Butterfield Park Biological Resources Assessment

Morgan Hill, Santa Clara County, California

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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
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.

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1.0 INTRODUCTION

1.1 Purpose of Assessment

On May 14 and June 27, 2019, WRA, Inc. (WRA) performed an assessment of biological resources at the Project Area, the Butterfield Park property (APNs 817-06-064 and 817-06-002), located in Morgan Hill, Santa Clara County, California (Appendix A, Figure 1). The purpose of the assessment was to develop and gather information on sensitive biological communities and special-status plant and wildlife species to support an evaluation of the future proposed project under the California Environmental Quality Act (CEQA). This report describes the results of the site visits, which assessed the Project Area, defined as the proposed development footprint for (1) the presence of sensitive biological communities, (2) the potential for biological communities 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. Special-status species observed during the site assessment were documented and their presence is discussed herein. Specific findings on the habitat suitability or presence of special-status species or sensitive habitats may require that protocol-level surveys or other studies be conducted; recommendations for 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 is the construction of a new public park on a 9.1-acre site owned by the City of Morgan Hill. The park would be constructed on two parcels (APNs 817-06-064 and 817-06-002) south of Butterfield Boulevard between Monterey Road and the Union Pacific Railroad (UPRR) tracks. The project plans are currently conceptual, as the project is in the early stages of design as it seeks to qualify for state grant funding. The park would include bicycle pump tracks, adult exercise equipment, a baseball field, picnic areas, a building with a public meeting room, concessions and restrooms, grass lawns, a walking path, a surface parking lot and a bio-filtration system installed under the parking lot.

The bicycle pump track area would include two pump tracks, one for beginners and one for intermediate skill levels. A small storage building would be located adjacent to the pump track. Picnic tables surrounded by shade trees would be installed adjacent to the pump track area and the restroom/concessions building. The one-story building would be approximately 1,900 square feet in size. In addition to the public meeting room space, concessions and restrooms, the building would include field equipment storage, meeting room storage, a utility room, and a janitor room. Two grass turf fields would be located between the parking lot and the baseball field. The baseball field would utilize synthetic turf and would include baseball netting in the right and left fields. The illuminated fields would be available for use until 10:00 pm with field lighting shutoff at 11:00 pm. It is expected that site safety lighting the site would be in place throughout the night hours. An eight-foot wide paved walking path would be installed around the perimeter of the site.

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				

[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 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)
Special-status Wildlife	ESA 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 CDFW Special-Status Invertebrates Native Nesting birds Bald and Golden Eagles
Critical Habitat	ESA	USFWS	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 Sensitive Natural Communities

Sensitive natural communities include vegetation alliances and associations on the California Department of Fish and Wildlife (CDFW) Natural Communities List with a rarity ranking of S1, S2 or S3. Sensitive natural communities include habitats that fulfill special functions, have limited distribution or are dominated by special-status plant species (Special Stands). Special Stands are protected under federal regulations such as the Endangered Species Act (ESA); state

regulations such as the California Endangered Species Act (CESA), the California Fish and Game Code (CFGC), and CEQA; or local ordinances or policies such as the county General Plan and Zoning Ordinances.

Non-sensitive natural communities include vegetation alliances and associations on the CDFW Natural Communities List with a rarity ranking of S4 or S5, as well as other Semi-natural (non-native species dominated) Stands and non-sensitive land use designations such as agriculture, developed areas, etc. These communities and land uses are not protected by federal, state, or local laws and are not considered sensitive under CEQA.

Impacts to natural communities considered sensitive by the CDFW must be evaluated for significance under CEQA. 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 CEQA (California Code of Regulations [CCR] Title 14, Div. 6, Chap. 3, Appendix G).

2.1.1 Sensitive Aquatic Resources

Waters of U.S.

The U.S. Army Corps of Engineers (Corps) regulates "Waters of the United States" under Section 404 of the Clean Water Act. Waters of the U.S. 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 of Engineers 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 Waters of the U.S 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" 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 proposed 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.

Lakes, Streams, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of 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 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 also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

2.2 Special-status Species

2.2.1 Special-status Plants

Special-status species include those plant species 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). These acts afford protection to both listed species and those that are formal candidates for listing. Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory with California Rare Plant Ranks (Rank) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. Rank 3 and Rank 4 species are also protected under CEQA, and 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.

2.2.2 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 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) or California Fully Protected Species (CFP), USFWS Birds of Conservation Concern (BCC), and CDFW Special-status Invertebrates (SSI) are all 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 protected under the CFGC, specifically sections 3503, 3503.5 and 3513. Under these laws, deliberately 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. Wildlife corridors must be considered under CEQA.

2.3 Local Ordinances

2.3.1. City Tree Ordinance

The City of Morgan 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 for nonindigenous 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 (Habitat Plan; ICFI 2012) is a regional planning document that allows covered projects to use a streamlined process for permitting and mitigation. The Habitat Plan 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

[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).

either the federal Endangered Species Act (ESA), the California Endangered Species Act (CESA) or both. The Habitat Plan 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 Habitat Plan 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 Habitat Plan-prescribed measures to avoid, minimize or compensate for adverse effects on endangered species and natural communities.

The geographic scope of the Habitat Plan 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 Habitat Plan covers approximately 510,000 acres, primarily within south Santa Clara County. The entire Project Area is located within the Habitat Plan 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 Habitat Plan.

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 Habitat Plan. The City of Morgan Hill is bound by its General Plan to collect these burrowing owl mitigation fees until 2020. The City assesses these burrowing owl mitigation fees regardless of the potential for burrowing owl presence at a particular property.

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 2019) indicates the Project Area is composed of two mapping unit composed of two soil series: *Arbuckle gravelly loam, 0 to 2 percent slopes* and *Zamora clay 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.

Zamora series: The Zamora series consists of very deep, well drained soils that formed in alluvium from mixed rocks. Zamora soils are on nearly level to strongly sloping alluvial fans, stream terraces, and floodplains, usually with 0 to 9 percent slopes at elevations ranging from 30 to 1,300 feet. Mean annual precipitation ranges from 14 to 30 inches. Zamora soils exist in a dry, subhumid, mesothermal climate with hot dry summers and cool moist winters. Native vegetation typically consists of annual grasses, forbs, and widely spaced oaks. A typical profile includes five soil horizons: Ap, Bt1, Bt2, Bt3, and Bwk.

The Ap horizon consists of a grayish brown (2.5Y 5/2) slightly acidic (pH 6.3) silt loam from 0 to 10 inches. Below that is the Bt1 and Bt2 horizons which consist of brown (10YR 5/3) silty clay loam of neutral pH (7.0) ranging from 10 to 24 inches and 24 to 40 inches, respectively. This is underlain by the Bt3 horizon which consists of a yellowish brown (10YR 5/4) silt loam with few thin clay films in pores. The Bt2 horizon ranges from 40 to 51 inches. The deepest horizon, from 51 to 60 inches is the Bwk horizon, a yellowish brown (10 YR 5/4) slightly alkaline (pH 7.5) gravelly loam containing lime concretions.

3.1.2 Topography

The Project Area consists of a flat field that has historically been used for agricultural purposes. Elevations on the Project Area range from 318 to 320 feet. The excavated stormwater basin is approximately 5 feet below surrounding grades.

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 23 inches (NACSE 2019).

