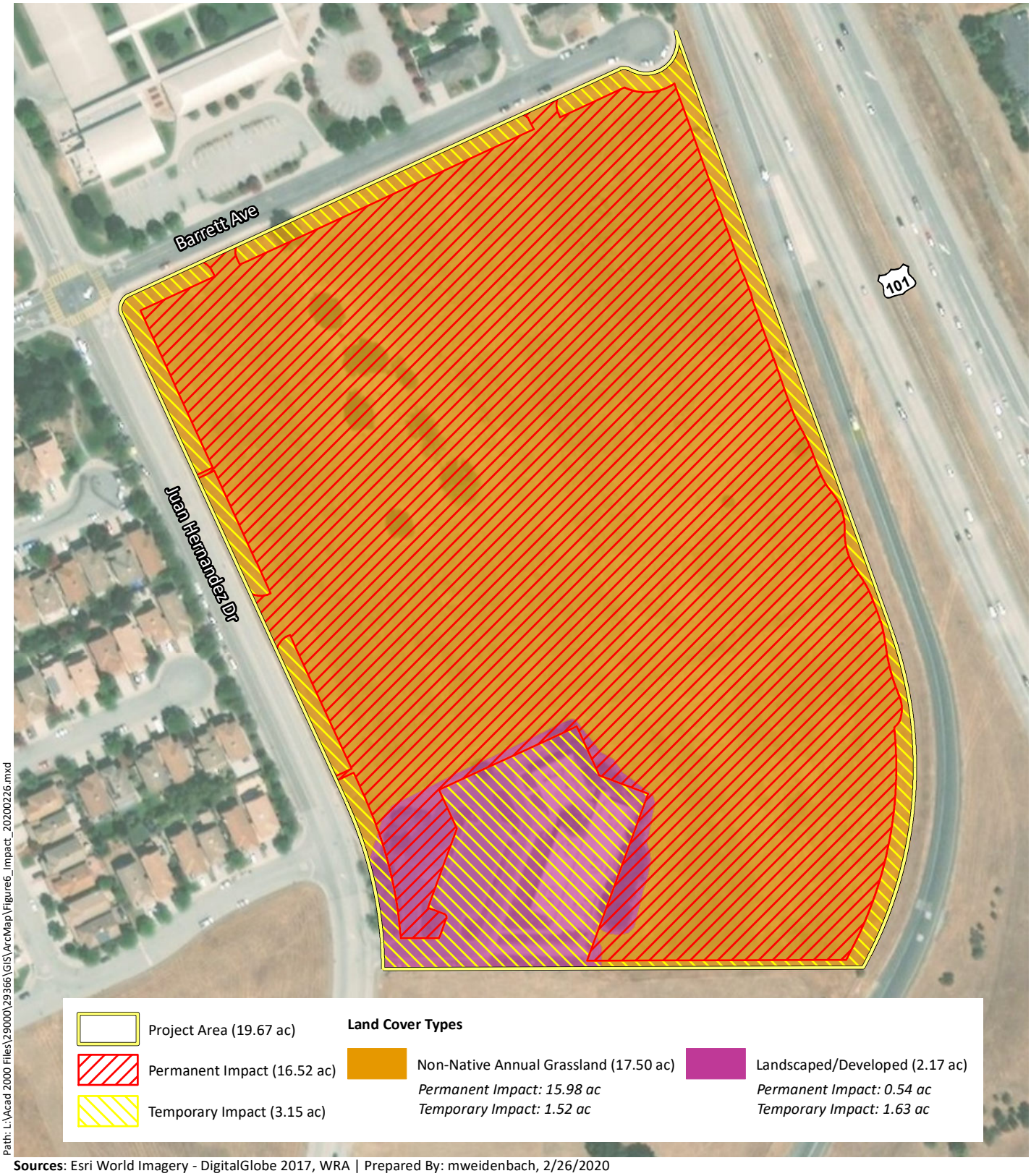

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Sources: Esri World Imagery - DigitalGlobe 2017, WRA | Prepared By: mweidenbach, 2/26/2020

Figure 6. Impact Map

Lilian Commons Morgan Hill Medical Campus
Morgan Hill, Santa Clara County, California

0 100 200 Feet

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Appendix B

Species Observed in and around the Project Area

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Appendix B. Plant and wildlife species observed by WRA biologists during the February 21, 2020 site visit.

SCIENTIFIC NAME	COMMON NAME
Plants	
Amsinckia menziesii	Fiddleneck
Avena barbata	Slender oat
Avena fatua	Wildoats
Baccharis pilularis	Coyote brush
Brassica rapa	Common mustard
Bromus diandrus	Ripgut brome
Bromus hordeaceus	Soft chess
Centaurea solstitialis	Yellow starthistle
Dittrichia graveolens	Stinkwort
Erodium botrys	Big heron bill
Erodium cicutarium	Red stemmed filaree
Erodium moschatum	Whitestem filaree
Eschscholzia californica	California poppy
Geranium molle	Crane's bill geranium
Hordeum murinum	Foxtail barley
Lactuca serriola	Prickly lettuce
Malva parviflora	Cheeseweed
Marrubium vulgare	White horehound
Pinus radiata	Monterey pine
Plantago lanceolata	Ribwort
Quercus agrifolia	Coast live oak
Raphanus raphanistrum	Jointed charlock
Rumex crispus	Curly dock
Schinus molle	Peruvian pepper tree
Stipa miliacea var. miliacea	Smilo grass
Tragopogon porrifolius	Salsify
Trifolium hirtum	Rose clover
Wildlife	
Birds	
Corvus brachyrhynchos	American crow
Calypte anna	Anna’s hummingbird
Sayornis nigricans	black phoebe
Aphelocoma californica	California scrub-jay
Haemorhous mexicanus	house finch
Mammals	
Lepus californicus	black-tailed jackrabbit
Otospermophilus beecheyi	California ground squirrel

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Appendix C

Representative Photographs of the Project Area

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Photograph 1. Looking northeast across the Project Area at ruderal grassland. The trees within the Project Area are approximately along the middle of the site and are depicted in the photo. Taken February 21, 2020.

