Biological Report

for

RV Storage at Heritage Ranch

APN 012-191-073
San Luis Obispo County

Prepared for

Snug Harbor, LLC
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by

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As a County-approved biologist, I hereby certify that this Biological Report was prepared according to the Guidelines established by the County of San Luis Obispo Department of Planning and Building and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge and belief.

August 30, 2019

Signature
LynneDee Althouse
Principal – Project supervisor

Date

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Cover Page: Study Area, view northeast, July 11, 2019.

SYNOPSIS

- This biological report describes the biological resources in a 14.7-acre Study Area which encompasses a 10.2-acre Project within located northwest of Paso Robles in Luis Obispo County, California). The Study Area includes a portion of Assessor's Parcel Number (APN) 012-191-073 and land adjacent to the proposed cul-de-sac at the terminus of Heritage Road.
- The Snug Harbor RV Storage Project (Project) entails construction of an RV parking and storage area near Nacimiento Lake.
- Habitat types identified and mapped within the Study Area are blue oak woodland, needle grass – melic grass grassland, annual brome grassland, and upland mustards and other ruderal forbs. Two ephemeral drainages (grassy swales) were also mapped, and a formal wetland delineation has not been conducted.
- Botanical surveys identified 50 species, subspecies, and varieties of vascular plants in the Study Area. There are seven special status plants with low potential to occur in the Study Area. No special status plant species were observed in the Study Area, however appropriately timed botanical surveys are required to determine the absence or presence of potential special status plant species.
- Wildlife surveys performed in the Study Area detected 17 animal species: 1 reptile, 12 birds, and 4 mammals. A total of 11 special status wildlife species have potential to occur in the Study Area. One special status wildlife species (white-tailed kite) was observed in the Study Area.
- Biological resources that could be impacted by the Project include oak woodland, native perennial grassland, ephemeral drainages, special status plants, nesting birds, and other special status wildlife. Recommendations and mitigation measures are provided to reduce potential impacts to sensitive biological resources.

1 INTRODUCTION

1.1 Purpose

The purpose of this report is to provide results from the study of biological resources on an approximately 14.7-acre site (Study Area) in San Luis Obispo County, California. This report also provides analysis of the potential impacts to those resources from the proposed Project. Results include a habitat assessment, tree assessment, botanical and wildlife inventory, special status species database search, and literature review. Discussion of special status species that have the potential to occur within the Study Area, or be affected by the proposed Project, is also included. The effects of the proposed Project on biological resources are evaluated, and mitigation recommendations are outlined.

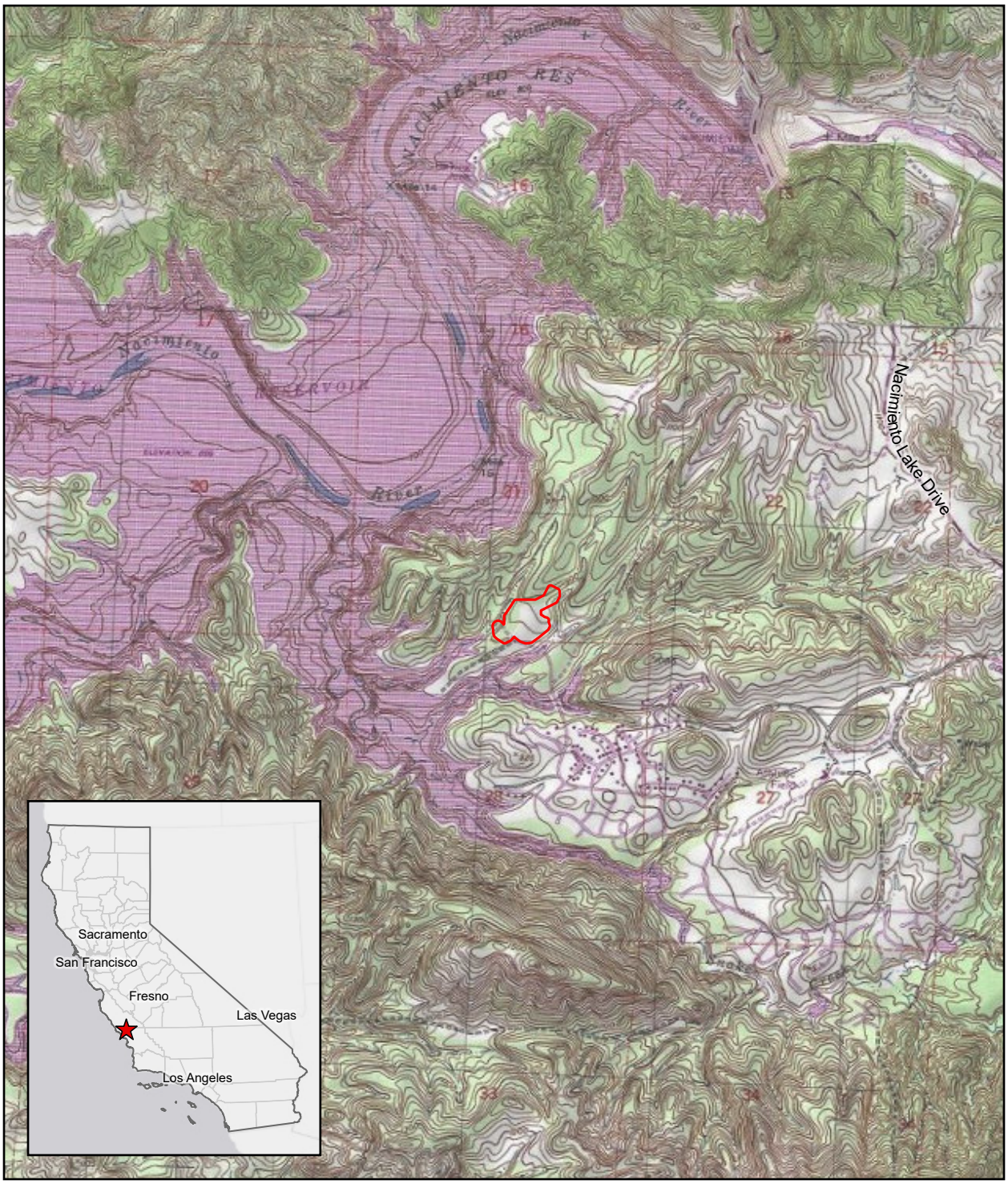
1.2 Location

The Study Area is located within the Village of Heritage Ranch at the end of Heritage Road, approximately 3.6-miles from Nacimiento Lake Drive (Figure 1). Approximate coordinates for the center of the Study Area are 35.734953° N, 120.987630° W (WGS84) in the United States Geological Survey (USGS) 7.5-minute topographic quadrangle Lime Mountain (Figure 1). Elevation ranges from approximately 830 to 900 feet above mean sea level. The Study Area is within an unincorporated portion of San Luis Obispo County northwest of the City of El Paso de Robles.