3.2.2 Hydrology

The primary hydrological source for the Project Area is precipitation and surface run-off from adjacent lands. According to the Mount Madonna U.S. Geological Survey (USGS) 7.5-minute quadrangle and the USFWS National Wetlands Inventory (NWI) (USFWS 2019a), no stream or wetland features are located within the Project Area. At the west end of the Project Area is a stormwater basin that accepts drainage from Butterfield Boulevard. The basin was constructed in 2012-2013 as part of the Butterfield South Extension Project. Approximately 5 feet south and

outside of the Project Area is 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. Vegetation on the fringe of the stormwater basin includes grasses and forbs but the basin was bare. Vegetation types are described further in Section 4 and Appendix A, Figure 3.

3.3.2 Land-Use

The grassy field is predominantly non-native annual grassland. From 1953 up to 2011 the Project Area historically supported various agricultural practices including row crops and orchards (NETR 2019). From 2011 onward, the Project Area consisted of fallow fields. The west end of the Project Area consists of a fenced in stormwater basin. To the north, south, and west of the Project Area, land use consists of agricultural properties. To the east of the Project Area, land use consists of residential and light commercial properties.

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 natural communities (e.g., wetlands) and special-status species (e.g., endangered plants):

- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- Aerial photographs (Google 2019)
- Breeding Bird Atlas of Santa Clara County (Bousman 2007)
- California Native Plant Society Rare Plant Electronic Inventory (CNPS 2019a)
- California Natural Diversity Database (CNDDB, CDFW 2019a)
- 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 2019)
- eBird: a citizen-based bird observation network in the biological sciences (Sullivan et al 2019)
- NWI (USFWS 2019a)
- Santa Clara Valley Habitat Plan (ICFI 2012)
- *Soil Survey of Eastern Santa Clara County* (USDA 1974)
- USFWS Information for Planning and Consultation (IPac) (USFWS 2019b)
- WBWG, Species Accounts Region 5 (WBWG 2019)

Database searches (i.e., CNDDB, CNPS) focused on the Mount Madonna, Morgan Hill, Mount Sizer and Gilroy USGS 7.5-minute 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, a wildlife biologist and a botanist traversed the entire Project Area on foot to document: (1) plant communities present within the Project Area, (2) if existing conditions provided suitable habitat for any special-status plant or wildlife species, and (3) if sensitive habitats are present.

4.1 Natural Communities

4.1.1 Terrestrial Natural Communities

The Project Area's terrestrial natural communities 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 2019b). In some cases it may be necessary to identify variants of community 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 (natural communities) 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]

4.1.2 Aquatic Natural Communities

The Project Area was 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.

4.2 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.

[4] Ranking of CDFW List of Vegetation Alliances is based on NatureServe Rankings (NatureServe 2019)

- 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 4.2.2. or 4.2.3. 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.

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 2019c).

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 2019b). In addition, aerial imagery (Google 2019) for the local area was referenced to determine if core habitat areas were present within, or connected to the Project Area.

5.0 ASSESSMENT RESULTS

The Project Area is set in a largely open area surrounded by a mix of housing developments, agricultural uses, a school, industrial properties, and a remnant oak woodland patch to the south. The Project Area is bounded by roadways to the north and west, to the east by railroad, and the south by agricultural field. Evidence of past ground disturbance was found throughout much of the Project Area, including evidence of agricultural activities, construction staging, discing, mowing, stormwater containment infrastructure, and placement of fill.

5.1 Natural Communities

There were no potentially sensitive natural communities identified within the Project Area. The Project Area is dominated by non-native annual grasslands with few scattered coyote brush (*Baccharis pilularis*) shrubs insufficient to form community structure. The excavated stormwater basin in the west corner is dominated by non-native vegetation along its border. No special-status plant species have a moderate or high potential to occur.

Table 3 summarizes the area of the two non-sensitive natural community types observed in the Project Area. Natural communities and other land use designations mapped in the Project Area are shown in Appendix A, Figure 3. A description of the natural community is contained in the following section. Appendix B lists all plant species observed within and around the Project Area. Appendix C contains representative photographs of the Project Area.

Table 3. Natural Communities

Vegetation Structure/ Land Use	Community (Holland 1986)	Vegetation Alliance/Association (CNPS 2019b)	Sensitive Status	Rarity Ranking	Acres within Project Area
Terrestrial Communities					
Herb-dominated	Ruderal grassland	*Avena* (*barbata, fatua*) Herbaceous Semi-Natural Alliance	Non-sensitive	None	8.80
		Annual brome grasslands *Bromus* spp. Herbaceous Semi-Natural Alliance			
Aquatic Communities					
Stormwater Basin	N/A	Open Water / Bare	Non-sensitive	None	0.30

5.1.1 Terrestrial Natural Communities

Non-Sensitive

Ruderal Grassland. No Rank. Approximately 8.80 acre of the Project Area is dominated by ruderal grassland. Although not described in the literature, ruderal grassland includes areas that have been partially developed or have been used in the past for agriculture. However, these areas are not currently used for agricultural activities, and have been allowed to revert to a semi-natural condition. Ruderal grassland in the Project Area, consists of fallowed fields. Based on soil conditions, vegetation composition, and review of historical imagery, discing has occurred historically on the site for agricultural purposes. Dominant plant species observed in ruderal herbaceous grassland in the Project Area include slim oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), Italian rye grass (*Festuca perennis*), soft chess (*Bromus hordeaceus*), yellow star thistle (*Centaurea solstitialis*) and additional ruderal species. The ruderal grassland in the eastern section of the Project Area contains isolated shrubs at low densities of coyote brush.

Sensitive

There are no sensitive terrestrial communities located within the Project Area.

5.1.2 Aquatic Natural Communities

Non-Sensitive

Stormwater Basin. No Rank. A fenced-in excavated stormwater basin occupies approximately 0.30 acre within the western portion of the Project Area. The man-made basin receives stormwater flow from local stormwater sewer system along Butterfield Boulevard and was built in ruderal herbaceous grassland uplands in 2012-2013 as part of the Butterfield South Extension Project. The basin appears to be regularly maintained. Open water was present in the stormwater

basin during the May site visit and absent during the June site visit. Vegetation on the banks of the basin was dominated by chicory (*Cichorium intybus*), slim oat (*Avena barbata*), curly dock (*Rumex crispus*), and foxtail barley (*Hordeum marinum*)

Sensitive

There are no sensitive aquatic communities located within the Project Area.

5.2 Special-status Species

Appendix B lists all plant and wildlife species observed within and around the Project Area. Appendix C contains representative photographs of the Project Area. Appendix D lists all special-status plant and wildlife species with potential to occur within and around the Project Area.

5.2.1 Special-status Plants

Potential for Occurrence

A five-mile radius search resulted in thirty-two (32) species being identified as known from around the Project Area (CNDDB 2018, 2019, CNPS 2019). 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 32 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 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

Thirty-four (34) special status species of wildlife have been recorded in the vicinity of the Project Area. Appendix B 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 a moderate potential to occur in the Project Area. Special status wildlife species that have a moderate potential to occur in the Project Area are discussed below in Table 4.

Table 4. Potential Special-Status Wildlife

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

Species with a Moderate Potential to occur are discussed below.

