Biological Resources Assessment

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SAN JOSE, SANTA CLARA COUNTY, CALIFORNIA

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LIST OF ACRONYMS

ADA	Americans with Disabilities Act
BCDC	San Francisco Bay Conservation and Development Commission
BRA	Biological Resources Assessment
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
City	City of San Jose
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
CRR	California Ridgway's Rail
CRPR	CNPS Rare Plant Rank
CSRL	California Soils Resources Lab
CWA	Clean Water Act
EFH	Essential Fish Habitat
EPA	U.S. Environmental Protection Agency
ESA	Federal Endangered Species Act
General Plan	Envision San Jose 2040 General Plan
HCP	Habitat Conservation Plan
HMMP	Habitat Mitigation and Monitoring Plan
MBTA	Migratory Bird Treaty Act
MSL	Mean Sea Level
NETR	Nationwide Environmental Title Research
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OHWM	Ordinary High Water Mark
Project	Alviso Hotel Project
RWQCB	Regional Water Quality Control Board
SCVHCP	Santa Clara Valley Habitat Conservation Plan
SMHM	Salt Marsh Harvest Mouse
SSC	Species of Special Concern
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

On December 17, 2019, WRA, Inc. (WRA) performed a Biological Resources Assessment (BRA) on a property located at 4553 North First Street, San Jose, Santa Clara County, California (Project Area, Appendix A, Figure 1). The northern portion of the approximately 6-acre Project Area is being developed as a the TopGolf entertainment complex. The southern portion is a vacant parcel and is the main subject of this analysis.

The purpose of this assessment is to gather information necessary to complete a review of biological resources under the California Environmental Quality Act (CEQA). This report describes the results of the site visit, which assessed the Project Area and immediately adjacent areas for: (1) the potential to support special-status plant and wildlife species; (2) the potential presence of sensitive biological communities such as wetlands or riparian habitats; and (3) the potential presence of other sensitive biological resources protected by local, state, and federal laws and regulations.

A BRA provides general information on the potential presence of sensitive species and habitats. The BRA is not an official protocol-level survey for listed species that may be required for project approval by local, state, or federal agencies. Our determinations regarding the potential of the Project Area to support special-status plant and wildlife species were based primarily on the suitability of habitats within the Project Area, the proximity of known occurrences, and an on-site inspection. This assessment is based on information available at the time of the study and on-site conditions that were observed during the site visit conducted in December 2019.

2.0 REGULATORY BACKGROUND

The following sections explain the regulatory context of this BRA, including applicable laws and regulations that informed field investigations.

2.1 Sensitive Biological Communities

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These habitats are protected under federal regulations such as the Clean Water Act (CWA); state regulations such as the Porter-Cologne Act, Section 1600-1616 of the California Fish and Game Code (CFGC), and CEQA; or local ordinances or policies such as city or county tree ordinances, Special Habitat Management Areas, and city or county general plan elements.

2.1.1 Waters of the United States

The United States Army Corps of Engineers (Corps) regulates “Waters of the United States” under Section 404 of the CWA. 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 also subject to Section 404 jurisdiction as “other waters” and are often characterized by an ordinary high water mark (OHWM), and herein referred to as non-

wetland waters. Non-wetland 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.

2.1.2 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 aquatic resources have high resource value, are vulnerable to filling, and may not be systematically protected by other programs. RWQCB jurisdiction also includes wetlands and waters that may not be regulated by the Corps under Section 404, such as isolated wetlands.

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.

2.1.3 San Francisco Bay and Shoreline

The San Francisco Bay Conservation and Development Commission (BCDC) has regulatory jurisdiction, as defined by the McAteer-Petris Act, over the Bay and its shoreline, which generally consists of the area between the Bay shoreline and a line 100 feet landward of and parallel to the shoreline. BCDC has two areas of jurisdiction: San Francisco Bay and the Shoreline Band. These areas are defined in the McAteer-Petris Act (PRC Section 66610). San Francisco Bay comprises areas that are subject to tidal action from the south end of the Bay to the Golden Gate (Point Bonita-Point Lobos) and to the Sacramento River line (a line between Stake Point and Simmons Point, extended northeasterly to the mouth of Marshall Cut), including all sloughs, tidelands (land lying between mean high tide and mean low tide); submerged lands (land lying below mean low tide), and marshlands. Specifically, it extends to the mean high tide line where tidal marsh is absent and up to 5 feet above mean sea level (MSL) where tidal marsh is present. The shoreline band consists of all territory located between the shoreline of San Francisco Bay as defined above and a line 100 feet landward of and parallel with that line, but excluding any portions of such territory which are included in other areas of BCDC jurisdiction; provided that the Commission may, by resolution, exclude from its area of jurisdiction any area within the shoreline band that it finds and declares is of no regional importance to the Bay.

2.1.3 Streams, Lakes, and Riparian Habitat

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

ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife (CDFG 1994). “Riparian” is defined as “on, or pertaining to, the banks of a stream.” Riparian vegetation is defined as “vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself” (CDFG 1994). Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

2.1.4 Essential Fish Habitat

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

2.1.5 Other Sensitive Biological Communities

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified by the CDFW in local or regional plans, policies, or regulations. The CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in its California Natural Diversity Database (CNDDB; CDFW 2019a). Sensitive plant communities are also identified by CDFW (2019b) and the California Native Plant Society (CNPS, 2019a). Vegetation alliances are ranked 1 through 5 by CNDDB based on NatureServe's (2019) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or United States Fish and Wildlife Service (USFWS) must be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in city or county general plans or ordinances.

2.1.6 Relevant Local Policies, Ordinances, and Regulations

<u>City of San Jose Ordinances and Policies</u>

The City of San Jose (City) Riparian Corridor Protection and Bird-Safe Design Council Policy (City 2016) provides guidance consistent with the goals, policies, and actions of the City’s Envision San Jose 2040 General Plan (General Plan; City 2011). New buildings in existing urban infill areas are required to have a minimum 100-foot setback from riparian corridors. Additionally, new development should use materials and lighting that are designed and constructed to reduce light and glare impacts to riparian corridors and should be directed away from riparian corridors.

Bird-Safe Design Guidance includes: (1) the design of buildings and structures should avoid mirrors and large areas of reflective glass, (2) avoidance of transparent glass skyways, walkways,

or entryways, (3) free-standing glass walls, and transparent building corners, (4) avoidance of funneling open space to a building façade.

The General Plan (City 2011) was written to serve as a guide for future development and growth in the City. Included in the General Plan is guidance pertaining to environmental resources and encourages the restoration of diked historic wetlands to their natural state by opening them to tidal action.

New development projects that create 10,000 square feet or more of impervious surface area must comply with the City Post-Construction Urban Runoff Management Policy (City 2006). This policy requires all these development and redevelopment projects to implement post-construction best management practices and treatment control measures to the maximum extent practicable.

Santa Clara Valley Habitat Plan

The Santa Clara Valley Habitat Plan (SCVHP) (County of Santa Clara 2012) is intended to provide an effective framework to protect, enhance, and restore natural resources in specific areas of Santa Clara County, while improving and streamlining the environmental permitting process for impacts on threatened and endangered species. Projects located within the SCVHP area may obtain permits and mitigation coverage through payment of in-lieu fees. Projects receiving permits through the SCVHP must also implement avoidance and minimization measures included in the SCVHP to reduce the potential for take of covered species and potential impacts to sensitive resources. These measures are outlined in Chapter 6 of the SCVHP.

2.2 Special-Status Species

Plant and Wildlife Species

Special-status species include those plants and wildlife 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). The ESA affords protection to federally listed species. The CESA affords protection to both state-listed species and those that are formal candidates for state listing. 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. In addition, CDFW Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, are considered special-status species. Although CDFW Species of Special Concern generally have no special legal status, they are given special consideration under the CEQA. Bat species are also 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 and also considered under CEQA. In addition to regulations for special-status species, most native birds in the United States (including non-status species) are protected the CFGC, i.e., sections 3503, 3503.5 and 3513, and guidance for protection is provided by the Migratory Bird Treaty Act (MBTA) of 1918. Under CFGC, destroying active nests, eggs, and young is illegal.

Plant species included within the CNPS Inventory of Rare and Endangered Plants (Inventory) with California Rare Plant Rank (CRPR) of 1 and 2 are also considered special-status plant species and must be considered under CEQA. Very few CRPR 3 or CRPR 4 plant species meet the definitions of Section 1901 Chapter 10 of the Native Plant Protection Act or Sections 2062 and 2067 of the CDFW Code that outlines CESA. However, CNPS and CDFW strongly recommend that these species be fully considered during the preparation of environmental

documentation relating to CEQA. This may be particularly appropriate for the type locality of a CRPR 4 plant, for populations at the periphery of a species range or in areas where the taxon is especially uncommon or has sustained heavy losses, or from populations exhibiting unusual morphology or occurring on unusual substrates. A description of the CRPRs is provided below in Table 1.

Table 1. Description of California Rare Plant Ranks and Threat Codes

CRPR (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

Critical Habitat

Critical habitat is a term defined in the ESA as a specific 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 that are needed for the species' recovery are protected by the prohibition against adverse modification of critical habitat.

3.0 METHODS

On December 17, 2019, the Project Area was traversed on foot to determine: (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. All plant and wildlife species encountered were recorded and are listed in Appendix B. Plants were identified using *The Jepson Manual: Vascular Plants of California 2nd Edition* (Baldwin et al. 2012) and Jepson Flora Project (eFlora 2019) to the taxonomic level necessary to determine rarity. Plant nomenclature follows the Jepson Flora Project (2019), except where noted. For cases in

which regulatory agencies, CNPS, or other entities base rarity on older taxonomic treatments, precedence was given to the treatment used by those entities.

3.1 Biological Communities

Prior to the site visit, soil survey data for Santa Clara County (CSRL 2019) were examined to determine whether any unique soil types capable of supporting sensitive plant communities or aquatic features have been mapped in the Project Area. Additional sources, such as U.S. Geological Survey (USGS) 7.5-minute quadrangle maps for the Calaveras Reservoir, Milpitas, Niles, San Jose East, San Jose West, Cupertino, La Costa Valley, Mountain View, and Newark quadrangles (USGS 2018a-i) and available aerial imagery (Google Earth 2019, NETR 2019) were also reviewed to determine the potential for sensitive biological communities to occur in the Project Area. Where possible, biological communities were classified based on existing descriptions found in *A Manual of California Vegetation, Online Edition* (CNPS 2019a). However, it was necessary to identify variants of community types or to describe non-vegetated or heavily disturbed areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations.

3.1.1 Non-sensitive Biological Communities

Non-sensitive biological communities are those communities that are not afforded special protection under CEQA, and other state, federal, and local laws, regulations, and ordinances. These communities may, however, provide suitable habitat for some special-status plant or wildlife species and are identified or described in Section 4.4.1 below.

3.1.2 Sensitive Biological Communities

Sensitive biological communities are defined as those communities that are given special protection under CEQA and other applicable federal, state, and local laws, regulations and ordinances. Applicable laws and ordinances are discussed above in Section 2.0. Special methods used to identify sensitive biological communities are discussed below. Sensitive biological communities are identified and described in Section 4.4.1 below.

Wetlands and Non-Wetland Waters

The Project Area was surveyed to determine if any wetlands and non-wetland 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 and inundation, but may also include any observed indicators of wetland hydrology or wetland soils. Any potential wetland areas were identified as areas dominated by plant species with a wetland indicator status[1] of OBL, FACW, or FAC as given on the U.S. Army Corps of Engineers National Wetlands Plant List (Lichvar et al. 2016). Evidence of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation, algal mats, and oxidized root channels, or indirect (secondary) indicators, such as a water table within two feet of the soil surface during the dry season. Some indicators of wetland soils include dark colored soils, soils with a sulfidic odor, and soils that contain redoximorphic features as defined by the Corps Manual (Environmental Laboratory 1987) and Field Indicators of Hydric Soils in the United States (USDA 2018).

[1] OBL = Obligate, always found in wetlands; FACW = Facultative wetland, usually found in wetlands; FAC = Facultative, equal occurrence in wetland or non-wetlands.

The preliminary wetland and non-wetland waters assessment was based primarily on the presence of areas characterized by hydrophytic vegetation or unvegetated, ponded areas. Collection of additional data will be necessary to prepare a delineation report suitable for submission to the Corps.

Other Sensitive Biological Communities

The Project Area was evaluated for the presence of other sensitive biological communities, including riparian areas or other sensitive plant communities recognized by CDFW. Prior to the site visit, aerial photographs, local soil maps, and *A Manual of California Vegetation, Online Edition* (CNPS 2019a) were reviewed to assess the potential for sensitive biological communities to occur in the Project Area. All alliances within the Project Area with a ranking of 1 through 3 in the *Natural Communites List* (CDFW 2019b) were considered sensitive biological communities and mapped. These communities are described in Section 4.1.2 below.

3.2 Special-Status Species

3.2.1 Literature Review

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 search. Database searches for known occurrences of special-status species focused on the Milpitas, Mountain View, Newark, Niles, La Costa Valley, Calaveras Reservoir, San Jose East, San Jose West, and Cupertino quadrangles (USGS 2018a-i). The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the Project Area:

- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- Aerial photographs (Google Earth 2019, NETR 2019)
- Inventory (CNPS 2019b)
- 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)
- *Final Santa Clara Valley Habitat Plan* (County of Santa Clara 2012)
- Historic Aerials (NETR 2019)
- National Wetland Inventory (USFWS 2019a)
- Information for Conservation and Planning Database (USFWS 2019b)
- Online Soil Survey (CSRL 2019)
- WBWG, Species Accounts Region 5 (WBWG 2019)

3.2.2 Site Assessment

The December 2019 site visit was conducted to search for suitable habitats for listed species. Habitat conditions observed at the Project Area were used to evaluate the potential for presence of listed species based on these searches and the professional expertise of the investigating biologists. The potential for each listed species to occur in the Project Area was then evaluated according to the following criteria:

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

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 to determine its potential to occur in the Project Area. The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species. All species observed in the Project Area were recorded and are listed in Appendix B.

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 these species and habitats.

Special-status species, if observed during the site visit, were recorded and are discussed below in Section 4.3 and in Appendix C. 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.

4.0 RESULTS

A general description of the Project Area and the results of the site assessment are provided in the following sections. A list of plant and wildlife species observed is included as Appendix B. The assessment of the potential for special-status plant and wildlife species to occur in the Project Area is provided as Appendix C. Photographs of the Project Area are provided as Appendix D.

4.1 Project Area Description

An analysis of available historic aerial imagery (NETR 2019, Google Earth 2019) shows that the Project Area and surrounding region were used for agricultural purposes from at least 1948 through at least 1960. Prior to the 1960s, the Guadalupe River ran through the Project Area. By 1968, Guadalupe River was channelized and relocated west of the Project Area; the now-isolated drainage feature observed in the Project Area is part of the original alignment of the Guadalupe River that was left intact. Over time, the topography the Project Area and surrounding areas were altered by grading, fill, and development, and the Project Area is now surrounded on all sides by residential and commercial development, undeveloped vacant lands, and to the west, the developed Guadalupe River trail and the modern Guadalupe River channel.

The northern portion of the Project Area is a flat graded terrace currently under construction. Much of the northern portion of the Project Area is being developed as a TopGolf entertainment complex, and several structures associated with outdoor recreation have been installed. The southern portion of the Project Area is comprised of a steep-banked, relict portion of the Guadalupe River channel, and an adjacent (to the north), vacant, flat terrace. Several homeless encampments were observed in the southern portion of the Project Area.

4.2 Soils

The online soil survey (CSRL 2019) indicates that the Project Area contains three soil mapping units from three soil series: Novato clay, 0 to 1 percent slopes, tidally flooded, Clear Lake silty clay, 0 to 2 percent slopes drained, and Campbell silt loam, 0 to 2 percent slopes, protected. These native soil series are described below and are shown on Figure 2.

Campbell Series: The Campbell series consist of moderately fine or fine texture soils that occur on very gently sloping fringes of alluvial fans. A representative profile for this series consist of grayish brown (10YR 5/2) or dark grayish brown (10YR 4/2) with rust-brown mottles. The Campbell soil series is not on the U.S. national hydric soils list (NRCS 2019).

