

Appendix B: Biological Resources Assessment

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Biological Resources Assessment San José 455 Piercy Road Industrial Warehouse Project City of San José, Santa Clara County, California

Project Applicant:

InSite Property Group

811 North Catalina Avenue, Suite 1306
Redondo Beach, CA 90277

Contact: Brian Sorensen, West Coast Development Manager
866.521.8292

Lead Agency:

City of San José

Planning Division
200 East Santa Clara Street, Tower, 3rd Floor
San José, CA 95113
408.535.3555

Prepared by:

FirstCarbon Solutions

1350 Treat Boulevard, Suite 380
Walnut Creek, CA 94597
888.826.5814

Contact: Bernhard Warzecha, Senior Biologist/Project Manager

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SECTION 1: INTRODUCTION

FirstCarbon Solutions (FCS) has prepared this Biological Resources Assessment (BRA) for the proposed San José 455 Piercy Road Industrial Warehouse Project (proposed project). The purpose of the BRA is to (1) document existing and potentially occurring biological resources on the project site and adjacent areas; (2) analyze potential project-related impacts on regulated biological resources; (3) summarize relevant local, State, and federal regulations; and (4) recommend appropriate measures to mitigate potential impacts on biological resources to less than significant levels.

1.1 - Project Location

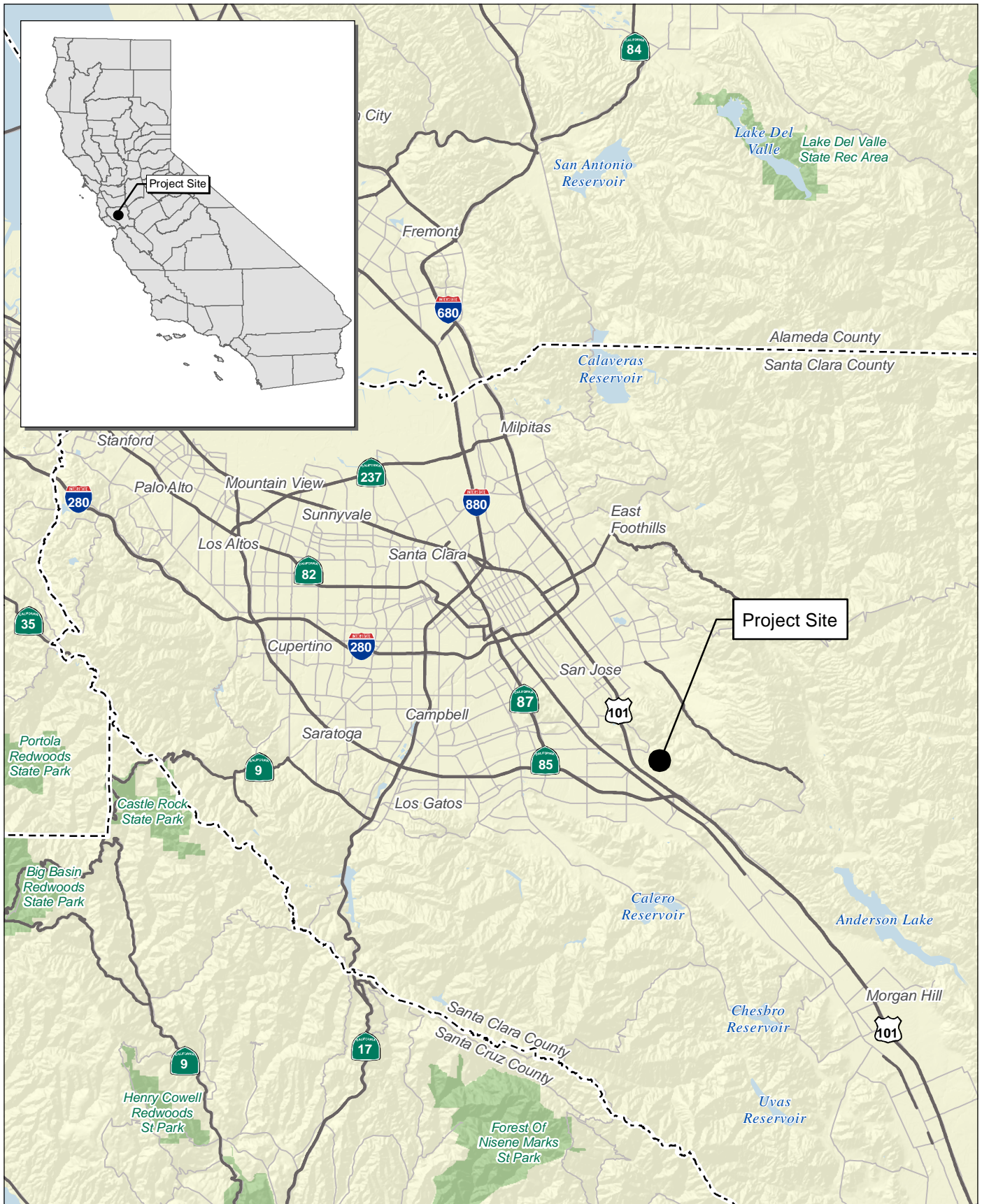
The proposed project site is located at 455 Piercy Road in San José, California. (Exhibit 1). The approximately 14.26-acre project site is located north of Piercy Road, east of Silver Creek Valley Road, and northeast of Hellyer Avenue. The proposed project site is located entirely within Assessor's Parcel Number (APN) 678-93-030 (Exhibit 2). The project parcel is located within Township T8S, Range R2E, Section S5 of the *San Jose East, California*, United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map.

The project parcel is surrounded by commercial, residential, and industrial development to the south and west and by undeveloped land to the north and east. Regional access to the project parcel is provided by U.S. Highway 101 (US-101), located approximately located 0.55 mile southwest of the project parcel.

1.2 - Project Description

The project applicant, InSite Property Group, proposes to construct an approximately 121,580-square-foot warehouse, office space and associated infrastructure, including 132 parking stalls and 42 trailer parking stalls and 17 truck loading docks.

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Source: Census 2000 Data, The California Spatial Information Library (CaSIL).

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Exhibit 1 Regional Location Map

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INSITE PROPERTY GROUP
SAN JOSE 455 PIERCY ROAD INDUSTRIAL WAREHOUSE PROJECT
BIOLOGICAL RESOURCE ASSESSMENT

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Source: ESRI Aerial Imagery.

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Exhibit 2 Local Vicinity Map

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BIOLOGICAL RESOURCE ASSESSMENT

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SECTION 2: REGULATORY SETTING

2.1 - Federal

2.1.1 - Endangered Species Act

The United States Fish and Wildlife Service (USFWS) has jurisdiction over species listed as threatened or endangered under the Federal Endangered Species Act. Section 9 of the Endangered Species Act protects listed species from “take,” which is broadly defined as actions taken to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” The Endangered Species Act protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process.

2.1.2 - Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. All migratory birds and their nests are protected from take and other impacts under the MBTA (16 United States Code [USC] § 703, *et seq.*).

2.1.3 - Bald and Golden Eagle Protection Act

The golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*) are afforded additional protection under the Eagle Protection Act, amended in 1973 (16 USC § 669, *et seq.*) and the Bald and Golden Eagle Protection Act (16 USC §§ 668–668d).

2.1.4 - Clean Water Act

Section 404

The United States Army Corps of Engineers (USACE) administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States.

As of the preparation of this report on December 28, 2021, the United States Environmental Protection Agency (EPA) and the USACE (hereafter known as the agencies) are in receipt of the U.S. District Court for the District of Arizona’s August 30, 2021, order vacating and remanding the Navigable Waters Protection Rule in the case of *Pascua Yaqui Tribe v. U.S. Environmental Protection Agency*. In light of this order, these agencies have halted implementation of the Navigable Waters Protection Rule and are interpreting “waters of the United States” consistent with the pre-2015 regulatory regime until further notice.¹

Therefore, since the agencies are interpreting “waters of the United States” consistent with the pre-

¹ United States Environmental Protection Agency (EPA). 2021. Website: <https://www.epa.gov/wotus/current-implementation-waters-united-states>. Accessed September 9, 2021.

2015 regulatory regime until further notice, our analysis follows 40 Code of Federal Regulations 230.3(s) in effect under the pre-2015 regulatory regime, which defines “waters of the United States” as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide.
2. All interstate waters including interstate wetlands.
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:
 - a) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - b) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - c) Which are used or could be used for industrial purposes by industries in interstate commerce.
4. All impoundments of waters otherwise defined as waters of the United States under this definition.
5. Tributaries of waters identified in paragraphs(s) (1) through (4) of this section.
6. The territorial sea.
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs(s) (1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA (other than cooling ponds as defined in 40 Code of Federal Regulations 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the EPA and/or USACE.

“Wetland” refers to areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and seasonal wetlands. Wetlands are considered jurisdictional if they fall under one of the categories of waters of the United States defined above. The USACE jurisdiction typically extends up to the ordinary high water mark (OHWM).

In general, a USACE permit must be obtained before placing fill in wetlands or other waters of the United States. The type of permit depends on the impacted acreage, the purpose of the proposed fill, and other factors.

Section 401

As stated in Section 401 of the CWA, “any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act.” Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB).

2.2 - State

2.2.1 - CEQA Guidelines

The following California Environmental Quality Act (CEQA) Guidelines Appendix G checklist questions serve as thresholds of significance when evaluating the potential impacts of a proposed project on biological resources. Impacts are considered significant if a project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS.
- Have a substantial adverse effect on 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.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.

2.2.2 - California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA is similar to the Endangered Species Act but pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with the CDFW when preparing CEQA documents to ensure that the State lead agency actions do not jeopardize the continued existence of a listed species or result

in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available (Fish and Game Code [FGC] § 2080). CESA directs agencies to consult with the CDFW on projects or actions that could affect listed species, directs the CDFW to determine whether jeopardy would occur, and allows the CDFW to identify “reasonable and prudent alternatives” to the proposed project consistent with conserving the species. CESA allows the CDFW to authorize exceptions to the State’s prohibition against take of a listed species if the “take” of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC § 2081).

2.2.3 - California Fish and Game Code

Under CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC § 2070). Fish and Game Code Sections 2050 through 2098 outline the protection provided to California’s rare, endangered, and threatened species. Fish and Game Code Section 2080 prohibits the taking of plants and animals listed under the CESA. Fish and Game Code Section 2081 established an incidental take permit program for State-listed species. The CDFW maintains a list of “candidate species,” which it formally notices as being under review for addition to the list of endangered or threatened species.

In addition, the Native Plant Protection Act of 1977 (NPPA) (FGC § 1900, *et seq.*) prohibits the taking, possessing, or sale within the State of any plants with a State designation of rare, threatened, or endangered (as defined by the CDFW). An exception to this prohibition in the NPPA allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. Fish and Game Code Section 1913 exempts from “take” prohibition “the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way.” Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

In addition to formal listing under the Endangered Species Act and CESA, some species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a “Species of Special Concern.” The CDFW maintains lists of “Species of Special Concern” that serve as species “watch lists.” Species with this status may have limited distributions or limited populations, and/or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and specific protection measures may be warranted. In addition to Species of Special Concern, the CDFW Special Animals List identifies animals that are tracked by the California Natural Diversity Database (CNDDB) and may be potentially vulnerable but warrant no federal interest and no legal protection.

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065 (Mandatory Findings of Significance) requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect.

CEQA Guidelines Section 15380 (Rare or Endangered Species) provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the California Native Plant Society (CNPS) List ranked 1A, 1B, and 2 would typically require evaluation under CEQA.

Fish and Game Code Sections 3500 to 5500 outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Under Fish and Game Code Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders of *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. To comply with the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State-listed endangered or threatened species may be present in the project study area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the CDFW encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of CESA. “Take” of protected species incidental to otherwise lawful management activities may be authorized under Fish and Game Code Section 206.591. Authorization from the CDFW would be in the form of an Incidental Take Permit.

Fish and Game Code Section 1602 requires any entity to notify the CDFW before beginning any activity that “may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake” or “deposit debris, waste, or other materials that could pass into any river, stream, or lake.” “River, stream, or lake” includes waters that are episodic and perennial and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement will be required if the CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water.

2.2.4 - California Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the water of the State” (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. “Waters of the State” are defined as “any surface water or groundwater, including saline waters, within the boundaries of the State” (Water Code § 13050(e)).

2.2.5 - California Native Plant Society

The CNPS maintains a rank of plant species that are native to California and that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Following are the definitions of the CNPS ranks:

- **Rank 1A:** Plants presumed extirpated in California and either rare or extinct elsewhere
- **Rank 1B:** Plants rare, threatened, or endangered in California and elsewhere
- **Rank 2A:** Plants presumed extirpated in California but common elsewhere
- **Rank 2B:** Plants rare, threatened, or endangered in California but more common elsewhere
- **Rank 3:** Plants about which more information is needed
- **Rank 4:** Watch List: Plants of limited distribution

Potential impacts to populations of CNPS ranked plants receive consideration under CEQA review. All plants appearing on the CNPS List ranked 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. Rank 3 and 4 plants do not automatically meet this definition. Rank 4 plants do not clearly meet CEQA standards and thresholds for impact considerations. Nevertheless, some level of CEQA review is justified for California Rare Plant Rank (CRPR) 4 taxa, and under some circumstances, a full impact analysis is warranted. Taxa that can be shown to meet the criteria for endangered, rare, or threatened status under CEQA Section 15380(d) or that can be shown to be regionally rare or unique as defined in CEQA Section 15125(c) must be fully analyzed in a CEQA document. Some circumstances, such as local rarity, having occurrences peripheral to the taxon's distribution, or having occurrences on unusual substrates or rare and declining habitats, provide justification for treating some CRPR 4 taxa occurrences as regionally rare or unique. One limitation to fully analyzing impacts on CRPR 4 taxa is the difficulty in obtaining current data on the number and condition of the occurrences.²

2.2.6 - Regional and Local

Santa Clara Valley Habitat Plan

The Santa Clara Valley Habitat Plan (SCVHP) provides a framework for promoting the protection and recovery of natural resources, including endangered species, while streamlining the permitting process for planned development, infrastructure, and maintenance activities. The purpose of the SCVHP is to protect, enhance, and restore natural resources in specific areas of Santa Clara County and contribute to the recovery of endangered species. The SCVHP evaluates natural-resource impacts and mitigation requirements comprehensively in a way that is more efficient and effective for at-risk species and their essential habitats. The SCVHP was adopted by the City of San José on January 29, 2013.

² California Native Plant Society (CNPS). 2020. Considerations for Including CRPR 4 Plant Taxa in CEQA Biological. Resource Impact Analysis. Sacramento, CA. 21 January 2020.

Regional General Permit

On January 28, 2021, the USACE, San Francisco District, issued a Regional General Permit (RGP) to the City of San José, City of Morgan Hill, City of Gilroy, County of Santa Clara, Santa Clara Valley Water District, Santa Clara Valley Transportation Authority, and the Santa Clara Valley Habitat Agency, for impacts to waters of the United States associated with many projects covered by the SCVHP.

This permit provides a framework for integrating and streamlining waters permitting under Section 404 of the CWA with the endangered species permitting already in place under the Habitat Plan. The RGP covers 17 categories of activities, setting thresholds for impacts that range from less than 0.1 acre to 0.5 acre and providing an expedited process for reviewing and processing project-specific waters permits. The RGP helps to ensure consistent and streamlined waters permitting for projects covered by the SCVHP that have impacts to waters of the United States. The 5-year permit will expire on January 28, 2026, at which point it may be reissued if in good standing.