Loggerhead shrike (*Lanius ludovicianus*). CDFW Species of Special Concern. USFWS Bird of Conservation Concern. The 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, which is present throughout the Project Area. Additionally, this species is known to occur in the vicinity of the Project Area (Bousman 2007). However, nesting substrates within the Project Area are highly limited to a few short shrubs or small trees. Because the species is known to occur in the vicinity, typical foraging habitat is present, but nesting habitat is highly limited, the species only has a moderate potential to occur.

White-tailed Kite (*Elanus leucurus*). CDFG Fully Protected Species. The 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.

Fallow agricultural fields, orchards, and nearby riparian habitat are likely to provide suitable foraging habitat. However, shrubs and trees on-site are very small, with limited cover which likely provide sub-optimal nesting habitat for this species. Small mammal burrows in the area are limited, but kites may also forage in several surrounding agricultural fields as well. Because nesting substrates are highly limited, but foraging habitat is present, there is a moderate potential for this species to occur within the Project Area.

Other special-status species that have been documented within the vicinity of the Project Area, but are unlikely to occur include: burrowing owl, steelhead, San Francisco dusky-footed woodrat, San Joaquin Kit Fox, California Tiger Salamander, and California Red-legged Frog. These species are discussed below.

Burrowing Owl (*Athene cunicularia*), CDFG 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 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 within the Project Area. The Project Area showed signs of regular disking and vegetation maintenance, which can also minimize the potential for burrows or burrow surrogates to form. As such, the lack of suitable nesting features and regular maintenance makes it unlikely the species will nest at the Project Area.

Steelhead - South/Central California Coast ESU (*Oncorhynchus mykiss irideus*), Federal Threatened. The South/Central California Coast ESU includes all naturally spawned populations of steelhead (and their progeny) in California streams from the Pajaro River south to, but not including, the Santa Maria River. Steelhead typically migrate to marine waters after spending two years in fresh water, though they may stay up to seven. They then reside in marine waters for two or three years prior to returning to their natal stream to spawn as four-or five-year-olds. Steelhead adults typically spawn between December and June. In California, females typically spawn two times before they die. Preferred spawning habitat for steelhead is in perennial streams with cool to cold water temperatures, high dissolved oxygen levels and fast flowing water. Abundant riffle areas (shallow areas with gravel or cobble substrate) for spawning and deeper pools with sufficient riparian cover for rearing are necessary for successful breeding.

Little Llagas Creek runs through an adjacent field to the Project Area, approximately 5 feet outside of the Project Area. The creek is intermittent and thus does not provide a year-round migration corridor for fish species of any kind, including steelhead. The creek will not be affected by any Project activities. The stormwater detention basin that will be covered or converted as part of the Project does not connect directly to the creek as the culvert connecting the detention basin and Little Llagas Creek is capped with an upturned flume and only allows water to flow from the basin to the creek at high levels. Flows into this detention basin originate from a submerged culvert that channels drainage from the nearby roadway and the basin is designed to draw down within 48-hours after large runoff events. Therefore, the location of the Project in relation to the creek will prevent any impacts to the creek and because the basin is functionally isolated, and naturally dries down after rain events, it is not suitable for or accessible by steelhead. There is no potential for this species to occur within the Project Area.

San Francisco Dusky-footed Woodrat (*Neotoma fuscipes annectens*), CDFG Species of Special Concern. This subspecies occurs in brushy habitat in chaparral and foothills of woodlands around San Francisco Bay and the adjacent range (Hafner et al. 1998). Woodrats often occupy habitats with both woodland and scrub components which provide cover and food sources, such as live oak, coffeeberry, blackberry, gooseberry, poison oak, and honeysuckle

(Linsdale and Tevis 1951). Nests are typically over three feet in diameter and are constructed out of piled sticks, leaves and grasses.

No riparian habitat, poison oak scrub or similar habitats are present within the Project Area to support the species. No middens were observed within the Project Area to support the species.

San Joaquin Kit Fox (*Vulpes macrotis mutica*), Federal Endangered Species, State Threatened Species. San Joaquin Kit Fox is a small, slim canid with large ears and bushy tail, buffy- or tan-colored in summer, silver-gray in winter. This species is found in the San Joaquin Valley and in surrounding foothills, from Alameda County east to Stanislaus County. It occurs in mainly flat grasslands, scrublands, oak savannahs, alkali meadows, and agricultural areas, with loose-textured soils suitable for constructing dens. Kit fox prey consists primarily of rabbits and small rodents. The Project Area is surrounded by urban and agricultural development, and any open, untilled habitat on-site is fragmented and disturbed. It is also outside the known range for this species.

Although an occurrence of two kit foxes near the town of Coyote was documented in 1992, Hwy 101 acts as a total barrier to foxes from the east. No large mammal burrows or soils suitable for this species were observed on-site; therefore, there is no potential for this species to occur within the Project Area.

California Tiger Salamander (*Ambystoma californiense*), Federal Threatened Species, State Candidate Endangered Species. California Tiger Salamander (CTS) is restricted to grasslands and low-elevation foothill regions in California (generally under 1500 feet) where it uses seasonal aquatic habitats for breeding. The salamanders breed in natural ephemeral pools, or ponds that mimic ephemeral pools (stock ponds that go dry), and occupy substantial areas surrounding the breeding pool as adults. CTS spend most of their time in the grasslands surrounding breeding pools. They survive hot, dry summers by estivating (going through a dormant period) in refugia (such as burrows created by ground squirrels and other mammals and deep cracks or holes in the ground) where the soil atmosphere remains near the water saturation point. During wet periods, the salamanders may emerge from refugia and feed in the surrounding grasslands.

There is no aquatic habitat within the Project Area to support the species. The nearest aquatic features are within Little Llagas Creek, an intermittent drainage that forms a narrow, defined channel through the adjacent parcels. The creek dries up annually, and is unsuitable because it does not form pools or ponds in this area that are suitable to support reproduction by CTS. Additionally, the creek lacks barriers to occupation by predatory fish species that may enter from Little Llagas Creek. In addition, a detention basin occurs along the western border of the Project Area. This detention basin is designed to dewater through a gravity outlet within 48 hours; ponding of no longer than a two week period may occur during major storm events. CTS require a greater period of inundation to reproduce. Therefore, no breeding habitat is present.

The Project Area is also surrounded by development which prevents access by CTS from nearby population centers. No suitable corridors exist between nearby populations and the Project Area that would allow the species to use the Project Area as estivation habitat. Without a safe migratory route between a source population and the Project Area, there is no potential for CTS to use the Project Area as upland habitat.

California Red-legged Frog (*Rana draytonii*), Federal Threatened Species, CDFG Species of Special Concern. The California Red-legged Frog is dependent on suitable aquatic, estivation, and upland habitat. During periods of wet weather, starting with the first rainfall in late

fall, red-legged frogs disperse away from their estivation sites to seek suitable breeding habitat. Aquatic and breeding habitat are characterized by dense, shrubby, riparian vegetation and deep, still or slow-moving water. Breeding occurs between late November and late April. California Red-legged Frog estivates (period of inactivity) during the dry months in small mammal burrows, moist leaf litter, incised stream channels, and large cracks in the bottom of dried ponds.

Little Llagas Creek is the only potential aquatic habitat around the Project Area. The creek is an intermittent drainage that does not form pools or support aquatic vegetation suitable for this species to breed. The stormwater detention basin on the Project Area additionally does not constitute aquatic habitat due to its rapid draw-down period after storm events and lack of aquatic vegetation could not support the species during any stage of its life cycle. In addition, the nearest documented occurrence of this species is approximately two miles away, which is beyond this frog's typical dispersal distance; therefore, there is no potential for this species to occur within the Project Area.