Clear Lake Series: The Clear Lake series consists of very deep, poorly drained soils located on plains and flat basins, which formed in alluvium derived from sandstone and shale. A representative profile for the series consists of a very dark gray (N 3/0) clay layer 39 inches thick with few faint redoximorphic concentrations in the upper 13 inches. Below this layer to a depth of about 60 inches is a light olive brown (2.5Y 5/4) clay layer with light yellowish brown (10YR 6/4) masses of iron accumulations. This soil is a very hard, firm, and very sticky clay. These soils are listed on the U.S. national hydric soils list (NRCS 2019).

Novato Series: The Novato series consists of deep, very poorly drained soils that formed in alluvium deposited along the margin of bays. Novato soils consist of, silty clay loams, silty clays, or clays with very slow runoff and slow permeability. A representative profile for this series consists of very dark grayish brown (10YR 3/2) clay loam to 6 inches with dark brown (7.5YR 3/4) mottles. This is underlain by dark grayish brown (10YR 4/2) clay with many very dark brown (7.5YR 2.5/3) mottles. These soils are listed on the U.S. national hydric soils list (NRCS 2019).

4.3 Biological Communities

Table 2 summarizes the area of each biological community type observed in the Project Area. Two non-sensitive biological communities are present in the Project Area: developed and ruderal herbaceous. Two sensitive aquatic communities are present in the Project Area: seasonal wetlands and non-wetland waters. Biological communities in the Project Area are shown on Figure 3 and further described below.

Table 2. Non-Sensitive and Sensitive Biological Communities within the Project Area

Biological Community	Acres within the Project Area
Non-Sensitive	
Developed	3.00
Ruderal Herbaceous	2.49
Sensitive	
Seasonal Wetland	0.16
Non-Wetland Waters	0.58
Total	**6.23**

4.3.1 Non-Sensitive Biological Communities

Developed. CDFW Rank: none. The northern portion of the Project Area consists of mostly bare ground, which has been graded and is currently under construction. Grading appears to be active and recent, as the only vegetation in developed areas consisted of sparse cover by annual grass seedlings. Due to the early stage of growth, vegetation in developed areas was not identifiable.

Ruderal Herbaceous. CDFW Rank: none. As described above, the Project Area has been highly altered and disturbed. As a result, the vegetation is characterized by non-native, herbaceous species typical of ruderal, highly disturbed conditions. Ruderal herbaceous vegetation was observed along the slopes of the Guadalupe River canal and within the southern portion of the Project Area below the recently graded area. Dominant species observed include black mustard (*Brassica nigra*), ripgut brome (*Bromus diandrus*), smilo grass (*Stipa miliacea* var. *miliacea*), and oat grass (*Avena* spp.). Scattered coyote brush (*Baccharis pilularis*) was present in the eastern portion of the Project Area, and other shrub species are occasionally present at low cover, including Italian buckthorn (*Rhamnus alaterna*) and tree tobacco (*Nicotiana glauca*).

4.3.2 Sensitive Aquatic Communities

Seasonal wetland. CWA Section 404/401. Three potential seasonal wetlands are present in the shallow depressions in the terrace northwest of the non-wetland waters feature (Figure 3). These depressions are characterized by mix of hydrophytic and often halophytic vegetation such as pickleweed (*Salicornia pacifica*), alkali heath (*Frankenia salina*), perennial pepperweed (*Lepidium latifolium*), salt grass (*Distichlis spicata*), and beardless wildrye (*Elymus triticoides*). The edges of these features transition into the vegetation characteristic of the ruderal herbaceous biological community. Shrubs and trees were absent.

Non-Wetland Waters. CDFW Rank: none. CWA Section 404/401, CFGC Section 1600. The non-wetland waters feature, present along the southern boundary of the Project Area, is comprised of the relict portion of the historic Guadalupe River channel (Figure 3). Between 1960 and 1968, the Guadalupe River was channelized, creating this isolated drainage feature. No inlet or outlet was observed during the site visit. Despite having no apparent inlet, based on historic aerial imagery (Google Earth 2019), this feature appears to be perennially inundated, with only slight fluctuations in the water level. Given the depth of this feature, ground water may be a primary source of the perennial inundation, but further investigation would be required to confirm this. Non-wetland waters within the Project Area do not have any tidal connection to the Bay or the Guadalupe River, they are not subject to BCDC's Bay jurisdiction. The Project Area is also

greater than 100 feet inland from nearby tidal vegetation, at its closest, and thus it is not within the Shoreline Band.

The non-wetland waters feature is almost entirely unvegetated, though a narrow band of hydrophytic vegetation is present around the water's edge comprised primarily of pickleweed and salt grass. This narrow band of vegetation was too small to map separately and was included as part of the non-wetland waters feature.

4.3 Special-Status Species

4.3.1 Special-Status Plant Species

Based upon a review of the resources and databases listed above, 51 special-status plant species have been documented in the vicinity of the Project Area. Two of these species have moderate or high potential to occur within the Project Area. The remaining 49 species are unlikely or have no potential to occur in the Project Area as a result of the high level of disturbance and a lack of suitable habitat elements such as vernal pool, chaparral, and woodland habitats or serpentine substrate. No special-status plant species were observed during the assessment site visit. Special-status plant species documented in the CNDDB within 5 miles of the Project Area are shown in Figure 4. The two species with moderate or high potential to occur within the Project Area are discussed below. Measures to reduce avoid or reduce impacts to a less than significant level for the following species are described in Section 5.3 of this assessment.

Congdon's tarplant (*Centromadia parryi ssp. congdonii*). CRPR 1B.1. High Potential. Congdon's tarplant is an annual herb in the composite family (Asteraceae) that blooms from May to October (November). It typically occurs on alkaline soils, sometimes described as heavy white clay, in valley and foothill grassland habitats ranging from 0 to 755 feet (0 to 230 meters) in elevation (CDFW 2019a, CNPS 2019b). Known associated species include hyssop loosestrife, coyote thistle (*Eryngium* sp.), annual beard grass (*Polypogon monspeliensis*), and Bermuda grass (*Cynodon dactylon*) (CDFW 2019a). The nearest known occurrence of Congdon's tarplant is half a mile east of the Project Area, in an annually disked ruderal field (CDFW 2019a).

Congdon's tarplant is a disturbance-adapted species, and within the Project Area, it has high potential to occur at the edges of the non-wetland waters feature and in mesic areas on the terrace above the non-wetland waters feature, which have not already been graded. At the time of the December 17, 2019 site visit, site conditions were not suitable to ascertain presence of this species given its phenology and prior site disturbance.

San Joaquin spearscale (*Extriplex joaquinana*). CRPR 1B.2. Moderate Potential. San Joaquin spearscale is an annual herb in the goosefoot family (Chenopodiaceae) that blooms from April to October. It typically occurs in seasonal alkali sink scrub and wetlands in chenopod scrub, alkali meadow, and valley and foothill grassland habitat at elevations ranging from 0 to 2,740 feet in elevation (CDFW 2019a, CNPS 2019b). Known associated species include salt grass, alkali heath, Mediterranean barley (*Hordeum marinum*), Italian rye grass (*Festuca perennis*), bird's-foot trefoil (*Lotus corniculatus*), docks (*Rumex crispus, R. pulcher*), tarplants (*Centromadia parryi, C. pungens*), pickleweed, and fat hen (*Atriplex triangularis*) (CDFW 2019a). The nearest known occurrence of San Joaquin spearscale is over 4.5 miles north of the Project Area, in the Pacific Commons Preserve, where it was observed growing on the edge of a created vernal pool.

San Joaquin spearscale is a disturbance-tolerant species, and within the Project Area, it has moderate potential to occur at the edges of the non-wetland waters feature and in mesic areas on the terrace above the non-wetland waters feature, which have not already been graded.

4.3.2 Special-Status Wildlife

42 special-status wildlife species have been recorded in the vicinity of the Project Area. Appendix C summarizes the potential for each of these species to occur within the Project Area. The species determined to have no potential to occur within the Project Area require habitat elements which are completely absent from the site such as tidal estuaries or marshes, perennial stream or riverine sources, vernal pools, riparian habitat, rock outcrops, buildings, and forest communities. For the species determined to be unlikely to occur at the site, some elements of suitable habitat may be present (e.g., grasses, brackish water, trees, or shrubs); however, the distance from known ranges or documented occurrences, and/or the lack of required habitat elements (e.g., tidally influenced water, burrows, etc.) reduce the potential for these species to occur and may preclude their presence. One special-status species that has been evaluated to be unlikely and is in the SCVHP survey zone is tricolored blackbird (*Agelaius tricolor*).

Of the 42 special-status species documented in the vicinity of the Project Area, four have potential to occur within the Project Area, including San Francisco common yellowthroat (*Geothlypis trichas sinuosa*), white-tailed kite (*Elanus leucurus*), northern harrier (*Circus cyaneus*), and burrowing owl (BUOW, *Athene cunicularia*). These three species are discussed below. Measures to reduce avoid or reduce impacts to a less than significant level for the following species are described in Section 5.3 of this assessment.

San Francisco (saltmarsh) common yellowthroat (*Geothlypis trichas sinuosa*); CDFW Species of Special Concern. Moderate Potential. This subspecies of the common yellowthroat is found in freshwater marshes, coastal swales, riparian thickets, brackish marshes, and saltwater marshes. Their breeding range extends from Tomales Bay in the north, Carquinez Strait to the east, and Santa Cruz County to the south. This species requires thick, continuous cover such as tall grasses, tule patches, or riparian vegetation down to the water surface for foraging and prefers willows for nesting (Shuford and Gardali 2008).

Foraging habitat for this species is not present around water features contained within the Project Area, but is present along the adjacent Guadalupe river corridor in dense cattail patches. Nesting may occur in small shrubs along the periphery of the Project Area; thus this species has moderate potential to occur.

White-tailed Kite (*Elanus leucurus*); CDFW Fully Protected. Moderate Potential. 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.

Foraging areas for this species are widely present in the vicinity of the Project Area, mainly in the areas associated with adjacent Don Edwards National Wildlife Refuge. Nesting habitat on the Project Area is limited, although several isolated trees and shrubs are present that could serve as nesting substrates. Foraging habitat exists on the Project Area in the ruderal herbaceous areas. Given the presence of foraging and limited nesting habitat in the vicinity, this species has moderate potential to occur on the Project Area.

Northern Harrier (*Circus cyaneus*); CDFW Species of Special Concern. Moderate Potential. Northern harrier occurs as a resident and winter visitor in open habitats throughout most of

California, including freshwater and brackish marshes, grasslands and fields, agricultural areas, and deserts. Harriers typically nest in treeless areas within patches of dense, relatively tall, vegetation, the composition of which is highly variable; nests are placed on the ground and often located near water or within wetlands (Shuford and Gardali 2008). Harriers are birds of prey and subsist on a variety of small mammals and other vertebrates.

Foraging habitat for this species is present on the Project Area in developed ruderal herbaceous areas, as well as in the vicinity within wetland and ruderal herbaceous and other open space areas. Nesting opportunities for this species are limited within the Project Area, but nesting may occur in vegetation along the edges of the seasonal wetland area. Due to the presence of nearby foraging habitat and potential nesting habitat, this species has moderate potential to occur on the Project Area.

Burrowing owl (*Athene cunicularia*). CDFW Species of Special Concern; USFWS Bird of Conservation Concern. The burrowing owl occurs as a year-round resident and winter visitor in much of California's lowlands, inhabiting open areas with sparse or non-existent tree or shrub canopies. Typical habitat is annual or perennial grassland, although human-modified areas such as agricultural lands and airports are also used (Poulin et al. 1993). This species is dependent on burrowing mammals to provide the burrows that are characteristically used for shelter and nesting, and in northern California is typically found in close association with California ground squirrels (*Spermophilus beecheyi*). Manmade substrates such as pipes or debris piles may also be occupied in place of burrows. Prey consists of insects and small vertebrates. Breeding typically takes place from March to July.

Burrowing owl is routinely documented in the vicinity of the Project Area, the closest occurrence being 0.3 mile to the southeast (CDFW 2019a). Though ground squirrel activity has not been observed on the Project Area, individual ground squirrels were heard making alarm calls along the Guadalupe River levee during the December 17, 2019 site visit. Burrow surrogates are additionally available on the Project Area within developed areas, chiefly in the form of concrete block piles and culverts around water features. Current vegetation conditions on the Project Area within ruderal herbaceous and developed communities are characterized by bare ground or sprouting annual grasses, and most areas are dominated by vegetation <6" in height with the exception of the seasonal wetland area. Although ground squirrel activity is not currently present on the site, burrowing owl occurs regularly nearby and has a moderate potential to use burrow surrogate features on the site for wintering or breeding.

4.3.3 Listed Wildlife Species Unlikely to Occur in the Project Area

Listed species that are documented to occur in the vicinity of the Project Area, but are unlikely or have no potential to occur in the Project Area include: California black rail (*Laterallus jamaicensis coturniculus*), California Ridgway's rail (*Rallus obsoletus obsoletus)*, tricolored blackbird (*Agelaius tricolor*), salt marsh harvest mouse (SMHM, *Reithrodontomys raviventris*), and California tiger salamander (*Ambystoma californiensis*). These species are discussed below.

California black rail (*Laterallus jamaicensis coturniculus*), State Threatened, CDFW Fully Protected Species. Unlikely. California black rail is the resident black rail subspecies that occurs in California coastal salt and brackish marshes from Bodega Bay to Morro Bay, with additional populations known from freshwater marshes near or in the northern Sierra Nevada foothills (Eddleman et al. 1994, Richmond et al. 2008). According to a published analysis by Spautz et al. (2005), important habitat elements for this species within the San Francisco Bay estuary are: 1) emergent marsh dominated by pickleweed (*Salicornia* spp.), marsh gumplant (*Grindelia stricta*), bulrush (*Bolboschoenus maritimus*), rushes (*Juncus* spp.), and/or cattails

(*Typha* spp.); 2) high density of vegetation below four inches in height; 3) high marsh elevation with transitional upland vegetation; 4) large total area of contiguous marsh; 5) proximity to a major water source; and, 6) isolation from disturbance. This species feeds primarily on invertebrates. Black rails are extremely secretive and very difficult to glimpse or flush; identification typically relies on voice. Nests are placed on the ground in dense wetland vegetation.

California black rail is documented to occur nearby on portions of the Don Edwards National Wildlife Refuge Complex (CDFW 2019a). However, suitable habitat is typically characterized by large contiguous areas of marsh with adjacent areas of transitional upland. The Project Area does not contain these or any other habitat characteristics typical of areas occupied by this species. Construction activites and related disturbances are present in the Project Area as part of previously permitted projects and surrounding urban development. Though individuals of this species may periodically forage along the margins of the adjacent Guadalupe River, this species is unlikely to occur on the Project Area.

California Ridgway's (clapper) rail (*Rallus obsoletus obsoletus*). Federal Endangered, State Endangered, CDFW Fully Protected Species. The California Ridgway's rail (CRR), formerly known as California clapper rail (*R. longirostris obsoletus*), is the resident Ridgway's/clapper rail subspecies of northern and central California. Although more widespread in the past, it is currently restricted to the San Francisco Bay estuary. The CRR occurs only within salt and brackish marshes. According to Harvey (1988), Shuford (1993) and Eddleman and Conway (1998), important CRR habitat components are: 1) well-developed tidal sloughs and secondary channels; 2) beds of cordgrasss (*Spartina* spp.) in the lower marsh zone; 3) dense salt marsh vegetation for cover, nest sites, and brooding areas; 4) intertidal mudflats, gradually sloping banks of tidal channels, and cordgrass beds for foraging; 5) abundant invertebrate food resources; and 6) transitional vegetation at the marsh edge to serve as a refuge during high tides. In south and central San Francisco Bay and along the perimeter of San Pablo Bay, CRR typically inhabits salt marshes dominated by pickleweed and cordgrasss. Brackish marshes supporting CRR occur along major sloughs and rivers of San Pablo Bay and along tidal sloughs of Suisun Marsh. Nesting occurs from March through July, with peak activity in late April to late May (DeGroot 1927, Harvey 1980, Harvey 1988). CRR nests, constructed of wetland vegetation and platform-shaped, are placed near the ground in clumps of dense vegetation, usually in the lower marsh zone near small tidal channels (DeGroot 1927, Evens and Page 1983, Harvey 1988).