1.3 Project Description

The proposed Project includes the construction of a 6.6-acre RV/boat storage site and a 3.6-acre future expansion site. The Study Area encompasses these two sites and a surrounding 50-foot buffer. The storage site would include 103 enclosed units, 65 covered spaces, open vehicle storage, wash station, caretaker unit, and maintenance building, as well as paved roadways, driveways, and parking areas (Appendix A). Separate entrance and exit driveways would connect to Heritage Road, which would be extended approximately 200 feet. A cul-de-sac would be built at the end of the road for vehicle turnaround. Drought-tolerant trees would be planted for landscaping. The Project would service the marina southwest of the Study Area (Figure 2). The 3.6 acres south of the storage site is not currently planned to be developed but is included in this Biological Report for possible future expansion.

Figure 1. United States Geological Survey Topographic Map



Legend

Study Area

N

0 1,000 2,000 4,000 Feet

RV Storage at Heritage Ranch
Map Center: 120.89904°W 35.73646°N
San Luis Obispo County, California

USGS Quadrangle: Lime Mountain

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Map Updated:
August 06, 2019 09:50 AM by JBB

1.4 Regulatory Framework

Standards for environmental protection and restoration, in the form of laws and regulations, are created within three different organizational levels of the government: Federal, State, and Local. Entities exist within each level to create and enforce regulations that help ensure protection of specific and pertinent regional issues threatening ecosystems and environments. The following regulations are applicable to the proposed Project.

1.4.1 Federal Law and Regulations

Bald and Golden Eagle Protection Act. The Bald and Golden Eagle Protection Act (BGEPA) prohibits anyone, without a permit issued by the Secretary of the Interior, from taking (pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb) bald or golden eagles, including their parts, nests, or eggs. This includes substantially interfering with normal breeding, feeding, or sheltering behavior. Activities that may result in the take of a bald or golden eagle require permits; the three activities eligible for permits include to remove or relocate an eagle nest; to transport, exhibit, collect, or control eagles or eagle parts, and for incidental take of eagles.

Clean Water Act. The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting is required for filling waters of the U.S. (including wetlands). Permits may be issued on an individual basis or may be covered under approved nationwide permits.

Endangered Species Act. The federal Endangered Species Act (FESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. "Critical Habitat" is a term within the FESA designed to guide actions by federal agencies and is defined as "an area occupied by a species listed as threatened or endangered within which are found physical or geographical features essential to the conservation of the species, or an area not currently occupied by the species which is itself essential to the conservation of the species." Actions that jeopardize endangered or threatened species and/or critical habitat are considered a 'take' under the FESA. "Take" under federal definition means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

Projects that would result in "take" of any federally listed threatened or endangered species, or critical habitats, are required to obtain permits from the USFWS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of FESA, depending on the involvement by the federal government in permitting and/or funding of the project. Through Section 10, it is required to prepare a Habitat Conservation Plan (HCP) to be approved by the United States Fish and Wildlife Service (USFWS), which results in the issuance of an Incidental Take Permit (ITP). Through Section 7, which can only occur when a separate federal nexus in a project exists (prompting interagency consultation), a consultation by the various federal agencies involved can take place to determine appropriate actions to mitigate negative effects on endangered and threatened species and their habitat.

Migratory Bird Treaty Act. All migratory bird species that are native to the U.S. or its territories are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13), as amended under the Migratory Bird Treaty Reform Act of 2004. The MBTA makes it illegal to purposefully take (pursue, hunt, shoot, wound, kill, trap, capture, or collect) any migratory bird, or the parts, nests, or eggs of such a bird, except under the terms of a valid Federal permit.

1.4.2 State Law and Regulations

California Endangered Species Act. The California Endangered Species Act (CESA), similar to FESA, contains a process for listing of species and regulating potential impacts to listed species. State threatened and endangered species include both plants and wildlife, but do not include invertebrates. The designation "rare species" applies only to California native plants. State threatened and endangered plant species are regulated largely under the Native Plant Preservation Act in conjunction with the CESA. State threatened and endangered animal species are legally protected against "take." The CESA authorizes the California Department of Fish and Wildlife (CDFW) to enter into a memorandum of agreement for take of listed species to issue an incidental take permit for a state-listed threatened and endangered species only if specific criteria are met. Section 2080 of the CESA prohibits the take of species listed as threatened or endangered pursuant to the Act. Section 2081 allows CDFW to authorize take prohibited under Section 2080 provided that: 1) the taking is incidental to an otherwise lawful activity; 2) the taking will be minimized and fully mitigated; 3) the applicant ensures adequate funding for minimization and mitigation; and 4) the authorization will not jeopardize the continued existence of the listed species.