Critical Habitat

No critical habitat is present within the Project Area.

Essential Fish Habitat (EFH)

No EFH is present within the Project Area.

Wildlife Corridors

A review of the California essential connectivity project (CDFW 2019b) 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 three sides (east, west and north) by roads, or to the south by dense urban development (trailer park). 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 intact natural communities or other areas that would provide necessary elements for wildlife to sustain, mean that the Project Area does not likely to function as a wildlife corridor as it 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 Project Description

The Butterfield Park Project is to construct an 8 acre park and related access and improvements, including an approximately 200 vehicle parking area, one to two ballfields, one to two BMX tracks, a walking path, and restrooms in the two parcel area.

6.2 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.

6.3 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 natural communities, including ruderal grassland and stormwater basin. 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 are expected to occur. An assessment of the potentially significant Project-related impacts and their associated mitigation measures are provided below.

6.3.1 Sensitive Terrestrial Natural Community

No sensitive terrestrial natural communities occur in the Project Area and none will be impacted by the proposed Project.

6.3.2 Sensitive Aquatic Resources

No sensitive aquatic natural communities occur in the Project Area and none will be impacted by the proposed Project.

6.3.3 Special-status Plants

Of the 32 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 pool habitat with low plant cover, or on special soil types such as serpentine often found in the foothills east and west of the Project Area. The ruderal areas within the Project Area are highly 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.

6.3.4 Special-status Wildlife

Of the 34 special status wildlife species known to occur in the vicinity of the Project Area, two 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 regular discing of large portions of the site, as well as the adjacent development. Any areas that may become inundated, such as Little Llagas Creek and the stormwater detention basin on the Project Area, are highly intermittent, and do not provide value as migration corridors or breeding habitat for species with aquatic life-histories. Special status wildlife species on-site may fall under the jurisdiction of USFWS under the Endangered Species Act and Migratory Bird Treaty Act, and/or the CDFW under the CFGC, California Endangered Species Act, and California Environmental Quality Act.

Table 5 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 5. 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
various	Native nesting birds

BIO IMPACT 1: Nesting Birds

This assessment determined that two species of special-status birds may use the Project Area for breeding and foraging including white-tailed kite and loggerhead shrike. These species may forage in the ruderal and agricultural fields on-site, and may 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 breeding 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.

6.3.5 Local Policies or Ordinances

There are two ordinance sized trees, as defined by the City of Morgan Hill, in the Project Area. The ordinance sized trees are located west of the stormwater basin and are both California walnut (*Juglans hindsii*) each with an approximate diameter at breast height (DBH) of 40 to 50-inches. No other protected trees, as defined by the City of Morgan Hill occur In the Project Area. There are numerous protected trees, as defined by the City Ordinance on the outer perimeter, outside

the Project Area. Proposed activities will directly impact ordinance-sized trees on the site. Access to the site may also directly or indirectly impact ordinance sized trees.

BIO IMPACT 2: Local Tree Ordinance

Activities that compact soil, trench through roots, or pile soil up around the base of trees may adversely affect the health of these trees. Access to the Project Area from Butterfield Boulevard could result in grading, trenching, or filling soil or rock in the dripline street tree or tree within a road right-of-way located directly off-site. The removal or injury of protected trees, would require permits or mitigation measures under the City Municipal Code (Chapter 12.32).

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 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.

6.3.6 Natural Hazard Setback

The Project Area is located approximately 5 feet above the top of bank and within the 100-year floodplain (FEMA, 2019) of Little Llagas Creek. Little Llagas Creek is a Category 2 Stream feature under Chapter 18.92.110 of the Morgan Hill Municipal Code because it is intermittent stream that dries up during the summer months. The creek therefore has as associated 35-foot setback for all development. The 100-year floodplain for Little Llagas extends throughout 90% of the Project Area and is defined at 319 feet NAVD88 with a defined base flood elevation. Proposed activities will be located within the 35-foot setback and within the 100-year floodplain.

BIO IMPACT 3: Stream Setback

Activities including grading, addition of impervious surfaces, associated construction related activities located within the 35-feet stream setback area may adversely affect the riparian vegetation and associated character of Little Llagas Creek. Maintaining a healthy riparian zone

is critical for maintaining water quality, providing habitat, maintaining connectivity, and a variety of other physical and biological functions.

BIO MM 3.0

BMPs including silt fencing, fiber rolls, and/or wattles, will be implemented throughout the duration of construction activities to minimize the potential for sediment movement offsite. Vegetation along the boundary of the Project Area will be preserved to the extent feasible to maintain temporary soil stabilization. Areas graded during construction activities will be hydroseeded or mulched to stabilize exposed surfaces post construction. Implementation of these measures will reduce impacts to stream features.

BIO MM 3.1

The project proponent will comply the Flood Damage Prevention requirements in Chapter 15.80 of the City of Morgan Hill Municipal Code and submit permit applications with the City's Floodplain Administrator. Though the Project complies with Chapter 15.80.220 of the City Municipal Code allows which allows open space uses such as outdoor recreation in floodplain setback areas, measures identified by the Floodplain Administered shall be incorporated into the project design to avoid flood-related erosion hazards.

6.3.7 Habitat Conservation Plans or Natural Community Conservation Plans

The Project Area is located in the Santa Clara Valley Habitat Plan area (ICFI 2012). The entirety of the mapped Project Area is non-native annual grassland located within the Land Cover Fee Zone B (Agriculture and Valley Floor Lands) of the Habitat Plan. A Land Cover development fee applies to the Project within this Fee Zone. The Project Area is located outside of Burrowing Owl Fee Zones, Wetland Fee Zones, Serpentine Fee Zones and does not require plant or wildlife surveys for designated species. The Project Area is located 5 feet beyond top of bank of Little Llagas Creek and is entirely outside of the Habitat Plan's Geobrowser mapped Category 1 stream buffer setback areas. With intermittent flows, Little Llagas Creek is considered a Category 2 stream. This stream type has a 35 feet setback requirement, per Condition 11 of the Santa Clara Valley Habitat Plan. Exemptions to Condition 11 setback are provided for recreational trails, however, additional Project components of the Preliminary Design Concept such as parking lot uses are not exempt from the setback. Encroachment into the 35-feet stream setback would conflict with the Santa Clara Valley Habitat Plan and be considered a significant impact.

BIO IMPACT 4: Santa Clara Valley Habitat Plan Stream Setback

Activities including grading, addition of impervious surfaces, associated construction related activities located within the 35-feet stream setback area may adversely affect the riparian vegetation and associated character of Little Llagas Creek. Maintaining a healthy riparian zone is critical for maintaining water quality, providing habitat, maintaining connectivity, and a variety of other physical and biological functions. Complying with Condition 11 of the Santa Clara Valley

Habitat Plan 35-feet stream setback and implementation of BIO MM 3.0 will reduce potential for impacts to occur the stream setback. Implementation of Condition 11 will reduce impacts to the stream setback to a less-than-significant level.

BIO MM 4.0

To the extent feasible, all non-compatible activities will avoid encroachment into the 35-feet stream setback to protect the stream corridor. Avoidance is considered to be completely avoiding any work, staging inside the setback, or development of the setback that is not compatible with setback uses. 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 4.1 will be implemented.