California Ridgway's rail is documented to occur nearby on portions of the Don Edwards National Wildlife Refuge Complex (CDFW 2019a). However, suitable habitat is typically characterized by large contiguous areas of marsh with tidally influenced water bodies and large tidal mudflats for foraging. The Project Area does not contain these or any other habitat characteristics typical of areas occupied by this species. Construction activites and related disturbances are present in the Project Area as part of previously permitted projects and surrounding urban development. Though individuals of this species may periodically forage along the margins of the adjacent Guadalupe River, this species is unlikely to occur on the Project Area.

Tricolored blackbird (*Agelaius tricolor*). State Threatened, CDFW Species of Special Concern. The tricolored blackbird is a locally common resident in the Central Valley and along coastal California. Most tricolored blackbirds reside in the Central Valley March through August, then moving into the Sacramento-San Joaquin Delta and east to Merced County and coastal locations during winter (Meese et al. 2014). This species breeds adjacent to fresh water, preferring emergent wetlands with tall, dense cattails or tules, thickets of willow or blackberry, and/or tall herbs. Flooded agricultural fields with dense vegetation are also used (Shuford and Gardali 2008). This species is highly colonial; nesting habitat must be large enough to support a minimum of 30 pairs, and colonies are commonly substantially larger (up to thousands of pairs).

The tricolored blackbird often intermingles with other blackbird species during the non-breeding season. Individuals typically forage up to 5.6 miles (9 kilometers) from their colonies although in most cases only a small part of the area within this range provides suitable foraging (Hamilton and Meese 2006).

Tricolored blackbird have been documented in the area; the nearest documented occurrence of this species is approximately 2.3 miles to the east in the riparian vegetation along Coyote Creek (CDFW 2019a). However this species relies on dense emergent vegetation (i.e., cattails) adjacent to semi-fresh water sources such as; rivers, lakes, creeks, and/or pond edges. Although the Project Area does have a water source, the Project Area does not contain emergent vegetation or other tall herbaceous vegetation suitable for this species' foraging and nesting. Suitable habitat for this species occurs chiefly along the Guadalupe River. This species is unlikely to occur on the Project Area.

Salt Marsh Harvest Mouse (*Reithrodontomys raviventris*), Federal Endangered, State Endangered, CDFW Fully Protected Species. Unlikely. SMHM is a relatively small rodent found only in suitable salt- and brackish-marsh habitat in the greater San Francisco Bay, San Pablo Bay, and Suisun Bay areas. This species has been divided into two subspecies: the northern SMHM (*Reithrodontomys raviventris halicoetes*) which lives in the brackish marshes of the San Pablo and Suisun Bays, and the SMHM (*Reithrodontomys raviventris raviventris*) which is found in the marshes of San Francisco Bay. The Project Area occurs within the range of the southern subspecies, which generally persists in smaller and more isolated populations than the northern subspecies. Most of the marshes of the South San Francisco Bay in particular are narrow, strip-like marshes and thus support fewer harvest mice than those in the northern portions of the species' range (USFWS 2010). The basic habitat associated with SMHM has been described as pickleweed dominated vegetation (Fisler 1965), though more recent studies have shown that SMHM is supported equally in pickleweed-dominated and mixed-vegetation (including native and non-native salt- and brackish-marsh species) (Sustaita et al. 2005, Sustaita et al. 2011). Known SMHM habitat in the Suisun Bay marshes is often composed of mixed salt- and brackish-marsh vegetation such as rushes, alkali heath, fat hen, and saltgrass, with pickleweed as a relatively minor component. The SMHM does not burrow, and thus it is dependent on year-round vegetative cover. As such, the plant species composition is less important than the quality of cover from predators and the food provided by the vegetation. SMHM prefers deep, dense vegetative cover between 11.8 and 23.6 inches [30 – 50 centimeters] in height (USFWS 2013), though there are indicators that shorter stands (5.9 inches [15 centimeters] is the shortest commonly used) of pickleweed may also support an abundance of this species (Fisler 1965; Shellhammer et al. 1982).

SMHM is present in contiguous areas of pickleweed marsh contained within Don Edwards National Wildlife Refuge. The Project Area itself, however, provides marginal habitat for this species. The seasonal wetland area may provide potential foraging habitat on the Project Area, although vegetation in this area is likely not sufficiently dense to provide adequate cover for SMHM, and would leave them highly exposed to predators, including feral cats that are present nearby. The Project Area does not contain primary habitat for this species, and any individuals that may forage or seek high tide refuge on portions of the Project Area would originate from the emergent vegetation along the Guadalupe river, which is chiefly comprised of plant species not typical of SMHM occupation. The existing bike path along the Guadalupe river and corresponding infrastructure (i.e. short wall between the path and the river) provide a barrier to dispersal for SMHM that might forage within the Project Area. Suitable upland refugia exists on the river side of the bike path as well, suggesting that SMHM would not need to disperse in the Project Area during high tide events. The nearest occurrences of this species are additionally 2.5 miles or

more from the Project Area, and are separated from the Project Area by residential and light industrial development (CDFW 2019a). Due to significant barriers of dispersal onto the Project Area and the lack of suitable upland habitat, this species is unlikely to occur on the Project Area.

California tiger salamander (*Ambystoma californiense*), Federal Threatened, State Threatened. The California tiger salamander 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. California tiger salamanders spend most of their time in the grasslands surrounding breeding pools. They survive hot, dry summers by living underground in burrows (such as those 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.

The nearest documented occurrences of the species are approximately 4.25 miles to the north, and are confined to vernal pool habitats in uplands associated with Don Edwards National Wildlife Refuge (CDFW 2019a). No vernal pool habitats exist on the Project Area, and mammal burrows are limited within close proximity to any water features. The Project Area was historically tidal marsh habitat and habitat or within the local range for the species. Furthermore, the Project Area lacks a source population for colonizations. The nearest known occurrences of this species are beyond the typically accepted dispersal distance for this species, and the interceding space provides many barriers to dispersal including urban development and numerous large highways and interstates. Due to the lack of suitable habitat on the Project Area and the lack of a nearby source population that could provide colonizing individuals, this species is unlikely to occur on the Project Area.

4.3.4 Wildlife Movement Corridors

Wildlife corridors provide connectivity between habitat areas for common species, enhancing species richness and diversity. Where habitat areas are subject to pressures from development, defined movement corridors and/or contiguous open space areas are of particular importance as they provide cover, water, and food between seasonal breeding and foraging areas.

Most of the Project Area has currently been cleared of vegetation and graded. Remaining annual grassland in the Project Area, mainly present around seasonal wetlands and near the non-wetland water feature, may serve as a corridor for local wildlife. East of the Project Area, residential development and light industrial development quickly becomes dense. Dense development to the east likely precludes wildlife movement in this direction. Animals may traverse the Project Area briefly during use of the Guadalupe River as a foraging habitat, though they would likely preferentially use existing larger tracts of annual grassland present immediately to the south to avoid ongoing disturbances associated with construction and corporate operations. Adjacent and nearby barriers to dispersal include fencing that abuts pavement (preventing burrowing underneath) and without openings large enough to allow passage. These barriers reduce the functionality of the Project Area as a corridor other than occasional local movements in this direction. The Project Area is additionally not contained within any defined habitat connectivity areas described in the Essential Connectivity Areas dataset (CDFW 2014).

5.0 POTENTIAL IMPACTS, AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES

5.1 Project Description

The Alviso Hotel Project (Project) proposes construction of a 108,702 square foot, 215-room hotel in a five-story building. The northeastern corner of the site would include a surface parking lot with 43 parking spaces, and a three-story parking garage with 192 spaces, for a total of 235 parking spaces. Figure 6 shows the Project footprint in relation to biological communities within the Project Area. The proposed five-story building would reach a maximum height of 65 feet including architectural elements, mechanical equipment screens, and elevator shafts. The eastern side of the building would be set back 50 feet from the wetland area to the southeast. The proposed building exterior would include use of standing seam metal roof, horizontal and vertical fiber-cement siding, metal siding, aluminum storefront lobby entry, garage green screen, perforated metal panels, vinyl windows, metal railing balconies, and bay windows.

The Project would not involve demolition since the Project footprint is currently undeveloped. Construction activities would last approximately six months, beginning in spring of 2021. Access to the site would be provided by a 26-foot wide driveway on the northwestern corner of the Project Area. This driveway would connect with two planned roads from an adjacent project, both exiting onto North First Street. The driveway would also connect with two proposed roadways within the proposed site. As described above, a total of 235 parking spaces would be provided, including 14 electrical vehicle parking spaces, and nine Americans with Disabilities Act (ADA) parking spaces.

A number of new trees will be planted in the Project Area. Landscaping will also include a wide variety of small, medium, and large shrubs and grasses. Landscaping would be installed around the boundary of the site, as well as throughout the site's interior. The total landscaped area proposed would be 187,792 square-feet.

The site would be graded to drain in a northwest direction. Bioretention swales with catch basins would be installed in the northwest and south corners of the project site. The Project would install new storm drains, which would connect with planned storm drain lines from an adjacent project.

5.2 Significance Threshold Criteria

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 CWA (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 the site visit 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.

5.3 Potentially Significant Impacts

Two sensitive aquatic communities are present within the Project Area: seasonal wetland and non-wetland waters. Two special-status plant species and four special-status wildlife species have potential to occur within the Project Area. Potential impacts to these sensitive resources associated with the proposed Project are discussed below. Recommended avoidance, minimization, and mitigation measures to reduce such impacts are also included.

5.3.1 Biological Communities

Impact BIO-01: Wetlands and Non-Wetland Waters

The Project Area contains two sensitive aquatic communities: seasonal wetland and non-wetland waters. Seasonal wetland and non-wetland waters within the Project Area are potentially subject to Corps and RWQCB under Sections 404 and 401 of the CWA, CDFW under Section 1600 of the CFGC. Any impacts to these aquatic communities would be potentially significant and would require the obtainment of relevant permits thorugh the Corps, RWQCB, and CDFW. Without proper erosion and sedimentation measures, ground-disturbing activities and vegetation removal also increase the likelihood of sedimentation occurring in adjacent seasonal wetland and non-wetland waters wthin the Project Area outside of the proposed limit of disturbance. Additionally, earth work and equipment use may result in erosion, siltation, or discharge of fuels or other construction equipment-related substances into the seasonal wetlands. Discharge of sediment or hazardous materials may impact potentially jurisdictional features within the Project Area.

In the absence of suitable mitigation measures, any impacts to seasonal wetland would be potentially significant. The proposed Project shall implement Conditions 3 and 12 of the SCVHCP

to reduce construction impacts to steams, wetlands, and riparian habitat. These Habitat Conservation Plan (HCP) conditions require avoidance of wetlands and require construction setbacks for streams and riparian area during construction. Mitigation measures, based on these conditions, are outlined below.

Mitigation for Impact BIO-01

BIO MM-1.0: Avoidance of Wetlands and Non-Wetland Waters

Portions of the proposed Project slated for development are to be located away from the seasonal wetland and non-wetland waters; therefore no impacts are expected. It is recommended that any Project work be conducted more than 50 feet from the edge of the wetland or non-wetland water features, outside of the "Wetland Avoidance Buffer" (Figure 6), to provide a protective buffer. The following measures will ensure avoidance of direct impacts to wetlands and non-wetland waters during construction activity:

- The Wetland Avoidance Buffer shall be temporarily staked prior to construction, using orange construction fencing, lathe and flagging or its equivalent, by a qualified biologist to ensure that construction equipment and personnel avoid these features.
- Fencing shall be erected along the outer edge of the Project Area, between the Project Area and any adjacent wetland or pond.
- Applicable avoidance and minimization measures shall be implemented during construction. To this end, all personnel working within or adjacent to the Wetland Avoidance Buffer will be trained by a qualified biologist in the avoidance and minimization measure outlined in Table 6-2 of the SCVHCP. Training materials shall be submitted to the City's Supervising Environmental Planner upon request.

BIO MM-1.1: Avoidance of Indirect Effects to Wetlands

The site would be graded to drain in a northwest direction, away from potential jurisdictional aquatic features. Bioretention swales with catch basins would be installed in the northwest and south corners of the project site. The Project would install new storm drains, which would connect with planned storm drain lines from an adjacent project. The following measures will ensure avoidance of erosion or pollution to wetlands during construction activity:

- Appropriate erosion control measures (e.g., fiber rolls, filter fences, vegetative buffer strips) shall be used on site to reduce siltation and runoff of contaiminants into wetlands or non-wetland waters. Filter fences and mesh, if used, shall be of material that will not trap reptiles and amphibians. Erosion control blankets shall be used as a last resort because of their tendency to biodegrade slowly and trap reptiles and amphibians.
- Erosion-control measures shall be placed between the wetland or pond and the outer edge of the Project site. Fiber rolls used for erosion control shall be certified as free of noxious weed seed.
- Vehicles and equipment shall be parked on pavement, existing roads, and previously disturbed area.
- No construction or maintenance vehicles shall be refuled within 200 feet of avoided wetlands and non-wetland waters unless a bermed and lined refueling area is constructed and hazardous material absorbent pads are available in the case of a spill.
- Used cleaning materials (e.g., liquids) shall be disposed of safely, and if necessary, taken off site for proper disposal. Used disposable globes should be retained for safe disposal in sealed bags.

With the implementation of BIO MM-1.0 and BIO MM-1.1, there will be no impacts to wetlands and non-wetland waters.

Impact BIO-02: Invasive Weeds

The Project Area is located within an urban matrix in which a number of invasive weeds are known to occur. Movement of equipment to and from the site has the potential to result in the introduction or spread of invasive weeds. In the absence of suitable mitigation measures, the introduction and/or spread of invasive weeds would be considered a significant impact.

BIO MM-2.0: Containment of Invasive Weeds

With the implementation of the following measures, the introduction and spread of invasive weeds would be reduced to less than significant:

- All seeds and straw materials used on site shall be composed of weed-free rice (or similar acceptable material) straw, and all gravel and fill material shall be certified wed free. Proof of certification, in the form of a California Department of Food and Agriculture Form 66-079 "Certificate of Quarantine Compliance," or equivalent certification, shall be submittd to the City's Supervising Environmental Planner prior to issuance of a grading permit.
- During construction, vehicles and equipment shall be washed (including wheels, undercarriages, and bumpers) before leaving and after entering the Project footprint. Vehicles shall be cleaned at existing construction yards or legal operating car washes.
- Following construction, temporary impact zones or any disturbed ground that will not be under hardscape, landscaped, or maintained, shall be reseeded with a native seed mixture. Seed mixtures applied for erosion control shall be composed of native species appropriate for the site in order to provide long-term erosion control and slow colonization by invasive non-native plants.

5.3.2 Special-status Plant Species

Potential Impact BIO-03: Potential Impacts to Special-status Plant Species

Two special-status plant species have a moderate or high potential to occur in the Project Area based on the availability of suitable habitat, the presence of associated plant species, and the proximity to documented occurrences. The timing of the site visit was not sufficient to identify these species based on their documented bloom periods. None of the special-status plant species covered under the SCVHCP have potential to occur in the Project Area.

The majority of the Project Area has either already been graded or is located within the Wetland Avoidance Buffer, in which no impacts are to occur. However, Congdon's tarplant and San Joaquin spearscale could occur in mesic areas of ruderal herbaceous vegetation outside of the Wetland Avoidance Buffer, and these plants would be impacted by construction activities such as grading and hardscaping. Congdon's tarplant and San Joaquin spearscale are CRPR 1B species, meaning that they are considered extinct, rare, threatened or endangered throughout their range in California, and impacts to them must be considered under CEQA. If present in the Project Area, impacts to the aforementioned special-status plant species could be significant under CEQA (criterion A).