California Environmental Quality Act (CEQA). CEQA defines a "project" as any action undertaken from public or private entity that requires discretionary governmental review (a non-ministerial permittable action). All "projects" are required to undergo some level of environmental review pursuant to CEQA, unless an exemption applies. CEQA's environmental review process includes an assessment of existing resources, broken up by categories (i.e., air quality, aesthetics, etc.), a catalog of potential impacts to those resources caused by the proposed project, and a quantifiable result determining the level of significance an impact would generate. The goal of environmental review under CEQA is to avoid or mitigate impacts that would lead to a "significant effect" on a given resource; section 15382 of the CEQA Guidelines defines a "significant effect" as

> *a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant.*

Public agencies are required to implement CEQA and execute jurisdiction to determine when applicable activities are or are not subject to CEQA. A public agency with the most prominent nexus and jurisdiction to a project is called the lead agency. The lead agencies determine the scope of what is considered an impact and what constitutes a "significant effect". "Biological resources" is one of the varying categories considered during environmental review through CEQA. A lead agency can require a biological assessment to be prepared to report on existing biological resources and recommended mitigation measures that will reduce or lessen potential negative impacts to those biological resources. The questions listed in CEQA's Appendix G:

Biological Resources section, which are used to guide assessment of impacts to biological resources are as follows:

- *Does the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*
- *Does the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*
- *Does the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*
- *Does the project 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?*
- *Does the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
- *Does the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The lead agency has the final determination over whether a project is or is not permissible, based upon the environmental review, completed requirements and environmental documentation, and their judgement that the project will not have a significant effect on the environment, or that all significant effects have been mitigated for.

California Oak Woodland Conservation Act. This act established the Oak Woodland Conservation Program, administered by the Wildlife Conservation Board, to help local jurisdictions protect and enhance their oak woodland resources. It offers landowners, conservation groups, and cities/counties an opportunity to obtain funding for projects designed to conserve and restore California's oak woodlands.

California Fish and Game Code (CFGC). The California Fish and Game Code (CFGC) is one of the 29 legal codes that form the general statutory law of California. A myriad of statutes regarding fish and game are specified in the CFGC; the following codes have relevance to the proposed Project:

California Native Plant Protection Act. Sections 1900-1913 of the California Fish and Game Code contain the regulations of the Native Plant Protection Act of 1977. The intent of this act is to help conserve and protect rare and endangered plants in the state. The act allowed the CFGC to designate plants as rare or endangered

Lake and Streambed Alteration. Section 1602 of the CFGC requires any person, state, or local governmental agency to provide advance written notification to CDFW prior to initiating any activity that would: 1) divert or obstruct the natural flow of, or substantially change or remove material from the bed, channel, or bank of any river, stream, or lake; or 2) result in the disposal or deposition of debris, waste, or other material into any river, stream, or lake. The state definition of "lakes, rivers, and streams" includes all rivers or streams that flow at least periodically or permanently through a well-defined bed or channel with banks that support fish or other aquatic

life, and watercourses with surface or subsurface flows that support or have supported riparian vegetation.

Nesting Birds. Section 3503 of CFGC states that it is "unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto," and "unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird" unless authorized.

Natural Community Conservation Planning (NCCP) Act of 1991. The NCCP Act is designed to conserve natural communities at the ecosystem scale while accommodating compatible land use. CDFW is the primary state agency that implements the NCCP. The NCCP plan provides for the comprehensive management and conservation of multiple wildlife species. It identifies and provides for regional protection of natural wildlife diversity while allowing for compatible and appropriate development and growth.

Regional Water Quality Control Board. The Regional Water Quality Control Board (RWQCB) not only regulates impacts to water quality in federal waters of the U.S. under Section 401 of the Clean Water Act, but they also regulate any isolated waters, state wetlands, and riparian habitats not regulated under Section 404 of the Clean Water Act. The Water Board may regulate these features under the state Porter Cologne Act or under a Waste Discharge Requirement.

1.4.3 San Luis Obispo County Policies and Regulations

Oak Woodland Ordinance 22.58. Establishes criteria to limit the clear-cutting of oak woodland. The intent of this ordinance is to maintain the character of the existing landscape and promote oak woodland management independent of regulation. This ordinance does not apply to land uses that otherwise require a ministerial (non-discretionary) land use permit. Discretionary land use permits and land division applications are subject to the California Environmental Quality Act (CEQA), where potential impacts associated with tree removal may be evaluated and mitigated.

1.5 Special Status Species and Sensitive Habitat Regulations

For the purposes of this Biological Report, special status species are those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the FESA; those listed or proposed for listing as rare, threatened, or endangered by the CDFW under the CESA; animals designated as "Species of Special Concern," "Fully Protected," or "Watch List" by the CDFW; plants with a California Rare Plant Rank (CRPR) of 1, 2, 3, or 4, and plants tracked by the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California. In the following sections, further details are provided to highlight the different guidelines and qualifications that are used to help identify special status species in this report. In Sections 3.7 and 3.8, the various qualifications are listed in the potential special status species tables (3 & 4) for each species with potential to occur in the project area.

1.5.1 California Natural Diversity Database (CNDDB)

"Special Plants" and "Special Animals" are broad terms used to refer to all the plant and animal taxa inventoried by the CNDDB, regardless of their legal or protection status (CDFW 2019). The Special Plants list includes vascular plants, high priority bryophytes (mosses, liverworts, and

hornworts), and lichens. The Special Animals list is also referred to by the California Department of Fish and Wildlife (CDFW) as the list of "species at risk" or "special status species."

According to the CNDDB (CDFW 2019; CNDDB 2019a; CNDDB 2019b), Special Plants and Animals lists include: taxa that are officially listed or proposed for listing by California or the Federal Government as Endangered, Threatened, or Rare; taxa which meet the criteria for listing, as described in Section 15380 of CEQA Guidelines; taxa deemed biologically rare, restricted in range, declining in abundance, or otherwise vulnerable; population(s) in California that may be marginal to the taxon's entire range but are threatened with extirpation in California; and/or taxa closely associated with a habitat that is declining in California at a significant rate. Separately, the Special Plants List includes taxa listed in the California Native Plant Society's Inventory of Rare and Endangered Plants of California, as well as taxa determined to be Sensitive Species by the Bureau of Land Management, U.S. Fish and Wildlife Service, or U.S. Forest Service. The Special Animals List distinctively includes taxa considered by the CDFW to be a Species of Special Concern (SSC) and taxa designated as a special status, sensitive, or declining species by other state or federal agencies.