BIO MM 4.1

Prior to construction activities, if the setback cannot be avoided by the Project, the Project proponent will apply for an exception to the Santa Clara Valley Habitat Plan setback requirements. Measures identified by the Santa Clara Valley Habitat Agency shall be incorporated into the Project design to avoid impacts to the stream setback corridor.

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Appendix A

Figures

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Sources: National Geographic, WRA | Prepared By: mweidenbach, 6/26/2019

Figure 1. Project Area Regional Location Map

Butterfield Park
Santa Clara County, California

0 500 1,000 Feet

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Sources: USDA NAIP 2016, SSURGO | Prepared By: mweidenbach, 6/27/2019

Figure 2. Project Area Soils Map

Butterfield Park
Santa Clara County, California

0 250 500 Feet

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Sources: USDA NAIP 2016, WRA | Prepared By: mweidenbach, 7/1/2019

Figure 3. Natural Communities within the Project Area

Butterfield Park
Santa Clara County, California

0 250 500 Feet

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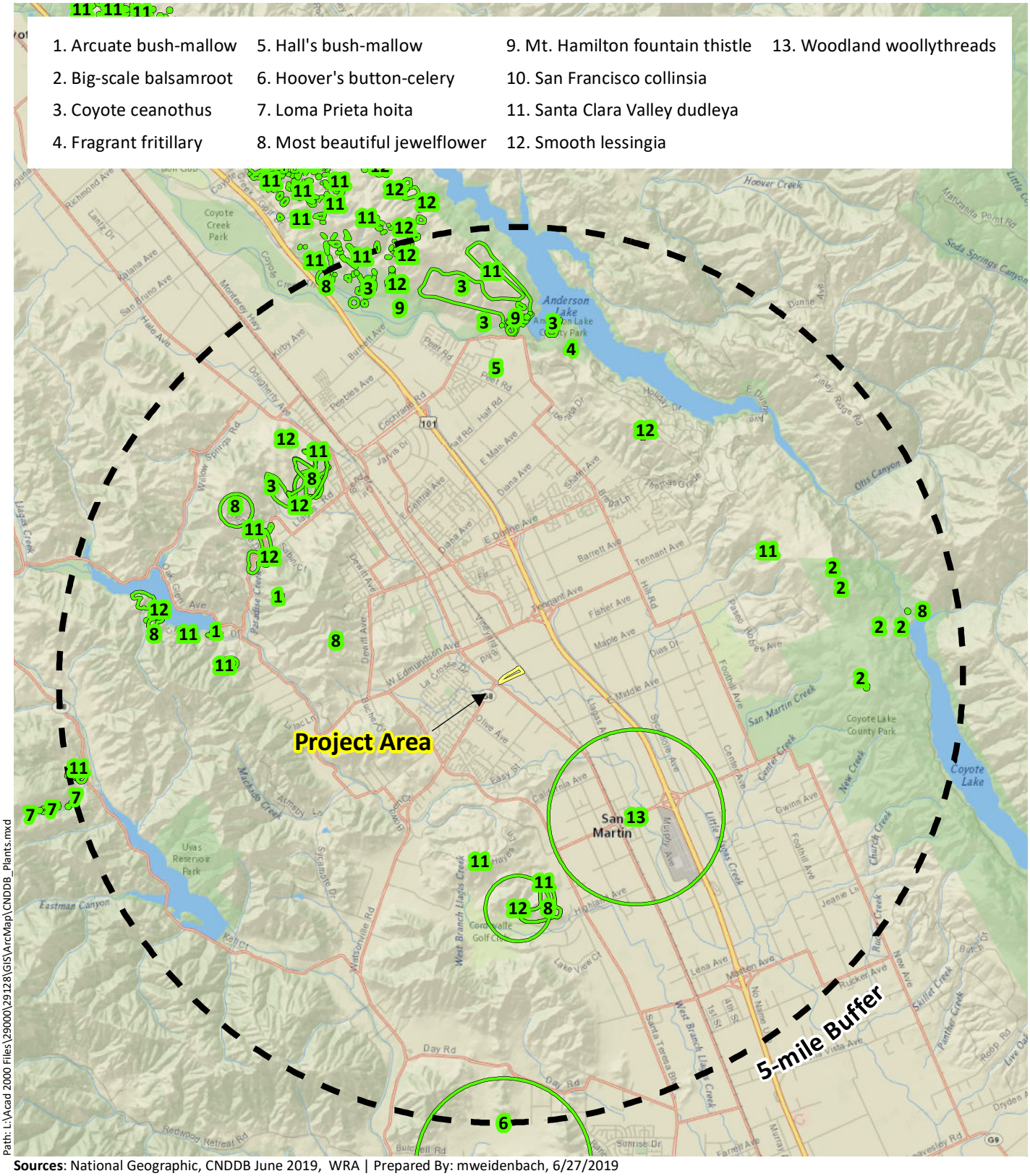

Sources: National Geographic, CNDDB June 2019, WRA | Prepared By: mweidenbach, 6/27/2019

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

Butterfield Park
Santa Clara County, California

0 1 2 Miles

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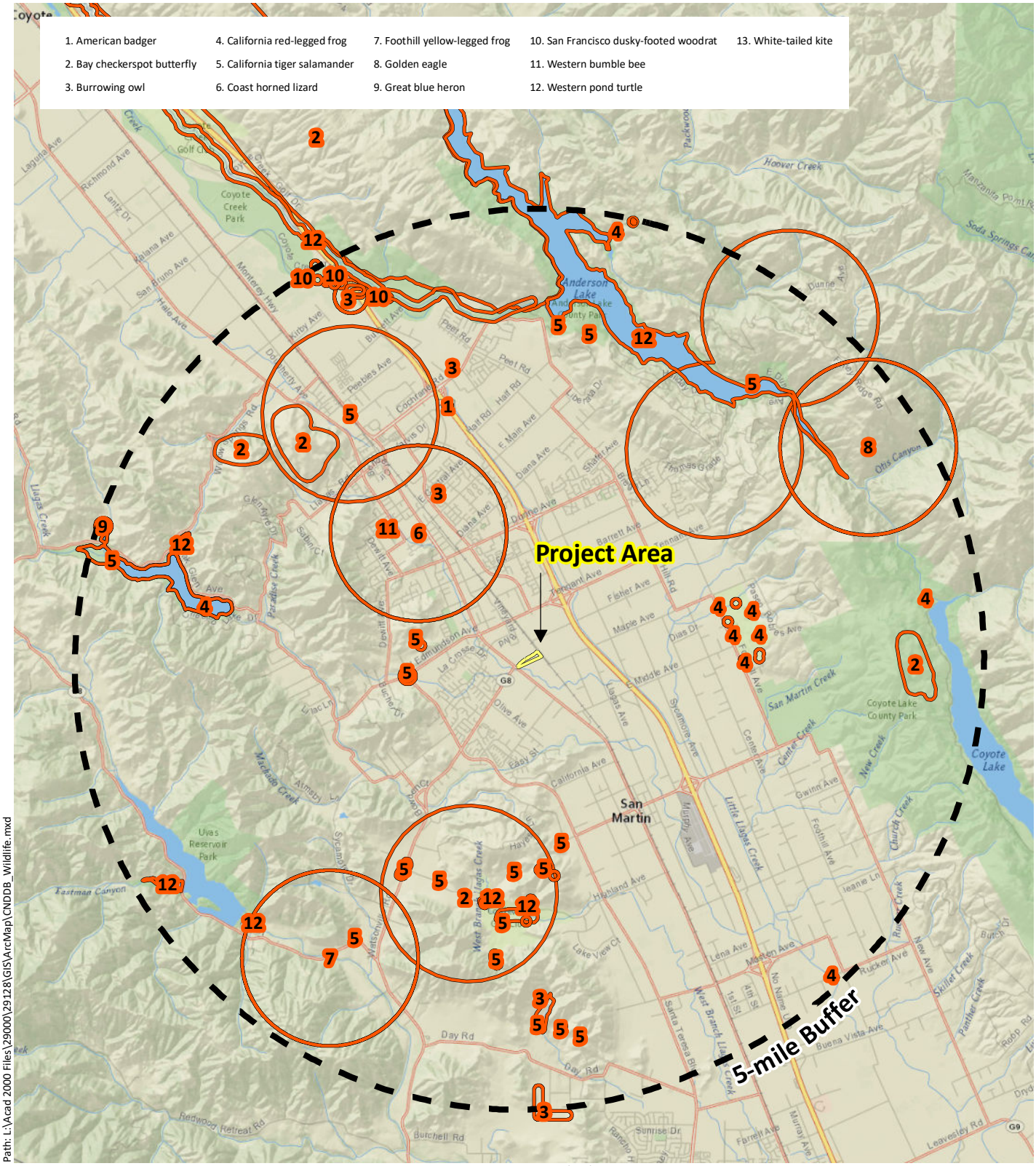