Envision San José 2040 General Plan

The Envision San José 2040 General Plan includes the following policies applicable to all development projects in San José.

- | | |
|-----------------------|--|
| Policy ER-4.4 | Require that development projects incorporate mitigation measures to avoid and minimize impacts to individuals of special-status species. |
| Policy ER-5.1 | Avoid implementing activities that result in the loss of active native birds' nests, including both direct loss and indirect loss through abandonment, of native birds. Avoidance of activities that could result in impacts to nests during the breeding season or maintenance of buffers between such activities and active nests would avoid such impacts. |
| Policy ER-5.2 | Require that development projects incorporate measures to avoid impacts to nesting migratory birds. |
| Policy MS-21.4 | Encourage the maintenance of mature trees, especially natives, on public and private property as an integral part of the community forest. Prior to allowing the removal of any mature tree, pursue all reasonable measures to preserve it. |
| Policy MS-21.5 | As part of the development review process, preserve protected trees (as defined by the Municipal Code), and other significant trees. Avoid any adverse effect on the health and longevity of protected or other significant trees through appropriate design measures and construction practices. Special priority should be given to the preservation of native oaks and native sycamores. When tree preservation is not feasible, include appropriate tree replacement, both in number and spread of canopy. |

Policy MS-21.6 As a condition of new development, require the planting and maintenance of both street trees and trees on private property to achieve a level of tree coverage in compliance with and that implements City laws, policies, or guidelines.

City of San José Municipal Code

San José Municipal Code Chapter 13.32: Tree Removal Controls, requires the applicant to obtain a Tree Removal Permit prior to the removal or relocation of a tree with a circumference of 38 inches or more measured at a height 54-inches above natural grade slope. Further, on multi-family lots, a Tree Removal Permit is required to remove a tree of any size according to Standard Permit Condition related to tree protection standards. Additionally, it sets forth protections given to heritage trees, trees given additional protections due to their special significance to the community because of their size, history, unusual species, or unique quality.³

³ San José Municipal Code. 2021. Chapter 13.32 – Tree Removal Controls. Website: https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.32TRRECO_13.32.020DE. Accessed May 2, 2021.

SECTION 3: METHODS

3.1 - Literature Review

This literature review provides a baseline from which to evaluate project impacts on biological resources potentially occurring on the project site and in the surrounding area.

3.1.1 - Existing Documentation

As part of the literature review, an FCS Biologist examined existing environmental documentation for the project site and vicinity. This documentation included literature pertaining to the habitat requirements of special-status species with the potential to occur in the project vicinity; and federal register listings, protocols, and species data provided by the USFWS and CDFW.

3.1.2 - Topographic Maps and Aerial Photographs

An FCS Biologist reviewed current USGS 7.5-minute topographic quadrangle map(s) and aerial photographs as a preliminary analysis of the existing conditions within the project site and immediate vicinity.⁴ Information obtained from the topographic maps included elevation, general watershed information, and potential drainage feature locations using Google Earth in conjunction with the EPA Watershed Assessment, Tracking, and Environmental Results System (WATERS).⁵ Aerial photographs provided a perspective of the current site conditions relative to on-site and off-site land use, plant community locations, and potential locations of wildlife movement corridors.

3.1.3 - Soil Surveys

The United States Department of Agriculture (USDA) has published soil surveys that describe the soil series (i.e., group of soils with similar profiles) occurring within a particular area.⁶ These profiles include major horizons with similar thickness, arrangement, and other important characteristics. These series are further subdivided into soil mapping units that provide specific information regarding soil characteristics. Many special-status plant species have a limited distribution based exclusively on soil type. Therefore, pertinent USDA soil survey maps were reviewed to determine the existing soil mapping units within the project site and to establish whether the soil conditions on-site are suitable for any special-status plant species.

3.1.4 - Special-status Species Database Search

An FCS Biologist compiled a list of threatened, endangered, and otherwise special-status species previously recorded within the project vicinity based on a search of the CNDDDB and the CNPS

⁴ United States Geological Survey (USGS). 2021. National Geospatial Program. Website: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con. Accessed May 2, 2021.

⁵ United States Environmental Protection Agency (EPA). 2021. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: <https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system>. Accessed May 2, 2021.

⁶ Natural Resources Conservation Service (NRCS). 2021. Web Soil Survey (WSS). United States Department of Agriculture (USDA). Website: <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>. Accessed May 2, 2021.

Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California for the *San José East, California*, USGS 7.5-minute Topographic Quadrangle Map and the eight surrounding quadrangles.^{7,8}

The CNDDDB Biogeographic Information and Observation System (BIOS 5) database was used to determine the distance between the known occurrences of special-status species and the project site.⁹

3.1.5 - Trees

Prior to conducting the reconnaissance-level field survey, an FCS Biologist reviewed applicable City ordinances pertaining to tree preservation and protection and ascertained whether tree replacement measures or permits for the removal of protected trees are required.

3.1.6 - Jurisdictional Waters and Wetlands

Prior to conducting the reconnaissance-level survey, an FCS Biologist reviewed EPA WATERS and aerial photography to identify potential natural drainage features and water bodies.¹⁰ In general, all surface drainage features identified as blue-line streams on USGS maps and linear patches of vegetation are expected to exhibit evidence of flows and considered potentially subject to State and federal regulatory authority as waters of the United States and/or State. A preliminary assessment was conducted to determine potential jurisdictional parameters of the drainage swale on-site, including presence and extent of wetland hydrology indicators, hydric soil indicators, and hydrophytic vegetation.

3.1.7 - Santa Clara Valley Habitat Plan

Prior to conducting the reconnaissance-level survey, an FCS Biologist reviewed the Santa Clara Valley Habitat Agency Geobrowser interactive web tool to determine biological constraints applicable to the proposed project in regard to the SCVHP.¹¹

⁷ California Department of Fish and Wildlife (CDFW). 2021. CNDDDB RareFind 5 California Natural Diversity Database Query for Special-status Species. Website: <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>. Accessed May 2, 2021.

⁸ California Native Plant Society (CNPS). 2020. California Native Plant Society Rare and Endangered Plant Inventory. Website: <http://www.rareplants.cnps.org/>. Accessed May 2, 2021.

⁹ California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: <https://map.dfg.ca.gov/bios/>. Accessed May 2, 2021.

¹⁰ United States Environmental Protection Agency (EPA). 2021. Watershed Assessment, Tracking and Environmental Results System (WATERS). Website: <https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system>. Accessed May 2, 2021.

¹¹ Santa Clara Valley Habitat Agency. 2021. Habitat Agency Geobrowser. Website: <http://www.hcpmaps.com/habitat/>. Accessed May 2, 2021.

3.2 - Field Survey

An FCS Biologist and Botanist familiar with species known from the greater Coyote Ridge and Silver Hills area conducted three botanical and wildlife field surveys on the project site as well as relevant and accessible adjacent areas. The field surveys were conducted during the spring season, when all target plants were identifiable and butterflies had closed and were in flight stage. The surveys were conducted on April 9, 20, and 26, 2021.

Plant surveys adhered to the CDFW/CNPS requirements for protocol-level rare plant surveys,¹² and included visitation of an off-site reference site to confirm seasonal detectability of Metcalf jewelflower (*Streptanthus glandulosus* ssp. *albidus*). Wildlife surveys (including surveys for adult butterflies and host plants) were conducted during conditions conducive to butterfly flight and were conducted with the help of binoculars and video recording to enhance species identification.

3.2.1 - Vegetation

Common plant species observed during the reconnaissance-level survey were identified by visual characteristics and morphology in the field and recorded in a field notebook. Uncommon and fewer familiar plants were identified with the use of taxonomical guides, including Jepson eFlora and Calflora.^{13,14} Taxonomic nomenclature used in this study follows The Jepson Manual: Vascular Plants of California.¹⁵ Common plant names, when not available from The Jepson Manual, were taken from other regionally specific references. Vegetation types and boundaries were noted on aerial photos, verified through field observation, and digitized using ESRI ArcGIS software® ArcMap 10.8. By incorporating collected field data and interpreting aerial photography, a map of habitat types, land cover types, and other biological resources within the project site was prepared. Vegetation community and land cover types used to help classify habitat types are based on the Manual of California Vegetation (MCV) and cross-referenced with the CDFW Natural Communities List.^{16,17}

3.2.2 - Wildlife

Wildlife species detected during the reconnaissance-level survey by sight, calls, tracks, scat, or other signs were recorded. Notations were made regarding suitable habitat for those special-status species determined to have the potential to occur within the project site.¹⁸ Appropriate field guides were

¹² California Department of Fish and Wildlife (CDFW). 'Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities' (California Department of Fish and Wildlife 2018).

¹³ Jepson Flora Project (eds.) 2021. Jepson eFlora, <https://ucjeps.berkeley.edu/eflora/>. Accessed on May 2, 2021.

¹⁴ Calflora. 2020. Calflora: Information on California plants for education, research, and conservation. Website: <http://www.calflora.org/>. May 2, 2021.

¹⁵ Baldwin, B. et al. 2012. The Jepson Manual: Vascular Plants of California. Berkeley: University of California Press. County of San Bernardino (Bernardino). 2007 (amended 2015).

¹⁶ Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento. 1300 pp.

¹⁷ California Department of Fish and Wildlife (CDFW). 2021. Natural Communities List, Sacramento: California Department of Fish and Wildlife. Website: <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities>. Accessed Updated May 2, 2021.

¹⁸ California Department of Fish and Wildlife (CDFW). 2021. CNDDB RareFind 5 California Natural Diversity Database Query for Special-status Species. Website: <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>. Accessed May 2, 2021.

used to assist in species identification during surveys, such as Peterson, Reid, and Stebbins.^{19,20,21} Online resources such as eBird and California Herps were also consulted, as necessary.^{22,23}

3.2.3 - Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. Urbanization and the resulting fragmentation of open space areas create isolated “islands” of wildlife habitat, forming separated populations. Corridors act as an effective link between populations.

The project site was evaluated for evidence of a wildlife movement corridor during the reconnaissance-level survey. The scope of the biological resource assessment did not include a formal wildlife movement corridor study utilizing track plates, camera stations, scent stations, or snares. Rather, the focus of this study was to determine whether a change in land use at the project site could have significant impacts on the regional movement of wildlife. Conclusions are based on the information compiled during the literature review, including aerial photographs, USGS topographic maps and resource maps for the vicinity; the field survey; and professional experience with the desired topography, habitat, and resource requirements of the special-status species potentially utilizing the project site and vicinity.

¹⁹ Peterson, T.R. 2010. A Field Guide to Birds of Western North America, Fourth Edition. Boston: Houghton Mifflin Harcourt.

²⁰ Reid, F. 2006. A Field Guide to Mammals of North America, Fourth Edition. Boston: Houghton Mifflin Harcourt.

²¹ Stebbins, R.C. 2003. A Field Guide to Western Reptiles and Amphibians. Third Edition. Boston: Houghton Mifflin Harcourt.

²² eBird. 2021. Online bird occurrence database. Website: <http://ebird.org/content/ebird/>. May 2, 2021.

²³ California Herps. 2021. A Guide to the Amphibians and Reptiles of California. Website: <http://www.californiaherps.com/> Accessed May 2, 2021.

SECTION 4: RESULTS

This section summarizes the results of the literature search, database review, as well as three botanical (floristic) and wildlife field surveys. Weather conditions during all surveys were dry and partly cloudy with a light breeze.

4.1 - Environmental Setting

The project parcel lies within the southern portion of the Santa Clara Valley. The Santa Clara Valley is bounded by the Diablo Range on the northeast and by the Santa Cruz Mountains on the southwest, which separate the valley from the Pacific Ocean. Much of the valley is largely urbanized, although the far southern reaches remain more agrarian. Approximately one-third of the project parcel is currently utilized by a rock crushing operation. The project parcel is surround by urban development to the south and west and borders open land to the north and east. Significant local landmarks include Coyote Creek and US-101 located approximately 0.5 and 0.66 mile from the project site, respectively.

4.1.1 - Topography

The project site is located between 200 and 300 feet above sea level in elevation. The southwestern half of the project parcel has been graded and is generally flat while the northeastern half the project parcel slopes steeply to the northeast. A shallow swale extends west from the hillside into the project parcel but terminates upon reaching a terrace above the graded portion of the project parcel.

4.1.2 - Soils

The NRCS web soil survey identifies two soil units for the project site: Urban land–Elpaloalto complex, 0 to 2 percent slopes on the eastern, flat portion of the project site; and Montara-Rock outcrop complex, 30 to 50 percent slopes.²⁴ The NRCS web soil survey states that the mapped boundaries are not valid at the parcel-level scale (e.g., 1:1,500); instead, the soil unit boundaries were mapped by the NRCS at a 1:24,000 scale at this location, and therefore an accurate map of actual soil unit boundaries is not available.

The field surveys conducted by FCS confirmed that the flat areas on the western side of the parcel are graded, are partially filled with gravel, and are more consistent with the appearance of Urban Land unit. Furthermore, these areas do not contain serpentine features, or indicators thereof like serpentine-associated plant communities. Serpentine bedrock consistent with the description of the Montara-Rock outcrop complex emerges at the graded toe of the slope on the eastern side and extends east, uphill.

²⁴ Natural Resources Conservation Service (NRCS). United States Department of Agriculture. 2021.
<https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>. Web Soil Survey. Accessed May 2, 2021

4.2 - Vegetation Communities and Land Cover

Vegetation communities and land cover type classifications follow the SCVHP, Chapter 3, Physical and Biological Resources,²⁵ where applicable, and include the following:

4.2.1 - Graded–Barren and Fallow/Ruderal

The entire western portion of the parcel (approximately 8.19 acres) appears leveled by past grading and fill activities, and currently are either barren areas that are heavily disturbed and are being used as access roads or are part of the operation of the active rock crushing operation (4.44 acres); or are fallow and have re-vegetated with predominantly ruderal vegetation following past grading (3.75 acres). The most dominant species for this landcover type include non-native annual grasses and ruderal forbs listed in Appendix C: Plant Species List. Small patches (below the minimal mapping unit of 0.25 acre of the SCVHP) of disturbance-tolerant native species are interspersed and include common fiddleneck (*Amsinckia intermedia*), California poppy (*Eschscholzia californica*), and California plantain (*Plantago erecta*). Specifically, three California plantain patches present in this area as shown on Exhibit 3 cover approximately 500, 300, and 200 square feet, respectively, for a total cover of approximately 1,000 square feet. A full floristic inventory of all plant species documented within this specific area is included in Appendix C.

4.2.2 - Non-native Annual Grassland

Non-native annual grassland areas are located east of the flat, previously graded areas that are dominated by ruderal species and that are not part of the serpentine outcrop. The location and extent of non-native grasslands is shown on Exhibit 3 and covers approximately 3.61 acres. The dominant grasses in the study area consist of introduced annual grasses from the Mediterranean basin, including wild oats (*Avena barbata* and *A. fatua*), soft brome (*Bromus hordeaceus*), foxtail chess (*B. madritensis*), leporinum barley (*Hordeum murinum* ssp. *leporinum*), Italian ryegrass (*Festuca perennis*), and others as shown on the plant list (Appendix C). Both non-native and native forbs are intermixed, but do not persist to an extent that would warrant separate classification. Native species include small patches of California plantain, one small population of small-flowered morning glory (*Convolvulus simulans*) and one individual purple owl's-clover (*Castilleja exserta*).