1.5.2 Federal and State Endangered Species Listings

The Federal and California Endangered Species Acts are the regulatory documents that govern the listing and protection of species, and their habitats, identified as being endangered or threatened with extinction (see Section 1.4). Possible listing status under both Federal and California ESA includes Endangered and Threatened (FE, FT, CE, or CT). Species in the process of being listed are given the status of either Proposed Federally Endangered/Threatened, Candidate for California Endangered/Threatened (PE, PT, CCE, or CCT). The CESA has one additional status: Rare (CR).

1.5.3 Global and State Ranks

Global and State Ranks reflect an assessment of the condition of the species (or habitats, see 1.5.6 below) across its entire range. Basic ranks assign a numerical value from 1 to 5, respectively for species with highest risk to most secure. Other ranking variations include rank ranges, rank qualifiers, and infraspecific taxon ranks. Rank definitions, where G represents Global and S represents State, are as follows:

- **G1/S1:** Critically imperiled globally/in state because of extreme rarity (5 or fewer populations).
- **G2/S2:** Imperiled globally/in state because of rarity (6 to 20 populations).
- **G3/S3:** Vulnerable; rare and local throughout range or in a special habitat or narrowly endemic (on the order of 21 to 100 populations).
- **G4/S4:** Apparently secure globally/in state; uncommon but not rare (of no immediate conservation concern).
- **G5/S5:** Secure; common, widespread, and abundant.
- **G#G#/S#S#:** Rank range - numerical range indicating uncertainty in the status of a species, (e.g., G2G3 more certain than G3, but less certain that G2).
- **G/S#?:** Inexact numeric rank

- **Q:** Questionable taxonomy - Taxonomic distinctiveness of this entity is questionable.
- **T#:** Infraspecific taxa (subspecies or varieties) – indicating an infraspecific taxon that has a lower numerical ranking (rarer) than the given global rank of species.

1.5.4 California Rare Plant Ranks

Plant species are considered rare when their distribution is confined to localized areas, their habitat is threatened, they are declining in abundance, or they are threatened in a portion of their range. The California Rare Plant Rank (CRPR) categories range from species with a low threat (4) to species that are presumed extinct (1A). All but a few species are endemic to California. All of them are judged to be vulnerable under present circumstances or to have a high potential for becoming vulnerable. Threat ranks are assigned as decimal values to a CRPR to further define the level of threat to a given species. The rare plant ranks and threat levels are defined below.

- **1A:** Plants presumed extirpated in California and either rare or extinct elsewhere.
- **1B:** Plants rare, threatened, or endangered in California and elsewhere.
- **2A:** Plants presumed extirpated in California, but common elsewhere
- **2B:** Plants rare, threatened, or endangered in California, but more common elsewhere
- **4:** Plants of limited distribution - a watch list
- **0.1:** Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- **0.2:** Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
- **0.3:** Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

1.5.5 California Department of Fish and Wildlife Animal Rank

The California Department of Fish and Wildlife (CDFW) assigns one of three ranks to Special Animals: Watch List (WL), Species of Special Concern (SSC), or Fully Protected (FP). Unranked species are referred to by the term Special Animal (SA).

Animals listed as Watch List (WL) are taxa that were previously designated as SSC, but no longer merit that status, or taxa that which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Animals listed as California Species of Special Concern (SSC) may or may not be listed under California or federal Endangered Species Acts. They are considered rare or declining in abundance in California. The Special Concern designation is intended to provide the CDWF biologists, land planners, and managers with lists of species that require special consideration during the planning process to avert continued population declines and potential costly listing under federal and state endangered species laws. For many species of birds, the primary emphasis is on the breeding population in California. For some species that do not breed in California but winter here, emphasis is on wintering range. The SSC designation thus may include a comment regarding the specific protection provided such as nesting or wintering.

Animals listed as Fully Protected (FP) are those species considered by CDFW as rare or faced with possible extinction. Most, but not all, have subsequently been listed under the CESA or FESA. Fully Protected species may not be taken or possessed at any time and no provision of the California Fish and Game code authorizes the issuance of permits or licenses to take any Fully Protected species.

1.5.6 Sensitive Habitats

Sensitive Natural Community is a state-wide designation given by CDFW to specific vegetation associations of ecological importance. Sensitive Natural Communities rarity and ranking involves the knowledge of range and distribution of a given type of vegetation, and the proportion of occurrences that are of good ecological integrity (CDFW 2018a). Evaluation is conducted at both the Global (G) and State (S) levels, resulting in a rank ranging from 1 for very rare and threatened to 5 for demonstrably secure. Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities in California and may need to be addressed in the environmental review processes of CEQA and its equivalents.

2 METHODS

2.1 Literature Review

Relevant literature, including relevant plans, policies, and biological information, was reviewed to determine what biological resources may occur near or in the project area. Research included queries of special-status species occurrence records; and, review of literature on sensitive species and biological resources in the project area and region;

We conducted a search of the California Natural Diversity Database (CDFW 2019), the California Native Plant Society (CNPS) On-line Inventory of Rare and Endangered Plants of California (CNPS 2019), and USFWS Critical Habitat data for special status species known to occur in the nine USGS 7.5-minute quadrangles surrounding the Study Area: Bryson, Tierra Redonda mountain, Bradley, Pebblestone Shut-in, Lime Mountain, Adelaida, Cambria, Cypress Mountain, and York Mountain.

Additional special status species research consisted of reviewing previous biological reports for the area herbarium specimen records for locality data within San Luis Obispo County. Additional special status species with potential to occur on or near the Study Area were added to our special status species list (refer to Table 4 and Table 6).

Special status species lists produced by database and literature searches were cross-referenced with the described habitat types in the Study Area to identify all potential special status species that could occur on or near the Study Area. Each special status species that could occur on or near the Study Area is individually discussed (refer to Section 3.8 and 3.9).