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Sources: National Geographic, CNDDB June 2019, WRA | Prepared By: mweidenbach, 6/27/2019

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

Butterfield Park
Santa Clara County, California

0 1 2 Miles N

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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 May 13 and June 27, 2019 site visit.

SCIENTIFIC NAME	COMMON NAME
Plants	
Avena barbata	Slim oat
Avena fatua	Wild oats
Baccharis pilularis	Coyote brush
Bromus diandrus	Ripgut brome
Bromus hordeaceus	Soft chess
Centaurea solstitialis	Yellow star thistle
Cichorium intybus	Chicory
Convolvulus arvensis	Field bindweed
Cyperus eragrostis	Tall cyperus
Eschscholzia californica	California poppy
Festuca perennis	Italian rye grass
Geranium dissectum	Wild geranium
Helminthotheca echioides	Bristly ox-tongue
Hordeum murinum	Foxtail barley
Hypochaeris radicata	Hairy cats ear
Juglans hindsii	Northern California black walnut
Lactuca serriola	Prickly lettuce
Lupinus cf. albifrons	Silver bush lupine
Lupinus arboreus	Coastal bush lupine
Phalaris aquatica	Harding grass
Plantago lanceolata	Ribwort
Raphanus sativus	Wild radish
Rumex crispus	Curly dock
Vicia villosa	Hairy vetch
Xanthium strumarium	Cocklebur
Wildlife	
Birds	
Corvus brachyrhynchos	American crow
Calypte anna	Anna's hummingbird
Hirundo rustica	barn swallow
Sayornis nigricans	black phoebe
Aphelocoma californica	California scrub-jay
Aythya marila	greater scaup
Haemorhous mexicanus	house finch
Passer domesticus	house sparrow
Charadrius vociferus	killdeer
Zenaida macroura	mourning dove

Phasianus colchicus	ring-necked pheasent
Cathartes aura	turkey vulture
Sayornis saya	Say's phoebe
Invertebrates	
Vanessa virginiensis	western painted lady
Pieris rapae	cabbage white
Mammals	
Lepus californicus	black-tailed jackrabbit

Appendix C

Representative Photographs of the Project Area

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Photograph 1. Looking northeast across the Project Area at ruderal grassland. The only shrubs within the Project Area are located along the northern boundary and are depicted in the photo. The limited shrub and scrub availability limits suitability of nesting habitat for most native bird species. The Diablo range is in the background. Taken May 14, 2019.

Photograph 2. Looking east across the Project Area at ruderal grassland. No mounds, ground squirrel burrows, vernal pools or other features are present to support most species of special-status wildlife. The Diablo Range is in the background. Taken May 14, 2019.

Photograph 3. View of only mature trees in Project Area. Trees are located in west corner of Project Area by Butterfield Boulevard and Monterey Road intersection. Photograph taken June 27, 2019.

Photograph 4. View of excavated stormwater basin in west corner of Project Area. Taken May 14, 2019.

Photograph 5. Looking north at a retaining wall and row of sapling trees within roadway ROW. Taken May 14, 2019.

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 (May 2019), U.S. Fish and Wildlife Service (USFWS) Species Lists, and California Native Plant Society (CNPS) Electronic Inventory search of the USGS 7.5' quadrangles within 5 miles of the Project Area, as well as a review of other CDFW lists and publications (Jennings and Hayes 1994, Zeiner et al. 1990).