BIO MM-3.0: Potential Impacts to Special-status Plant Species

Protocol-level surveys shall be conducted in non-developed areas during the documented bloom period of Congdon's tarplant (May to November) and San Joaquin spearscale (April to October) to determine the presence of these species. Survey timing may fluctuate based on blooming periods of appropriate reference site locations.

If special-status plant surveys result in negative findings, no impacts would occur, and no mitigation would be required. Similarly, if special-status plant surveys find either species are observed within the Project Area but can be avoided, these plants would not be impacted, and no mitigation would be required. However, if either species is found to be present, the implementation of following measures would reduce Project impact on special-status plants to less than significant:

- If a population of Congdon's tarplant or San Joaquin spearscale is identified in the Project footprint and cannot be avoided, mitigation for loss of individuals shall be conducted. Mitigation shall be achieved by establishing a new population in the seasonal wetland and ruderal herbaceous vegetation that occur within the Wetland Avoidance Buffer. This area shall not be developed by the project and contains suitable habitat types for establishing a new population. Mitigation shall be a 1:1 ratio of plant establishment, on an acreage basis.
- Annual monitoring shall include quantitative sampling of the Congdon's tarplant or San Joaquin spearscale population to determine the number of germinated/surviving plants. This monitoring shall continue annually or until success criteria have been met; once annual monitoring has documented that a self-sustaining population has been successfully established on site, this mitigation measure shall be determined to have been met.
- Establishment of the plant population shall be subject to a Habitat Mitigation and Monitoring Plan (HMMP), prepared by a qualified biologist. The HMMP shall be submitted to the City's Supervising Environmental Planner for review and approval prior to the start of construction.

5.3.3 Special-status Wildlife Species

Of the 42 special-status wildlife species known to occur in the greater vicinity of the Project Area, four were determined to have moderate or high potential to occur or are present in the Project Area. Impact avoidance and minimization recommendations are discussed below.

Impact BIO-04: Nesting Birds

No special-status birds were observed within the Project Area during the site assessment. Two special-status bird species without species-specific guidance have a moderate potential to occur in the Project Area and include: white-tailed kite and northern harrier.

None of the bird species listed above are state or federally listed as endangered, threatened or candidates for listing. White-tailed kite is listed as a California fully protected species, while northern harrier is a CDFW Species of Special Concern (SSC). These designations require extra consideration for buffer zones around active nests, but otherwise require protection and surveys to be completed in the same manner as other species protected under the MBTA and CFGC. If nesting birds are present during construction, they may be impacted directly or indirectly by operation of equipment, increased noise, and increased human presence. Impacts to common

native nesting birds and the aforementioned special-status birds would be considered a significant impact under CEQA.

BIO MM-4.0: Nesting Bird Mitigation Measure

For the protection of special-status birds and native nesting birds protected by the MBTA and CFGC, future Project activities shall occur outside of the nesting season from September 1 – January 31, to the extent feasible.

If working outside of the nesting season is not possible, and project activities are initiated during the nesting season (February 1 – August 31), a qualified wildlife biologist shall conduct a nesting bird survey no more than 14 days prior to the start of Project activities. If no active nests are identified during the surveys, no impacts will occur to birds and work will progress without restriction. If active nests are identified, a no-disturbance buffer around the nest shall be implemented to avoid impacts to nesting birds. Buffers will be determined by a qualified biologist, and typically range from 25 feet to 500 feet depending on the species, nest location, and protection status of that species. After an active nest is determined to no longer be active, because of young fledging or predation, the buffer around the nest shall be removed and work shall progress without restriction. With the implementation of these measures, the Project will have no impact on nesting and/or protected birds.

Impact BIO-05: Burrowing Owl

Although ground squirrels are not active on the Project Area, burrow surrogates that may become occupied by burrowing owls exist in crevices in stockpiles and manmade culverts adjacent to water features. Burrowing owl is common in the vicinity of the Project Area, and may disperse through the Project Area or potentially use it as wintering or breeding habitat. Burrowing owl is a CDFW SSC, and is therefore given special considerations with regards to no-work buffers and any actions that could exclude the species from suitable or occupied habitat. Burrowing owls that could be present on the Project Area could be directly harmed if burrows or burrow surrogate structures are graded, excavated, or otherwise disassembled. Any impacts to burrowing owls or occupied burrows as a result of Project activities would be considered a significant impact under CEQA.

BIO MM-5.0: Burrowing Owl Pre-Construction Surveys

Work on the Project Area shall be preceded by a pre-construction survey focused on detecting burrowing owl. Burrowing owl surveys should be conducted in accordance with the *CDFW Staff Report on Burrowing Owl Mitigation* (2012), and often consist of a minimum of two (2) surveys that are conducted within14 days and then 24-48 hours of work start to ensure burrowing owl absence. If burrowing owl is determined to be present, avoidance buffers of up to 500 feet may be instituted around occupied burrows until such time as the burrow becomes unoccupied through natural processes. Burrowing owl are not known to currently occupy the Project Area and suitable burrows or burrow surrogates within the Project Area are minimal. Although unlikely, should occupied burrows be unavoidable and passive exclusion be necessary, a Relocation Plan would be developed and follow guidelines set forth in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). Guidelines include number of owls to be relocated, an analysis of impacts caused by relocation activities, identification of adjacent burrowing owl habitat, and any additional recommendations for minimization of impacts or post-relocation monitoring. Avoidance of occupied burrows as determined through pre-construction surveys and, if necessary, preparation and implementation of a Relocation Plan, will cause the Project to have no impact on burrowing owl.

Impact BIO-06: Bird collision risk with structures

The Project Area is in the vicinity of known avian breeding and migratory habitat. Building features, most often those associated with lighting or glass components (i.e. glazing), can attract birds from these nearby habitats and cause mortality in the form of collisions resulting from confusion. Any impacts to local or migrating birds resulting from building design features that are considered hazardous would be considered a significant impact under CEQA.

BIO MM-6.1: Bird-safe building design

In accordance with the San Jose Downtown Design Guidelines Section 4.4.2b ("Bird Safety") and MM BIO-6.1 of the TopGolf @ Terra Project Mitigated Negative Declaration (MND, File no. PDC16-013, GPT16-001), building designs shall be adjusted as needed to comply with guidelines in the aforementioned documents. General examples of potential plan alterations include:

- Reducing or treating of glazed surfaces;
- Controls on timing of decorative lighting;
- Elimination of glazed railings or "transparent corners", and;
- Reducing building features that may channel flight paths during migratory periods.

Bird-safe design review was conducted for this Project by a WRA avian biologist, the results of which are included in Appendix E. This design review details the level of compliance of current Project plans with the MND and the San Jose Downtown Design Guidelines, and includes recommendations for reducing potential impacts where they exist. With the incorporation of design changes recommended in Appendix E, the impact to local and migratory birds resulting from potential collisions with structures will be reduced to a less than significant level.

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APPENDIX A

FIGURES

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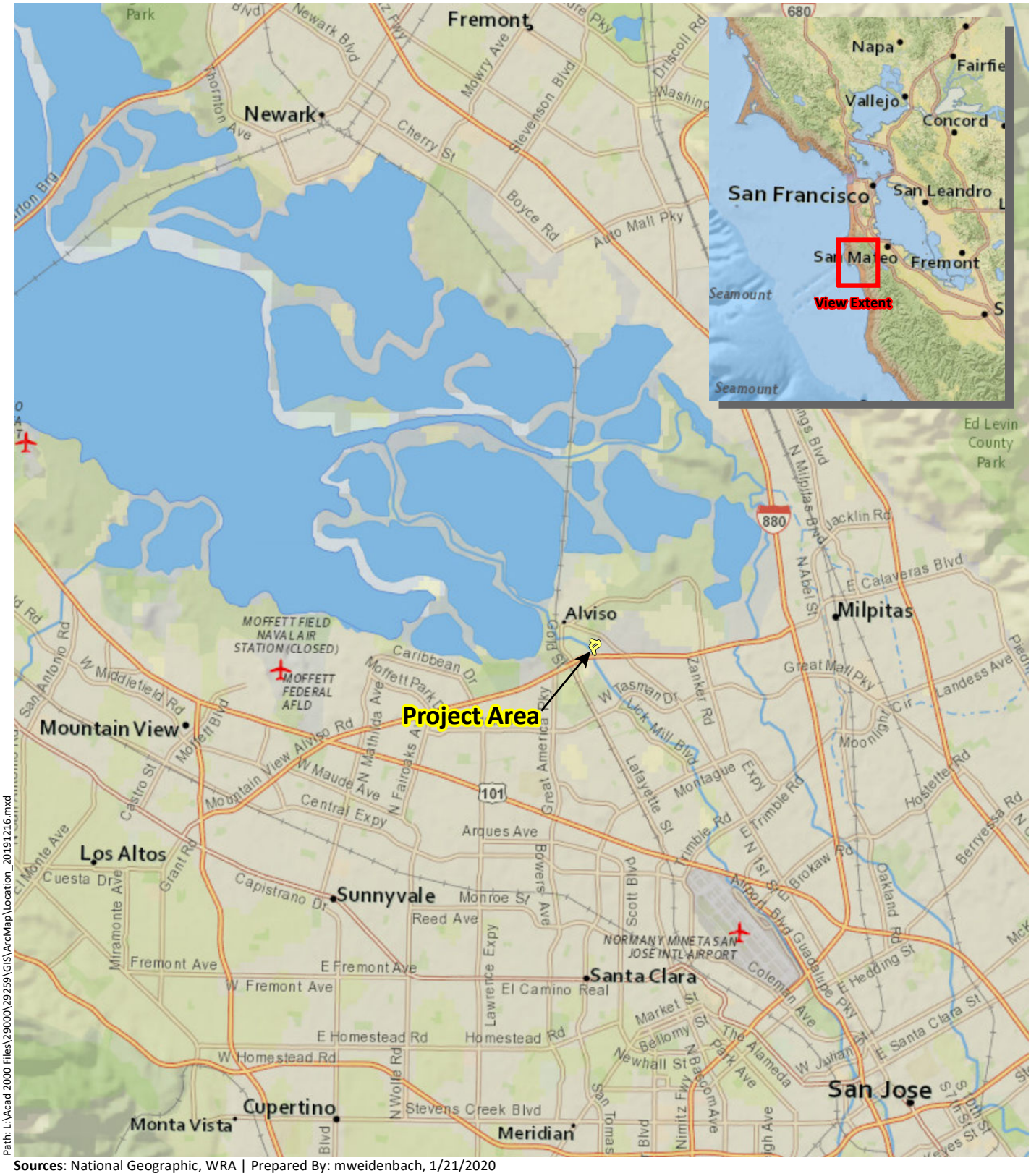

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Sources: National Geographic, WRA | Prepared By: mweidenbach, 1/21/2020

Figure 1. Project Area Location

Alviso Hotel
Biological Resources Assessment
Santa Clara County, California

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Sources: Esri World Imagery, SSURGO, WRA | Prepared By: mweidenbach, 1/21/2020

Figure 2. Project Area Soils

Alviso Hotel
Biological Resources Assessment
Santa Clara County, California

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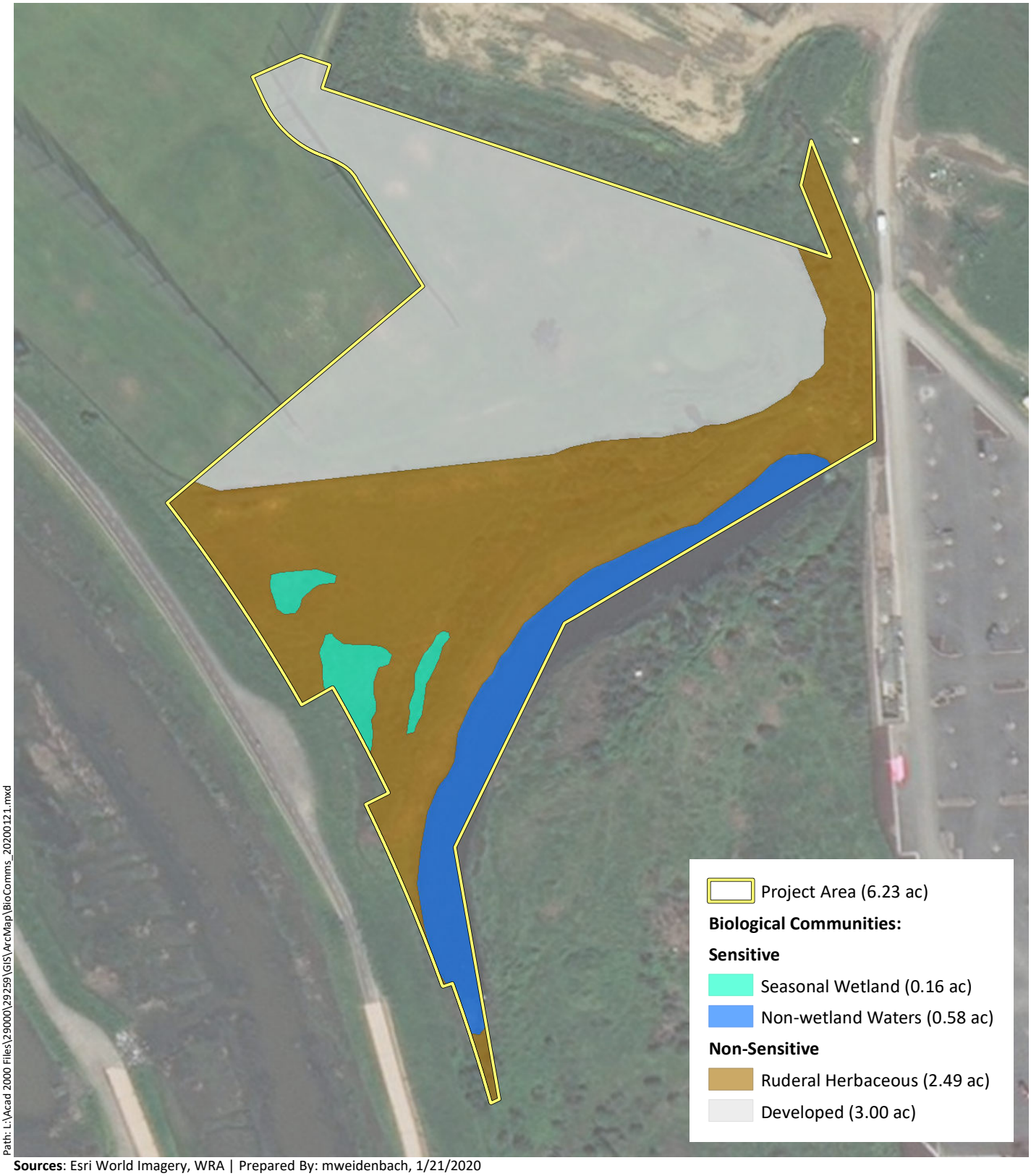

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Sources: Esri World Imagery, WRA | Prepared By: mweidenbach, 1/21/2020