After a review of the literature, the following criteria were used to determine the potential for special-status species to occur within the Study Area:

- **Present:** The species was observed in the Study Area during field surveys.
- **High Potential:** High habitat quality combined with CNDDB occurrences or other records indicate the species is likely to occur on the Study Area. Individuals may not have been observed in the project area during field surveys; however, the species likely occurs in the project vicinity and could move into the project site in the future.
- **Moderate Potential:** Suitable habitat is present in the Study Area and CNDDB occurrences or surveys have recorded the species within the nearby vicinity of the Project. Individuals were not observed during surveys but the species could be present, at least seasonally or as a transient.
- **Low Potential:** Marginally suitable habitat is present in the Study Area, but there are no occurrence records in the immediate Project vicinity or only historical (i.e. 50 years or older) records within 10 miles of the Study Area. Individuals were not observed during surveys and are not expected to be present.
- **No Potential:** Species, sign, or habitat were not observed on the Study Area during surveys and suitable habitat is not present.

2.2 Mapping

Mapping efforts utilized Samsung Galaxy Tab 4 tablets equipped with Garmin GLO GPS Receivers and a third-party mapping application. Biological resource constraints were mapped in the field on site. Hand notation of habitats on high-resolution aerials was digitized into polygon layers. Maps were created using aerial photo interpretation, field notation, and spatial data imported to Esri ArcGIS, a Geographic Information System (GIS) software program. Data were overlaid on a 2016 National Agriculture Imagery Program (NAIP) aerial of San Luis Obispo County (NAIP 2018).

2.3 Soils

A custom soil report was created by importing the Study Area as an Area of Interest (AOI) into the Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGRO) via their online portal (Soil Survey Staff et al. 2018). The exported custom soil report includes a map showing an overlay of the soil map units within the AOI as well as a description of each (refer to Section 3.3).

2.4 Surveys

The Study Area was surveyed for biological resources on July 11 and 18, 2019 (Table 1). Surveys were conducted by Althouse and Meade, Inc. biologists Shannon Henke and Kyle Nessen. Surveys were conducted on foot to compile species lists, search for special status plants and animals, map habitats, assess trees, and to photograph the Study Area. The entire Study Area was surveyed by meandering transects to access all areas of the site.

TABLE 1. BIOLOGICAL SURVEYS

Survey Date	Biologist(s)	Weather Observations	Activities
7/11/19	Shannon Henke & Kyle Nessen	85°F, Calm winds, Clear	Botanical, wildlife, and tree assessment survey
7/18/19	Kyle Nessen	77°F, Calm winds, Clear	Tree assessment survey

2.4.1 Botanical

Each habitat type occurring in the Study Area was inspected, described, and cataloged (Section 3.4). All plant and animal species observed in the Study Area were identified and recorded (Sections 3.8.3 and 0). Reconnaissance transects were meandering with an emphasis on locating habitat appropriate for special status plants. Transects were utilized to map boundaries of different vegetation types, describe general conditions and dominant species, compile species lists, and evaluate potential habitat for special status species. Identification of botanical resources included field observations and laboratory analysis of collected material (refer to Table 5). Botanical surveys were conducted on July 11, 2019, according to agency guidelines (USFWS 2000; CNPS 2001; CDFW 2018a). Only a late season botanical survey was conducted, and follow-up appropriately-timed early season botanical surveys are required to identify all special status plant species that have potential to occur in the Study Area (refer to Section 3.8, and Table 4).

Botanical nomenclature used in this document follows the Jepson Manual, Second Edition (Baldwin et al. 2012). The Jepson Manual First Edition nomenclature is provided in brackets for names that have recently changed.

2.4.2 Wildlife

Wildlife documentation included observations of animal presence and wildlife sign such as nests, burrows, tracks, and scat. Observations of wildlife were recorded during field surveys in all areas of the Study Area (refer to Table 7). Birds were identified by sight, using 10-power binoculars, or by vocalizations. Reptiles and amphibians were identified by sight, using binoculars, and by hand-captures; traps were not used. Mammals recorded in the Study Area were identified by sight and tracks.

2.4.3 Tree Assessment

All native trees within the Study Area were marked in the field with an aluminum tag, and GPS location was taken. Tree height, canopy width, diameter at breast height (dbh), and signs of wildlife, such as nests or cavities, were recorded. The overall health of each tree was assessed based on past failures, structural defects, and foliar condition (Table 2). Any signs of pests or disease were noted. Trees were inspected from the ground only; tree canopies were not accessed, and no below-ground inspection took place.

TABLE 2 - TREE HEALTH CATEGORIES

Health Rating	Criteria
Healthy	Vigorous trees that present few and minor defects. Generally, the canopy is balanced, with strong branch connections, and healthy foliage.
Moderate	Moderate trees present either major defects or an accumulation of minor flaws. Generally, show signs of water stress, including substantial deadwood and epicormic growth, but are not suspected to be in decline.
Poor	Poor trees appear to be nearly dead or are in obvious decline.

3 RESULTS

3.1 Regional Context

The Study Area occurs in the eastern foothills of the Santa Lucia Range approximately 0.3 miles from the southeast edge of Lake Nacimiento. The Nacimiento River runs northeast of the Study Area, and an unnamed tributary occurs to the south. The town of San Miguel is 11.4 miles east of the Study Area, and the town of Cambria is on the coastal side of the Santa Lucia Ranch, 15.6 miles southwest of the Study Area.

3.2 Existing Conditions

The Study Area is adjacent to an unpaved day-use parking lot at the end of Heritage Road, situated in annual grassland between blue oak woodland (Figure 2). A large portion of the Study Area has routinely been disturbed, and maintenance staff use this area for heavy equipment storage (Photo 1). Informal dirt roads run from a gate at the southwestern border of the Study Area, through the area of disturbance, into northeastern foothills (Photo 2). A marina and campground occur south of the Study Area and provide access to Lake Nacimiento.

Photo 1. Heavy equipment storage in disturbed area, view west, July 11, 2019.

Photo 2. Informal roads provide access to foothills near Study Area, view north, July 18, 2019.

3.3 Soils

Four individual soil map units from the Natural Resource Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) overlap the Study Area: Dibble clay loam (3 to 26 percent slope; 134), Dibble clay loam (9 to 46 percent slope; 136), Dibble clay loam (50 to 75 percent slope, 137), and Ryer clay loam (2 to 9 percent slopes, 191; Soil Survey Staff et al. 2018).