Photograph 2. Looking southeast across the Project Area at ruderal grassland with scattered scrub bushes. The Diablo Range is in the background. Taken February 21, 2020.

Photograph 3. View of some of the mature trees in Project Area. Trees are located along the middle of the Project Area in a northernly direction. Photograph taken February 21, 2020.

Photograph 4. Photograph of coast live oak with feral cat feeding underneath. Taken February 21, 2020.

Photograph 5. Elevated berm running east to west across Project Area. Taken February 21, 2020.

Photograph 6. View of ruderal grassland and parking area with ornamental tree plantings from the western border of the Project Area. Taken February 21, 2020.

Photograph 7. View of the ruderal grassland from the northeastern border of the Project Area. Taken February 21, 2020.

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Appendix D

Special-Status Species Potential Table

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Appendix D. Potential Special Status Plant and Wildlife Species Table. List compiled from the California Department of Fish and Wildlife (CDFW) Natural Diversity Database (February 2020), U.S. Fish and Wildlife Service (USFWS) Species Lists, and California Native Plant Society (CNPS) Electronic Inventory search for the Mount Madonna USGS 7.5' quadrangles and surrounding eight quadrangles, as well as a review of other CDFW lists and publications (Thomson et al 2016, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
Santa Clara thorn-mint *Acanthomintha lanceolata*	Rank 4.2	Chaparral (often serpentine), cismontane woodland, coastal scrub/rocky. Elevation ranges from 260 to 3940 feet (80 to 1200 meters). Blooms Mar-Jun.	**Unlikely.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
California androsace *Androsace elongata ssp. acuta*	Rank 4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland. Elevation ranges from 490 to 3940 feet (150 to 1200 meters). Blooms Mar-Jun.	**Unlikely.** No suitable habitat for this species occurs within the Project Area. Grassland areas on-site are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
Anderson's manzanita *Arctostaphylos andersonii*	Rank 1B.2	Broadleafed upland forest, chaparral, north coast coniferous forest/openings, edges. Elevation ranges from 200 to 2490 feet (60 to 760 meters). Blooms Nov-May.	**Unlikely.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
Hooker's manzanita *Arctostaphylos hookeri ssp. hookeri*	Rank 1B.2	Closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub/sandy. Elevation ranges from 200 to 1760 feet (60 to 536 meters). Blooms Jan-Jun.	**Unlikely.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
Pajaro manzanita *Arctostaphylos pajaroensis*	Rank 1B.1	Chaparral (sandy). Elevation ranges from 100 to 2490 feet (30 to 760 meters). Blooms Dec-Mar.	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
Kings Mountain manzanita *Arctostaphylos regismontana*	Rank 1B.2	Broadleafed upland forest, chaparral, north coast coniferous forest/granitic or sandstone. Elevation ranges from 1000 to 2400 feet (305 to 730 meters). Blooms Jan-Apr.	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
big-scale balsamroot *Balsamorhiza macrolepis*	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland/sometimes serpentine. Elevation ranges from 300 to 5100 feet (90 to 1555 meters). Blooms Mar-Jun.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. Though three documented occurrences occur within four miles of the Project Area on foothilll grassland, grassland areas onsite are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
Santa Cruz Mountains pussypaws *Calyptridium parryi var. hesseae*	Rank 1B.1	Chaparral, cismontane woodland/sandy or gravelly, openings. Elevation ranges from 1000 to 5020 feet (305 to 1530 meters). Blooms May-Aug.	**Unlikely.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
South Coast Range morning-glory *Calystegia collina ssp. venusta*	Rank 4.3	Chaparral, cismontane woodland, valley and foothill grassland/serpentine or sedimentary. Elevation ranges from 1390 to 4890 feet (425 to 1490 meters). Blooms Apr-Jun.	**Unlikely.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
Tiburon paintbrush *Castilleja affinis var. neglecta*	FE, ST, Rank 1B.2, SCVHP	Valley and foothill grassland (serpentine). Elevation ranges from 200 to 1310 feet (60 to 400 meters). Blooms Apr-Jun.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. A documented occurrence occurs within five miles of the Project Area; grassland areas are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
Monterey Coast paintbrush *Castilleja latifolia*	Rank 4.3	Closed-cone coniferous forest, cismontane woodland (openings), coastal dunes, coastal scrub/sandy. Elevation ranges from 0 to 610 feet (0 to 185 meters). Blooms Feb-Sep.	**Unlikely.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
pink creamsacs *Castilleja rubicundula var. rubicundula*	Rank 1B.2	Chaparral (openings), cismontane woodland, meadows and seeps, valley and foothill grassland/serpentine. Elevation ranges from 70 to 2990 feet (20 to 910 meters). Blooms Apr-Jun.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area.	No further surveys or avoidance measures are recommended.
Coyote ceanothus *Ceanothus ferrisiae*	FE, Rank 1B.1, SCVHP	Chaparral, coastal scrub, valley and foothill grassland/serpentine. Elevation ranges from 390 to 1510 feet (120 to 460 meters). Blooms Jan-May.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. Three documented occurrences occur within five miles of the Project Area; grassland areas are disturbed by agricultural activities or	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
			dominated by ruderal species.	
Monterey ceanothus *Ceanothus rigidus*	Rank 4.2	Closed-cone coniferous forest, chaparral, coastal scrub/sandy. Elevation ranges from 10 to 1800 feet (3 to 550 meters). Blooms Feb-Apr (Jun).	**No Potential**. No suitable habitat for this species or serpentine soils occur within the Project Area.	No further surveys or avoidance measures are recommended.
Congdon's tarplant *Centromadia parryi ssp. congdonii*	Rank 1B.1	Valley and foothill grassland (alkaline). Elevation ranges from 0 to 750 feet (0 to 230 meters). Blooms May-Oct (Nov).	**Unlikely.** No suitable habitat for this species or alkaline soils occur within the Project Area. There are no documented occurrences within 5 miles of the Project Area.	No further surveys or avoidance measures are recommended.
dwarf soaproot *Chlorogalum pomeridianum var. minus*	Rank 1B.2	Chaparral (serpentine). Elevation ranges from 1000 to 3280 feet (305 to 1000 meters). Blooms May-Aug.	**No Potential.** No suitable habitat for this species or serpentine soils occur within the Project Area.	No further surveys or avoidance measures are recommended.