According to the Santa Clara Valley Habitat Agency Geobrowser, this vegetation community is mapped as serpentine bunchgrass grassland.²⁶ However, due to the minimal presence of typical serpentine bunchgrass species, the grassland on-site does not qualify as serpentine bunchgrass grassland as defined in the SCVHP. This vegetation type does cover areas surrounding serpentine outcrops, which are discussed below.

4.2.3 - Serpentine Outcrops and Serpentine Chaparral

Serpentine rock outcrops are exposures of serpentine bedrock that typically lack soil and are sparsely vegetated. Several serpentine outcrops are located on the eastern hillside on the southern

²⁵ Santa Clara Valley Habitat Agency. 2012. Santa Clara Valley Habitat Plan.

²⁶ Santa Clara Valley Habitat Agency. 2021. Santa Clara Valley Habitat Geobrowser. Website: <http://www.hcpmaps.com/habitat/>. Accessed December 21, 2021.

portion of the parcel as shown on Exhibit 3, for a total of 1.58 acres (no serpentine outcrops are located on the flat eastern portion of the project site). The serpentine outcrops on the southeastern portion of the parcel support serpentine endemics and serpentine-facultative species. Species observed on the southern serpentine outcrop include 12 Santa Clara Valley dudleya (see Section on Special-status plant species, below), small patches of California plantain, Italian ryegrass, chamise (*Adenostoma fasciculatum*), small fescue (*Festuca microstachys*) and soaproot (*Chlorogalum pomeridianum* var. *divaricatum*). The larger outcrop in the center of the hillside is almost entirely covered by chamise, and is therefore best classified as Serpentine Chaparral. This area appears disturbed by livestock trampling and does not support a typical serpentine-obligate plant community. Seven individuals of the chaparral species Hall's bush-mallow (*Malacothamnus hallii*) persist within this chamise-dominated community (see Special-status species section, below).

4.2.4 - Ornamental Trees

Several ornamental trees are located on the parcel boundaries, as shown on Exhibit 3. These include four multi-stemmed clustered tree of heaven (*Ailanthus altissima*) located on the southeastern project boundary, with 8 inches or less diameter at breast height (DBH). The other trees (including the larger Peruvian pepper tree (*Schinus molle*) on the eastern parcel boundary) appear to be rooted outside the property with only portions of their canopy overlapping onto the project site.

4.2.5 - Canal

A partially disintegrating constructed concrete canal runs through the eastern hillside, for approximately 672 linear feet within the project parcel. The canal is approximately 4 feet deep and 6 feet wide on average and was dry at the time of the survey. Sediment has built up for a few inches in certain locations, and ruderal plants have started to colonize. The canal did not exhibit evidence of concentrated flow or wetland characteristics. The canal appears to originate in the hills to the east and continues south along the slope where it terminates in a subdivision approximately 1 mile south of the project parcel. The canal appears to be abandoned at this point but may have once formed a hydrological connection between the Silver Hills and Coyote Creek.

4.3 - Wildlife

The vegetation community and land cover types discussed above provide habitat for numerous wildlife species. Wildlife activity was low during the field survey and consisted primarily of avian species. The following discussions regarding the wildlife species observed within the project site are organized by taxonomic group. Each discussion contains representative examples of a particular taxonomic group either observed or expected to occur on-site.

4.3.1 - Amphibians

No amphibian species were observed on-site during the field survey. The project site does not contain suitable breeding or foraging habitat for most amphibian species, due to the lack of mesic habitat. Coyote Creek, located approximately 0.5 miles southwest of the project site, may provide suitable breeding habitat for common amphibian species; However, dispersal of amphibians to and from Coyote Creek is limited by existing development surrounding the project site.

4.3.2 - Birds

Bird species observed on-site included American crow (*Corvus brachyrhynchos*), house sparrow (*Passer domesticus*), California towhee (*Melospiza crissalis*), western bluebird (*Sialia mexicana*), Anna's hummingbird (*Calypte anna*) and barn swallow (*Hirundo rustica*). A killdeer (*Charadrius vociferus*) was observed on-site displaying nesting defense behavior. Red-tailed hawk (*Buteo jamaicensis*), turkey vulture (*Cathartes aura*), and western gull (*Larus occidentalis*) were observed flying overhead.

CNDDDB records for Swainson's hawk (*Buteo swainsoni*) and burrowing owl (*Athene cunicularia*) in the project vicinity suggest there is the potential for these species to occur within the project site (see Section 5.3, below, and Exhibit 4).²⁷ However, no signs of burrowing owl or Swainson's hawk were observed on-site during the field survey.

4.3.3 - Insects

Butterflies observed on-site included common buckeye (*Junonia coenia*) and Acmon blue (*Plebejus acmon*). Bay checkerspot butterfly (*Euphydryas editha bayensis*) is expected to occur on-site due to the presence of two of the species' host plants, California plantain (*Plantago erecta*) and purple owl's clover (*Castilleja exserta*).

4.3.4 - Mammals

Several active California ground squirrel (*Otospermophilus beecheyi*) burrows were observed on-site. Cottontail rabbit (*Sylvilagus bachmani*) was also observed. Other mammals adapted to urban/wildland interface areas such as raccoons (*Procyon lotor*), Botta's pocket gopher (*Thomomys bottae*), and coyote (*Canis latrans*) are also expected to occur on-site.

4.3.5 - Reptiles

No reptiles were observed on-site. Species such as western fence lizard (*Sceloporus occidentalis*) and Pacific gopher snake (*Pituophis catenifer catenifer*), which are common in disturbed and developed areas, are potentially utilizing the less disturbed habitats on-site.

4.4 - Wildlife Movement Corridors

The majority of the site consists of disturbed/ruderal habitat, non-native annual grassland and serpentine outcrops and does not contain habitat features such as riparian corridors or waterways that could function as wildlife corridors. The project site is also surrounded by roads, highways, and a detention basin, as well as urban development that limits wildlife movement.

²⁷ California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: <https://map.dfg.ca.gov/bios/>. Accessed May 2, 2021.

SECTION 5: SENSITIVE BIOLOGICAL RESOURCES

The following section discusses the existing site conditions and potential for sensitive biological resources to occur within the project site.

5.1 - Sensitive Natural Communities

The CDFW maintains a list of natural communities which attempts to classify vegetation types found within the State of California and rank them based on rarity. Communities ranked S1-S3 are considered sensitive natural communities. Wetlands and riparian habitats are also typically considered sensitive natural communities and are addressed in the environmental review process.

5.1.1 - Serpentine Outcrops and Serpentine Chaparral

The SCVHP Geobrowser interactive web tool identifies much of the landcover present on the project parcel as serpentine bunchgrass grassland.²⁸ This habitat type is considered a sensitive natural community by the CDFW, which it describes as Needle grass–Melic grass grassland (*Nassella pulchra*–*Lolium perenne*–*Plantago erecta* Serpentine Alliance).²⁹ However, as discussed in Section 4.2.2, due to the minimal presence of typical serpentine bunchgrass species observed during the field survey, the vegetation communities present on-site do not qualify as serpentine bunchgrass grassland as defined by the CDFW and the SCVHP and are more accurately categorized as Non-native Annual Grassland and Serpentine Chaparral.

Several serpentine outcrops, covering 1.58 acres, are located on the eastern hill slope on the southern portion of the parcel as shown on Exhibit 3. The serpentine outcrops on the southern side of the parcel support serpentine endemics and serpentine-facultative species and are best described as Serpentine Chaparral. This community appears disturbed by livestock trampling and does not support a typical serpentine-obligate plant community.

The SCVHP considers serpentine plant communities to be sensitive and requires a development fee to be paid for projects within Serpentine Fee Zones which are shown in the SCVHP Geobrowser.³⁰

5.2 - Special-status Plants

The Special-status Plant Species Table (Appendix B, Table 1) lists 58 special-status plant species and CNPS sensitive species that have been recorded within the *San Jose East, California*, Topographic

²⁸ Santa Clara Valley Habitat Agency. 2021. Habitat Agency Geobrowser. Website: <http://www.hcpmaps.com/habitat/>. Accessed May 2, 2021.

²⁹ California Department of Fish and Wildlife (CDFW). 2021. Natural Communities List, Sacramento: California Department of Fish and Wildlife. Website: <https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities#sensitive%20natural%20communities>. Updated September 9, 2020.

³⁰ Ibid.

Quadrangle and the eight surrounding quadrangles by the CNDDDB and CNPSEI.^{31,32,33} Sixteen special-status plants have been recorded within a 5-mile radius of the project site.³⁴ The table also includes the species' status, required habitat, and potential to occur within the project site. Special-status plant species that were determined to have no potential to occur on-site are included in the table, along with the justification for their exclusion from further discussion.

The protocol-level rare plant surveys conducted in spring 2021 confirmed the location and extent of two special-status plant species on the project parcel, as shown on Exhibit 3 and discussed below. No other special-status plant species were observed during the appropriately timed protocol-level botanical surveys, and are therefore assumed absent from the site.

5.2.1 - Santa Clara Valley Dudleya

Santa Clara Valley dudleya (*Dudleya abramsii* ssp. *Setchellii*) is listed as endangered under the Endangered Species Act, and ranked by the CDFW and CNPS as "rare, threatened, or endangered in California and elsewhere; seriously threatened in California" (CNPS ranked 1B.1).³⁵ This species is also a covered species under the SCVHP. Santa Clara Valley dudleya is a perennial with succulent leaves 1 to 3 inches long and 0.3 to 0.6 inch wide. The species produces two to three flowering stalks up to 8 inches tall with pale yellow flowers in a terminal inflorescence. It is only found in Santa Clara County in the vicinity of Coyote Valley, from San José south about 20 miles to San Martin, at elevations of 300–900 feet. Santa Clara Valley dudleya is restricted to rocky outcrops in serpentine grassland and oak woodland. Suitable rock outcrops must have deep enough crevices for this species' roots, which are at least 6 inches long. Not all serpentine rock outcrops, therefore, may be suitable for Santa Clara Valley dudleya.³⁶

Potentially suitable habitat in form of serpentine outcrops is located on the eastern slopes within the project parcel, and on adjacent parcels, as mapped by CNDDDB (Exhibit 4). However, protocol-level floristic surveys conducted in spring 2021 (see Methods section) detected this species only on two closely proximate rock outcrops in the southeastern corner of the project parcel (Exhibit 3). Approximately seven individual plants of Santa Clara Valley dudleya persist in relatively good conditions, including flowering stalks and robust rosettes.

5.2.2 - Hall's Bush-mallow

Hall's bush-mallow is a dicot shrub that is native to California, and endemic (limited) to California, and listed as rare, threatened, or endangered in California and elsewhere (CNPS ranked 1B.2).³⁷ It is

³¹ United States Geological Survey (USGS). 2021. National Geospatial Program. Website: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con

³² California Department of Fish and Wildlife (CDFW). 2021. CNDDDB RareFind 5 California Natural Diversity Database Query for Special-status Species. Website: <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>. Accessed May 2, 2021.

³³ California Native Plant Society (CNPS). 2021. California Native Plant Society Rare and Endangered Plant Inventory. Website: <http://www.rareplants.cnps.org/>. Accessed May 2, 2021.

³⁴ California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: <https://map.dfg.ca.gov/bios/>. Accessed May 2, 2021.

³⁵ California Native Plant Society. 2021. California Rare Plant Rank.

³⁶ Santa Clara Valley Habitat Agency. Santa Clara Valley Habitat Plan.

³⁷ Ibid.

currently not a covered species under the SCVHP. Hall's bush-mallow is typically associated with open chaparral and approximately 12 individuals were found on the project parcel within the central serpentine rock outcrop, which is almost entirely dominated by chamise. This population is recorded in the CNDDDB (Element Occurrence Index 68216). However, the population observed in 2021 has shrunk considerably from the 31 plants reported for this location in 2009.³⁸

5.3 - Special-status Wildlife

The Special-status Wildlife Species Table (Appendix B, Table 2) identifies 40 federal and State-listed threatened and/or endangered wildlife species and State Species of Special Concern that have the potential to occur within the *San Jose East, California*, Topographic Quadrangle Map. Twenty-one special-status wildlife species have been recorded within a 5-mile radius of the project site.³⁹ The table includes the species' status, required habitat types and features, and potential to occur within the project site. Appendix B, Table 2, includes all special-status wildlife species that have been determined unlikely to occur on-site, primarily based on the absence of suitable habitat and the lack of recorded occurrence in the project vicinity, along with the justification for their exclusion from further discussion.

5.3.1 - Bay Checkerspot Butterfly

The Bay checkerspot butterfly is listed as threatened under the Endangered Species Act and Critical Habitat was designated for this species on the Coyote Ridge/Silver Hills area, its western boundary partially overlapping with the eastern portion of the project parcel; however, not within the proposed development footprint (Exhibit 3).

The Bay checkerspot butterfly is a medium-sized butterfly in the brush-footed butterfly family (Nymphalidae). It has a wingspan of little more than about 2 inches. The forewings have black bands along all the veins on the upper surface, contrasting sharply with bright red, yellow and white spots. The primary larvae host plant is California plantain. The larvae require a second host plant when the plantain dries up. Under these conditions, the larvae move to purple owl's clover, which remains edible later in the season. All habitat for the Bay checkerspot butterfly exists on shallow, serpentine-derived soil (i.e., high in magnesium and heavy metals and low in nutrients such as nitrogen, phosphorus and calcium).

Caterpillars turn into butterflies. Adults can be seen flying around from about late February to early May. Each of them only lives about 10 days. Males emerge about 4 to 8 days before females. Soon after the females emerge, they mate. Males can mate many times, while most females mate only once. Eggs are typically laid in March and April. Females lay up to five egg masses, consisting of 5 to 250 eggs. The eggs are laid at the base of plantain, owl's clover, or paintbrush. Caterpillars hatch from the eggs in about 10 days. They grow for 2 weeks or more, shedding their skin three times. Then they rest during the summer (diapause). When the rainy season comes, the caterpillars

³⁸ California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: <https://map.dfg.ca.gov/bios/>. Accessed May 12, 2021.

³⁹ Ibid.

become active again. Then they spend the winter in a shell called a chrysalis (like a cocoon). This is called the pupa stage.

Historically, the Bay checkerspot butterfly occurred primarily along the spine of the San Francisco peninsula, from Twin Peaks to southern Santa Clara County and in a few pockets in Alameda and Contra Costa counties. However, habitat loss and fragmentation, extreme weather, air pollution, pesticides, vehicle strikes, fire, overgrazing, gopher control, illegal collecting, and invasion of exotic species have greatly reduced the butterfly's numbers.

No Bay checkerspot butterfly or caterpillar was observed during three surveys throughout April 2021 on the project parcel. Butterflies observed included common buckeye and Acmon blue, indicating favorable conditions to observe butterflies in flight. A few patches of California plantain, the primary host plant for this species persist on the project parcel, predominantly associated with the serpentine outcrops on the eastern slope. Three plantain patches are located within the development footprint, which are approximately 500, 300 and 200 square feet in size. However, no purple owl's clover are present on the graded ruderal or barren portions of the site, and the only purple owl's clover observed was located on the eastern hillslope, associated with the serpentine outcrop on the southeastern property boundary.