Refer to Figure 3 for detailed information on the soil map units that overlay the Study Area. Ryer clay loam is the dominant soil map unit in the Study Area, underlying the central and southern areas. This soil type typically occurs on gently rolling hills. It is a deep, well-drained soil derived

from mixed alluvium that often presents on alluvial fans. Dibble clay loam occurs in the west and northwest portions of the Study Area, as well as in small areas along the northeastern and eastern edges. Dibble clay loams are also deep and well-drained soils, however they are derived from weathered sandstone and shale and is typical of hillslopes (Lindsey 1983). Both Dibble and Ryer can support herbaceous and forested habitat types.

Figure 2. Aerial Photograph

Legend

Study Area (14.7 acres)

N

0 500 1,000 Feet

RV Storage at Heritage Ranch
Map Center: 120.89817°W 35.73448°N
San Luis Obispo County, California

Imagery Source: USDA NAIP, 07/14/2018

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BIOLOGICAL AND ENVIRONMENTAL SERVICES

Map Updated:
August 06, 2019 09:58 AM by JBB

Figure 3. United States Department of Agriculture Soil Survey

Soil Type	Study Area
134: Dibble clay loam, 9 to 15 percent slopes	3%
136: Dibble clay loam, 30-50 percent slopes	21%
137: Dibble clay loam, 50 to 75 percent slopes	1%
191: Ryer clay loam, 2 to 9 percent slopes	75%

N

0 100 200 Feet

Legend

Study Area (14.7 acres)

RV Storage at Heritage Ranch
Map Center: 120.89751°W 35.73527°N
San Luis Obispo County, California

Source: USDA NRCS Soil Survey

3.4 Habitat Types

Four habitat types comprising 14.1 acres were identified and mapped in the Study Area: blue oak woodland, needle grass – melic grass grassland, annual brome grassland, and upland mustards and other ruderal forbs (CNPS 2019b). The remaining 0.6 acres of the Study Area is anthropogenic habitat comprised of a small section of Heritage Road and a hard-packed bare dirt parking area with no vegetation; this area will not be discussed further.

The habitats dominated by native plant species (blue oak woodland and needle grass – melic grass grassland) are of moderate quality. The blue oak trees are in moderate to poor health, and the understory is composed primarily of weedy plant species. Refer to Section 3.5 for more information on blue oak health. The needle grass – melic grass grassland supports dense nodding needle grass (*Stipa cernua*) but low native plant diversity overall. Table 3 lists the described habitat types, their location, and approximate acreage within the Study Area (see Figure 4).

TABLE 3. HABITAT TYPES

Habitat Type	Global and State Rarity Rank	Location	Approximate Acreage
Blue oak woodland	G4/S4	Sloping terrain and drainage features.	2.8
Needle grass – melic grass grassland	G4/S4	Throughout the Study Area.	2.9
Annual brome grassland	None	Throughout the Study Area.	5.7
Upland mustards and other ruderal forbs	None	Recently disturbed soils in the Study Area	2.7

3.4.1 Blue oak woodland

Blue oaks (*Quercus douglasii*) dominate sloping terrain within the Study Area. Tree density, health, and size are variable across the site and many trees show signs of drought (see Section 3.5). Occasional standing dead grey pines (*Pinus sabiniana*) are located in blue oak woodland near the Study Area. Understory vegetation is dominated by dense ripgut brome (*Bromus diandrus*) and occasional patches of needle grass – melic grass grassland (Section 3.4.2).

Photo 3. Blue oak woodland with a typical weedy understory, view southwest, July 18, 2019.

3.4.2 Needle grass – melic grass grassland

Native perennial nodding needle grass (*Stipa cernua*) dominates portions of the gently sloping terrain. Other occasional native species includes California melic (*Melica californica*), small flowered melic (*M. imperfecta*), and naked buckwheat *(Eriogonum nudum*) that intergrade with species common in adjacent grassland and ruderal habitats.

Photo 4. Needle grass – melic grass grassland is dominated by the perennial nodding needle grass. View east, July 11, 2019.

3.4.3 Annual brome grassland

Soft chess brome (*Bromus hordeaceus*) and wild oat (*Avena barbata*) dominate the annual grassland habitat in the Study Area. Other species include Salinas River tarweed (*Deinandra pentactis*), threeray tarweed (*D. lobbii*), and Spanish lotus (*Acmispon americanus* var. *americanus*).

Photo 5. Annual brome grassland with abundant Salins River tarplant. View northeast, July 11, 2019.

3.4.4 Upland mustards and other ruderal forbs

A portion of the Study Area has had recent ground disturbance and is dominated by non-native field mustard (*Hirshfeldia incana*). Vegetation density is variable with some areas with very low vegetation cover. Other species include native dove weed (*Croton setigerus*), common vervain (*Verbena lasiostachys*) and species common in adjacent annual brome grassland.

Photo 6. Upland mustards and other ruderal forbs habitat occur on recently disturbed soils in the Study Area. View north, July 11, 2019.

Figure 4. Biological Resources

Legend

- Study Area (14.7 acres)
- Ephemeral Drainage
- Potential Cavity Nest
- Large Stick Nest
- Annual Brome Grassland (5.7 acres)
- Anthropogenic (0.6 acre)
- Blue Oak Woodland (2.8 acres)
- Needle Grass - Melic Grass Grassland (2.9 acres)
- Upland Mustards and Ruderal Forbs (2.7 acres)

N

0 100 200 Feet

RV Storage at Heritage Ranch
Map Center: 120.89751°W 35.73527°N
San Luis Obispo County, California

Biological Survey Date: 07/11/2019

3.5 Tree Assessment

We assessed 168 trees within the Study Area. All living trees were identified as blue oak, except for two foothill pines. Of the 168 trees assessed, 125 are in moderate condition, 34 are in poor condition, and 9 are healthy (refer to Section 2.4.3 for health rating criteria).