Douglas' spineflower *Chorizanthe douglasii*	Rank 4.3	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland/sandy or gravelly. Elevation ranges from 180 to 5250 feet (55 to 1600 meters). Blooms Apr-Jul.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. Grassland within the Project Area are disturbed by agricultural activities or dominated by ruderal species	No further surveys or avoidance measures are recommended.
Monterey spineflower *Chorizanthe pungens var. pungens*	FT, Rank 1B.2	Chaparral (maritime), cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland/sandy. Elevation ranges from 10 to 1480 feet (3 to 450 meters). Blooms Apr-Jun (Jul), (Aug).	**Unlikely.** No suitable habitat for this species occurs within the Project Area. There are no documented occurrences within 5 miles of the Project Area. Grassland in the Projeact Area are disturbed	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
			by agricultural activities or dominated by ruderal species.	
robust spineflower *Chorizanthe robusta var. robusta*	FE, Rank 1B.1	Chaparral (maritime), cismontane woodland (openings), coastal dunes, coastal scrub/sandy or gravelly. Elevation ranges from 10 to 980 feet (3 to 300 meters). Blooms Apr-Sep.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area.	No further surveys or avoidance measures are recommended.
Mt. Hamilton fountain thistle *Cirsium fontinale var. campylon*	Rank 1B.2, SCVHP	Chaparral, cismontane woodland, valley and foothill grassland/serpentine seeps. Elevation ranges from 330 to 2920 feet (100 to 890 meters). Blooms (Feb), Apr-Oct.	**Unlikely.** No suitable seep habitat for this species or serpentine soils occur within the Project Area.	No further surveys or avoidance measures are recommended.
Brewer's clarkia *Clarkia breweri*	Rank 4.2	Chaparral, cismontane woodland, coastal scrub/often serpentine. Elevation ranges from 710 to 3660 feet (215 to 1115 meters). Blooms Apr-Jun.	**Unlikely.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
Santa Clara red ribbons *Clarkia concinna ssp. automixa*	Rank 4.3	Chaparral, cismontane woodland. Elevation ranges from 300 to 4920 feet (90 to 1500 meters). Blooms (Apr), May-Jun (Jul).	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
San Francisco collinsia *Collinsia multicolor*	Rank 1B.2	Closed-cone coniferous forest, coastal scrub/sometimes serpentine. Elevation ranges from 100 to 820 feet (30 to 250 meters). Blooms (Feb), Mar-May.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
Rattan's cryptantha *Cryptantha rattanii*	Rank 4.3	Cismontane woodland, riparian woodland, valley and foothill grassland. Elevation ranges from 800 to 3000 feet (245 to 915 meters). Blooms Apr-Jul.	**Unlikely.** No suitable habitat for this species or talus substrates occur within the Project Area. Grassland within the Project Area is disturbed by agricultural activities or dominated by ruderal species	No further surveys or avoidance measures are recommended.
clustered lady's-slipper *Cypripedium fasciculatum*	Rank 4.2	Lower montane coniferous forest, north coast coniferous forest/usually serpentine seeps and streambanks. Elevation ranges from 330 to 7990 feet (100 to 2435 meters). Blooms Mar-Aug.	**No Potential.** No suitable habitat for this species or serpentine soils occur within the Project Area. Grassland within the Project Area is disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
Santa Clara Valley dudleya *Dudleya abramsii ssp. setchellii*	FE, Rank 1B.1, SCVHP	Cismontane woodland, valley and foothill grassland/serpentine, rocky. Elevation ranges from 200 to 1490 feet (60 to 455 meters). Blooms Apr-Oct.	**Unlikely.** No suitable habitat for this species or rocky outcrops occur within the Project Area. Multiple documented occurrences occur within 5 miles of the Project Area; however, grassland in the Project Area is disturbed by agricultural activities or dominated by ruderal species	No further surveys or avoidance measures are recommended.
California bottle-brush grass *Elymus californicus*	Rank 4.3	Broadleafed upland forest, cismontane woodland, north coast coniferous forest, riparian woodland. Elevation ranges from 50 to 1540 feet (15 to 470 meters). Blooms May-Aug (Nov).	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
Hoover's button-celery *Eryngium aristulatum var. hooveri*	Rank 1B.1	Vernal pools. Elevation ranges from 10 to 150 feet (3 to 45 meters). Blooms (Jun), Jul (Aug).	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
sand-loving wallflower *Erysimum ammophilum*	Rank 1B.2	Chaparral (maritime), coastal dunes, coastal scrub/sandy, openings. Elevation ranges from 0 to 200 feet (0 to 60 meters). Blooms Feb-Jun.	**No Potential**. No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
fragrant fritillary *Fritillaria liliacea*	Rank 1B.2, SCVHP	Valley and foothill grassland, vernal pools/clay. Elevation ranges from 10 to 985 feet (3 to 300 meters). Blooms Apr-Aug.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. A documented occurrence occurs within 5 miles of the Project Area; however, grassland in the Projeact Area is disturbed by agricultural activities or dominated by ruderal species	No further surveys or avoidance measures are recommended.
phlox-leaf serpentine bedstraw *Galium andrewsii ssp. gatense*	Rank 4.2	Chaparral, cismontane woodland, lower montane coniferous forest/serpentine, rocky. Elevation ranges from 490 to 4760 feet (150 to 1450 meters). Blooms Apr-Jul.	**No Potential.** No suitable habitat for this species or talus substrates occur within the Project Area.	No further surveys or avoidance measures are recommended.
Monterey gilia *Gilia tenuiflora ssp. arenaria*	FE, ST, Rank 1B.2	Chaparral (maritime), cismontane woodland, coastal dunes, coastal scrub/sandy, openings. Elevation ranges from 0 to 150 feet (0 to 45 meters). Blooms Apr-Jun.	**No Potential**. No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
Loma Prieta hoita *Hoita strobilina*	Rank 1B.1, SCVHP	Chaparral, cismontane woodland, riparian woodland/usually serpentine, mesic. Elevation ranges from 100 to 2820 feet (30 to 860 meters). Blooms May-Jul (Aug), (Oct).	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. Grassland areas on-site are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
Santa Cruz tarplant *Holocarpha macradenia*	FT, SE, Rank 1B.1	Coastal prairie, coastal scrub, valley and foothill grassland/often clay, sandy. Elevation ranges from 30 to 720 feet (10 to 220 meters). Blooms Jun-Oct.	**Unlikely.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
Kellogg's horkelia *Horkelia cuneata var. sericea*	Rank 1B.1	Closed-cone coniferous forest, chaparral (maritime), coastal dunes, coastal scrub/sandy or gravelly, openings. Elevation ranges from 30 to 660 feet (10 to 200 meters). Blooms Apr-Sep.	**Unlikely.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