This species has been reported to occur in the hills to the east and south of the project parcel, and habitat conditions on the serpentine outcrops on the project parcel could be suitable to support this species if a robust population of purple owl's clover establishes. The few small patches of California plantain on the graded and ruderal areas on the western portion of the project site (including the proposed project footprint) would constitute a population sink due to the degree of disturbance and the lack of secondary host plants and the lack of conditions robust populations of the secondary host plant could establish. However, it cannot be ruled out that vagrant or dispersing individual(s) of Bay checkerspot butterfly appear temporarily on this area.

5.3.2 - Burrowing Owl

Burrowing owl occurs in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. This species utilizes, modifies, and nests in burrows created by other species, most notably the California ground squirrel.

The project site does contain open landscapes with low-growing vegetation suitable for foraging. Several burrows with diameters of at least 4 inches in diameter were detected on and adjacent to the project site during the April 2021 field surveys, which means they could provide suitable burrowing and nesting habitat for burrowing owl. Additionally, multiple recent occurrences of burrowing owl have been recorded within a 5-mile radius of the project site by the CNDDDB database. Therefore, there is potential for burrowing owl to occur on-site during the breeding season (generally between February 15 and August 31), post-breeding dispersal season (generally between September 1 and November 30), and wintering season (generally between December 1 and February 14).

5.3.3 - San Joaquin Kit Fox

The San Joaquin kit fox (*Vulpes macrotis*) is the smallest canid species in North America. The average male San Joaquin kit fox stands 12 inches high at the shoulder, and weighs about 5 pounds. Females

are slightly smaller. The legs are long, the body slim, and the large ears are set close together. The coat colors of San Joaquin kit foxes range from buff, tan, and yellowish-gray to grizzled. The tail, typically carried low and straight, tapers slightly toward its distinct black tip.

Historically, the San Joaquin kit fox inhabited much of California's San Joaquin Valley prior to 1930. Its range extended from southern Kern County north to eastern Contra Costa County on the Valley's west side and to Stanislaus County on the east side. Today the San Joaquin kit fox inhabits a highly fragmented landscape of scattered remnants of native habitat and adoptable, altered lands within and on the fringe of development mostly in the southern and western San Joaquin Valley and foothills. The San Joaquin kit fox requires dens for shelter, protection, and reproduction, and prefers habitats where loose-textured soils are present, or where abandoned burrows of other animals can be occupied.

No dens or other signs of San Joaquin kit fox presence were observed on the site. No loose-textured soils for den burrowing were observed. The project parcel lies just outside the known range of this species with the nearest occurrence recorded in BIOS 5 is 3.7 miles southeast of the project parcel (dated July 1975).⁴⁰ While non-native grassland is present on the northeastern portion of the project parcel, and it cannot be ruled out that a vagrant kit fox may temporarily utilize the undisturbed grassland on this portion of the parcel, the areas proposed for development consist of graded and highly disturbed areas that are not suitable for kit fox denning.

5.3.4 - American Badger

American badger (*Taxidea taxus*) is found in drier, open, uncultivated habitats, including shrublands, forests and herbaceous habitats with friable soils to dig large burrows. This species requires sufficient food sources including rodents such as California ground squirrel, which were observed during the field surveys. The nearest occurrence recorded in BIOS 5 is a little over a mile to the southeast.⁴¹ While non-native grassland is present on the northeastern portion of the project parcel, and it cannot be ruled out that American badger may temporarily utilize the undisturbed grassland on this portion of the parcel; the areas proposed for development consist of graded and highly disturbed areas that are not suitable for denning.

5.3.5 - Nesting Birds (Including Special-status Bird Species)

Several ornamental trees can be found along the project parcel boundaries which could provide suitable nesting habitat for birds including, but unlikely, for special-status species such as white-tailed kite (*Elanus leucurus*), and Swainson's hawk. The grassland on-site may provide nesting habitat for native and migratory passerines, potentially including grasshopper sparrow (*Ammodramus savannarum*). The presence of small mammal burrows provides potential nesting/overwintering habitat for burrowing owl. Additionally, undisturbed bare ground may provide habitat for ground nesting species such as killdeer, observed on-site displaying nesting distraction behavior.

⁴⁰ California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: <https://map.dfg.ca.gov/bios/>. Accessed May 12, 2021.

⁴¹ Ibid.

5.4 - Jurisdictional Waters and Wetlands

The abandoned concrete canal described in the Land Cover section above may potentially be under the jurisdiction of the RWQCB as a water of the State, if the current conditions of the canal or future modifications to it have the potential to affect water quality and/or aquatic or wetland habitats of Coyote Creek. FCS proposes that the canal may be jurisdictional as a water of the United States, since the USACE and EPA have halted implementation of the Navigable Waters Protection Rule and are interpreting “waters of the United States” consistent with the pre-2015 regulatory regime until further notice as of August 30, 2021.⁴²

A shallow swale extends west from into the hillside into the project parcel but terminates upon reaching a terrace above the graded portion of the project parcel. No hydrological connection to a downstream feature is present, and no evidence of hydrology, concentrated flow, hydrophytic soil, plants or other hydrology or wetland indicators were present; therefore, the swale is not considered an aquatic resource. The proposed project footprint would avoid any direct impacts to both drainage features, and construction of the proposed project would have no indirect impacts either due to the fact that they lie upslope of the project footprint. Therefore, there is no potential impact from sediments and other pollutants that may result from project construction to enter these drainage features and reduce water quality. Thus, the RGP issued by the USACE San Francisco District on January 28, 2021⁴³ would not be applicable to the proposed project as the project would not impact any potentially jurisdictional waters of the United States or State.

5.5 - Protected Trees

One or more of the Peruvian pepper trees located along or outside the northern project parcel boundary may qualify as a “protected tree” by meeting the City’s size requirements as defined in Chapter 13.32 of the San José Municipal Code. The City defines an ordinance-sized tree is either a single trunk or stem with a circumference of at least 38 inches measured at a height 54 inches above natural grade slope, or multiple trunks where the combined circumferences of each trunk at 54 inches above natural grade slope add up to at least 38 inches.⁴⁴

⁴² United States Environmental Protection Agency (EPA). 2021. Website: <https://www.epa.gov/wotus/current-implementation-waters-united-states>. Accessed September 9, 2021.

⁴³ Santa Clara Valley Habitat Agency. 2021. Regional General Permit. Website: <https://www.scv-habitatagency.org/190/Regional-General-Permit/>. Accessed December 27, 2021.

⁴⁴ San José Municipal Code. 2021. Chapter 13.32 - TREE REMOVAL CONTROLS. Website: https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.32TRRECO_13.32.020DE. Accessed May 2, 2021.



Source: ESRI Aerial Imagery.

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Exhibit 3 Land Cover and Vegetation

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SECTION 6: IMPACT ANALYSIS AND RECOMMENDATIONS

The following discussion addresses potential project impacts on regulated biological resources, including special-status species, and recommends measures to avoid and/or mitigate impacts to a less than significant level under CEQA. These measures are recommended to be implemented as mitigation measures for an Initial Study/Mitigated Negative Declaration (IS/MND); or as Conditions of Approval if the CEQA lead agency determines that a Category Exemption is appropriate. For the purpose of this BRA, the term Mitigation Measure (MM) is used in the following sections.

6.1 - Impacts to Special-status Plants and Serpentine Habitats

Direct Impacts

As shown on Exhibit 3, the project footprint and disturbance areas would not affect any serpentine outcrop or chaparral habitat or occurrences of the special-status plant species Santa Clara Valley dudleya and Hall's bush-mallow. However, construction equipment and personnel could potentially unknowingly enter sensitive serpentine outcrop areas, including areas with occurrences of special-status plant species, and could cause damage through trampling, vegetation removal for access, staging, material storage or other temporary construction activities. Therefore, MM (or Condition of Approval) BIO-1 would establish a Serpentine Habitat Protection Area for all sensitive serpentine habitats and special-status plant species occurrences as shown on Exhibit 3. Implementation of MM BIO-1 would reduce any potential direct project-related adverse effects to special-status plant species to a less than significant level and would also satisfy SCVHP permit application "Condition 20. Avoid and Minimize Impacts to Covered Plant Occurrences."

MM BIO-1 Establish Serpentine Habitat and Plant Protection Area

In accordance with Conditions 13 and 20 of the SCVHP, the proposed project shall avoid all serpentine habitats and covered special-status plants present on-site.

Prior to the start of any construction activity, a Serpentine Habitat Protection Area (SHPA) shall be established covering the areas identified as Serpentine Outcrop and Serpentine Chaparral. The boundary of the SHPA shall include a minimum buffer area of 30 feet from the outer boundary of all sensitive serpentine outcrops on the project parcel, or a larger buffer as defined by a qualified Biologist. The applicant shall erect an approximately 4-foot- tall high-visibility fence at the SHPA boundary to which entry shall be prohibited to all construction personnel and equipment. After completion of the project, the fence shall be removed. The proposed SHPA shall be shown on the project plans.

Landscaping shall not be planted on serpentine areas except as needed to reduce fire hazards adjacent to structures consistent with Santa Clara County fire hazard reduction regulations (see also Condition 10). Plantings shall not include species that are known or suspected to invade serpentine habitats or crosspollinate with endemic serpentine plant species or other native plants.

Indirect Impacts Through Increased Nitrogen Deposition

Per the analysis presented in the SCVHP, indirect adverse effects to Santa Clara Valley dudleya may occur due to increased project-related nitrogen deposition. Nitrogen deposition is known to have damaging effects on many of the serpentine plants in the SCVHP area. Because serpentine soils tend to be nutrient poor, and nitrogen deposition artificially fertilizes serpentine soils, nitrogen deposition facilitates the spread of invasive plant species, potentially displacing serpentine-dependent species. Nitrogen tends to be efficiently recycled by the plants and microbes in infertile soils such as those derived from serpentine, so that fertilization impacts could persist for years and result in cumulative habitat degradation.

Mitigation for the impacts of nitrogen deposition upon serpentine habitat can be correlated to the amount of new vehicle trips that a project is expected to generate. The number of additional vehicle trips generated by this proposed project is currently not known. However, City policy and Standard Permit Conditions (SPCs) (below) would require the applicant to coverage for the proposed project under the SCVHP, including potential payment of a nitrogen deposition mitigation fee, which is intended to enable the Habitat Agency to purchase and manage conservation land containing serpentine habitat. With implementation of MM BIO-1, indirect impacts to serpentine habitat (and serpentine-dependent special-status plant species) would be reduced to a less than significant level.

6.2 - Impacts to Special-status Wildlife

The following analysis addresses all potential project-related impacts and follows the typical requirements as mandated by CEQA. The mitigation measures or Conditions of Approval recommended here would reduce any potential project-related impacts to a less than significant level.

6.2.1 - Bay Checkerspot Butterfly

The development of the proposed project could potentially impact Bay checkerspot butterfly by impacting its host plants and butterfly larvae/caterpillars if present. Three patches of California plantain are located within the development footprint, which are approximately 200, 300, and 500 square feet in size (Exhibit 3). However, the proposed project would be located in the flat portions of the site and maintain setbacks as allowed by zoning code. It would maintain an approximately 50-foot buffer (identified as the Development Area in Exhibit 3) around the project footprint, as required by the SCVHP. The purpose of this buffer is to locate the proposed project footprint as far as possible from the highest-quality serpentine habitat, which would reduce impacts to the Bay checkerspot butterfly.

Indirect adverse effects to Bay checkerspot butterfly host plants may occur due to increased project-related nitrogen deposition that has the potential to reduce availability of serpentine-dependent host plants, as stated in Section 6.1, above. The Bay checkerspot butterfly is a covered species under the SCVHP, and mitigation of potential impacts to this species should follow the conditions determined during the SCVHP permit application process. With compliance with the SCVHP measures related to this species (MM BIO-1), potential project-related impacts to the Bay checkerspot butterfly would be reduced to a less than significant level.

6.2.2 - Burrowing Owl

Burrowing owl, a California Species of Special Concern, was assessed as having a moderate potential to occur on the project site. Though no burrowing owl or signs of burrowing owl were observed on-site, and the species is currently not expected to breed or nest on the project site due to the site's low quality habitat, they may use the site for short periods during migratory movements through the area.

Burrowing owl is a covered species under the SCVHP, and mitigation of potential impacts to this species should follow the conditions determined during the SCVHP permit application process, which at a minimum include pre-construction surveys and, if found, notification to the CDFW and avoidance of occupied nests and burrows. Compliance with MM BIO-2 would ensure potential project-related impacts to burrowing owl would be reduced to a less than significant level.

MM BIO-2 Pre-construction Surveys and Avoidance of Burrowing Owl

A burrowing owl survey shall be conducted within 2 calendar days prior to ground disturbance, following the survey methods described in Condition 15 of the Santa Clara Valley Habitat Plan (SCVHP), and the results of these surveys shall be sent to the Director of Planning, Building, and Code Enforcement, or the Director's designee. If evidence of burrowing owl is detected during the pre-construction surveys, then the California Department of Fish and Wildlife (CDFW) shall be notified.

If the pre-construction surveys detect evidence of burrowing owl on-site, then the project applicant shall implement the following avoidance measures:

1. Avoid occupied nests within a 250-foot buffer during breeding season (February 1–August 31) or develop a monitoring plan approved by the CDFW that allows activity within 250-foot buffer.
2. Avoid occupied burrows during nonbreeding season (September 1–January 31) or meet requirements in Condition 15 of the SCVHP if allowing activity within a 250-foot buffer.

If evidence of burrowing owl is detected on-site, the applicant shall develop and submit a construction monitoring plan to the City's Director of Planning, Building, and Code Enforcement, or the Director's designee, for review and approval. The construction monitoring plan shall include the following construction monitoring measures:

1. Establish 250-foot buffer zones around active nests.
2. Establish 250-foot buffer zones around occupied burrows during nonbreeding season if applicable.
3. Implement construction monitoring consistent with monitoring plan or requirements if activities occur within the buffer.
4. Construction or maintenance personnel must participate in avoidance training.

6.2.3 - San Joaquin Kit Fox

San Joaquin kit fox was assessed as having a low potential to occur on the project site. Though no signs of kit fox (including dens) were observed on-site, the species is currently not expected to occur due to the site's low quality of the habitat and the fact that the site is most likely outside the actual current range of this species. However, grassland is present on the eastern portion of the project parcel and San Joaquin kit fox is a covered species under the SCVHP, which may require pre-construction surveys and, if found, avoidance of dens. With compliance with the SCVHP measures to protect and/or mitigate for this species, potential project-related impacts to San Joaquin kit fox would be reduced to a less than significant level.

6.2.4 - Nesting Birds (Including Swainson's Hawk and White-tailed Kite)

Trees along the parcel boundary and within disturbance distance could provide suitable nesting habitat for a variety of native, migratory, or other bird species, including special-status species such as white-tailed kite and Swainson's hawk. Relatively undisturbed grassland and barren areas of the project parcel provide potential nesting opportunities for ground nesting birds. Construction activities that occur during the avian nesting season (generally February 15 to August 31) could significantly disturb or destroy nesting sites for bird species protected under the Fish and Game Code or MBTA. The removal of trees during the nesting season could result in direct harm to nesting birds, while noise, light, and other man-made disturbances may cause nesting birds to prematurely abandon their nests.