Prolonged drought has affected many of the oak trees within the Study Area. Of the assessed trees, 89 percent showed evidence of twig or branch dieback (Photo 7), and at least 49 percent of trees had epicormic sprouting (Photo 8), both characteristic of water stress. These defects primarily account for the low percentage of healthy trees occurring in the Study Area.

Photo 7. Canopy dieback, often associated with drought, view north, July 18, 2019.

Photo 8. New growth along major branches is known as epicormic sprouting and often follows substantial dieback of the canopy, July 11, 2019.

Structural defects were common among the blue oaks. At least 40 percent of assessed trees had included bark (Photo 9), and 24 percent had unbalanced canopies (Photo 10). These defects compromise the longevity of the trees and lower their health rating.

Photo 9. Example of included bark where multiple stems fuse into a single trunk, July 18, 2019.

Photo 10. An exaggerated example of unbalanced canopy where the bulk of the canopy cover is off-center of the main trunk, July 18, 2019.

Oak woodland provides valuable habitat to a variety of species. California ground squirrels were commonly found to burrow under and around oak trees within the Study Area (Photo 12). Several species of birds, including acorn woodpeckers, sapsuckers, and cavity-nesting species were found to use the trees (Photo 11). For a complete discussion of wildlife found within the Study Area, see Section 3.9.

Photo 11. Cavity nest occurring in a hollowed branch, July 18, 2019.

Photo 12. A network of ground squirrel burrows occurring under blue oak woodland, July 11, 2019.

3.6 Potential Jurisdictional Wetlands and Waters

Potentially jurisdictional Waters of the U.S. and or State are located in the Study Area. Two small ephemeral drainages were noted in the southwestern portion of the Study Area; the northern feature is approximately 308 feet long and the southern feature is approximately 503 feet long (Figure 4). The drainages occur on the lower slope and drain toward culverts that convey water under Heritage Road and southeast into the southern reaches of Lake Nacimiento. Both drainages are grassy swales, dominated by annual brome grassland. Blue oak woodland overlaps the drainage features. Both drainages were dry at the time of survey and did not have a defined bed and bank.

No wetlands were observed within the Study Area.

Photo 13. Small ephemeral drainage within blue oak woodland habitat. View northeast, July 11, 2019.

3.7 Habitat Connectivity and Wildlife Movement

Wildlife corridors and habitat connectivity are important for the movement of wildlife between different populations and habitats. The oak woodland and grassland habitat within the Study Area is contiguous with the surrounding undeveloped habitat to the west, east, and north, providing habitat connectivity for wildlife moving to and from Lake Nacimiento. The central portion of the Study Area is routinely disturbed by heavy equipment storage operations and provides low quality habitat for wildlife.

3.8 Botanical Resources

Research on special status plant occurrences conducted within the designated search area (refer to Section 2.1) determined 85 special status plant species are known to occur in the region (refer to Appendix B). Figure 5 depicts the current GIS data for special status species mapped near the Study Area by the CNDDB. There is no critical habitat for federally listed plant species in the vicinity of the Study Area.

3.8.1 Potential Special Status Plant List

Review of each special status species reported from the region and the available habitats and conditions in the Study Area indicate there are seven special status plant species that have potential to occur in the Study Area (Table 4). The Federal and California State status, Global and State rank, CRPR, typical blooming periods and habitat requirements are provided for each species (CNPS 2019). An assessment of the potential to occur in the Study Area is also provided. Species are listed alphabetically by scientific name.

TABLE 4. SPECIAL STATUS PLANT LIST

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
1.	**Douglas' fiddleneck**	*Amsinckia douglasiana*	-/-	G4/S4	4.2	Mar-May	Cismontane woodland, Valley and foothill grassland	Low. Suitable grassland habitat is present in the Study Area.
2.	**Salinas milk-vetch**	*Astragalus macrodon*	-/-	G4/S4	4.3	Apr-Jul	Chaparral (openings), Cismontane woodland, Valley and foothill grassland	Low. Marginally suitable soils are present in the Study Area.
3.	**Lemmon's jewelflower**	*Caulanthus lemmonii*	-/-	G3/S3	1B.2	Feb-May	Pinon & juniper woodlands | Valley & foothill grassland	Low. Suitable grassland habitat is present in the Study Area.
4.	**Small-flowered gypsum-loving larkspur**	*Delphinium gypsophilum* ssp. *parviflorum*	-/-	G4T2T3Q/S2S3	3.2	(Mar)Apr-Jun	Cismontane woodland, Valley and foothill grassland	Low. Suitable grassland and woodland habitats are present in the Study Area.
5.	**Pale-yellow layia**	*Layia heterotricha*	-/-	G2/S2	1B.1	Mar-Jun	Cismontane woodland | Coastal scrub | Pinon & juniper woodlands | Valley & foothill grassland	Low. Marginally suitable clay loam soils are present in the Study Area.
6.	**Davidson's bush-mallow**	*Malacothamnus davidsonii*	-/-	G2/S2	1B.2	Jun-Jan	Chaparral | Cismontane woodland | Coastal scrub | Riparian woodland	Low. Suitable woodland habitat is present in the Study Area.
7.	**Shining navarretia**	*Navarretia nigelliformis* ssp. *radians*	-/-	G4T2/S2	1B.2	(Mar)Apr-Jul	Cismontane woodland | Valley & foothill grassland | Vernal pool | Wetland	Low. Marginally suitable clay loam soils are present in the Study Area.

See section 1.5 for status and rank definitions

3.8.2 Special Status Plants Discussion

Based on an analysis of known ecological requirements for the special status plant species reported from the region (see Appendix B), and the available habitats in the Study Area, there are seven special status plant species with potential to occur in the Study Area. A discussion of each species' known habitat, range, occurrences, potential to occur, and survey results for the Study Area are provided.