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
Santa Clara thorn-mint *Acanthomintha lanceolata*	Rank 4.2	Chaparral, shale scree, serpentine, cismontane woodland, coastal scrub/rocky. Elevation ranges from 80 to 1200 meters. Blooms March-June.	**No Potential.** 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 150 to 1200 meters. Blooms March-June.	**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	Broadleaved upland forest, chaparral, openings, and edges of north coast coniferous forest. 60-760 m. Blooms November-May.	**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				
big-scale balsamroot *Balsamorhiza macrolepsis*	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland/ sometimes serpentine; 90-1555 m elevation. Blooms March-June.	**Unlikely.** No suitable habitat for this species occurs within the Project Area. Multiple documented occurrences are located approximately 4 miles away in foothill grasslands. Grassland areas on-site are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
Tiburon Indian paintbrush *Castilleja affinis ssp. neglecta*	FE, ST, Rank 1B.2	Valley and foothill grassland (serpentine); 60-400 m elevation. Blooms April-June.	**Unlikely.** No suitable habitat for this species occurs within the Project Area. There are no documented occurrences within 5 miles of the Project Area.	No further surveys or avoidance measures are recommended.
pink creamsacs *Castilleja rubicundula* ssp. *rubicundula*	Rank 1B.2	Chaparral openings, cismontane woodland, meadows and seeps, valley, and foothill grassland on serpentinite. 20-910 m. Blooms April-June.	**No Potential.** 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 ferrisae*	FE, Rank 1B.1	Chaparral, coastal scrub, valley, and foothill grassland/ serpentine; 390-1510 m elevation. Blooms January-May.	**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; however, grassland areas 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				
dwarf soaproot *Chlorogalum pomeridianum var. minus*	Rank 1B.2	Chaparral or serpentine. Ranges from 305 to 1000 m elevation. Blooms May-August.	**No Potential.** No suitable habitat for this species occurs 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; 55 to 1600 m elevation. Blooms April-July.	**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.
Mt. Hamilton thistle *Cirsium fontinale var. campylon*	Rank 1B.2	Chaparral, cismontane woodland, valley, and foothill grassland/ serpentine seeps; 100-890 m elevation. Blooms February- October.	**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; potential grassland areas are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
Brewer's clarkia *Clarkia breweri*	Rank 4.2	Chaparral, cismontane woodland, coastal scrub/often serpentine. Ranges from 215 to 1115 m elevation. Blooms April-June.	**No Potential.** 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, on slopes and near drainages. Ranges from 90 to 1500 meters. Blooms April-July.	**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				
San Francisco Collinsia *Collinsia multicolor*	Rank 1B.2	Closed-cone coniferous forest, decomposed shale (mudstone) mixed with humus, coastal scrub/sometimes serpentine. Elevation ranges from 30 to 250 m. Blooms February-May.	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
Rattan's cryptantha *Cryptantha rattanii*	Rank 4.3	Cismontane woodland, riparian woodland, valley and foothill grassland, talus slopes and outcrops. Elevation ranges from 245 to 915 m. Blooms April-July.	**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.
Santa Clara Valley dudleya *Dudleya abramsii ssp. setchellii*	FE, Rank 1B.1	Cismontane woodland, valley, and foothill grassland/ rocky serpentine outcrops; 60-455 m elevation. Blooms April-October.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. Multiple occurrences are documented within five miles of the Project Area; however, there are no rocky outcrops and potential grassland areas are disturbed by agricultural activities or dominated by ruderal species.	No further surveys or avoidance measures are recommended.
Hoover's button-celery *Eryngium aristulatum var. hooveri*	Rank 1B.1	Vernal pools, alkaline depressions, roadside ditches, and other coastal wet places. Elevation ranges from 3 to 45 meters. Blooms June-August.	**Unlikely.** The nearest documented occurrence is five miles south of the Project Area. Marginal suitable habitat is present in the intermittent stream south of the Project Area.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE**	RECOMMENDATIONS***
Plants				
Fragrant fritillary *Fritillaria liliacea*	Rank 1B.2	Cismontane woodland, coastal prairie and scrub, valley and foothill grassland/ often serpentine; 3-410 m elevation. Blooms February-April.	**No Potential.** No suitable habitat for this species, or serpentine soils, occur within the Project Area.	No further surveys or avoidance measures are recommended.
Loma Prieta hoita *Hoita strobilina*	Rank 1B.1	Chaparral, cismontane woodland, riparian woodland/ usually serpentine or mesic sites; 30-860 m elevation. Blooms May- October.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area.	No further surveys or avoidance measures are recommended.
legenere *Legenere limosa*	Rank 1B.1	In beds of vernal pools; 1-880 m elevation. Blooms April- June.	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
serpentine leptosiphon *Leptosiphon ambiguus*	Rank 4.2	Cismontane woodland, coastal scrub, valley and foothill grassland areas on serpentine; 120 to 1130 m elevation. Blooms March-June.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area.	No further surveys or avoidance measures are recommended.
woolly-headed Lessingia *Lessingia hololeuca*	Rank 3	Broadleaf upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland, roadsides, fields; clay, serpentine substrates. Ranges from 15 to 305 m elevation. Blooms June-October.	**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				
smooth lessingia *Lessingia micradenia var. glabrata*	Rank 1B.2	Chaparral, cismontane woodland/serpentine, often roadsides; 120-420 m elevation. Blooms May-November.	**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.	No further surveys or avoidance measures are recommended.
arcuate bush-mallow *Malacothamnus arcuatus*	Rank 1B.2	Chaparral, cismontane woodland, and gravelly alluvium. Elevation ranges from 15 to 355 meters. Blooms April-September.	**Unlikely.** No suitable habitat for this species occurs within the Project Area. A documented occurrence occurs within five miles of the Project Area.	No further surveys or avoidance measures are recommended.
Hall's bush mallow *Malcothamnus hallii*	Rank 1B.2	Chaparral, coastal scrub, and serpentine; 10-760 m elevation. Blooms May-October.	**Unlikely.** No suitable habitat or serpentine soils occur within the Project Area. A documented occurrence occurs within five miles of the Project Area.	No further surveys or avoidance measures are recommended.
woodland woolythreads *Monolopia gracilens*	Rank 1B.2	Grassy openings in broadleaf upland forest, chaparral, coniferous forest, cismontane woodland, foothill and valley grasslands, and sandy to rocky soils on serpentine. Ranges from 100 to 1200 m elevation. Blooms February-July.	**Unlikely.** No suitable habitat for this species or serpentine soils occur within the Project Area. Multiple occurrences are documented within five miles of the Project Area; however potential grassland areas 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; 400-1100 m elevation. Blooms May- June.	**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				
rock sanicle *Sanicula saxitalis*	SR, Rank 1B.2	Broadleaf upland forest, chaparral, valley and foothill grassland, bedrock outcrops and talus slopes; 615-1215 m elevations. Blooms April-May.	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
Metcalf Canyon jewelflower *Streptanthus albidus ssp. albidus*	FE, Rank 1B.1	Valley and foothill grassland, relatively open areas with serpentine soils; 45-800 m elevation. Blooms April-July.	**No Potential.** No suitable habitat for this species occurs within the Project Area.	No further surveys or avoidance measures are recommended.
most beautiful jewelflower *Streptanthus albidus ssp. peramoenus*	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland, and serpentine outcrops on ridges and slopes; 95-1000 m elevation. Blooms March-October.	**Unlikely.** No suitable habitat for this species occurs within the Project Area. Multiple occurrences are documented within five miles of the Project Area; however potential grassland areas are 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, open talus slopes with shale and/or black oak; 600-790 m elevation. Blooms April- May.	**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				
two-fork clover *Trifolium amoenum*	FE, Rank 1B.1	Coastal bluff scrub, valley and foothill grassland (sometimes serpentine), open sunny sites, and swales; 5-415 m elevation. Blooms April- June.	**No Potential.** No suitable habitat for this species or serpentine soils occur within the Project Area.	No further surveys or avoidance measures are recommended.
Santa Cruz clover *Trifolium buckwestiorum*	Rank 1B.1	Broadleaf upland forest, cismontane woodland, moist grasslands, and coastal prairie/gravelly margins; 105-610 m elevation. Blooms April- October.	**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	RESULTS AND RECOMMNEDATIONS
WILDLIFE				
Mammals				
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.	**No Potential.** Habitat for this species is fragmented, and the majority of open habitat is actively tilled. No burrows were observed in the Project Area during the site visit to support badgers or their prey (ground squirrels).	No further surveys or avoidance measures are recommended.
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.	**No Potential.** There are no buildings or trees present that may support roosting by this species.	No further surveys or avoidance measures are recommended.
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.** There are no buildings or trees present that may support roosting by this species.	No further surveys or avoidance measures are recommended.
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.** The Project Area is entirely composed of grassland. No trees are present to supply woody material, and shrubs are sparse without adequate cover. No nests of this species were observed during the site visit.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMNEDATIONS
WILDLIFE				
San Joaquin kit fox *Vulpes macrotis mutica*	FE, ST, RP	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	**No Potential.** The Project Area is outside of expected range and is surrounded by development or roads which would fragment, disturb and generally make the area unsuitable.	No further surveys or avoidance measures are recommended.
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.	**No Potential.** The Project Area does not contain buildings, mines, sheer rock faces or similar habitat features to support roosting by this species.	No further surveys or avoidance measures are recommended.
Yuma myotis *Myotis yumanensis*	WBWG: Low-Medium	Known for its ability to survive in urbanized environments. Also found in heavily forested settings. Day roosts in buildings, trees, mines, caves, bridges and rock crevices. Night roosts associated with man-made structures.	**No Potential.** There are no buildings or trees present that may support roosting by this species.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMNEDATIONS
WILDLIFE				
Birds				
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, rivers, lakes or similar habitat features are present to support nesting by this species.	No further surveys or avoidance measures are recommended.
Black swift *Cypseloides niger*	BCC, 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.** The Project Area is outside the known range for this species, and no suitable nesting habitat is present onsite.	No further surveys or avoidance measures are recommended.
Burrowing owl *Athene cunicularia*	BCC, SSC	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.** Open habitat in the Project Area is either actively tilled or overgrown by tall, non-native vegetation making it unlikely that owls could find suitable conditions to support nesting. In addition, no burrows or burrow surrogates were observed that might support nesting by the species.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMNEDATIONS
WILDLIFE				
California least tern *Sterna 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.** No suitable nesting or foraging habitat is present to support the species.	No further surveys or avoidance measures are recommended.
Golden eagle *Aquila chrysaetos*	BCC, 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.	**No Potential.** While this species can often be seen flying overhead in this portion of Santa Clara County, no large trees, cliff faces or other similar nesting substrates are present that might support nesting by the species.	No further surveys or avoidance measures are recommended.
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.	**Unlikely.** This species is not known to nest in the vicinity of the Project Area (Bousman 2007). Because the species is not known to nest in the vicinity, it is unlikely to occur despite the presence of grasslands.	No further surveys or avoidance measures are recommended.
Great blue heron *Ardea herodias*	none (breeding sites protected by CDFW); CDF sensitive	Year-round resident. Nests colonially or semi-colonially in tall trees and on cliffs, also sequested 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 large trees or suitably sized waterbodies are present in the vicinity to support a rookery of this species.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMNEDATIONS
WILDLIFE				
Least Bell's vireo *Vireo bellii pusillus*	FE, SE	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.** The Project Area is outside the known range for this species, and no riparian habitat is present to support nesting.	No further surveys or avoidance measures are recommended.
Loggerhead shrike *Lanius ludovicianus*	SSC, BCC	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.	**Moderate Potential.** The Project Area is composed of grasslands which may provide suitable foraging grounds for the species. However, trees and shrubs are limited, and are sub-optimal for nesting due to their small size and limited density. One larger tree exists that may provide suitable nesting habitat. However, the presence of foraging and nesting substrates provides a moderate potential that the species may nest in the area.	Pre-construction breeding bird surveys are recommended for Project activities that occur between February 1 and August 31.
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 suitable old growth forest is present to support nesting by this species. No marine habitat is present to support foraging by the species.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMNEDATIONS
WILDLIFE				
Swainson's hawk *Buteo swainsoni*	ST, BCC	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.	**No Potential.** No suitable large trees or other nesting substrates are present within the Project Area to support nesting by this species. Additionally, the Project Area is within a mostly developed section of Morgan Hill which has high levels of anthropogenic disturbance and decreased availability of foraging habitat.	No further surveys or avoidance measures are recommended.
Tricolored blackbird *Agelaius tricolor*	SC, SSC, BCC, 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.** Adjacent aquatic habitat does not support large expanses of tule or cattail which are required to support nesting by a colony.	No further surveys or avoidance measures are recommended.
Western snowy plover *Charadrius alexandrinus nivosus*	FT, SSC, BCC, RP	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.** No suitable sandy beach, salt pond or similar habitats are present to support foraging or nesting habitat.	No further surveys or avoidance measures are recommended.
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.	**Moderate Potential.** Open agricultural fields onsite provide suitable foraging habitat while trees and shrubs on the Project Area and adjacent lands may provide marginal nesting habitat.	Pre-construction breeding bird surveys are recommended for Project activities that occur between February 1 and August 31.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMNEDATIONS
WILDLIFE				
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**. No riparian vegetation is present to support nesting by this species.	No further surveys or avoidance measures are recommended.
Reptiles and Amphibians				
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.	**No Potential.** No suitable sandy soils were observed within the Project Area, which is also outside the known range for this species.	No further surveys or avoidance measures are recommended.
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.** No perennial creeks or moist conifer forest is present to support this species.	No further surveys or avoidance measures are recommended.
California red-legged frog *Rana draytonii*	FT, SSC, RP	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.	**No Potential.** The nearest CNDDB occurrence is less than five miles from the Project Area (CDFW 2019) but any occupied habitats are separated from the Project Area by dense urban development which isolates the Project Area from nearby populations.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMNEDATIONS
WILDLIFE				
California Tiger Salamander *Ambystoma californiense*	FE/FT, ST, RP	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.** Although the nearest historic CNDDB historic occurrence is approximately one mile from the Project Area (CDFW 2019), no suitable aquatic breeding habitat is present onsite. No suitable breeding habitat occurs within dispersal distance of the Project Area; thus, CTS are unlikely to occur in on-site upland habitat. The Project Area does not occur within designated critical habitat for this species.	No further surveys or avoidance measures are recommended.
Foothill yellow-legged frog *Rana boylii*	SC, SSC	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 habitat suitable for this species occurs onsite. The Project Area is outside the known range for this species.	No further surveys or avoidance measures are recommended.
Pacific (western) pond turtle *Actinemys marmorata*	SSC	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.** Although the nearest CNDDB occurrence is less than five miles from the Project Area (CDFW 2019), no suitable aquatic habitat is present onsite to support the species.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMNEDATIONS
WILDLIFE				
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. Prey items include millipedes, spiders, and other insects (Stebbins and McGinnis 2012).	**No Potential.** No damp woodland, or riparian forest is present to support this species.	No further surveys or avoidance measures are recommended.
Fish				
Delta smelt *Hypomesus transpacificus*	FT, ST, RP	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 does not contain any aquatic habitat to support the species.	No further surveys or avoidance measures are recommended.
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 within the Project Area to support this species.	No further surveys or avoidance measures are recommended.
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 within the Project Area to support this species.	No further surveys or avoidance measures are recommended.