The project applicant shall implement the following avoidance and minimization measures to ensure that project impacts on nesting birds are reduced to a less than significant level:

MM BIO-3 Impacts to Nesting Birds

The proposed project would implement the following measures to avoid impacts to nesting migratory birds:

- **Avoidance:** The project applicant shall schedule demolition and construction activities to avoid the nesting season. The nesting season for most birds, including most raptors in the San Francisco Bay Area, extends from February 1 through August 15 (inclusive), as amended.
- **Nesting Bird Surveys:** If it is not possible to schedule demolition and construction between August 16 and January 31 (inclusive), pre-construction surveys for nesting birds shall be completed by a qualified Ornithologist to ensure that no nests shall be disturbed during project implementation. This survey shall be completed no more than 14 days prior to the initiation of construction activities during the early part of the breeding season (February 1 through April 30, inclusive) and no more than 30 days prior to the initiation of these activities during the late part of the breeding season (May 1 through August 15, inclusive). During this survey, the Ornithologist shall inspect all trees and other possible nesting habitats immediately adjacent to the construction areas for nests.
- **Buffer Zones:** If an active nest is found sufficiently close to work areas to be disturbed by construction, the Ornithologist, in consultation with the California

Department of Fish and Wildlife (CDFW), shall determine the extent of a construction-free buffer zone to be established around the nest, typically 250 feet, to ensure that raptor or migratory bird nests shall not be disturbed during project construction. The no-disturbance buffer shall remain in place until the Biologist determines the nest is no longer active or the nesting season ends. If construction ceases for 2 days or more then resumes again during the nesting season, an additional survey shall be necessary to avoid impacts to active bird nests that may be present.

- **Reporting:** Prior to any tree removal, or approval of any grading permits (whichever occurs first), the project applicant shall submit the Ornithologist's report indicating the results of the survey and any designated buffer zones to the satisfaction of the Director of Planning, Building and Code Enforcement or the Director's designee, prior to issuance of any grading or building permits.

6.3 - Impacts to Wildlife Movement and Nursery Sites

The majority of the site consists of disturbed/ruderal habitat, non-native annual grassland and serpentine outcrops and does not contain habitat features such as riparian corridors or waterways that could function as wildlife corridors. The project site is also surrounded by roads and highways as well as urban development to the north, south, and west that limit wildlife movement. The undisturbed habitat present on the eastern hillside of the parcel would be the only entrance to the site for terrestrial wildlife. However, the construction of the proposed project would avoid the hillside that covers much of the eastern half of the parcel. Coyote Creek lies approximately 0.5 mile southwest of the project site and is a major local wildlife movement corridor. Although the proposed project would prevent movement through the project site, existing development between the project site and Coyote Creek already impedes wildlife movement from the hillside to Coyote Creek. Thus, it is unlikely that any dispersing wildlife would traverse the approximately 0.5 mile distance through existing urban development and cross major roadways to reach Coyote Creek. Therefore, the proposed project would have a less than significant impact on the movement of wildlife.

Additionally, trees along the parcel boundary and within disturbance distance could provide suitable nesting habitat for a variety of native, migratory, or other bird species. The undisturbed grassland and barren areas of the project parcel provide potential nesting opportunities for ground nesting birds. However, implementation of MM BIO-3 and adherence to SPCs would ensure that project impacts on nesting birds are reduced to a less than significant level by preventing direct harm to or the abandonment of active nests.

6.4 - Impacts to Protected Trees

One or more of the approximately eight non-native Peruvian pepper trees located along or outside the northern project parcel boundary may qualify as a “protected tree” by meeting the City’s size requirements as defined in Chapter 13.32 of the San José Municipal Code.⁴⁵

The City defines an ordinance-sized tree is either a single trunk or stem with a circumference of at least 38 inches measured at a height 54 inches above natural grade slope, or multiple trunks where the combined circumferences of each trunk at 54 inches above natural grade slope add up to at least 38 inches.⁴⁶

In compliance with the City SPCs, the applicant shall implement the City’s Tree Protection Standards as described in below to protect the ordinance-sized tree(s) present on-site.

City Standard Permit Condition: Tree Protection Standards

The applicant shall maintain the trees and other vegetation shown to be retained in this proposed project and as noted on the Approved Plan Set. Maintenance shall include pruning and watering as necessary and protection from construction damage. Prior to the removal of any tree on the site, all trees to be preserved shall be permanently identified by metal numbered tags. Prior to issuance of the Grading Permit or removal of any tree, all trees to be saved shall be protected by chain link fencing, or other fencing type approved by the Director of Planning, Building, and Code Enforcement. Said fencing shall be installed at the dripline of the tree in all cases and shall remain during construction. No storage of construction materials, landscape materials, vehicles, or construction activities shall occur within the fenced tree protection area. Any root pruning required for construction purposes shall receive prior review and approval, and shall be supervised by the consulting licensed Arborist. Fencing and signage shall be maintained by the applicant to prevent disturbances during the full length of the construction period that could potentially disrupt the habitat or trees.

If any ordinance-sized tree(s) must be removed to accommodate the proposed project, compliance with the City SPCs is required. Per the City’s SPCs, any requested tree removals would be evaluated under the proposed Site Development permit. Compliance with the City’s SPCs would reduce this impact to less than significant.

The proposed project would result in removal of five trees including three Peruvian pepper trees and two other unidentified trees. However, a total of 72 trees are proposed: 66 trees would be placed on-site and 6 trees are proposed off-site. The replacement ratio would be approximately 14:1, exceeding the City’s requirement of replacement ratios between 1:1 and 5:1 identified in the SPC below. All replacement trees being proposed are a minimum of 15-gallon. Consistent with the SPC,

⁴⁵ City of San José. 2021. Tree Removal Permits. Website: <https://www.sanjoseca.gov/your-government/departments/planning-building-code-enforcement/planning-division/tree-removal-permits>. Accessed May 2, 2021.

⁴⁶ San José Municipal Code. 2021. Chapter 13.32 - TREE REMOVAL CONTROLS. Website: https://library.municode.com/ca/san_jose/codes/code_of_ordinances?nodeId=TIT13STSIPUPL_CH13.32TRRECO_13.32.020DE. Accessed May 2, 2021.

prior to obtaining a Grading Permit, the applicant would ensure all trees proposed for removal are identified and measured, and would present a clear replacement ratio summary for the City’s review and approval.

City Standard Permit Condition: Tree Removal

Trees removed for the project shall be replaced at ratios required by the City, as stated in the table below, as amended:

Table 1: Tree Replacement Ratios

Circumference of Tree to be Removed	Type of Tree to be Removed			Minimum Size of Each Replacement Tree
	Native	Non-Native	Orchard	
38 inches or more	5:1	4:1	3:1	15-gallon
19 up to 38 inches	3:1	2:1	none	15-gallon
Less than 19 inches	1:1	1:1	none	15-gallon

The species of trees to be planted shall be determined with the City Arborist and the Department of Planning, Building, and Code Enforcement.

If there is insufficient area on the project site to accommodate the required replacement trees, one or more of the following measures shall be implemented, to the satisfaction of the Director of Planning, Building, and Code Enforcement, at the development permit stage:

- The size of a 15-gallon replacement tree may be increased to 24-inch box and count as two replacement trees to be planted on the project site, at the development permit stage.
- Pay Off-Site Tree Replacement Fee(s) to the City, prior to the issuance of Public Works grading permit(s), in accordance with the City Council approved Fee Resolution. The City shall use the off-site tree replacement fee(s) to plant trees at alternative sites.

6.5 - Compliance with Santa Clara Valley Habitat Conservation Plan

To reduce potential project-related impacts to biological resources covered under the SCVHP (including serpentine habitat and covered special-status plant and wildlife species), the project applicant shall comply with the City of San José’s SPCs and pay all applicable SCVHP fees.

City Standard Permit Condition: Santa Clara Valley Habitat Plan

The project is subject to applicable SCVHP conditions and fees (including the nitrogen deposition fee) prior to issuance of any grading permits. The project applicant would be required to submit the SCVHP Coverage Screening Form (<https://www.scv-habitatagency.org/DocumentCenter/View/151/Coverage-Screening-Form?bidId=>) to the

Director of Planning, Building, and Code Enforcement (PBCE) or the Director's designee for approval and payment of all applicable fees prior to the issuance of a grading permit. The Habitat Plan and supporting materials can be viewed at www.scv-habitatplan.org.

Appendix A: Site Photographs

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Photograph 1: Project parcel Facing SE from graded rock-crushing pad.



Photograph 2: Project parcel facing NE from SW parcel boundary.



Photograph 3: Project parcel facing NW from Piercy Road.



Photograph 4: Project parcel facing SW from above terrace.



Photograph 5: Access road along NE boundary of the project parcel facing NW.



Photograph 6: Top of access road overlooking project parcel facing SW.



Photograph 7: Concrete canal along NE project parcel boundary facing south.



Photograph 8: Swale along hillside facing NE.



Photograph 9: Serpentine chaparral and terrace facing NE. Photo taken with drone.



Photograph 10: Rock-crushing operation facing NW. Photo taken with drone



Photograph 11: Overhead view of south corner of project parcel. Photo taken with drone.



Photograph 12: Overhead view of swale. Photo taken with drone.



Photograph 13:
Santa Clara Valley dudleya (*Dudleya
abramsii* ssp. *setchellii*)
Federally Endangered, CNPS Rank: 1B.1



Photograph 14:
Hall's bush mallow (*Malacothamnus hallii*)
CNPS Rank: 1B.2



Photograph 15:
California plantain (*Plantago erecta*)



Photograph 16:
The single observed purple owl's clover
(*Castilleja exserta*)

Appendix B:
Special-status Species Tables

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Table 1: Special-status Plant Species Evaluated

Scientific Name Common Name	Status			Habitat Description ⁴	Potential to Occur and Rationale
	USFWS ¹	CDFW ²	CNPS ³		
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	—	—	1B.2	Chaparral, valley and foothill grassland, cismontane woodlands. Sometimes found growing on serpentine substrates. Elevation: 35 – 1465 m. Blooming period: March – June	Not present. Suitable grassland and chaparral habitat is present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during 2021 protocol-level botanical surveys.
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	—	—	1B.1	Valley and foothill grassland. Often found growing in alkaline soils, sometimes described as heavy white clay. Elevation: 0 – 245 m. Blooming period: May – October	Not present. Suitable grassland habitat is present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during 2021 protocol-level botanical surveys.
<i>Chlorogalum pomeridianum</i> var. <i>minus</i> dwarf soaproot	—	—	1B.2	Chaparral with serpentinite soils. Elevation: 305 – 1000 m. Blooming period: May – August	Not present. Suitable grassland and chaparral habitat is present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during 2021 protocol-level botanical surveys.
<i>Chorizanthe robusta</i> var. <i>robusta</i> robust spineflower	FE	—	1B.1	Cismontane woodland, coastal dunes, coastal scrub, chaparral. Sandy terraces and bluffs or in loose sand. Elevation: 5 – 245 m. Blooming period: April – September	Not present. Suitable grassland and chaparral habitat is present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during 2021 protocol-level botanical surveys.
<i>Cirsium fontinale</i> var. <i>campylon</i> Mt. Hamilton thistle	—	—	1B.2	Cismontane woodland, chaparral, valley and foothill grassland. Often grows in seasonal and perennial drainages on serpentine soils. Elevation: 75 – 890 m. Blooming period: April – October	Not present. Suitable grassland and chaparral habitat is present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during 2021 protocol-level botanical surveys.
<i>Collinsia multicolor</i> San Francisco collinsia	—	—	1B.2	Closed-cone coniferous forest, coastal scrub. On decomposed shale (mudstone) mixed with humus; sometimes grows on serpentine soils. Elevation: 10 – 275 m. Blooming period: March – May	Not present. Suitable coniferous forest and coastal habitat is not present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during 2021 protocol-level botanical surveys.
<i>Dudleya abramsii</i> ssp. <i>setchellii</i> Santa Clara Valley dudleya	FE	—	1B.1	Valley and foothill grassland, cismontane woodland. On rocky serpentine outcrops and on rocks within grassland or woodland. Elevation: 60 - 455 m. Blooming period: April – October	Present. Species was observed growing on serpentine outcrops present on-site during the 2021 protocol-level botanical surveys.

Scientific Name Common Name	Status			Habitat Description ⁴	Potential to Occur and Rationale
	USFWS ¹	CDFW ²	CNPS ³		
<i>Fritillaria liliacea</i> fragrant fritillary	—	—	1B.2	Coastal scrub, valley and foothill grassland, coastal prairie, cismontane woodland. Often grows on serpentine soils. Can grow on other soil types such as clay soils in grassland habitats. Elevation: 3 – 385 m. Blooming period: February – April	Not present. Suitable grassland habitat is present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during 2021 protocol-level botanical surveys.
<i>Hoita strobilina</i> Loma Prieta hoita	—	—	1B.1	Chaparral, cismontane woodland, riparian woodland. Often found growing on serpentine soils, often on mesic sites. Elevation: 60 – 975 m. Blooming period: May – July	Not present. Suitable chaparral habitat is present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during the 2021 protocol-level botanical surveys.
<i>Lessingia micradenia</i> var. <i>glabrata</i> smooth lessingia	—	—	1B.2	Chaparral, cismontane woodland, valley and foothill grassland. Often found growing on serpentine soils and on roadsides. Elevation: 90 – 490 m. Blooming period: July – November	Not present. Suitable grassland and chaparral habitat is present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during the 2021 protocol-level botanical surveys.
<i>Malacothamnus arcuatus</i> arcuate bush-mallow	—	—	1B.2	Chaparral, cismontane woodland. Often found growing on gravelly alluvium substrates. Elevation: 0 – 735 m. Blooming period: April – September	Not present. Suitable chaparral habitat is present on-site. Gravelly alluvium substrates are not present. Species was not observed on-site during the 2021 protocol-level botanical surveys.
<i>Malacothamnus hallii</i> Hall's bush-mallow	—	—	1B.2	Chaparral, coastal scrub. Some populations have been found growing on serpentine. Elevation: 10 – 735 m. Blooming period: May – September	Present. Species was observed growing on serpentine outcrops present on-site during the 2021 protocol-level botanical surveys.
<i>Monolopia gracilens</i> woodland woollythreads	—	—	1B.2	Chaparral, valley and foothill grassland, cismontane woodland, broadleaved upland forest, North Coast coniferous forest. Grows on grassy sites and in openings with sandy to rocky soils. Often seen on serpentine areas after burns, but may have only weak affinity to serpentine soils. Elevation: 120 – 975 m. Blooming period: March – July	Not present. Suitable grassland and chaparral habitat is present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during the 2021 protocol-level botanical surveys.
<i>Senecio aphanactis</i> chaparral ragwort	—	—	2B.2	Chaparral, cismontane woodland, coastal scrub. Can often be found growing on drying alkaline flats. Elevation: 20 – 1020 m. Blooming period: January – April	Not present. Suitable chaparral habitat is present on-site. Species was not observed on-site during the 2021 protocol-level botanical surveys.