Figure 3. Biological Communities Present within the Project Area

Alviso Hotel
Biological Resources Assessment
Santa Clara County, California

0 100 200 Feet

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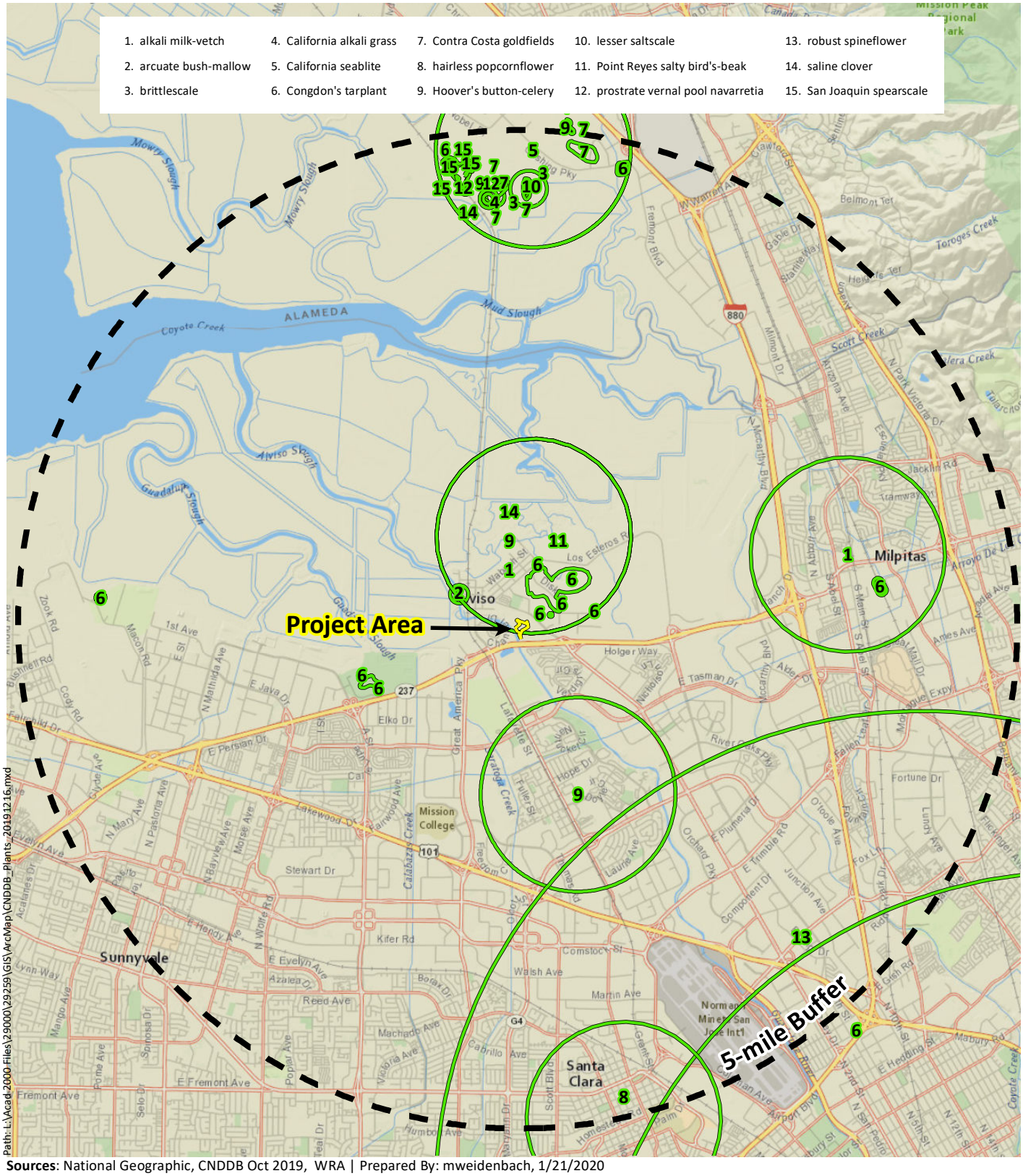

Sources: National Geographic, CNDDB Oct 2019, WRA | Prepared By: mweidenbach, 1/21/2020

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

Alviso Hotel
Biological Resources Assessment
Santa Clara County, California

0 1 2 Miles

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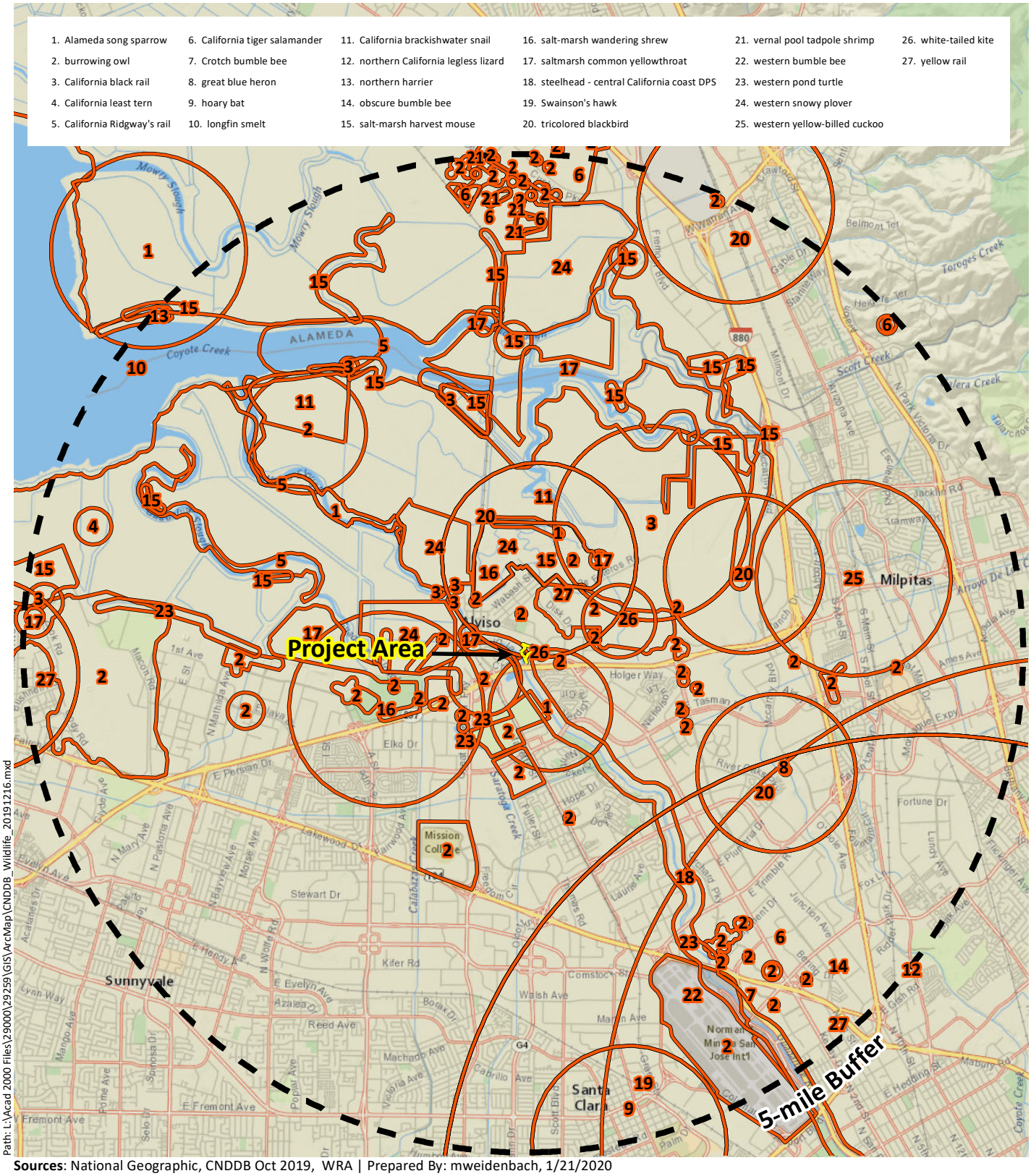

Sources: National Geographic, CNDDB Oct 2019, WRA | Prepared By: mweidenbach, 1/21/2020

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

Alviso Hotel
Biological Resources Assessment
Santa Clara County, California

0 1 2 Miles

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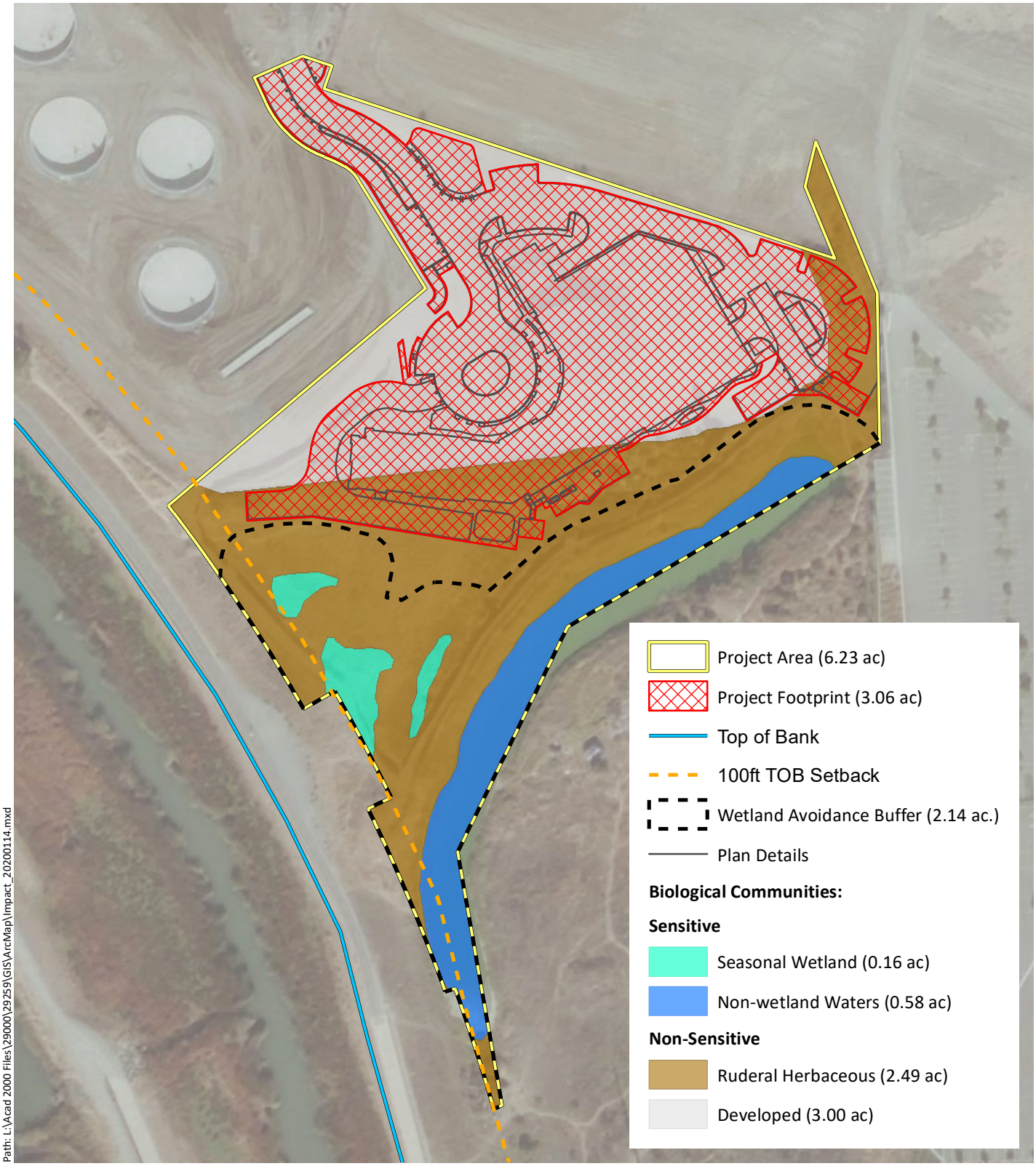

Sources: Esri World Imagery, WRA | Prepared By: pkobylarz, 4/26/2021

Figure 6. Project Footprint

Alviso Hotel
Biological Resources Assessment
Santa Clara County, California

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APPENDIX B

LIST OF OBSERVED PLANT AND WILDLIFE SPECIES

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Appendix B-1. Plant Species Observed in the Project Area.

Scientific Name	Common Name	Form	Wetland Status*
Atriplex prostrata	Fat-hen	annual herb	FACW
Avena barbata	Slim oat	annual, perennial grass	-
Avena fatua	Wildoats	annual grass	-
Baccharis pilularis ssp. *consanguinea*	Coyote brush	shrub	-
Bellis perennis	English lawn daisy	perennial herb	-
Brassica nigra	Black mustard	annual herb	-
Bromus catharticus	Rescue grass	annual, perennial grass	-
Bromus diandrus	Ripgut brome	annual grass	-
Bromus hordeaceus	Soft chess	annual grass	FACU
Capsella bursa-pastoris	Shepherd's purse	annual herb	FACU
Carduus pycnocephalus ssp. *pycnocephalus*	Italian thistle	annual herb	-
Cerastium glomeratum	Large mouse ears	annual herb	UPL
Conium maculatum	Poison hemlock	perennial herb	FACW
Cynodon dactylon	Bermuda grass	perennial grass	FACU
Distichlis spicata	Salt grass	perennial grass	FAC
Dittrichia graveolens	Stinkwort	annual herb	-
Elymus triticoides	Beardless wild rye	perennial grass	FAC
Erodium cicutarium	Coastal heron's bill	annual herb	-
Erodium moschatum	Whitestem filaree	annual herb	-
Euthamia occidentalis	Western goldenrod	perennial herb	FACW
Festuca bromoides	Brome fescue	annual grass	FACU
Festuca myuros	Rattail sixweeks grass	annual grass	FACU
Festuca perennis	Italian rye grass	annual, perennial grass	FAC
Ficus carica	Common fig	tree	FACU
Foeniculum vulgare	Fennel	perennial herb	-
Frankenia salina	Alkali heath	perennial herb	FACW
Fumaria sp.	Fumitory	Annual herb	-

Scientific Name	Common Name	Form	Wetland Status[1]
Geranium dissectum	Wild geranium	annual herb	-
Heliotropium curassavicum var. *oculatum*	Seaside heliotrope	perennial herb	FACU
Helminthotheca echioides	Bristly ox-tongue	annual, perennial herb	FAC
Hirschfeldia incana	Short-podded mustard	perennial herb	-
Hordeum brachyantherum	Meadow barley	perennial grass	FACW
Hordeum marinum ssp. *gussoneanum*	Barley	annual grass	FAC
Hordeum murinum	Foxtail barley	annual grass	FACU
Lactuca serriola	Prickly lettuce	annual herb	FACU
Lepidium latifolium	Perennial pepperweed	perennial herb	FAC
Malva nicaeensis	Bull mallow	annual herb	-
Malvella leprosa	Alkali mallow	perennial herb	FACU
Marrubium vulgare	White horehound	perennial herb	FACU
Matricaria discoidea	Pineapple weed	annual herb	FACU
Medicago polymorpha	California burclover	annual herb	FACU
Melilotus indicus	Annual yellow sweetclover	annual herb	FACU
Nicotiana glauca	Tree tobacco	tree, shrub	FAC
Olea europaea	Olive	tree, shrub	-
Pinus sp.	Pine	Tree	-
Plantago coronopus	Cut leaf plantain	annual herb	FAC
Plantago lanceolata	Ribwort	perennial herb	FAC
Polypogon monspeliensis	Annual beard grass	annual grass	FACW
Pseudognaphalium luteoalbum	Jersey cudweed	annual herb	FAC
Raphanus sativus	Radish	annual, biennial herb	-
Rhamnus alaternus	Italian buckthorn	shrub	FACU
Rubus armeniacus	Himalayan blackberry	shrub	FAC
Rumex crispus	Curly dock	perennial herb	FAC
Salicornia pacifica	Pickleweed	perennial herb	OBL
Sherardia arvensis	Field madder	annual herb	-

Scientific Name	Common Name	Form	Wetland Status[1]
Silybum marianum	Milk thistle	annual, perennial herb	-
Solanum cf. nigrum	Nightshade	annual herb	FACU
Sonchus asper ssp. *asper*	Sow thistle	annual herb	FAC
Sonchus oleraceus	Sow thistle	annual herb	UPL
Stipa miliacea var. *miliacea*	Smilo grass	perennial grass	-
Taraxacum sp.	Dandelion	perennial herb	FACU
Tragopogon porrifolius	Salsify	perennial herb	-
Trifolium repens	White clover	perennial herb	FACU
Vicia sativa	Spring vetch	annual herb, vine	FACU
Washingtonia robusta	Washington fan palm	tree	FACW

All species identified using the *Jepson eFlora* [Jepson Flora Project (eds.) 2019]; nomenclature follows *Jepson eFlora* [Jepson Flora Project (eds.) 2019]

* Wetland Status: National List of Plant Species that Occur in Wetlands, Arid West Region (Lichvar et al. 2016)

OBL: Almost always a hydrophyte, rarely in uplands
FACW: Usually a hydrophyte, but occasionally found in uplands
FAC: Commonly either a hydrophyte or non-hydrophyte
FACU: Occasionally a hydrophyte, but usually found in uplands
UPL: Rarely a hydrophyte, almost always in uplands
NL: Rarely a hydrophyte, almost always in uplands
NI: No information; not factored during wetland delineation

Appendix B-2. Wildlife Species Observed in the Project Area.