SPECIES	STATUS*	HABITAT	POTENTIAL FOR OCCURRENCE	RESULTS AND RECOMMNEDATIONS
WILDLIFE				
Invertebrates				
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT, SSI, RP	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. purpurscens* are the secondary host plants.	**No Potential.** No suitable serpentine outcrops, soils or native grasslands are present within the Project Area.	No further surveys or avoidance measures are recommended.
Western bumble bee *Bombus occidentalis*	SSI	Formerly common throughout much of western North America; populations from southern British Columbia to central California have nearly disappeared (Xerces 2019). Occurs in a wide variety of habitat types. Nests are constructed annually in pre-existing cavities, usually on the ground (e.g. mammal burrows). Many plant species are visited and pollinated.	**No Potential.** The Project Area is regularly tilled for agriculture and vegetation control, eliminating burrows or similar structures that are required to support a colony of this species.	No further surveys or avoidance measures are recommended.

*** Key to status codes:**

FE	Federal Endangered
FT	Federal Threatened
SE	State Endangered
SD	State Delisted
ST	State Threatened
SR	State Rare
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.

*****Results and Recommendations:**

Present. Species was observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.

Assumed Present. Species has a high likelihood of occurring and actions to avoid/mitigate impacts are recommended; surveys not conducted.

Assumed Absent. Species is assumed to not be present or utilize the site due to a lack of key habitat components.

Not Observed. Species was not observed during protocol-level surveys.