Scientific Name Common Name	Status			Habitat Description ⁴	Potential to Occur and Rationale
	USFWS ¹	CDFW ²	CNPS ³		
<i>Streptanthus albidus</i> ssp. <i>albidus</i> Metcalf Canyon jewelflower	FE	—	1B.1	Valley and foothill grassland. Grows in relatively open areas in dry grassy meadows on serpentine soils and serpentine balds. Elevation: 50 – 275 m. Blooming period: April – July	Not present. Suitable grassland and chaparral habitat is present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during April 2021 field survey.
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> most beautiful jewelflower	—	—	1B.2	Chaparral, valley and foothill grassland, cismontane woodland. Grows on serpentine outcrops, on ridges and slopes. Elevation: 90 – 1040 m. Blooming period: April – September	Not present. Suitable grassland and chaparral habitat is present on-site. Serpentine outcrops are present on-site. Species was not observed on-site during April 2021 field survey.
Code Designations					
¹ Federal Status: 2020 USFWS Listing			² State Status: 2020 CDFW Listing		³ CNPS: 2020 CNPS Listing
ESU = Evolutionary Significant Unit is a distinctive population. FE = Listed as endangered under the FESA. FT = Listed as threatened under the FESA. FC = Candidate for listing (threatened or endangered) under FESA. FD = Delisted in accordance with the FESA. FPD = Federally Proposed to be Delisted. MBTA = protected by the Migratory Bird Treaty Act — = Not federally listed			SE = Listed as endangered under the CESA. ST = Listed as threatened under the CESA. SSC = Species of Special Concern as identified by the CDFW. FP = Listed as fully protected under FGC. CFG = FGC =protected by FGC 3503.5 CR = Rare in California. — = Not state listed		Rank 1A = Plants species that presumed extinct in California. Rank 1B = Plant species that are rare, threatened, or endangered in California and elsewhere. Rank 2 = Plant species that are rare, threatened, or endangered in California, but more common elsewhere. Rank 3 = Plants about which we need more information—A Review List Rank 4 = Plants of limited distribution—A Watch List Blooming period: Months in parentheses are uncommon.
⁴ Habitat Description: Habitat description adapted from CNDDDB ¹ and CNPS online inventory ² or other specified source.					

¹ California Department of Fish and Wildlife (CDFW). 2021. CNDDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>. Accessed October 22, 2020.

² California Native Plant Society (CNPS). 2021. California Native Plant Society Rare and Endangered Plant Inventory. Website: <http://www.rareplants.cnps.org/>. Accessed May 12, 2021.

Table 2: Special-status Wildlife Species Evaluated

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
Amphibians				
<i>Ambystoma californiense</i> California tiger salamander	FT	ST WL	Found in grassland, oak savanna, edges of mixed woodland and lower elevation coniferous forest. Nocturnal, and fossorial, spending most time underground in animal burrows, especially those of California ground squirrels, valley pocket gophers, and moles. This salamander needs both suitable upland terrestrial habitat with mammal burrows for refuge and breeding ponds in order to survive.	None. While marginal grassland habitat and aestivation sites are present, no known CTS breeding is documented within dispersal distance of the site.
<i>Aneides niger</i> Santa Cruz black salamander	—	— SSC	Mixed deciduous and coniferous woodlands and coastal grasslands in San Mateo, Santa Cruz, and Santa Clara counties. Adults found under rocks, talus, and damp woody debris.	None. Deciduous or coniferous woodlands are not present on-site. The project site is outside of the know range of these species.
<i>Rana boylei</i> foothill yellow-legged frog	—	SE SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	None. The project parcel does not contain suitable riparian habitat to support this species. Nearest suitable riparian/aquatic habitat is located approximately 0.5 mile to the southwest along Coyote Creek.
<i>Rana draytonii</i> California red-legged frog	FT	— SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	None. The project parcel does not contain suitable riparian habitat to support this species. Nearest suitable riparian/aquatic habitat is located approximately 0.5 mile to the southwest along Coyote Creek.
Birds				
<i>Agelaius tricolor</i> tricolored blackbird	— MBTA	ST SSC	Forages in open habitats such as farm fields, pastures, cattle pens, large lawns. Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Breeds in large freshwater marshes, dense stands of hydrophytic vegetation (cattails, bulrushes, etc.)	None. The project parcel does contain suitable foraging habitat nor suitable freshwater marsh to support this species.
<i>Ammodramus savannarum</i> grasshopper sparrow	— MBTA	— SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Low. Marginally suitable grassland habitat is present on-site. Nearest recorded BIOS occurrence is located approximately 4.5 southeast of the project parcel.

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
<i>Aquila chrysaetos</i> golden eagle	— MBTA	— FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	None. The project parcel does not contain suitable nesting habitat for this species. Nearest recorded BIOS occurrences are located approximately 5 miles south and southeast of the project parcel.
<i>Athene cunicularia</i> burrowing owl	— MBTA	— SSC	Found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	Moderate. The project parcel does contain open grassland suitable for foraging. California ground squirrel (<i>Otospermophilus beecheyi</i>) burrows suitable for nesting were observed. Multiple occurrences recorded are located within 5 miles surrounding the project parcel.
<i>Buteo swainsoni</i> Swainson's hawk	— MBTA	ST SSC	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Low. The project parcel does not contain suitable nesting habitat for this species. Suitable foraging habitat in the form of annual grassland is present nearby. However, the nearest recent BIOS record (2016) is located approximately 4.7 miles to the southeast of the project parcel.
<i>Elanus leucurus</i> white-tailed kite	— MBTA	— FP	Often found near foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland or isolated dense-topped trees for nesting and perching. Forages in open grasslands, meadows, or marshes.	Low. The project parcel contains suitable nesting trees along its northern boundary. Suitable grassland foraging habitat can be found nearby. Nearest recorded BIOS occurrences are located approximately 5.5 miles southeast of the project parcel.
<i>Coturnicops noveboracensis</i> yellow rail	— MBTA	— SSC	Grassy marshes, meadows. In summer, favors large wet meadows or shallow marshes dominated by sedges and grasses. Typically in fresh or brackish marsh with water no more than a foot deep. In winter mostly in coastal salt marsh, especially drier areas with dense stands of spartina; also rice fields, damp meadows near coast.	None. The project parcel does not contain suitable freshwater marsh habitat to support this species.
<i>Icteria virens</i> yellow-breasted chat	— MBTA	— SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	None. The project parcel does not contain suitable riparian vegetation to support this species.
Fish				
<i>Oncorhynchus mykiss</i> irideus (pop. 8) steelhead (central California coast DPS)	FT	—	DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays.	None. The project parcel does not contain suitable aquatic habitat to support this species. Nearest suitable riparian/aquatic habitat is located approximately 0.5 mile to the southwest along Coyote Creek.

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
Insects				
<i>Euphydryas editha bayensis</i> <i>Bay checkerspot butterfly</i>	FT	—	Restricted to native grasslands on outcrops of serpentine soil in the vicinity of San Francisco Bay. <i>Plantago erecta</i> is the primary host plant; <i>Orthocarpus densiflorus</i> & <i>O. purpureus</i> are the secondary host plants.	Low. The project parcel contains suitable habitat for this species including serpentine outcrops. Small patches of <i>Plantago erecta</i> and one <i>Castilleja exserta</i> plant were observed on-site.
Mammals				
<i>Antrozous pallidus</i> pallid bat	—	— SSC	Inhabits low elevation (below 1,830 m./6,000 feet) rocky arid deserts and canyonlands, shrub-steppe grasslands, karst formations, and higher elevation coniferous forests (below 2,100 m./7,000 feet). Day and night roosts include crevices in rocky outcrops and cliffs, caves, mines, trees, and various human structures such as bridges, barns, porches, bat boxes, and human-occupied as well as vacant buildings.	None. The project parcel does not contain suitable natural or man-made structures for this species to establish roosts.
<i>Corynorhinus townsendii</i> Townsend's big-eared bat			Found throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. This species is extremely sensitive to human disturbance.	None. The project parcel does not contain suitable natural or man-made structures for this species to establish roosts.
<i>Neotoma fuscipes</i> <i>annectens</i> San Francisco dusky-footed woodrat			Forest habitats of moderate canopy & moderate to dense understory. May prefer chaparral & redwood habitats. Constructs nests of shredded grass, leaves & other material. May be limited by availability of nest-building materials.	None. The project parcel does not contain suitable forested or chaparral habitat to support this species. No woodrat nests were observed.
<i>Taxidea taxus</i> American badger	—	— SSC	Found in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Requires sufficient food sources (rodents), friable soils, and open, uncultivated ground. Digs large burrows.	Low. Marginally suitable habitat is present on-site due to the presence of grassland habitat. No suitable burrows were observed. Nearest occurrence recorded in BIOS is a little over a mile to the southeast.
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	FE	ST	Occurs in annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.	Low. Suitable grassland habitat is present on-site. The project parcel lies just outside the known range of this species, with nearest occurrence recorded in BIOS is 3.7 miles southeast of the project parcel (dated July 1975). No loose-textured sandy soils present for burrowing. No suitable burrows observed.

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
Reptiles				
<i>Anniella pulchra</i> Northern California legless lizard	—	— SSC	Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat. Often can be found under surface objects such as rocks, boards, driftwood, and logs. Can also be found by gently raking leaf litter under bushes and trees	None. The project parcel does not contain suitable soils or vegetation communities to support this species. Moisture is essential for this species. The project parcel is highly arid, and no typical habitat is present.
<i>Emys marmorata</i> western pond turtle	—	— SSC	Occurs in ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	None. The project parcel does not contain suitable aquatic to support this species. Nearest suitable riparian/aquatic habitat is located approximately 0.5 mile to the southwest along Coyote Creek.
<i>Phrynosoma blainvillii</i> coast horned lizard	—	— SSC	Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads. Often found near ant hills feeding on ants.	Low. The project parcel does suitable vegetation communities to support this species. The nearest recorded occurrence in BIOS is located 5 miles south of the project parcel.

Scientific Name Common Name	Status		Habitat Description ³	Potential to Occur and Rationale ⁴
	USFWS ¹	CDFW ²		
Code Designations				
¹ Federal Status: 2020 USFWS Listing			² State Status: 2020 CDFW Listing	
ESU = Evolutionary Significant Unit is a distinctive population. FE = Listed as endangered under the FESA. FT = Listed as threatened under the FESA. FC = Candidate for listing (threatened or endangered) under FESA. FD = Delisted in accordance with the FESA. FPD = Federally Proposed to be Delisted. MBTA = protected by the Migratory Bird Treaty Act — = Not federally listed			SE = Listed as endangered under the CESA. ST = Listed as threatened under the CESA. SSC = Species of Special Concern as identified by the CDFW. FP = Listed as fully protected under FGC. CFG = FGC =protected by FGC 3503.5 CE = Candidate endangered under the CESA. — = Not state listed	
³ Habitat Description: Habitat description adapted from CNDDDB ³ or other specified source*.				
⁴ Potential to Occur and Rationale: Location of recorded species occurrences determined by geospatial information from BIOS 5 ⁴ or other specified source*.				

³ California Department of Fish and Wildlife (CDFW). 2021. CNDDDB RareFind 5 California Natural Diversity Database Query for Special-Status Species. Website: <https://map.dfg.ca.gov/rarefind/view/RareFind.aspx>. Accessed May 12, 2021.

⁴ California Department of Fish and Wildlife (CDFW). 2021. Biogeographic Information and Observation System (BIOS 5). Website: <https://map.dfg.ca.gov/bios/>. Accessed May 12, 2021.

Appendix C:
Plant Species Observed

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Table 1: Plant Species Observed

Scientific Name	Common Name	Family	Native or Non-Native
Grasses			
<i>Avena barbata</i>	Slender wild oat	Poaceae	Non-Native
<i>Bromus diandrus</i>	Ripgut brome	Poaceae	Non-Native
<i>Bromus hordeaceus</i>	Soft chess	Poaceae	Non-Native
<i>Bromus madritensis</i> subsp. <i>madritensis</i>	Foxtail chess	Poaceae	Non-Native
<i>Festuca bromoides</i>	Brome fescue	Poaceae	Non-Native
<i>Festuca perennis</i>	Italian rye-grass	Poaceae	Non-Native
<i>Hordeum murinum</i> subsp. <i>leporinum</i>	Hare barley	Poaceae	Native
<i>Phalaris paradoxa</i>	Hood canarygrass	Poaceae	Non-Native
Forbs			
<i>Acmispon wrangelianus</i>	Chilean trefoil	Fabaceae	Native
<i>Amsinckia intermedia</i>	Common fiddleneck	Boraginaceae	Native
<i>Carduus pycnocephalus</i> subsp. <i>pycnocephalus</i>	Italian thistle	Asteraceae	Non-Native
<i>Carduus tenuiflorus</i>	Slender-flower thistle	Asteraceae	Non-Native
<i>Castilleja exserta</i>	Purple owl's clover	Orobanchaceae	Native
<i>Centaurea solstitialis</i>	Yellow star-thistle	Asteraceae	Non-Native
<i>Chlorogalum pomeridianum</i> var. <i>divaricatum</i>	Soaproot	Agavaceae	Native
<i>Dichelostemma capitatum</i> subsp. <i>capitatum</i>	Blue dicks (wild hyacinth)	Themidaceae	Native
<i>Dipterostemon capitatus</i>	Blue dicks	Themidaceae	Native
<i>Dudleya abramsii</i> ssp. <i>setchellii</i>	Santa Clara Valley dudleya	Crassulaceae	Native
<i>Epilobium brachycarpum</i>	Annual fireweed	Onagraceae	Native
<i>Erodium cicutarium</i>	Common stork's-bill	Geraniaceae	Non-Native
<i>Eschscholzia californica</i>	California poppy	Papaveraceae	Native
<i>Geranium dissectum</i>	Cut-leaved Crane's-bill	Geraniaceae	Non-Native
<i>Hirschfeldia incana</i>	Shortpod mustard	Brassicaceae	Non-Native
<i>Lepidium latifolium</i>	Perennial pepperweed	Brassicaceae	Non-Native
<i>Lupinus succulentus</i>	Arroyo lupine	Fabaceae	Native
<i>Melilotus indicus</i>	Annual yellow sweetclover	Fabaceae	Non-Native

Scientific Name	Common Name	Family	Native or Non-Native
<i>Microseris douglasii</i> subsp. <i>douglasii</i>	Douglas' microseris	Asteraceae	Native
<i>Plantago erecta</i>	California plantain	Plantaginaceae	Native
<i>Rumex pulcher</i>	Fiddle dock	Polygonaceae	Non-Native
<i>Sonchus oleraceus</i>	Sowthistle	Asteraceae	Non-Native
<i>Trifolium gracilentum</i>	Pinpoint clover	Fabaceae	Native
<i>Triteleia laxa</i>	Ithuriel's spear	Themidaceae	Native
<i>Vicia villosa</i> subsp. <i>villosa</i>	Woolly Vetch	Fabaceae	Native
Shrubs			
<i>Artemisia californica</i>	California sagebrush	Asteraceae	Native
<i>Baccharis pilularis</i> subsp. <i>consanguinea</i>	Coyote brush	Asteraceae	Native
<i>Malacothamnus hallii</i>	Hall's bush mallow	Malvaceae	Native
Trees			
<i>Ailanthus altissima</i>	Tree of heaven	Simaroubaceae	Non-Native
<i>Schinus molle</i>	Peruvian pepper tree	Anacardiaceae	Non-Native