Scientific Name	Common Name
Anas platyrhynchos	mallard
Branta canadensis	Canada goose
Calypte anna	Anna's hummingbird
Carpodacus mexicanus	house finch
Cathartes aura	turkey vulture
Charadrius vociferus	killdeer
Corvus brachyrhynchos	American crow
Hirundinidae sp.	swallow
Sayornis nigricans	black phoebe
Zonotrichia leucophrys	white-crowned sparrow

APPENDIX C

POTENTIAL FOR SPECIAL-STATUS PLANT AND WILDLIFE SPECIES TO OCCUR IN THE PROJECT AREA

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Appendix C. Potential for Special-status Species to Occur in the Project Area. List compiled from the California Department of Fish and Wildlife Natural Diversity Database (CDFW 2019a), U.S. Fish and Wildlife Service Information for Planning and Conservation Database (USFWS 2019b), U.S. Fish and Wildlife Service Threatened and Endangered Species Lists, and California Native Plant Society Electronic Inventory of Rare and Endangered Plants (CNPS 2019b) for the Milpitas, Mountain View, Newark, Niles, La Costa Valley, Calaveras Reservoir, San Jose East, San Jose West, and Cupertino USGS 7.5' quadrangles (USGS 2018a-i).

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
PLANTS				
Santa Clara thorn-mint *Acanthomintha lanceolata*	Rank 4.2	Chaparral (often serpentine), cismontane woodland, coastal scrub. Elevation ranges from 260 to 3935 feet (80 to 1200 meters). Blooms Mar-Jun.	**No Potential.** The Project Area does not contain chaparral, cismontane woodland, or coastal scrub habitats or serpentine substrate.	No further action recommended for this species.
California androsace *Androsace elongata ssp. acuta*	Rank 4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland. Elevation ranges from 490 to 4280 feet (150 to 1305 meters). Blooms Mar-Jun.	**Unlikely.** The Project Area does not contain chaparral, cismontane woodland coastal scrub, meadows and seeps, or pinyon and juniper woodland. The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
alkali milk-vetch *Astragalus tener var. tener*	Rank 1B.2	Playas, valley and foothill grassland (adobe clay), vernal pools. Elevation ranges from 0 to 195 feet (1 to 60 meters). Blooms Mar-Jun.	**No Potential.** The Project Area does not contain playa or vernal pool habitats or adobe clay substrate.	No further action recommended for this species.
brittlescale *Atriplex depressa*	Rank 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland, vernal pools. Elevation ranges from 0 to 1050 feet (1 to 320 meters). Blooms Apr-Oct.	**Unlikely.** The Project Area does not contain chenopod scrub, meadows and seeps, playas or venal pool habitats. The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species	No further action recommended for this species.
lesser saltscale *Atriplex minuscula*	Rank 1B.1	Chenopod scrub, playas, valley and foothill grassland. Elevation ranges from 45 to 655 feet (15 to 200 meters). Blooms May-Oct.	**No Potential.** The Project Area does not contain chenopod scrub and playa habitats. In addition, this species is known to occur in sandy soils (CDFW 2018), which are not present within the Project Area.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
big-scale balsamroot *Balsamorhiza macrolepis*	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 145 to 5100 feet (45 to 1555 meters). Blooms Mar-Jun.	**Unlikely.** The Project Area does not contain chaparral or cismontane woodland habitats. The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species. In addition, this species is often known from serpentine and volcanic-influenced substrates, which are not present within the Project Area.	No further action recommended for this species.
Brewer's calandrinia *Calandrinia breweri*	Rank 4.2	Chaparral, coastal scrub. Elevation ranges from 30 to 4005 feet (10 to 1220 meters). Blooms (Jan)Mar-Jun.	**Unlikely.** The Project Area does not contain chaparral or coastal scrub habitats.	No further action recommended for this species.
chaparral harebell *Campanula exigua*	Rank 1B.2	Chaparral (rocky, usually serpentine). Elevation ranges from 900 to 4100 feet (275 to 1250 meters). Blooms May-Jun.	**No Potential.** The Project Area does not chaparral habitat or rocky or serpentine substrates and is outside the known elevation range for this species.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
Congdon's tarplant *Centromadia parryi ssp. congdonii*	Rank 1B.1	Valley and foothill grassland (alkaline). Elevation ranges from 0 to 755 feet (0 to 230 meters). Blooms May-Oct(Nov).	**High Potential.** This disturbance-adapted species has moderate potential to occur in mesic, ruderal herbaceous areas and along the fringe of the non-wetland waters feature.	Protocol-level surveys should be conducted for this species during the documented bloom period (May to November), or when plants are readily identifiable.
Point Reyes bird's-beak *Chloropyron maritimum ssp. palustre*	Rank 1B.2	Marshes and swamps (coastal salt). Elevation ranges from 0 to 35 feet (0 to 10 meters). Blooms Jun-Oct.	**Unlikely.** This species is known tidally influenced salt marsh habitat, which is not present within the Project Area.	No further action recommended for this species.
robust spineflower *Chorizanthe robusta var. robusta*	FE, Rank 1B.1	Chaparral (maritime), cismontane woodland (openings), coastal dunes, coastal scrub. Elevation ranges from 5 to 985 feet (3 to 300 meters). Blooms Apr-Sep.	**No Potential.** The Project Area does not contain chaparral, cismontane woodland, coastal dunes, or coastal scrub habitats.	No further action recommended for this species.
Mt. Hamilton fountain thistle *Cirsium fontinale var. campylon*	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 325 to 2920 feet (100 to 890 meters). Blooms (Feb)Apr-Oct.	**No Potential.** This species is known to occur only on serpentine substrate (CDFW 2018), which is not present within the Project Area.	No further action recommended for this species.
Santa Clara red ribbons *Clarkia concinna ssp. automixa*	Rank 4.3	Chaparral, cismontane woodland. Elevation ranges from 295 to 4920 feet (90 to 1500 meters). Blooms (Apr)May-Jun(Jul).	**No Potential.** The Project Area does not contain chaparral or cismontane woodland habitats.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
Lewis' clarkia *Clarkia lewisii*	Rank 4.3	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub. Elevation ranges from 95 to 3920 feet (30 to 1195 meters). Blooms May-Jul.	**No Potential.** The Project Area does not contain broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, or coastal scrub habitats.	No further action recommended for this species.
San Francisco collinsia *Collinsia multicolor*	Rank 1B.2	Closed-cone coniferous forest, coastal scrub. Elevation ranges from 95 to 820 feet (30 to 250 meters). Blooms (Feb)Mar-May.	**No Potential.** The Project Area does not contain closed-cone coniferous forest or coastal scrub habitats.	No further action recommended for this species.
clustered lady's-slipper *Cypripedium fasciculatum*	Rank 4.2	Lower montane coniferous forest, north coast coniferous forest. Elevation ranges from 325 to 7990 feet (100 to 2435 meters). Blooms Mar-Aug.	**No Potential.** The Project Area does not contain lower montane coniferous forest or North Coast coniferous forest habitats.	No further action recommended for this species.
Hospital Canyon larkspur *Delphinium californicum ssp. interius*	Rank 1B.2	Chaparral (openings), cismontane woodland (mesic), coastal scrub. Elevation ranges from 635 to 3595 feet (195 to 1095 meters). Blooms Apr-Jun.	**No Potential.** The Project Area does not contain chaparral, cismontane woodland or coastal scrub habitats and is outside the elevation range for this species.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
western leatherwood *Dirca occidentalis*	Rank 1B.2	Broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, north coast coniferous forest, riparian forest, riparian woodland. Elevation ranges from 80 to 1395 feet (25 to 425 meters). Blooms Jan-Mar(Apr).	**No Potential.** The Project Area does not contain broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, North Coast coniferous forest, riparian forest, or riparian woodland habitats.	No further action recommended for this species.
Santa Clara Valley dudleya *Dudleya abramsii ssp. setchellii*	FE, Rank 1B.1	Cismontane woodland, valley and foothill grassland. Elevation ranges from 195 to 1495 feet (60 to 455 meters). Blooms Apr-Oct.	**No Potential**. This species occurs on rocky outcrops (CDFW 2018), which are not present within the Project Area.	No further action recommended for this species.
Jepson's woolly sunflower *Eriophyllum jepsonii*	Rank 4.3	Chaparral, cismontane woodland, coastal scrub. Elevation ranges from 655 to 3365 feet (200 to 1025 meters). Blooms Apr-Jun.	**No Potential**. The Project Area does not contain chaparral, cismontane woodland, or coastal scrub habitats and is outside the elevation range for this species.	No further action recommended for this species.
Hoover's button-celery *Eryngium aristulatum var. hooveri*	Rank 1B.1	Vernal pools. Elevation ranges from 5 to 150 feet (3 to 45 meters). Blooms (Jun)Jul(Aug).	**No Potential.** The Project Area does not contain vernal pool habitat.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
San Joaquin spearscale *Extriplex joaquinana*	Rank 1B.2	Chenopod scrub, meadows and seeps, playas, valley and foothill grassland. Elevation ranges from 0 to 2740 feet (1 to 835 meters). Blooms Apr-Oct.	**Moderate Potential.** This disturbance-tolerant species has moderate potential to occur at the edges of the non-wetland waters feature and in the flat, ruderal herbaceous area adjacent to the north of the non-wetland waters feature.	Protocol-level surveys should be conducted for this species during the documented bloom period (April to October), or when plants are readily identifiable.
stinkbells *Fritillaria agrestis*	Rank 4.2	Chaparral, cismontane woodland, pinyon and juniper woodland, valley and foothill grassland. Elevation ranges from 30 to 5100 feet (10 to 1555 meters). Blooms Mar-Jun.	**Unlikely.** The Project Area does not contain chaparral, cismontane woodland, or pinyon and juniper woodland habitats. The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
fragrant fritillary *Fritillaria liliacea*	Rank 1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Elevation ranges from 5 to 1345 feet (3 to 410 meters). Blooms Feb-Apr.	**Unlikely.** The Project Area does not contain cismontane woodland, coastal prairie, or coastal scrub habitats. The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
Diablo helianthella *Helianthella castanea*	Rank 1B.2	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Elevation ranges from 195 to 4265 feet (60 to 1300 meters). Blooms Mar-Jun.	**Unlikely.** The Project Area does not contain broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, or riparian woodland habitats. The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species. In addition, this species is usually known from chaparral/oak woodland interface habitat on rocky soils (CDFW 2018), and such habitats and substrate are not present within the Project Area.	No further action recommended for this species.
Loma Prieta hoita *Hoita strobilina*	Rank 1B.1	Chaparral, cismontane woodland, riparian woodland. Elevation ranges from 95 to 2820 feet (30 to 860 meters). Blooms May-Jul(Aug-Oct).	**No Potential.** The Project Area does not contain chaparral, cismontane woodland, and riparian woodland habitats.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
coast iris *Iris longipetala*	Rank 4.2	Coastal prairie, lower montane coniferous forest, meadows and seeps. Elevation ranges from 0 to 1970 feet (0 to 600 meters). Blooms Mar-May.	**No Potential.** The Project Area does not contain coastal prairie, lower montane coniferous forest or meadows and seeps habitats.	No further action recommended for this species.
Contra Costa goldfields *Lasthenia conjugens*	FE, Rank 1B.1	Cismontane woodland, playas (alkaline), valley and foothill grassland, vernal pools. Elevation ranges from 0 to 1540 feet (0 to 470 meters). Blooms Mar-Jun.	**Unlikely.** The Project Area does not contain cismontane woodland, playa, or vernal pool habitats. The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
bristly leptosiphon *Leptosiphon acicularis*	Rank 4.2	Chaparral, cismontane woodland, coastal prairie, valley and foothill grassland. Elevation ranges from 180 to 4920 feet (55 to 1500 meters). Blooms Apr-Jul.	**Unlikely.** The Project Area does not contain chaparral, cismontane woodland, or coastal prairie habitats. The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.
serpentine leptosiphon *Leptosiphon ambiguus*	Rank 4.2	Cismontane woodland, coastal scrub, valley and foothill grassland. Elevation ranges from 390 to 3705 feet (120 to 1130 meters). Blooms Mar-Jun.	**No Potential.** This species is only known from serpentine substrate (CDFW 2018), which is not present within the Project Area.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
woolly-headed lessingia *Lessingia hololeuca*	Rank 3	Broadleafed upland forest, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Elevation ranges from 45 to 1000 feet (15 to 305 meters). Blooms Jun-Oct.	**Unlikely.** The Project Area does not contain broadleafed upland forest, coastal scrub, or lower montane coniferous forest habitats. This species is known from serpentine and upland clay substrates, which are not present within the Project Area. The nearest documented occurrence of this species is approximately 10 miles east of the Project Area.	No further action recommended for this species.
smooth lessingia *Lessingia micradenia var. glabrata*	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 390 to 1380 feet (120 to 420 meters). Blooms (Apr-Jun)Jul-Nov.	**No Potential.** This species is only known from serpentine substrate (CDFW 2018), which is not present within the Project Area.	No further action recommended for this species.
arcuate bush-mallow *Malacothamnus arcuatus*	Rank 1B.2	Chaparral, cismontane woodland. Elevation ranges from 45 to 1165 feet (15 to 355 meters). Blooms Apr-Sep.	**Unlikely.** The Project Area does not chaparral or cismontane woodland habitats.	No further action recommended for this species.
Hall's bush-mallow *Malacothamnus hallii*	Rank 1B.2	Chaparral, coastal scrub. Elevation ranges from 30 to 2495 feet (10 to 760 meters). Blooms (Apr)May-Sep(Oct).	**No Potential.** The Project Area does not contain chaparral or coastal scrub habitats.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
Mt. Diablo cottonweed *Micropus amphibolus*	Rank 3.2	Broadleafed upland forest, chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 145 to 2705 feet (45 to 825 meters). Blooms Mar-May.	**Unlikely.** The Project Area does not contain broadleafed upland forest, chaparral, or cismontane woodland habitats. The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.
elongate copper moss *Mielichhoferia elongata*	Rank 4.3	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, subalpine coniferous forest. Elevation ranges from 0 to 6430 feet (0 to 1960 meters).	**No Potential.** The Project Area does not contain broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, or subalpine coniferous forest habitats. This species is typically known from metamorphic substrate in fens, and this substrate and habitat are not present within the Project Area.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
San Antonio Hills monardella *Monardella antonina ssp. antonina*	Rank 3	Chaparral, cismontane woodland. Elevation ranges from 1045 to 3280 feet (320 to 1000 meters). Blooms Jun-Aug.	**No Potential.** The Project Area does not contain chaparral or cismontane woodland habitats and is outside the elevation range for this species.	No further action recommended for this species.
woodland woolythreads *Monolopia gracilens*	Rank 1B.2	Broadleafed upland forest (openings), chaparral (openings), cismontane woodland, north coast coniferous forest (openings), valley and foothill grassland. Elevation ranges from 325 to 3935 feet (100 to 1200 meters). Blooms (Feb)Mar-Jul.	**No Potential.** The Project Area does not contain broadleafed upland forest, chaparral, cismontane woodland, or North Coast coniferous forest habitats. The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.
Patterson's navarretia *Navarretia paradoxiclara*	Rank 1B.3	Meadows and seeps. Elevation ranges from 490 to 1410 feet (150 to 430 meters). Blooms May-Jun(Jul).	**No Potential.** The Project Area does not contain meadows and seeps habitat. This species is known from serpentine substrate (CDFW 2018), which is not present within the Project Area.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
prostrate vernal pool navarretia *Navarretia prostrata*	Rank 1B.1	Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools. Elevation ranges from 5 to 3970 feet (3 to 1210 meters). Blooms Apr-Jul.	**Unlikely.** The Project Area does not contain coastal scrub, meadows and seeps, or vernal pool habitats. The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.
hairless popcornflower *Plagiobothrys glaber*	Rank 1A	Meadows and seeps (alkaline), marshes and swamps (coastal salt). Elevation ranges from 45 to 590 feet (15 to 180 meters). Blooms Mar-May.	**Unlikely.** The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
California alkali grass *Puccinellia simplex*	Rank 1B.2	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. Elevation ranges from 5 to 3050 feet (2 to 930 meters). Blooms Mar-May.	**Unlikely.** The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.
chaparral ragwort *Senecio aphanactis*	Rank 2B.2	Chaparral, cismontane woodland, coastal scrub. Elevation ranges from 45 to 2625 feet (15 to 800 meters). Blooms Jan-Apr(May).	**Unlikely.** The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.
maple-leaved checkerbloom *Sidalcea malachroides*	Rank 4.2	Broadleafed upland forest, coastal prairie, coastal scrub, north coast coniferous forest, riparian woodland. Elevation ranges from 0 to 2395 feet (0 to 730 meters). Blooms (Mar)Apr-Aug.	**No Potential.** The Project Area does not contain broadleafed upland forest, coastal prairie, coastal scrub, North Coast coniferous forest, or riparian woodland habitats.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
long-styled sand-spurrey *Spergularia macrotheca var. longistyla*	Rank 1B.2	Meadows and seeps, marshes and swamps. Elevation ranges from 0 to 835 feet (0 to 255 meters). Blooms Feb-May(Jun).	**No Potential.** The Project Area does not contain meadows and seeps habitat. This species is known from serpentine substrate (CDFW 2018), which is not present within the Project Area.	No further action recommended for this species.
Metcalf Canyon jewelflower *Streptanthus albidus ssp. albidus*	FE, Rank 1B.1	Valley and foothill grassland (serpentine). Elevation ranges from 145 to 2625 feet (45 to 800 meters). Blooms Apr-Jul.	**No Potential.** This species is known only from serpentine outcrops, which are not present within the Project Area.	No further action recommended for this species.
most beautiful jewelflower *Streptanthus albidus ssp. peramoenus*	Rank 1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Elevation ranges from 310 to 3280 feet (95 to 1000 meters). Blooms (Mar)Apr-Sep(Oct).	**No Potential.** The Project Area does not contain freshwater marsh and swamp habitat and is outside the elevation range for this species.	No further action recommended for this species.
slender-leaved pondweed *Stuckenia filiformis ssp. alpina*	Rank 2B.2	Marshes and swamps (assorted shallow freshwater). Elevation ranges from 980 to 7055 feet (300 to 2150 meters). Blooms May-Jul.	**No Potential.** This species is only known from tidally influenced marsh habitat, which is not present within the Project Area.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
California seablite *Suaeda californica*	FE, Rank 1B.1	Marshes and swamps (coastal salt). Elevation ranges from 0 to 50 feet (0 to 15 meters). Blooms Jul-Oct.	**Unlikely.** The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.