legenere *Legenere limosa*	Rank 1B.1	Vernal pools. Elevation ranges from 0 to 2890 feet (1 to 880 meters). Blooms Apr-Jun.	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
bristly leptosiphon *Leptosiphon acicularis*	Rank 4.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevation ranges from 180 to 4920 feet (55 to 1500 meters). Blooms Apr-Jul.	**Unlikely.** No suitable habitat for this species occurs within the Project Area. Grassland areas on-site are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
serpentine leptosiphon *Leptosiphon ambiguus*	Rank 4.2	Cismontane woodland, coastal scrub, valley and foothill grassland/usually serpentine. Elevation ranges from 390 to 3710 feet (120 to 1130 meters). Blooms Mar-Jun.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. Grassland areas on-site are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
large-flowered leptosiphon *Leptosiphon grandiflorus*	Rank 4.2	Coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, valley and foothill grassland/usually sandy. Elevation ranges from 20 to 4000 feet (5 to 1220 meters). Blooms Apr-Aug.	**Unlikely.** No suitable habitat for this species occurs within the Project Area. Grassland areas on-site are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
woolly-headed lessingia *Lessingia hololeuca*	Rank 3,	Broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland/clay, serpentine. Elevation ranges from 50 to 1000 feet (15 to 305 meters). Blooms Jun-Oct.	**Unlikely.** No suitable habitat for this species occurs within the Project Area. Grassland areas on-site are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
smooth lessingia *Lessingia micradenia var. glabrata*	Rank 1B.2, SCVHP	Chaparral, cismontane woodland/serpentine, often roadsides. Elevation ranges from 390 to 1380 feet (120 to 420 meters). Blooms (May), (Jun), Jul-Nov.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. Multiple documented occurrence occur within five miles of the Project Area; however, grassland areas on-site are disturbed by agricultural	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
			activities or dominated by ruderal species.	
arcuate bush-mallow *Malacothamnus arcuatus*	Rank 1B.2	Chaparral, cismontane woodland. Elevation ranges from 50 to 1160 feet (15 to 355 meters). Blooms Apr-Sep.	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
Hall's bush-mallow *Malacothamnus hallii*	Rank 1B.2	Chaparral, coastal scrub. Elevation ranges from 30 to 2490 feet (10 to 760 meters). Blooms May-Sep (Oct).	**No Potential**. No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
woodland woolythreads *Monolopia gracilens*	Rank 1B.2	Broadleafed upland forest (openings), chaparral (openings), cismontane woodland, north coast coniferous forest (openings), valley and foothill grassland/serpentine. Elevation ranges from 330 to 3940 feet (100 to 1200 meters). Blooms (Feb), Mar-Jul.	**Unlikely.** No suitable habitat for this species occurs within the Project Area. One documented occurrence occurs within five miles of the Project Area; however, grassland areas on-site are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
Santa Cruz Mountains beardtongue *Penstemon rattanii var. kleei*	Rank 1B.2	Chaparral, lower montane coniferous forest, north coast coniferous forest. Elevation ranges from 1310 to 3610 feet (400 to 1100 meters). Blooms May-Jun.	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
Michael's rein orchid *Piperia michaelii*	Rank 4.2	Coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest. Elevation ranges from 10 to 3000 feet (3 to	**No Potential**. No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
		915 meters). Blooms Apr-Aug.		
Yadon's rein orchid *Piperia yadonii*	FE, Rank 1B.1	Coastal bluff scrub, closed-cone coniferous forest, chaparral (maritime)/sandy. Elevation ranges from 30 to 1670 feet (10 to 510 meters). Blooms (Feb), May-Aug.	**No Potential**. No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
Choris' popcornflower *Plagiobothrys chorisianus var. chorisianus*	Rank 1B.2	Chaparral, coastal prairie, coastal scrub/mesic. Elevation ranges from 50 to 520 feet (15 to 160 meters). Blooms Mar-Jun.	**Unlikely.** No suitable habitat for this species occurs within the Project Area. Grassland within the Project Area are disturbed by agricultural activities or dominated by ruderal species	No further surveys or avoidance measures are recommended.
San Francisco popcornflower *Plagiobothrys diffusus*	SE, Rank 1B.1	Coastal prairie, valley and foothill grassland. Elevation ranges from 200 to 1180 feet (60 to 360 meters). Blooms Mar-Jun.	**Unlikely.** No suitable habitat for this species occurs within the Project Area. Grassland in the Projeact Area are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
California alkali grass *Puccinellia simplex*	Rank 1B.2	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools/alkaline, vernally mesic; sinks, flats, and lake margins. Elevation ranges from 10 to 3050 feet (2 to 930 meters). Blooms Mar-May.	**No Potential.** No suitable habitat for this species occurs within the Project Area. There are no documented occurrences within 5 miles of the Project Area. Grassland in the Projeact Area is disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
rock sanicle *Sanicula saxatilis*	SR, Rank 1B.2	Broadleafed upland forest, chaparral, valley and foothill grassland/rocky. Elevation ranges from 2030 to 3850 feet (620 to 1175 meters). Blooms Apr-May.	**Unlikely.** No suitable habitat for this species or rocky outcrops occur within the Project Area.	No further surveys or avoidance measures are recommended.
Metcalf Canyon jewelflower *Streptanthus albidus ssp. albidus*	FE, Rank 1B.1, SCVHP	Valley and foothill grassland (serpentine). Elevation ranges from 150 to 2620 feet (45 to 800 meters). Blooms Apr-Jul.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. There are no documented occurrences within 5 miles of the Project Area. Grassland in the Project Area is disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
most beautiful jewelflower *Streptanthus albidus ssp. peramoenus*	Rank 1B.2, SCVHP	Chaparral, cismontane woodland, valley and foothill grassland/serpentine. Elevation ranges from 310 to 3280 feet (95 to 1000 meters). Blooms (Mar), Apr-Sep (Oct).	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. Multiple documented occurrences occur within 5 miles of the Project Area; however, grassland in the Project Area is disturbed by agricultural activities or dominated by ruderal species	No further surveys or avoidance measures are recommended.
Mt. Hamilton jewelflower *Streptanthus callistus*	Rank 1B.3	Chaparral, cismontane woodland. Elevation ranges from 1970 to 2590 feet (600 to 790 meters). Blooms Apr-May.	**No Potential**. No suitable habitat for this species occurs within the Project Area. This species is only known from the Mt. Hamilton Range.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