Appendix D: Database Searches

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS (Milpitas (3712148) OR Calaveras Reservoir (3712147) OR Mt. Day (3712146) OR San Jose West (3712138) OR San Jose East (3712137) OR Lick Observatory (3712136) OR Los Gatos (3712128) OR Santa Teresa Hills (3712127) OR Morgan Hill (3712126))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Accipiter cooperii</i> Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
<i>Adela oplerella</i> Opler's longhorn moth	IILEE0G040	None	None	G2	S2	
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
<i>Ambystoma californiense</i> California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
<i>Ammodramus savannarum</i> grasshopper sparrow	ABPBXA0020	None	None	G5	S3	SSC
<i>Amsinckia lunaris</i> bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
<i>Aneides niger</i> Santa Cruz black salamander	AAAAD01070	None	None	G3	S3	SSC
<i>Anniella pulchra</i> Northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
<i>Anodonta californiensis</i> California floater	IMBIV04220	None	None	G3Q	S2?	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Ardea alba</i> great egret	ABNGA04040	None	None	G5	S4	
<i>Ardea herodias</i> great blue heron	ABNGA04010	None	None	G5	S4	
<i>Astragalus tener var. tener</i> alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atriplex depressa</i> brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
<i>Atriplex minuscula</i> lesser saltscale	PDCHE042M0	None	None	G2	S2	1B.1
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	PDAST11061	None	None	G2	S2	1B.2



Selected Elements by Scientific Name

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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Boechera rubicundula</i> Mt. Day rockcress	PDBRA40100	None	None	G1	S1	1B.1
<i>Bombus caliginosus</i> obscure bumble bee	IIHYM24380	None	None	G4?	S1S2	
<i>Bombus crotchii</i> Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Calasellus californicus</i> An isopod	ICMAL34010	None	None	G2	S2	
<i>Calyptridium parryi</i> var. <i>hesseae</i> Santa Cruz Mountains pussypaws	PDPOR09052	None	None	G3G4T2	S2	1B.1
<i>Campanula exigua</i> chaparral harebell	PDCAM020A0	None	None	G2	S2	1B.2
<i>Castilleja affinis</i> var. <i>neglecta</i> Tiburon paintbrush	PDSCR0D013	Endangered	Threatened	G4G5T1T2	S1S2	1B.2
<i>Castilleja rubicundula</i> var. <i>rubicundula</i> pink creamsacs	PDSCR0D482	None	None	G5T2	S2	1B.2
<i>Ceanothus ferrisiae</i> Coyote ceanothus	PDRHA041N0	Endangered	None	G1	S1	1B.1
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
<i>Charadrius nivosus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2	SSC
<i>Chlorogalum pomeridianum</i> var. <i>minus</i> dwarf soaproot	PMLIL0G042	None	None	G5T3	S3	1B.2
<i>Chloropyron maritimum</i> ssp. <i>palustre</i> Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
<i>Chorizanthe robusta</i> var. <i>robusta</i> robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
<i>Cirsium fontinale</i> var. <i>campylon</i> Mt. Hamilton thistle	PDAST2E163	None	None	G2T2	S2	1B.2
<i>Clarkia concinna</i> ssp. <i>automixa</i> Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3	4.3
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Collinsia multicolor</i> San Francisco collinsia	PDSCR0H0B0	None	None	G2	S2	1B.2
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC



Selected Elements by Scientific Name

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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Coturnicops noveboracensis</i> yellow rail	ABNME01010	None	None	G4	S1S2	SSC
<i>Cypseloides niger</i> black swift	ABNUA01010	None	None	G4	S2	SSC
<i>Dicamptodon ensatus</i> California giant salamander	AAAAH01020	None	None	G3	S2S3	SSC
<i>Dipodomys heermanni berkeleyensis</i> Berkeley kangaroo rat	AMAFD03061	None	None	G4T1	S1	
<i>Dudleya abramsii ssp. setchellii</i> Santa Clara Valley dudleya	PDCRA040Z0	Endangered	None	G4T2	S2	1B.1
<i>Egretta thula</i> snowy egret	ABNGA06030	None	None	G5	S4	
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
<i>Eryngium aristulatum var. hooveri</i> Hoover's button-celery	PDAP10Z043	None	None	G5T1	S1	1B.1
<i>Euphydryas editha bayensis</i> Bay checkerspot butterfly	IILEPK4055	Threatened	None	G5T1	S1	
<i>Extriplex joaquinana</i> San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2
<i>Falco mexicanus</i> prairie falcon	ABNKD06090	None	None	G5	S4	WL
<i>Falco peregrinus anatum</i> American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
<i>Fritillaria liliacea</i> fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
<i>Geothlypis trichas sinuosa</i> saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
<i>Gonidea angulata</i> western ridged mussel	IMBIV19010	None	None	G3	S1S2	
<i>Hoita strobilina</i> Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
<i>Icteria virens</i> yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
<i>Lanius ludovicianus</i> loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G3G4	S4	
<i>Lasthenia conjugens</i> Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1



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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Lateralus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Lavinia symmetricus subditus</i> Monterey roach	AFCJB19026	None	None	G4T2T3	S2S3	SSC
<i>Lepidurus packardii</i> vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
<i>Leptosyne hamiltonii</i> Mt. Hamilton coreopsis	PDAST2L0C0	None	None	G2	S2	1B.2
<i>Lessingia micradenia var. glabrata</i> smooth lessingia	PDAST5S062	None	None	G2T2	S2	1B.2
<i>Lomatium observatorium</i> Mt. Hamilton lomatium	PDAP11B2J0	None	None	G1	S1	1B.2
<i>Malacothamnus arcuatus</i> arcuate bush-mallow	PDMAL0Q0E0	None	None	G2Q	S2	1B.2
<i>Malacothamnus hallii</i> Hall's bush-mallow	PDMAL0Q0F0	None	None	G2	S2	1B.2
<i>Masticophis lateralis euryxanthus</i> Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
<i>Melospiza melodia pusillula</i> Alameda song sparrow	ABPBXA301S	None	None	G5T2?	S2S3	SSC
<i>Microcina homi</i> Hom's micro-blind harvestman	ILARA47020	None	None	G1	S1	
<i>Microcina jungi</i> Jung's micro-blind harvestman	ILARA47030	None	None	G1	S1	
<i>Monolopia gracilens</i> woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
<i>Myotis evotis</i> long-eared myotis	AMACC01070	None	None	G5	S3	
<i>Myotis yumanensis</i> Yuma myotis	AMACC01020	None	None	G5	S4	
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.2
<i>Neotoma fuscipes annectens</i> San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
<i>Northern Coastal Salt Marsh</i> Northern Coastal Salt Marsh	CTT52110CA	None	None	G3	S3.2	
<i>Nycticorax nycticorax</i> black-crowned night heron	ABNGA11010	None	None	G5	S4	
<i>Oncorhynchus mykiss irideus pop. 8</i> steelhead - central California coast DPS	AFCHA0209G	Threatened	None	G5T2T3Q	S2S3	
<i>Pandion haliaetus</i> osprey	ABNKC01010	None	None	G5	S4	WL



Selected Elements by Scientific Name

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Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Penstemon rattanii</i> var. <i>kleei</i> Santa Cruz Mountains beardtongue	PDSCR1L5B1	None	None	G4T2	S2	1B.2
<i>Phacelia phacelioides</i> Mt. Diablo phacelia	PDHYD0C3Q0	None	None	G2	S2	1B.2
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<i>Plagiobothrys glaber</i> hairless popcornflower	PDBOR0V0B0	None	None	GX	SX	1A
<i>Progne subis</i> purple martin	ABPAU01010	None	None	G5	S3	SSC
<i>Puccinellia simplex</i> California alkali grass	PMPOA53110	None	None	G3	S2	1B.2
<i>Rallus obsoletus obsoletus</i> California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S1	FP
<i>Rana boylei</i> foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
<i>Rana draytonii</i> California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
<i>Reithrodontomys raviventris</i> salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
<i>Sanicula saxatilis</i> rock sanicle	PDAP11Z0H0	None	Rare	G2	S2	1B.2
<i>Senecio aphanactis</i> chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
<i>Serpentine Bunchgrass</i> Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
<i>Sidalcea malachroides</i> maple-leaved checkerbloom	PDMAL110E0	None	None	G3	S3	4.2
<i>Sorex vagrans halicoetes</i> salt-marsh wandering shrew	AMABA01071	None	None	G5T1	S1	SSC
<i>Spirinchus thaleichthys</i> longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
<i>Streptanthus albidus</i> ssp. <i>albidus</i> Metcalf Canyon jewelflower	PDBRA2G011	Endangered	None	G2T1	S1	1B.1
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i> most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
<i>Suaeda californica</i> California seablite	PDCHE0P020	Endangered	None	G1	S1	1B.1
<i>Sycamore Alluvial Woodland</i> Sycamore Alluvial Woodland	CTT62100CA	None	None	G1	S1.1	
<i>Taxidea taxus</i> American badger	AMAJF04010	None	None	G5	S3	SSC



Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Trifolium hydrophilum</i> saline clover	PDFAB400R5	None	None	G2	S2	1B.2
<i>Trimerotropis infantilis</i> Zayante band-winged grasshopper	IIORT36030	Endangered	None	G1	S1	
<i>Tryonia imitator</i> mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 106



*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

58 matches found. [Click on scientific name for details](#)

Search Criteria

Found in Quads 3712148, 3712147, 3712146, 3712138, 3712137, 3712136, 3712128 3712127 and 3712126;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Federal Listing Status	State Listing Status	CA Rare Plant Rank	Habitats	Lowest Elevation	Highest Elevation	Blooming Period
Acanthomintha lanceolata	Santa Clara thorn-mint	Lamiaceae	annual herb			4.2	<ul style="list-style-type: none"> • Chaparral (often serpentine) • Cismontane woodland • Coastal scrub • Coastal bluff scrub 	80 m	1200 m	Mar-Jun
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb			1B.2	<ul style="list-style-type: none"> • Cismontane woodland • Valley and foothill grassland • Chaparral • Cismontane woodland • Coastal scrub 	3 m	500 m	Mar-Jun
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb			4.2	<ul style="list-style-type: none"> • Meadows and seeps • Pinyon and juniper woodland • Valley and foothill grassland • Playas • Valley and foothill grassland (adobe clay) • Vernal pools 	150 m	1305 m	Mar-Jun
Astragalus tener var. tener	alkali milk-vetch	Fabaceae	annual herb			1B.2	<ul style="list-style-type: none"> • Cismontane woodland (adobe clay) • Vernal pools 	1 m	60 m	Mar-Jun
Atriplex depressa	brittlescale	Chenopodiaceae	annual herb			1B.2	<ul style="list-style-type: none"> • Chenopod scrub 	1 m	320 m	Apr-Oct

									<ul style="list-style-type: none"> • Meadows and seeps • Playas • Valley and foothill grassland • Vernal pools • Chenopod scrub • Playas • Valley and foothill grassland • Chaparral
<u>Atriplex minuscula</u>	lesser saltscale	Chenopodiaceae	annual herb			1B.1	15 m	200 m	May-Oct
<u>Balsamorhiza macrolepis</u>	big-scale balsamroot	Asteraceae	perennial herb			1B.2	45 m	1555 m	Mar-Jun
<u>Boechera rubicundula</u>	Mt. Day rockcress	Brassicaceae	perennial herb			1B.1	1200 m	1200 m	Apr-May
<u>Calochortus umbellatus</u>	Oakland star-tulip	Liliaceae	perennial bulbiferous herb			4.2	100 m	700 m	Mar-May
<u>Calyptridium parryi var. hesseae</u>	Santa Cruz Mountains pussypaws	Montiaceae	annual herb			1B.1	305 m	1530 m	May-Aug
<u>Calystegia collina ssp. venusta</u>	South Coast Range morning-glory	Convolvulaceae	perennial rhizomatous herb			4.3	425 m	1490 m	Apr-Jun
<u>Campanula exigua</u>	chaparral harebell	Campanulaceae	annual herb			1B.2	275 m	1250 m	May-Jun
<u>Castilleja affinis var. neglecta</u>	Tiburon paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	FE	CT	1B.2	60 m	400 m	Apr-Jun
<u>Castilleja rubicundula var. rubicundula</u>	pink creamsacs	Orobanchaceae	annual herb (hemiparasitic)			1B.2	20 m	910 m	Apr-Jun

<u>Ceanothus ferrisiae</u>	Coyote ceanothus	Rhamnaceae	perennial evergreen shrub	FE	1B.1	• Chaparral • Coastal scrub • Valley and foothill grassland	120 m	460 m	Jan-May
<u>Centromadia parryi ssp. congdonii</u>	Congdon's tarplant	Asteraceae	annual herb		1B.1	• Valley and foothill grassland (alkaline)	0 m	230 m	May-Oct(Nov)
<u>Chlorogalum pomeridianum var. minus</u>	dwarf soaproot	Agavaceae	perennial bulbiferous herb		1B.2	• Chaparral (serpentinite)	305 m	1000 m	May-Aug
<u>Chloropyron maritimum ssp. palustre</u>	Point Reyes bird's-beak	Orobanchaceae	annual herb (hemiparasitic)		1B.2	• Marshes and swamps (coastal salt)	0 m	10 m	Jun-Oct
<u>Chorizanthe douglasii</u>	Douglas' spineflower	Polygonaceae	annual herb		4.3	• Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Valley and foothill grassland	55 m	1600 m	Apr-Jul
<u>Chorizanthe robusta var. robusta</u>	robust spineflower	Polygonaceae	annual herb	FE	1B.1	• Chaparral (maritime) • Cismontane woodland (openings) • Coastal dunes • Coastal scrub	3 m	300 m	Apr-Sep
<u>Cirsium fontinale var. campylon</u>	Mt. Hamilton fountain thistle	Asteraceae	perennial herb		1B.2	• Chaparral • Cismontane woodland • Valley and foothill grassland	100 m	890 m	(Feb)Apr-Oct
<u>Clarkia breweri</u>	Brewer's clarkia	Onagraceae	annual herb		4.2	• Chaparral • Cismontane woodland • Coastal scrub	215 m	1115 m	Apr-Jun
<u>Clarkia concinna ssp. automixa</u>	Santa Clara red ribbons	Onagraceae	annual herb		4.3	• Chaparral • Cismontane woodland	90 m	1500 m	(Apr)May-Jun(Jul)
<u>Clarkia lewisii</u>	Lewis' clarkia	Onagraceae	annual herb		4.3	• Broadleaved upland forest • Closed-cone coniferous forest • Chaparral • Cismontane	30 m	1195 m	May-Jul

						woodland • Coastal scrub			
Collinsia multicolor	San Francisco collinsia	Plantaginaceae	annual herb		1B.2	• Closed-cone coniferous forest • Coastal scrub	30 m	250 m	(Feb)Mar-May
Dudleya abramsii ssp. setchellii	Santa Clara Valley dudleya	Crassulaceae	perennial herb	FE	1B.1	• Cismontane woodland • Valley and foothill grassland	60 m	455 m	Apr-Oct
Eriophyllum jepsonii	Jepson's woolly sunflower	Asteraceae	perennial herb		4.3	• Chaparral • Cismontane woodland • Coastal scrub	200 m	1025 m	Apr-Jun
Eryngium aristulatum var. hooveri	Hoover's button-celery	Apiaceae	annual / perennial herb		1B.1	• Vernal pools	3 m	45 m	(Jun)Jul(Aug)
Extriplex joaquinana	San Joaquin spearscale	Chenopodiaceae	annual herb		1B.2	• Chenopod scrub • Meadows and seeps • Playas • Valley and foothill grassland	1 m	835 m	Apr-Oct
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb		1B.2	• Cismontane woodland • Coastal prairie • Coastal scrub • Valley and foothill grassland	3 m	410 m	Feb-Apr
Galium andrewsii ssp. gatense	phlox-leaf serpentine bedstraw	Rubiaceae	perennial herb		4.2	• Chaparral • Cismontane woodland • Lower montane coniferous forest	150 m	1450 m	Apr-Jul
Hoita strobilina	Loma Prieta hoita	Fabaceae	perennial herb		1B.1	• Chaparral • Cismontane woodland • Riparian woodland	30 m	860 m	May-Jul(Aug-Oct)
Iris longipetala	coast iris	Iridaceae	perennial rhizomatous herb		4.2	• Coastal prairie • Lower montane coniferous forest • Meadows and seeps	0 m	600 m	Mar-May
Lasthenia conjugens	Contra Costa goldfields	Asteraceae	annual herb	FE	1B.1	• Cismontane	0 m	470 m	Mar-Jun