saline clover *Trifolium hydrophilum*	Rank 1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Elevation ranges from 0 to 985 feet (0 to 300 meters). Blooms Apr-Jun.	**Unlikely.** The Project Area has been heavily altered and disturbed by historic and modern land management activities (e.g. agriculture, grading, levee construction, golfing facility) and is very weedy; as a result, it provides poor quality habitat for and is unlikely to support this species.	No further action recommended for this species.
caper-fruited tropidocarpum *Tropidocarpum capparideum*	Rank 1B.1	Valley and foothill grassland (alkaline hills). Elevation ranges from 0 to 1495 feet (1 to 455 meters). Blooms Mar-Apr.	**No Potential.** This species is known only from serpentine outcrops, which are not present within the Project Area.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
WILDLIFE				
Mammals				
pallid bat *Antrozous pallidus*	SSC, WBWG High	Found in a variety of habitats ranging from grasslands to mixed forests, favoring open and dry, rocky areas. Roost sites include crevices in rock outcrops and cliffs, caves, mines, and also hollow trees and various manmade structures such as bridges, barns, and buildings (including occupied buildings). Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Unlikely.** The Project Area does not provide suitable roosting habitat for this species. This species may forage within the Project Area.	No further action recommended for this species.
hoary bat *Lasiurus cinereus*	WBWG Medium	Prefers open forested habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths.	**No Potential.** The Project Area does not contain large trees, and is not adjacent to forested habitat. This species is not expected to roost or foraging within the Project Area.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
long-eared myotis *Myotis evotis*	WBWG Medium	Occurs in semiarid shrublands, sage, chaparral, and agricultural areas, but is usually associated with coniferous forests from sea level to 9000 feet. Individuals roost under exfoliating tree bark, and in hollow trees, caves, mines, cliff crevices, and rocky outcrops on the ground. They also sometimes roost in buildings and under bridges.	**Unlikely.** Forested habitat for this species is not present within the Project Area to provide suitable roosting habitat. This species may occasionally forage or migrate over the Project Area.	No further action recommended for this species.
Townsend's western big-eared bat *Corynorhinus townsendii townsendii*	SSC, WBWG High	Humid coastal regions of northern and central California. Roost in limestone caves, lava tubes, mines, buildings etc. Will only roost in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to disturbance	**No Potential.** The Project Area does not contain suitable forest habitat to support foraging or roosting of this species.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
salt marsh harvest mouse *Reithrodontomys raviventris*	FE, SE, CFP	Endemic to emergent salt and brackish wetlands of the San Francisco Bay Estuary. Pickleweed marshes are primary habitat; also occurs in various other wetland communities with dense vegetation. Does not burrow, builds loosely organized nests. Requires higher areas for dryland refugia during high tides.	**Unlikely.** The Project Area contains no tidal or brackish marsh, and is separated from suitable habitat by several dispersal barriers. The Project Area provides only marginal upland habitat.	No further action recommended for this species.
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 and adjacent areas do not contain densely forested areas with litter-dense understory that this species requires	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
salt-marsh wandering shrew *Sorex vagrans halicoetes*	SSC	Salt marshes of the south arm of San Francisco Bay. Medium high marsh 6 to 8 feet above sea level where abundant driftwood is scattered among *Salicornia*.	**Unlikely.** The Project Area contains marginal marsh vegetation along the shore of the non-wetland water feature in the southern portion of the Project Area. However, this species requires dense continuous tidal marsh habitat. The nearest documented occurrence is less than a mile north of the Project Area (CDFW 2018).	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
Birds				
tricolored blackbird *Agelaius tricolor*	ST	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.	**Unlikely.** The Project Area does not contain dense stands of emergent vegetation this species requires for nesting. The nearest documented occurrence is 1 mile north within the Don Edwards San Francisco Bay National Wildlife Refuge (CDFW 2019).	No further action recommended for this species.
golden eagle *Aquila chrysaetos*	BGEPA, CFP	Occurs year-round in rolling foothills, mountain areas, sage-juniper flats, and deserts. Cliff-walled canyons provide nesting habitat in most parts of range; also nests in large trees, usually within otherwise open areas.	**Unlikely.** The Project Area does not contain large trees, cliff walls, or platforms to provide support nesting of this species. Foraging unlikely based on habitats present, but could occur transiently.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
great blue heron *Ardea herodias*	Breeding sites protected by CDFW	Year-round resident. Nests colonially or semi-colonially in tall trees and 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.	**Unlikely.** The Project Area does not contain nesting substrates to support a breeding colony, though individuals are likely to forage in the nearby Guadalupe River.	No further action recommended for this species.
snowy egret *Egretta thula*	Breeding sites protected by CDFW	Year-round resident. Nests colonially, usually in trees, at times in sequestered beds of dense emergent vegetation (e.g., tules). Rookery sites usually situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	**Unlikely.** The Project Area does not contain nesting substrates to support a breeding colony, though individuals are likely to forage in the nearby Guadalupe River.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
burrowing owl *Athene cunicularia*	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.	**Moderate Potential.** Numerous occurrences for this species are found within one mile of the Project Area. Though ground squirrels and other fossorial mammals are largely absent from the Project Area, the species may utilize man-made burrow analogs, such as pipes and culverts, which are present.	Pre-construction burrowing owl surveys should be conducted to ensure no impacts occur to breeding or overwintering burrowing owls. See section 5.3.3 for mitigation measures specific to burrowing owl.
Swainson's hawk *Buteo swainsoni*	ST	Summer resident in 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.** This species is not currently known to occupy the region of the Project Area. The nearest documented occurrence is 5 miles south of the Project Area, is from 1889, and is listed as "possibly extirpated" (CDFW 2019). The Project Area additionally does not contain trees suitable for nesting.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
northern harrier *Circus cyaneus*	SSC	Year-round resident and winter visitor. Found in open habitats including grasslands, prairies, marshes and agricultural areas. Nests on the ground in dense vegetation, typically near water or otherwise moist areas. Preys on small vertebrates.	**Moderate Potential.** Open grassland areas within the Project Area are limited in extent, but do exist in proximity to the ephemeral wetland areas. This species may forage on or migrate through the Project Area.	Nesting bird surveys should be conducted on the Project Area to determine whether this species is breeding. See section 5.3.3 for measures specific to this and other native avian species.
yellow rail *Coturnicops noveboracensis*	SSC	Summer resident in eastern Sierra Nevada in Mono County, breeding in shallow freshwater marshes and wet meadows with dense vegetation. Also a rare winter visitor along the coast and other portions of the state. Extremely cryptic.	**Unlikely.** The Project Area does not provide the specific marsh/meadow habitat required by this species.	No further action recommended for this species.
western snowy plover *Charadrius nivosus (alexandrines) nivosus*	FT, SSC, 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.** The Project Area does not contain mud flat or gravel bar habitats typical of breeding areas for this species. Additionally no foraging opportunities exist on the Project Area.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
white-tailed kite *Elanus leucurus*	SFP	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.** Trees adjacent to the Project Area provide suitable nesting habitat, and open areas for foraging are present within the Project Area.	Nesting bird surveys should be conducted on the Project Area to determine whether this species is breeding. See section 5.3.3 for measures specific to this and other native avian species.
American peregrine falcon *Falco peregrinus anatum*	FD, SD, CFP	Year-round resident and winter visitor. Occurs in a wide variety of habitats, though often associated with coasts, bays, marshes and other bodies of water. Nests on protected cliffs and also on man-made structures including buildings and bridges. Preys on birds, especially waterbirds. Forages widely.	**Unlikely.** Nesting substrates for this species do not exist on the Project Area, and would likely only be present on distant buildings or large power poles.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
San Francisco (saltmarsh) common yellowthroat *Geothlypis trichas sinuosa*	SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**Moderate Potential.** The Project Area does not contain dense stands of cattails and tules to support nesting. Suitable habitat may exist in areas adjacent to the Project Area along the Guadalupe River. The nearest documented occurrence is less than a half mile north of the Project Area (CDFW 2018).	Nesting bird surveys should be conducted on the Project Area to determine whether this species is breeding. See section 5.3.3 for measures specific to this and other native avian species.
Alameda song sparrow *Melospiza melodia pusillula*	SSC	Year-round resident of salt marshes bordering the south arm of San Francisco Bay. Inhabits primarily pickleweed marshes; nests placed in marsh vegetation, typically shrubs such as gumplant.	**Unlikely.** The Project Area lacks salt marsh habitat. The nearest documented occurrence is 0.5 mile south along the Guadalupe River (CDFW 2019).	No further action recommended for this species.
California black rail *Laterallus jamaicensis coturniculus*	ST, SFP	Year-round resident in marshes (saline to freshwater) with dense vegetation within four inches of the ground. Prefers larger, undisturbed marshes that have an extensive upper zone and are close to a major water source. Extremely secretive and cryptic.	**Unlikely.** The Project Area does not contain tidal or brackish marsh. Individuals may very occasionally make forays into the Project Area from the nearby Guadalupe River, but will not breed on the Project Area.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
California Ridgway's (clapper) rail *Rallus obsoletus obsoletus*	FE, SE, SFP	Year-round resident in tidal marshes of the San Francisco Bay estuary. Requires tidal sloughs and intertidal mud flats for foraging, and dense marsh vegetation for nesting and cover. Typical habitat features abundant growth of cordgrass and pickleweed. Feeds primarily on mollusks and crustaceans.	**Unlikely.** The Project Area does not contain tidal or brackish marsh. Individuals may very occasionally make forays into the Project Area from the nearby Guadalupe River, but will not breed on the Project Area.	No further action recommended for this species.
black skimmer *Rynchops niger*	SSC	Found primarily in southern California; South San Francisco Bay has a small resident population. Nests colonially on gravel bars, low islets, and sandy beaches	**No Potential.** The Project Area and immediately adjacent areas do not contain gravel bars or sandy beaches this species requires for nesting and foraging.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
California least tern *Sternula antillarum browni*	FE, SE, CFP	Summer resident along the coast from San Francisco Bay south to northern Baja California; inland breeding also very rarely occurs. Nests colonially on barren or sparsely vegetated areas with sandy or gravelly substrates near water, including beaches, islands, and gravel bars. In San Francisco Bay, has also nested on salt pond margins.	**No Potential.** The Project Area does not contain suitable beaches, alkali flats or any other appropriate nesting habitat.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
bank swallow *Riparia riparia*	ST	Summer resident in riparian and other lowland habitats near rivers, lakes and the ocean in northern California. Nests colonially in excavated burrows on vertical cliffs and bank cuts (natural and manmade) with fine-textured soils. Historical nesting range in southern and central areas of California has been eliminated by habitat loss. Currently known to breed in Siskiyou, Shasta, and Lassen Cos., portions of the north coast, and along Sacramento River from Shasta Co. south to Yolo Co.	**No Potential.** The Project Area does not contain riparian vegetation or cliffs this species requires for nesting.	No further action recommended for this species.
Reptiles and Amphibians				
Alameda whipsnake *Masticophis lateralis euryxanthus*	FT, ST	Inhabits chaparral and foothill-hardwood habitats in the eastern Bay Area. Prefers south-facing slopes and ravines with rock outcroppings where shrubs form a vegetative mosaic with oak trees and grasses and small mammal burrows provide basking and refuge.	**No Potential.** The Project Area is out of this species' range, is devoid of rock outcroppings, and does not contain chaparral or foothill habitat.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
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.	**Unlikely.** The Project Area lacks suitable stream and river habitat. Water features adjacent to the Project Area do not possess suitable substrates for basking or emergent vegetation for cover, and appear to have very poor water quality.	No further action recommended for this species.
California red-legged frog *Rana draytonii*	FT, SSC	Lowlands and foothills in or near permanent sources of deep water with dense emergent and/or overhanging riparian vegetation. Favors perennial to intermittent ponds, marshes, and stream pools. Requires 11 to 20 weeks of continuous inundation for larval development. Disperses through upland habitats during and after rains.	**Unlikely.** The Project Area does not contain suitable habitat to support breeding of this species. Adjacent water features are of poor quality and do not provide vegetation for cover. The nearest documented occurrence over 5 miles east of the Project Area, and significant barriers to dispersal exist between those and the Project Area (CDFW 2019).	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
California tiger salamander *Ambystoma californiense*	FT, ST	Inhabits grassland, oak woodland, ruderal and seasonal pool habitats. Adults are fossorial and utilize mammal burrows and other subterranean refugia. Breeding occurs in vernal pools and other seasonal water features but also breeds in perennially inundated ponds, especially if non-native predators are absent.	**No Potential.** The Project Area is separated from the nearest known occurrence (4 miles north of the Project Area; CDFW 2019) by urban development. The Project Area is historically marsh and diked marsh and is outside of the historic range for this species.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
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.** The Project Area is outside of the known breeding range of this species.	No further action recommended for this species.
California giant salamander *Dicamptodon ensatus*	SSC	Occurs in the north-central Coast Ranges. Moist coniferous and mixed forests are typical habitat; also uses woodland and chaparral. Adults are terrestrial and fossorial, breeding in cold, permanent or semi-permanent streams. Larvae usually remain aquatic for over a year.	**No Potential.** The Project Area and adjacent areas do not contain moist coniferous forests. Additionally, the Project Area does not contain freshwater stream habitat to support breeding. The nearest suitable habitat is over 5 miles east of the Project Area (CDFW 2019).	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
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.** The Project Area does not contain suitable rocky stream habitat. The nearest documented occurrence is over 5 miles east of the Project Area (CDFW 2019).	No further action recommended for this species.
northern California legless lizard *Anniella pulchra*	SSC	Fossorial species, inhabiting sandy or loose loamy soils under relatively sparse vegetation. Suitable habitat includes dunes, stream terraces, and scrub and chaparral. Adequate soil moisture is essential.	**No Potential.** The Project Area does not contain loamy soils to support this species. The nearest documented occurrence if 7 miles south from the Project Area (CDFW 2019).	No further action recommended for this species.
Fishes				
Delta smelt *Hypomesus transpacificus*	FT, ST	Endemic to 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 estuarine waters.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
steelhead - central CA coast DPS *Oncorhynchus mykiss irideus*	FT	Occurs from the Russian River south to Soquel Creek and Pajaro River. Also in San Francisco and San Pablo Bay Basins. Adults migrate upstream to spawn in cool, clear, well-oxygenated streams. Juveniles remain in fresh water for 1 or more years before migrating downstream to the ocean.	**No Potential.** The Project Area does not contain suitable anadromous or estuarine waters.	No further action recommended for this species.
longfin smelt *Spirinchus thaleichthys*	FC, ST, SSC	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15 to 30 ppt, but can be found in completely freshwater to almost pure seawater.	**No Potential.** The Project Area does not contain riverine or estuarine waters.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
Invertebrates				
vernal pool tadpole shrimp *Lepidurus packardi*	FE	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	**No Potential.** The Project Area does not contain vernal pool habitat to support this species.	No further action recommended for this species.
conservancy fairy shrimp *Branchinecta conservatio*	FE	Endemic to the grasslands of the northern two-thirds of the Central Valley; found in large, turbid pools. Inhabit astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**No Potential.** The Project Area does not contain vernal pool habitat to support this species.	No further action recommended for this species.
Bay checkerspot butterfly *Euphydryas editha bayensis*	FT, 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.** Suitable habitat is not present for this species in the Project Area. The nearest documented occurrence is over 5 miles from the Project Area (CDFW 2019).	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
monarch butterfly *Danaus plexippus*	Winter roosts protected	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, Monterey cypress), with nectar and water sources nearby.	**No Potential.** Suitable roosting habitat, characterized by large stands of trees that provide thermoregulation and protection, is not present on the Project Area.	No further action recommended for this species.
western bumble bee *Bombus occidentalis*	SC	Formerly common throughout much of western North America; populations from southern British Columbia to central California have declined. 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.	**Unlikely.** Though the Project Area contains relatively few burrows that could be used by ground nesting bees, no western bumblebees were observed during site visits. Additionally, this species is generally considered to be extirpated from the San Francisco Bay Area.	No further action recommended for this species.