two-fork clover *Trifolium amoenum*	FE, Rank 1B.1	Coastal bluff scrub, valley and foothill grassland (sometimes serpentine). Elevation ranges from 20 to 1360 feet (5 to 415 meters). Blooms Apr-Jun.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. Grassland within the Project Area is disturbed by agricultural activities or dominated by ruderal species	No further surveys or avoidance measures are recommended.
Santa Cruz clover *Trifolium buckwestiorum*	Rank 1B.1	Broadleafed upland forest, cismontane woodland, coastal prairie/gravelly, margins. Elevation ranges from 340 to 2000 feet (105 to 610 meters). Blooms Apr-Oct.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. There are no documented occurrences within 5 miles of the Project Area. Grassland in the Project Area is disturbed by agricultural activities or dominated by ruderal species	No further surveys or avoidance measures are recommended.
saline clover *Trifolium hydrophilum*	Rank 1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Elevation ranges from 0 to 980 feet (0 to 300 meters). Blooms Apr-Jun.	**No Potential.** No suitable habitat for this species occurs within the Project Area. This species is only known from the Mt. Hamilton Range.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
MAMMALS				
pallid bat *Antrozous pallidus*	SSC, WBWG High	Found in a variety of habitats ranging from grasslands to mixed forests, favoring open and dry, rocky areas. Roost sites include crevices in rock outcrops and cliffs, caves, mines, and also hollow trees and various manmade structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**No Potential.** No rock outcroppings, cliffs, or suitable cavities/caves are present on the Project Area to support roosting by this species.	No further recommendations are made for this species.
Townsend's big-eared bat *Corynorhinus townsendii*	SSC, WBWG High	Associated with a wide variety of habitats from deserts to higher-elevation mixed and coniferous forests. Females form maternity colonies in buildings, caves and mines, and males roost singly or in small groups. Foraging typically occurs at edge habitats near wooded areas, e.g. along streams.	**Unlikely.** Though individuals may roost or forage in the areas around trees on the Project Area, no large sheltered areas are present to support maternity colonies or hibernacula.	No further recommendations are made for this species.
hoary bat *Lasiurus cinereus*	WBWG Medium	Prefers open forested habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths.	**Unlikely.** Project Area is chiefly ruderal disturbed grassland, and tree cover is relatively sparse with no defined habitat edges for foraging. No roost habitat is present.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	SSC	Forest habitats of moderate canopy and moderate to dense understory. Also in chaparral habitats. Constructs nests of shredded grass, leaves, and other material. May be limited by availability of nest-building materials.	**No Potential.** Very little dense understory exists on the Project Area, with the exception of highly localized areas around shrubs.	No further recommendations are made for this species.
San Joaquin kit fox *Vulpes macrotis mutica*	FE, ST, SCVHP	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	**Unlikely.** The Project Area is outside of the known range of this species.	No further recommendations are made for this species.
southern sea otter *Enhydra lutris nereis*	FT, CFP, MMC SSC	Nearshore marine environments from about Año Nuevo, San Mateo County. To Point Sal, Santa Barbara County. Needs canopies of giant kelp and bull kelp for rafting and feeding. Prefers rocky substrates with abundant invertebrates.	**No Potential.** No marine habitat is present on the Study Area to support this species.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
American badger *Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Requires friable soils and open, uncultivated ground. Preys on burrowing rodents.	**Unlikely.** Though open spaces on the Project Area may support this species and adjacent parcels support burrowing rodent populations for prey, the Project Area is surrounded on all sides by urban development and large roads that provide barriers to dispersal from potential nearby source populations (CDFW 2020).	No further recommendations are made for this species.
BIRDS				
great egret *Ardea alba*	none (breeding sites protected by CDFW)	Year-round resident. Nests colonially or semi-colonially, usually in trees, occasionally on the ground or elevated platforms. Breeding sites usually in close proximity to foraging areas: marshes, lake margins, tidal flats, and rivers. Forages primarily on fishes and other aquatic prey, also smaller terrestrial vertebrates.	**No Potential.** No known breeding colonies are present in the vicinity of the Project Area, and no aquatic habitats are present to support the establishment of a breeding colony.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
great blue heron *Ardea herodias*	none (breeding sites protected by CDFW)	Year-round resident. Nests colonially or semi-colonially in tall trees and on cliffs, also sequestered terrestrial substrates. Breeding sites usually in close proximity to foraging areas: marshes, lake margins, tidal flats, and rivers. Forages primarily on fishes and other aquatic prey, also smaller terrestrial vertebrates.	**No Potential.** No known breeding colonies are present in the vicinity of the Project Area, and no aquatic habitats are present to support the establishment of a breeding colony.	No further recommendations are made for this species.
snowy egret *Egretta thula*	none (breeding sites protected by CDFW)	Year-round resident. Nests colonially, usually in trees, at times in sequestered beds of dense tules. Rookery sites usually situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	**No Potential.** No known breeding colonies are present in the vicinity of the Project Area, and no aquatic habitats are present to support the establishment of a breeding colony.	No further recommendations are made for this species.
California condor *Gymnogyps californianus*	FE, SE, CFP	Year-round resident in vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	**Unlikely.** No nesting habitat for this species (e.g. cliffs or canyons) is present on Project Area. Individuals may very occasionally occur incidentally on the Project Area during foraging or dispersal.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
golden eagle *Aquila chrysaetos*	CFP	Occurs year-round in rolling foothills, mountain areas, sage-juniper flats, and deserts. Cliff-walled canyons provide nesting habitat in most parts of range; also nests in large trees, usually within otherwise open areas.	**Unlikely.** No nesting habitat for this species (e.g. cliffs or canyons) is present on Project Area. Individuals may very occasionally occur incidentally on the Project Area during foraging or dispersal.	No further recommendations are made for this species.