						woodland			
						• Playas (alkaline)			
						• Valley and foothill grassland			
						• Vernal pools			
						• Chaparral			
						•			
						Cismontane woodland			
Leptosiphon acicularis	bristly leptosiphon	Polemoniaceae	annual herb	4.2		• Coastal prairie	55 m	1500 m	Apr-Jul
						• Valley and foothill grassland			
						•			
						Cismontane woodland			
Leptosiphon ambiguus	serpentine leptosiphon	Polemoniaceae	annual herb	4.2		• Coastal scrub	120 m	1130 m	Mar-Jun
						• Valley and foothill grassland			
						• Coastal bluff scrub			
						• Closed-cone coniferous forest			
						•			
						Cismontane woodland			
Leptosiphon grandiflorus	large-flowered leptosiphon	Polemoniaceae	annual herb	4.2		• Coastal dunes	5 m	1220 m	Apr-Aug
						• Coastal prairie			
						• Coastal scrub			
						• Valley and foothill grassland			
						•			
						Cismontane woodland (rocky)			
Leptosyne hamiltonii	Mt. Hamilton coreopsis	Asteraceae	annual herb	1B.2		•	550 m	1300 m	Mar-May
						Broadleafed upland forest			
						• Coastal scrub			
						• Lower montane coniferous forest			
Lessingia hololeuca	woolly-headed lessingia	Asteraceae	annual herb	3		• Valley and foothill grassland	15 m	305 m	Jun-Oct
						• Chaparral			
						•			
						Cismontane woodland			
Lessingia micradenia var. glabrata	smooth lessingia	Asteraceae	annual herb	1B.2		• Valley and foothill grassland	120 m	420 m	(Apr-Jun)Jul-Nov
						•			
						Cismontane			
Lomatium observatorium	Mt. Hamilton lomatium	Apiaceae	perennial herb	1B.2		•	1219 m	1330 m	Mar-May

					woodland				
<u>Malacothamnus arcuatus</u>	arcuate bush-mallow	Malvaceae	perennial evergreen shrub	1B.2	• Chaparral • Cismontane woodland	15 m	355 m	Apr-Sep	
<u>Malacothamnus hallii</u>	Hall's bush-mallow	Malvaceae	perennial evergreen shrub	1B.2	• Chaparral • Coastal scrub	10 m	760 m	(Apr)May-Sep(Oct)	
<u>Micropus amphibolus</u>	Mt. Diablo cottonweed	Asteraceae	annual herb	3.2	• Broadleafed upland forest • Chaparral • Cismontane woodland • Valley and foothill grassland	45 m	825 m	Mar-May	
<u>Mielichhoferia elongata</u>	elongate copper moss	Mielichhoferiaceae	moss	4.3	• Broadleafed upland forest • Chaparral • Cismontane woodland • Coastal scrub • Lower montane coniferous forest • Meadows and seeps • Subalpine coniferous forest	0 m	1960 m		
<u>Monolopia gracilens</u>	woodland woolythreads	Asteraceae	annual herb	1B.2	• Broadleafed upland forest (openings) • Chaparral (openings) • Cismontane woodland • North Coast coniferous forest (openings) • Valley and foothill grassland	100 m	1200 m	(Feb)Mar-Jul	
<u>Navarretia prostrata</u>	prostrate vernal pool navarretia	Polemoniaceae	annual herb	1B.1	• Coastal scrub • Meadows and seeps • Valley and foothill grassland (alkaline) • Vernal pools	3 m	1210 m	Apr-Jul	
<u>Phacelia phacelioides</u>	Mt. Diablo phacelia	Hydrophyllaceae	annual herb	1B.2	• Chaparral • Cismontane woodland	500 m	1370 m	Apr-May	
	Hickman's	Boraginaceae	annual herb	4.2	• Closed-	15 m	185 m	Apr-Jun	

<u>Plagiobothrys chorisianus var. hickmanii</u>	popcornflower								cone coniferous forest • Chaparral • Coastal scrub • Marshes and swamps • Vernal pools			
<u>Plagiobothrys glaber</u>	hairless popcornflower	Boraginaceae	annual herb		1A			15 m	180 m	Mar-May		
<u>Puccinellia simplex</u>	California alkali grass	Poaceae	annual herb		1B.2			2 m	930 m	Mar-May		
<u>Sanicula saxatilis</u>	rock sanicle	Apiaceae	perennial herb	CR	1B.2			620 m	1175 m	Apr-May		
<u>Senecio aphanactis</u>	chaparral ragwort	Asteraceae	annual herb		2B.2			15 m	800 m	Jan-Apr(May)		
<u>Sidalcea malachroides</u>	maple-leaved checkerbloom	Malvaceae	perennial herb		4.2			0 m	730 m	(Mar)Apr-Aug		
<u>Streptanthus albidus ssp. albidus</u>	Metcalf Canyon jewelflower	Brassicaceae	annual herb	FE	1B.1			45 m	800 m	Apr-Jul		
<u>Streptanthus albidus ssp. peramoenus</u>	most beautiful jewelflower	Brassicaceae	annual herb		1B.2			95 m	1000 m	(Mar)Apr-Sep(Oct)		
<u>Suaeda californica</u>	California seablite	Chenopodiaceae	perennial evergreen shrub	FE	1B.1			0 m	15 m	Jul-Oct		
<u>Trifolium hydrophilum</u>	saline clover	Fabaceae	annual herb		1B.2			0 m	300 m	Apr-Jun		

- Valley and foothill grassland (mesic, alkaline)
- Vernal pools

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Contributors

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- [The California Lichen Society](#)
- [California Natural Diversity Database](#)
- [The Jepson Flora Project](#)
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Questions and Comments

- rareplants@cnps.org

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City of Gilroy | City of Morgan Hill | City of San José | County of Santa Clara | Santa Clara Valley Water District | Santa Clara Valley Transportation Authority

General Information

APN	67893030	
Address	455 PIERCY RD SAN JOSE CA 95138	
Recorded Area	8.97 acres	
City	<ul style="list-style-type: none"> SAN JOSE (13.4 acres) 	
Urban Service Area	<ul style="list-style-type: none"> San Jose (13.4 acres) 	
Planning Limits of Urban Growth	<ul style="list-style-type: none"> San Jose (13.4 acres) 	

Habitat Plan Information

Habitat Plan Permit Area	YES
Private Development Areas	<ul style="list-style-type: none"> Area 1: Private Development Covered (13.4 acres)
Land Cover	<ul style="list-style-type: none"> Serpentine Bunchgrass Grassland (13.4 acres) California Annual Grassland (0 acres) Urban - Suburban (0 acres)
Land Cover Fee Zones	<ul style="list-style-type: none"> Fee Zone A (Ranchlands and Natural Lands) (13.4 acres) Urban Areas (No Land Cover Fee) (0 acres)
Potential Wetland Fee Zones	N/A
Potential Serpentine Fee Zones	<ul style="list-style-type: none"> Serpentine Fee Zone (10.4 acres)
Burrowing Owl Survey and Fee Zone	N/A
Wildlife Survey Areas	<ul style="list-style-type: none"> Bay Checkerspot Butterfly (6.5 acres)
Plant Survey Areas	<ul style="list-style-type: none"> Plant Survey Zone (13.4 acres) (Conditions 19 and 20 may apply)
Category 1 Streams and Setbacks	N/A
Category 1 Streams and Setbacks (stream length)	N/A
Valley Oak and Blue Oak Woodland	N/A
Urban Reserve System Interface Zones	<ul style="list-style-type: none"> Urban-Reserve System Interface Design Requirements may apply in this area. (13.4 acres) (Condition 2 applies)

The data provided in the Geobrowser are intended to be used as an initial planning tool for project applicants. All fees and survey requirements will be implemented based on field-verified information that is specific to each project.

All information provided in official Santa Clara Valley Habitat Agency (SCVHA) websites is provided for informational purposes only and does not constitute a legal contract between the SCVHA and any person or entity. Information on the websites is subject to change without prior notice. Although every reasonable effort is made to present current and accurate information, the SCVHA makes no guarantees of any kind. The SCVHA, its employees, officers, content providers, affiliates or other representatives are not liable for damages of any kind (including, without limitation, lost profits, direct, indirect, compensatory, consequential, exemplary, special, incidental, or punitive damages) arising out of your use of, your inability to use, or the performance of this website or the content whether or not we have been advised of the possibility of such damages.

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Santa Clara County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

STATUS

San Joaquin Kit Fox *Vulpes macrotis mutica*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/2873>

Birds

NAME

STATUS

California Least Tern *Sterna antillarum browni*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8104>

Amphibians

NAME

STATUS

California Red-legged Frog *Rana draytonii*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.<https://ecos.fws.gov/ecp/species/2891>California Tiger Salamander *Ambystoma californiense*

Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.<https://ecos.fws.gov/ecp/species/2076>

Fishes

NAME

STATUS

Delta Smelt *Hypomesus transpacificus*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.<https://ecos.fws.gov/ecp/species/321>

Insects

NAME

STATUS

Bay Checkerspot Butterfly *Euphydryas editha bayensis*

Threatened

Wherever found

There is **final** critical habitat for this species. Your location overlaps the critical habitat.<https://ecos.fws.gov/ecp/species/2320>

Flowering Plants

NAME	STATUS
Contra Costa Goldfields <i>Lasthenia conjugens</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/7058	Endangered
Metcalf Canyon Jewelflower <i>Streptanthus albidus</i> ssp. <i>albidus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4186	Endangered
Robust Spineflower <i>Chorizanthe robusta</i> var. <i>robusta</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/9287	Endangered
Santa Clara Valley Dudleya <i>Dudleya setchellii</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/3207	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

NAME	TYPE
Bay Checkerspot Butterfly <i>Euphydryas editha bayensis</i> https://ecos.fws.gov/ecp/species/2320#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Allen's Hummingbird *Selasphorus sasin*

Breeds Feb 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9637>

Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Jan 1 to Aug 31
Clark's Grebe <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Dec 31
Common Yellowthroat <i>Geothlypis trichas sinuosa</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Golden Eagle <i>Aquila chrysaetos</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Nuttall's Woodpecker <i>Picoides nuttallii</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9410	Breeds Apr 1 to Jul 20
Oak Titmouse <i>Baeolophus inornatus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9656	Breeds Mar 15 to Jul 15
Rufous Hummingbird <i>Selasphorus rufus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8002	Breeds elsewhere
Song Sparrow <i>Melospiza melodia</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Feb 20 to Sep 5
Spotted Towhee <i>Pipilo maculatus clementae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/4243	Breeds Apr 15 to Jul 20

Wrentit *Chamaea fasciata*

Breeds Mar 15 to Aug 10

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

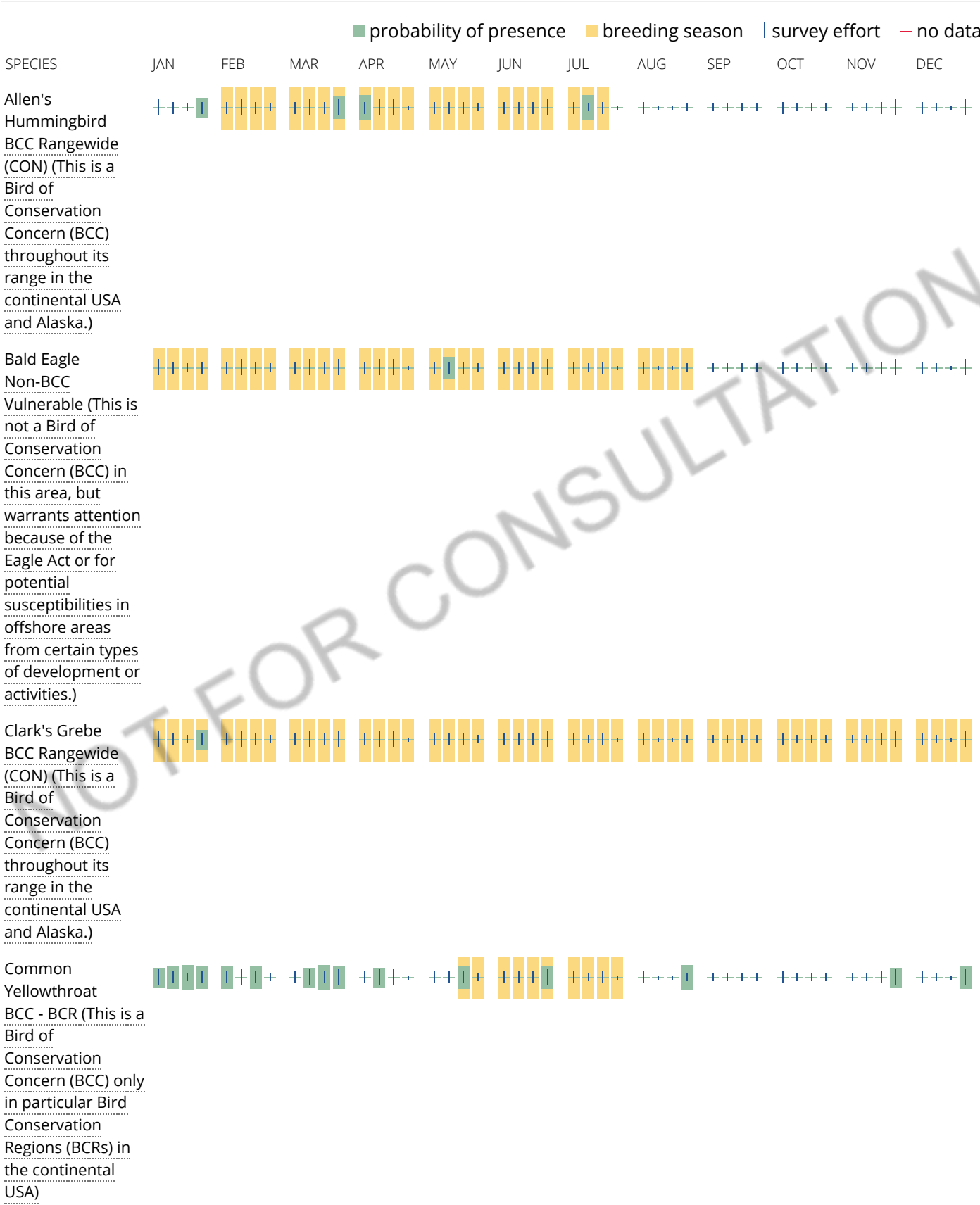
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.





The diagram illustrates the distributive property using base ten blocks. It starts with 3 groups of (2 tens rods + 5 ones rods) plus 2 groups of (2 tens rods + 5 ones rods). This is then rearranged into 10 tens rods and 25 ones rods. The 25 ones rods are further broken down into 2 tens rods and 5 ones rods, resulting in 12 tens rods and 5 ones rods, which represents the number 125.

[illegible]

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the [Probability of Presence Summary](#) and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting

point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.