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS
crotch bumble bee *Bombus crotchii*	SC	Nearly endemic to California, the crotch bumblebee historically occupied grasslands and shrublands in southern and central California with occasional records in the northern part of the state. Requires floral resources and undisturbed nest sites.	**No Potential.** Generally speaking, this species is presumed to be extirpated from the San Francisco Bay Area. However, areas of floral resources and annual grass are present on the Project Area that might support this species if it was regionally present.	No further action recommended for this species.

***Key to status codes:**

FC	Federal Candidate for Listing
FE	Federal Endangered
BGEPA	Bald and Golden Eagle Protection Act Species
FT	Federal Threatened
SC (E/T)	State Candidate for Listing (Endangered/Threatened)
SE	State Endangered
CFP	California Fully Protected Species
SR	State Rare
SSC	State Species of Special Concern
ST	State Threatened
Rank 1A	California Rare Plant Rank (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)
WBWG	Western Bat Working Group High or Medium-high Priority Species

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

SPECIES	STATUS*	HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN THE PROJECT AREA	RECOMMENDATIONS

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 is assumed to be present on-site based on the presence of key habitat components.
Assumed Present without Impact. Species assumed present; however, project activities will not have an impact on the species.
Presumed Absent. Species is presumed to not be present due to a lack of key habitat components.
Not Observed. Species was not observed during dedicated/formal surveys.
Not Present. Species is considered not present due to a clear lack of any suitable habitat and/or local range limitations.

APPENDIX D

REPRESENTATIVE PROJECT AREA PHOTOGRAPHS

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Photograph 1. Photograph of recently graded, developed portion of the Project Area. Photo taken December 17, 2019.

Photograph 2. Photograph of ruderal herbaceous vegetation, dominated by non-native annual grasses and smilo grass (*Stipa miliacea* var. *miliacea*) along the northern boundary of the Project Area. Photograph taken December 17, 2019.

Photograph 3. Photograph of a potential wetland feature (foreground). Non-native annual grassland visible in background. Photograph taken April 13, 2018.

Photograph 4. Photograph of non-wetland waters, surrounded by ruderal herbaceous vegetation, in the southern portion of the Project Area. Photograph taken December 17, 2019.

APPENDIX E

BIRD-SAFE DESIGN LETTER

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ENVIRONMENTAL CONSULTANTS

January 13, 2021

Michael Lisenbee
David J. Powers & Associates, Inc.
1871 The Alameda, Suite 200
San Jose, CA 951262

Re: "Bird-safe" design review for The Estuary @ Terra Hotel commercial development, Alviso, California – 2021 Update

Dear Mr. Lisenbee:

This letter provides a review of the proposed Estuary @ Terra Hotel development (Project) in Alviso, Santa Clara County, California, within the context of "bird-safe" requirements outlined in Mitigation Measure (MM) BIO-6.1 in the Topgolf @ Terra Project Mitigated Negative Declaration (MND, File no. PDC16-013, GPT16-001), and the San Jose Downtown Design Guidelines Section 4.4.2b ("Bird Safety"). The proposed development is located along the north side of the Guadalupe River and immediately east of North 1st Street in the City of Alviso (Project Area). The plans for this project were originally reviewed by WRA, Inc. (WRA) in the context of bird safety in a letter dated December 20, 2019. However, subsequent material and design changes have necessitated that the building plans be reassessed to ensure that changes remain in compliance with best practices and local ordinances. This review includes a general discussion of bird safety concerns in the context of the aforementioned measures and guidelines, which in turn indicates the level of significant of risk for bird strikes of the project under CEQA. Subsequent sections specifically address updated design elements that may influence the frequency of bird collisions with the proposed development, and provide pertinent recommendations to reduce any potential impacts to a less than significant level.

Background

A search of relevant bird safety background literature was conducted as a part of this review, including the following:

- "Bird-Friendly Building with Glass and Light" (Schmid et al. 2013)
- "Bird-Friendly Building Design" (Sheppard 2011)
- "Standards for Bird-Safe Buildings" (San Francisco Planning Department 2011)

Generally speaking, buildings that feature extensive amounts of clear or especially reflective glass on the exterior and/or heavily vegetated areas directly adjacent to buildings can result in a relatively high incidence of bird collisions. Though not thoroughly understood, it is presumed that birds in flight see through glass faces and discern apparently desirable areas on the other side, and/or interpret reflections of the surrounding environment (e.g., the sky, vegetation) to be actual habitat or otherwise attractive space. Vegetated pathways leading towards building facades can also encourage birds to fly towards buildings, resulting in collisions primarily on the lower stories.

MM BIO-6.1 stipulates a number of restrictions related to building design, the goal of which is to reduce the likelihood of bird strikes with buildings and structures associated with the Project. Three specific design elements that may cause excessive risk for bird collisions are outlined:

- *Façade Treatments*: The measure stipulates that no more than 10 percent of the surface area of facades between the ground and 60 feet above the ground shall have untreated glazing. Bird-friendly treatments that may be applied to mitigate risk from glazed surfaces include the use of opaque glass, covering of clear glass with patterns, the use of paned glass with fenestration patterns, and the use of external screens over non-reflective glass.
- *Funneling of Flight Paths*: Buildings shall be designed to avoid the funneling of flight paths along buildings or trees towards a building façade.
- *Skyways, walkways, or glass walls*: Glass skyways or walkways and freestanding glass walls shall not be incorporated into the buildings' design

Additionally, the City of San Jose Downtown Design Guidelines (hereafter "Guidelines") and City Council Policy 6-34 (Riparian Corridor Protection and Bird-Safe Design) provide guidance on bird-safe design in areas where birds are most common. The area north of Highway 237, which includes the Project Area, is specifically mentioned in these guidelines as a location where bird-safe design is an important consideration. The Guidelines identify the following measures as being conducive to reducing bird collision risk:

- Buildings within 300 feet of a riparian corridor should have all glazing treated that is visible from the riparian corridor with a bird safety treatment.
    - Bird safety treatments may include: exterior screens, louvers, grilles, shutters, sunshades, bird-safe patterns, or other methods to reduce the likelihood of bird collisions
    - Exterior decorative lighting on these buildings should additionally be turned off between 2:00 AM and 6:00 AM, except during June, July, December, and January where birds may be migrating and constraints may be increased. This may involve turning non-emergency lighting off or shielding it at night (after sunset) to minimize light from buildings that is visible to birds.
- Avoid creating areas of glazing through which trees, landscaped areas, water features, or the sky is visible unless a bird safety treatment is used.
- Reduce or eliminate upward-facing spotlights on buildings.
- Do not plant landscaping tree lines that are perpendicular to glass façades.
- Do not use mirrored glass.
- Use a bird safety treatment [as detailed in MM BIO-6.1] on the façade of any floor of the building within 15 vertical feet of the level of and visible from a green roof, including a green roof on an adjacent building within 20 horizontal feet, if the facade has 50% or more glazed surface

Assessment

For the updated building design specifications, WRA reviewed the "Planned Development Permit for Hotel Alviso @ Terra" architectural document by CORBel architects and associated firms (dated Oct. 29, 2020). The Project is one component of a larger overall development, and consists of one five-story 110,700 gross square foot building; the footprint of the building is anticipated to be approximately 47,000 square feet. Adjoining the hotel will be a three level parking garage that will accommodate 235 total car parking stalls, in addition to 12 motorcycle

spaces and bicycle parking areas. In addition, the Project involves approximately 192,000 square feet of landscaping/hardscaping that will involve paving for access to the hotel and other facilities and the installation of shrubs/street trees surrounding the hotel itself.

The updated buildings' design is similar in many ways to the original 2019 drawing, and incorporates many of the same elements that reduce the potential for bird collisions. Many of the following statements are based on the assumptions that all glass used in construction will be clear (i.e. non-reflective) and that any exterior decorative lighting will not be directed upward and will conform to on/off timing guidance detailed in the City Guidelines:

- The amount of glazing proposed is relatively low overall in comparison to some similarly-scaled developments in the region. The percent of glazing on the exterior elevations is less than 50 percent overall and approximately the same on all faces. The remainder of the buildings' exteriors consist of opaque materials (e.g. cement and metal siding). Additionally, in almost all cases windows are isolated from each other at regular intervals, versus being grouped/conjoined to form larger contiguous window panels (see exceptions below). The only semi-contiguous glazing occurs at ground level, where there is a relatively low risk of bird collision; additionally, this panel is broken up at regular intervals by fenestration and pillars.

- All residential units within the development will have interior blinds or curtains installed on windows. While the frequency of use of these blinds will presumably vary based on the preferences of individual occupants, it seems likely that blinds will be regularly used in at least some (if not most) of the units throughout the various portions of the development, reducing the overall likelihood of birds attempting to fly through the glazing.

- Overhangs, spatially offset adjacent faces, and similar forms of architectural relief along the exterior of the building will "break up" the exterior of the building visually (providing "visual noise"), and increase the likelihood that flying birds will perceive the building as a solid surface. Shadows formed by these overhangs and relief will contribute to this perception. Areas of exterior relief are prominent on all of the building elevations.

- Similar to the architectural relief elements described above, the buildings will feature different colors and textures across adjacent faces and sections, creating additional "visual noise". The siding patterns are additionally varied between having vertical and horizontal lines, which will create further "visual noise" on larger contiguous areas.

- While the original design included hotel room balconies with associated guardrails, the new design eliminates balconies on higher levels of the hotel. There is thus no longer any risk associated with collisions with these features.

- The parking garage designs suggest that no glazing will be used in the construction of this structure, greatly reducing collision risk. Green walls installed along the ground level of the parking structure may attract some birds (e.g., for foraging opportunities), but do not constitute any notable collision risk given that surrounding surfaces contain minimal glazing and are opaque (i.e. concrete or metal). The remainder of the parking garage is planned to be constructed of opaque materials.

- Though the Project Area is in relatively close proximity to wetlands associated with the Don Edwards National Wildlife Refuge Complex, it is surrounded on all other sides by

urban (residential or light industrial) development. As such, it is unlikely to provide a collision risk to flocks of waterbirds (e.g., waterfowl, shorebirds) that congregate on San Francisco Bay and shoreline habitats during the winter period and spring-fall migration.

- Landscaping on the Project Area is generally in accordance with bird safe guidelines. Most of the street trees around the perimeter of the building will not extend upward past the ground floor to provide collision opportunities with more heavily glazed upper floors, and these trees are oriented parallel (rather than perpendicular) to any larger glazed areas on the building.

Recommendations

In WRA's assessment of the 2019 plans, transparent building corners (i.e., design features where the corner of a building is transparent) were identified as a potential collision risk. This feature can cause birds to become confused when they see potential perches or habitat through the corner and attempt to traverse the area. WRA's review of the current building design suggests that the newest iteration of the planned construction no longer includes transparent building corners; thus, collision risk associated with this design feature no longer exists for this project.

Though the designs for the Project suggest a low overall risk for bird collisions, some elements do still pose a relatively increased risk. If building elements are considered to conflict with any local policies or ordinances protecting biological resources (i.e. bird-safe design guidelines), interfere substantially with the movement of native resident or migratory wildlife species, or potentially have a substantial adverse impact on any special-status species, these impacts could be considered significant under CEQA or in violation of the project MMRP. Problematic design elements are outlined below and respectively followed by measures that would reduce any impacts to a less than significant level:

Non-treated glazing on building elevations proximal to wetland areas
Though not a design element per se, the Project is located directly adjacent to, and within 300 feet of, the Guadalupe River to the northeast. This area contains large patches of wetland vegetation that could provide habitat for birds that typically use riparian or wetland areas. The presence of untreated glazing will likely result in an increased risk of collision.

> *Recommendation: Treatment of windows*
> Any glazing on the building, particularly any panes that will not possess blinds or other screens to create additional opacity, shall be treated in a recommended manner to reduce the likelihood of bird collision. These methods may include: exterior screens, louvers, grilles, shutters, sunshades, bird-safe patterns, use of non-reflective glazing, and the use of paned glass with fenestration patterns as detailed in MM BIO 6.1.

Landscaping adjacent to buildings could be attractive to birds and increase collision risk
As per the project plans, landscaping, including the use of larger trees, is planned for areas adjacent to the hotel building. While landscaping does not inherently provide a bird collision risk, the presence of large trees near glazed areas can provide an increased risk of collision simply as a result of proximity. This can be particularly pronounced if the trees used in landscaping provide high quality nesting habitats or foraging opportunities for avian species.

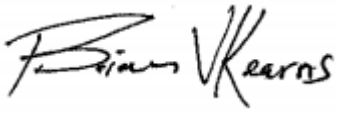
Recommendation: Tree placement and selection
Any trees used in landscaping that are adjacent to areas of untreated glazing should be species where the growth of which will be limited to at or below the first story. Additionally, tree species should be selected for locations next to untreated glazing on buildings that do not provide valuable resources for birds (e.g., food such as berries or other fruits, or cavities for nesting in their adult state).

Summary

The Project features several design elements that reduce the overall risk of bird collisions, though some elements involving untreated glazing and landscaping may present a relatively higher risk. WRA recommends treatment on all glazed areas that are not fitted with blinds or screens, as outlined in the city Guidelines and referenced in MM BIO-6.1, as well as selection of tree species in landscaping that occurs next to buildings that do not provide particularly attractive foraging or nesting opportunities. Minimizing the extent of artificial night lighting utilized, save that for safety purposes, is also recommended. Given the existing design features, the incorporation of the recommendations and measures provided herein should be regarded as having minimized collision risk as stated in associated regulatory materials. Consequently, the potential impact to nearby avifauna under CEQA as it relates to bird-safe building design is considered to be less than significant.

Please contact me with questions.

Sincerely,



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