Swainson's hawk *Buteo swainsoni*	ST	Summer resident in California's Central Valley and limited portions of the southern California interior. Nests in tree groves and isolated trees in riparian and agricultural areas, including near buildings. Forages in grasslands and scrub habitats as well as agricultural fields, especially alfalfa. Preys on arthropods year-round as well as smaller vertebrates during the breeding season.	**Unlikely.** The Project Area is outside of the normal breeding range of this species. However, individuals may periodically occur on the Project Area during foraging and dispersal from nearby suitable habitat.	No further recommendations are made for this species.
white-tailed kite *Elanus leucurus*	CFP	Year-round resident in coastal and valley lowlands with scattered trees and large shrubs, including grasslands, marshes and agricultural areas. Nests in trees, of which the type and setting are highly variable. Preys on small mammals and other vertebrates.	**High Potential.** Trees of various size on the Project Area provide suitable nesting substrates for this species. Open spaces on the Project Area provide suitable foraging opportunities.	Pre-construction nesting bird surveys should be conducted on the Project Area to determine the presence of absence of nesting birds and raptors. See BIO MM 1.0 for further recommendations.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
California Ridgway's (clapper) rail *Rallus obsoletus obsoletus*	FE, SE, CFP	Year-round resident in tidal marshes of the San Francisco Bay estuary. Requires tidal sloughs and intertidal mud flats for foraging, and dense marsh vegetation for nesting and cover. Typical habitat features abundant growth of cordgrass and pickleweed. Feeds primarily on mollusks and crustaceans.	**No Potential.** The Project Area is outside of the known breeding range of this species.	No further recommendations are made for this species.
western snowy plover *Charadrius nivosus (alexandrines) nivosus*	FT, SSC	Federal listing applies only to the Pacific coastal population. Year-round resident and winter visitor. Occurs on sandy beaches, salt pond levees, and the shores of large alkali lakes. Nests on the ground, requiring sandy, gravelly or friable soils.	**No Potential.** The Project Area is outside of the known breeding range of this species.	No further recommendations are made for this species.
California least tern *Sternula antillarum browni*	FE, SE, CFP	Summer resident along the coast from San Francisco Bay south to northern Baja California; inland breeding also very rarely occurs. Nests colonially on barren or sparsely vegetated areas with sandy or gravelly substrates near water, including beaches, islands, and gravel bars. In San Francisco Bay, has also nested on salt pond margins.	**No Potential.** The Project Area is outside of the known breeding range of this species.	No further recommendations are made for this species.
marbled murrelet *Brachyramphus marmoratus*	FT, SE	Predominantly coastal marine. Nests in old-growth coniferous forests up to 30 miles inland along the Pacific coast, from Eureka to Oregon border, and in Santa Cruz/San Mateo Counties. Nests are highly cryptic, and typically located on platform-like branches of mature redwoods and Douglas firs. Forages on marine invertebrates and small fishes.	**No Potential.** No old growth coniferous forests are present on the Project Area to support nesting by this species.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
burrowing owl *Athene cunicularia*	SSC, SCVHP	Year-round resident and winter visitor. Occurs in open, dry grasslands and scrub habitats with low-growing vegetation, perches and abundant mammal burrows. Preys upon insects and small vertebrates. Nests and roosts in old mammal burrows, most commonly those of ground squirrels.	**Unlikely.** No suitable burrows exist within the Project Area that could support burrowing owl wintering or breeding. Ground squirrel activity is present on parcels adjacent to the Project Area that could support burrowing owl occupation. However, burrowing owl is uncommon in the vicinity of the Project Area, and the species has not been recently documented as far south as Morgan Hill. All more proximal occurrences are considered to be extirpated (CDFW 2020)	No further recommendations are made for this species.
black swift *Cypseloides niger*	SSC	Summer resident with a fragmented breeding distribution; most occupied areas in California either montane or coastal. Breeds in small colonies on cliffs behind or adjacent to waterfalls, in deep canyons, and sea-bluffs above surf. Forages aerially over wide areas.	**No Potential.** Cliff walls and deep canyons that typically support breeding colonies of this species are not present in the vicinity of the Project Area.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
southwestern willow flycatcher *Empidonax traillii extimus*	FE, SE	Summer resident. Breeds in dense riparian forest and woodlands, usually in floodplain-like environments with standing or slow-moving water. Vegetative microhabitats used for nesting variable, and include willows and cottonwood.	**No Potential.** Riparian habitats are not present in the vicinity of the Project Area to support this species.	No further recommendations are made for this species.
loggerhead shrike *Lanius ludovicianus*	SSC	Year-round resident in open woodland, grassland, savannah and scrub. Prefers areas with sparse shrubs, trees, posts, and other suitable perches for foraging. Preys upon large insects and small vertebrates. Nests are well-concealed in densely-foliaged shrubs or trees.	**High Potential.** Trees and shrubs are present on the Project Area that could support nesting of this species. Open spaces adjacent to woody vegetation provide ample foraging opportunities.	Pre-construction nesting bird surveys should be conducted on the Project Area to determine the presence of absence of nesting birds and raptors. See BIO MM 1.0 for further recommendations.
least bell's vireo *Vireo bellii pusillus*	FE, SE, SCVHP	Summer resident. Breeds in riparian habitat along perennial or intermittent rivers and creeks; prefers a multi-tiered canopy with dense early successional vegetation in the understory. Willows, mulefat and other understory species are typically used for nesting.	**No Potential.** Riparian habitat is not present on the Project Area to support this species.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
bank swallow *Riparia riparia*	ST	Summer resident in riparian and other lowland habitats near rivers, lakes and the ocean in northern California. Nests colonially in excavated burrows on vertical cliffs and bank cuts (natural and manmade) with fine-textured soils. Historical nesting range in southern and central areas of California has been eliminated by habitat loss. Currently known to breed in Siskiyou, Shasta, and Lassen Cos., portions of the north coast, and along Sacramento River from Shasta Co. south to Yolo Co.	**No Potential.** No vertical cliffs or bank cuts are present to support the establishment of a nesting colony on the Project Area or in the immediate vicinity.	No further recommendations are made for this species.
yellow-breasted chat *Icteria virens*	SSC	Summer resident, occurring in riparian areas with an open canopy, very dense understory, and trees for song perches. Nests in thickets of willow, blackberry, and wild grape.	**No Potential.** Riparian habitat is not present on the Project Area to support this species.	No further recommendations are made for this species.
grasshopper sparrow *Ammodramus savannarum*	SSC	Summer resident. Breeds in open grasslands in lowlands and foothills, generally with low- to moderate-height grasses and scattered shrubs. Well-hidden nests are placed on the ground.	**Moderate Potential.** Open grassland areas of the Project Area have the potential to support nesting and foraging by this species.	Pre-construction nesting bird surveys should be conducted on the Project Area to determine the presence of absence of nesting birds and raptors. See BIO MM 1.0 for further recommendations.
tricolored blackbird *Agelaius tricolor*	ST, SSC, SCVHP, RP	Nearly endemic to California, where it is most numerous in the Central Valley and vicinity. Highly colonial, nesting in dense aggregations over or near freshwater in emergent growth or riparian thickets. Also uses flooded agricultural fields. Abundant insect prey near breeding areas essential.	**No Potential.** No wetland areas with suitable vegetation for the establishment of a nesting colony are present on the Project Area.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
AMPHIBIANS				
Santa Cruz black salamander *Aneides flavipunctatus niger*	SSC	Climbing salamanders of the genus *Aneides* frequent damp woodlands and are usually found hiding under various debris (i.e. bark, woodrat nests, logs). The Santa Cruz black salamander exists south of the San Francisco Bay and was only recently recognized as a separate and protected species. Santa Cruz black salamander is highly sedentary, preferring to stay hidden under riparian debris.	**No Potential.** No riparian habitat or damp woody debris is present to provide shelter or other habitats for this species on the Project Area.	No further recommendations are made for this species.
Santa Cruz long-toed salamander *Ambystoma macrodactylum croceum*	FE, SE, CFP	Wet meadows near sea level in a few restricted locales in Santa Cruz and Monterey counties. Aquatic larvae prefer shallow (<12 inches) water, using clumps of vegetation or debris for cover. Adults use mammal burrows.	**No Potential.** The Project Area is outside of the normal breeding range for this species.	No further recommendations are made for this species.
California tiger salamander *Ambystoma californiense*	FE/FT, ST, SCVHP	Populations in Santa Barbara and Sonoma counties currently listed as endangered; threatened in remainder of range. Inhabits grassland, oak woodland, ruderal and seasonal pool habitats. Adults are fossorial and utilize mammal burrows and other subterranean refugia. Breeding occurs primarily in vernal pools and other seasonal water features.	**Unlikely.** The closest documented occurrence of this species is located 1.5-miles west of the Project Area. However, it is separated from the Project Area by urban development and several large roadways that provide complete barriers to dispersal.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
California giant salamander *Dicamptodon ensatus*	SSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams. Larvae usually remain aquatic for over a year.	**No Potential.** The Project Area is outside of the known breeding range of this species.	No further recommendations are made for this species.
California red-legged frog *Rana draytonii*	FT, SSC, SCVHP	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11 to 20 weeks of permanent water for larval development. Associated with quiet perennial to intermittent ponds, stream pools and wetlands. Prefers shorelines with extensive vegetation. Disperses through upland habitats after rains.	**Unlikely.** The nearest documented occurrence of this species to the Project Area is approximately 2.2-miles to the southeast. This is outside of the typical dispersal distance for this species, and on the opposite side of Highway 101, which provides a complete barrier to dispersal.	No further recommendations are made for this species.
foothill yellow-legged frog *Rana boylii*	SC, SSC, SCVHP	Found in or adjacent to rocky streams in a variety of habitats. Prefers partly-shaded, shallow streams and riffles with a rocky substrate; requires at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis. Feeds on both aquatic and terrestrial invertebrates.	**No Potential.** No aquatic habitats are present on the Project Area to support this species.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
REPTILES				
Pacific (western) pond turtle *Actinemys marmorata*	SSC, SCVHP	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches with aquatic vegetation. Require basking sites such as partially submerged logs, vegetation mats, or open mud banks, and suitable upland habitat (sandy banks or grassy open fields) for egg-laying.	**No Potential.** No aquatic habitats are present on the Project Area to support this species.	No further recommendations are made for this species.
blunt-nosed leopard lizard *Gambelia sila*	FE, SE, CFP	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seeks cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.	**No Potential.** No alkali or desert scrub habitats are present on the Study Area to support this species.	No further recommendations are made for this species.
Blainville's (Coast) horned lizard *Phrynosoma blainvillii (coronatum)*	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Prefers friable, rocky, or shallow sandy soils for burial; open areas for sunning; bushes for cover; and an abundant supply of ants and other insects.	**Unlikely.** No sandy washes are present on the Project Area to support this species.	No further recommendations are made for this species.
black legless lizard *Anniella pulchra nigra*	SSC	Sand dunes and sandy soils in the Monterey Bay and Morro Bay regions. Inhabit sandy soil/dune areas with bush lupine and mock heather as dominant plants. Moist soil is essential.	**No Potential.** Sand dunes are not present on the Project Area to support this species.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
northern California legless lizard *Anniella pulchra*	SSC	Fossorial species, inhabiting sandy or loose loamy soils under relatively sparse vegetation. Suitable habitat includes dunes, stream terraces, and scrub and chaparral. Adequate soil moisture is essential.	**Unlikely.** Soil conditions on the Project Area are not typical of areas where this species is present.	No further recommendations are made for this species.
San Joaquin coachwhip *Coluber flagellum ruddocki*	SSC	Occurs in dry, open, treeless areas with little or no cover, including valley grassland and saltbush scrub. Avoids dense vegetation that hinders movement. Takes refuge in rodent burrows, under vegetation, or under other objects.	**No Potential.** The Project Area is outside of the known breeding range for this species.	No further recommendations are made for this species.
San Francisco garter snake *Thamnophis sirtalis tetrataenia*	FE, SE, CFP	Vicinity of freshwater marshes, ponds and slow moving streams in San Mateo County and extreme northern Santa Cruz County. Prefers dense cover and water depths of at least one foot. Upland areas near water are also very important.	**No Potential.** No aquatic habitats are present on the Project Area to support this species or the presence of a prey base for this species.	No further recommendations are made for this species.
FISHES				
steelhead - central CA coast DPS *Oncorhynchus mykiss irideus*	FT	Occurs from the Russian River south to Soquel Creek and Pajaro River. Also in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	**No Potential.** No aquatic habitats are present on the Project Area to support any fish species.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
steelhead - south/central CA coast DPS *Oncorhynchus mykiss irideus*	FT	Occurs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	**No Potential.** No aquatic habitats are present on the Project Area to support any fish species.	No further recommendations are made for this species.
Delta smelt *Hypomesus transpacificus*	FT, SE	Lives in the Sacramento-San Joaquin estuary in areas where salt and freshwater systems meet. Occurs seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt; most often at salinities < 2 ppt.	**No Potential.** The Project Area is outside of the known breeding range of this species.	No further recommendations are made for this species.
Monterey roach *Lavinia symmetricus subditus*	SSC	Tributaries to Monterey Bay, specifically the Salinas, Pajaro, and San Lorenzo drainages.	**No Potential.** No aquatic habitats are present on the Project Area to support any fish species.	No further recommendations are made for this species.
tidewater goby *Eucyclogobius newberryi*	FE, SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches; requires fairly still but not stagnant water and high oxygen levels.	**No Potential.** No aquatic habitats are present on the Project Area to support any fish species.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
INVERTEBRATES				
vernal pool fairy shrimp *Branchinecta lynchi*	FT	Endemic to the grasslands of the Central Valley, central coast mountains, and south coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	**No Potential.** No vernal pool habitats were identified on the Project Area to support this species.	No further recommendations are made for this species.
vernal pool tadpole shrimp *Lepidurus packardi*	FE	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**No Potential.** No vernal pool habitats were identified on the Project Area to support this species.	No further recommendations are made for this species.
Zayante band-winged grasshopper *Trimerotropis infantilis*	FE	Endemic to isolated sandstone deposits in the Santa Cruz Mountains (the Zayante Sand Hills ecosystem). Restricted to sand parkland habitat found on ridges and hills within the Zayante Sand Hills ecosystem.	**No Potential.** The Project Area is outside of the known breeding range of this species.	No further recommendations are made for this species.
Ohlone tiger beetle *Cicindela ohlone*	FE	Remnant native grasslands with California oatgrass and purple needlegrass in Santa Cruz County. Substrate is poorly-drained clay or sandy clay soil over bedrock of Santa Cruz mudstone.	**No Potential.** Native grassland necessary to support populations on this species are not present on the Project Area which is ruderal and disturbed.	No further recommendations are made for this species.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RECOMMENDATIONS
San Bruno elfin butterfly *Callophrys mossii bayensis*	FE	Limited to the vicinity of San Bruno Mountain, San Mateo County. Colonies are located on in rocky outcrops and cliffs in coastal scrub habitat on steep, north-facing slopes within the fog belt. Species range is tied to the distribution of the larval host plant, Sedum spathulifolium.	**No Potential.** The Project Area is outside of the known breeding range of this species.	No further recommendations are made for this species.
Smith's blue butterfly *Euphilotes enoptes smithi*	FE	Most commonly associated with coastal dunes and coastal sage scrub plant communities in Monterey and Santa Cruz counties. Hostplant: *Eriogonum latifolium* and *Eriogonum parvifolium* are utilized as both larval and adult foodplants.	**No Potential.** Host plants for this species were not identified on the Project Area.	No further recommendations are made for this species.
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT, SCVHP	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. *Plantago erecta* is the primary host plant; *Orthocarpus densiflorus* and *O. purpurascens* are the secondary host plants.	**No Potential.** Host plants for this species were not identified on the Project Area.	No further recommendations are made for this species.

*** Key to status codes:**

FE	Federal Endangered
FT	Federal Threatened
SE	State Endangered
ST	State Threatened
SC	State Candidate
SR	State Rare
CFP	California Fully Protected Species
SSC	CDFW Species of Special Concern
WBWG	Western Bat Working Group Status
MMC SSC	Marine Mammal Commission Species of Special Concern
SCVHP	Santa Clara Valley Habitat Plan Covered Species

California Rare Plant Rank (CRPR)

Rank 1A	CRPR 1A: Plants presumed extinct in California
Rank 1B	CRPR 1B: Plants rare, threatened or endangered in California and elsewhere
Rank 2A	CRPR 2A: Plants presumed extirpated in California, but more common elsewhere
Rank 2B	CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
Rank 3	CRPR 3: Plants about which CNPS needs more information (a review list)
Rank 4	CRPR 4: Plants of limited distribution (a watch list)
Threat Ranks	
0.1	Seriously threatened in California
0.2	Moderately threatened in California
0.3	Not very threatened in California

****Potential to Occur:**

No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Unlikely. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.