A. Douglas' fiddleneck (*Amsinckia douglasiana*) is a CRPR 4.2 species endemic to California. It is known to occur in dry, unstable shaly sedimentary slopes in grassland and woodland habitats below 1,850 meters elevation. It is an annual herb that typically blooms between March and May. The closest known record is approximately 3.7 miles northeast of the Study Area (CCH CR44). Soils derived from shale and sandstone are present in the Study Area but are marginally suitable compared to typical Douglas' fiddleneck habitat. Douglas' fiddleneck was not detected in the Study Area during the summer 2019 survey. Appropriately timed spring surveys in 2020 are required to determine if this species is present in the Study Area.

B. Salinas milk vetch (*Astragalus macrodon*) is a CRPR 4.3 species that occurs from San Benito County south to San Luis Obispo County and east to Kern County and endemic to California. It is known to occur in cismontane woodland, chaparral and grassland habitats often on sandstone, shale, or serpentinite substrates between 250 to 950 meters elevation. It is a perennial herb that typically blooms between April and July. The closest known record is approximately 4.2 miles northwest of the Study Area (CCH SBBG124767). The soil in the Study Area is marginally suitable for this species but is unlikely to occur in the relatively disturbed habitat of the Study Area. Salinas milk vetch was not detected in the Study Area during the appropriately timed 2019 summer survey.

C. Lemmon's jewel-flower (*Caulanthus lemmonii*) is a CRPR 1B.2 subspecies endemic to California. It is known to occur on dry, exposed slopes in grassland and pinyon and juniper woodland habitats between 80 and 1,580 meters elevation. It is an annual herb that typically blooms between February and May. The closest known record is approximately 3.2 miles southeast of the Study Area (CNDDB #22). Steep hillsides in the Study Area are marginally suitable for these species; however it is unlikely to occur due to an overgrowth of annual grasses. Lemmon's jewel-flower was not detected during the summer 2019 survey. Appropriately timed spring surveys in 2020 are required to determine if this species is present in the Study Area.

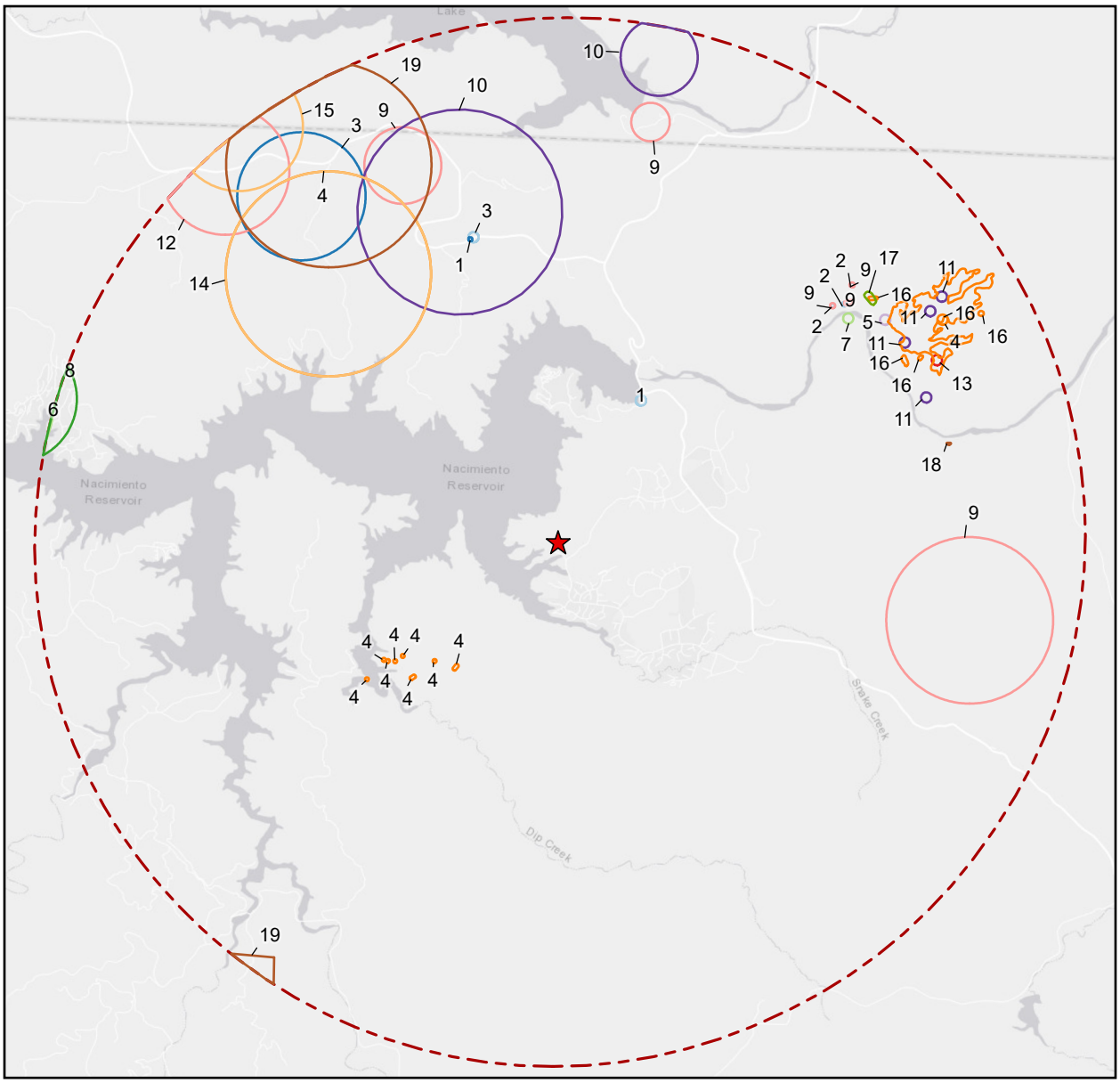
D. Small-flowered gypsum-loving larkspur (*Delphinium gypsophilum* ssp. *parviflorum*) is a CRPR 3.2 subspecies endemic to Monterey and San Luis Obispo Counties. It is known to occur on rocky clay, sometimes serpentine soil, in cismontane woodlands and grasslands habitats between 190 and 350 meters elevation. It is a perennial herb that typically blooms between March and June. The closest known record is approximately 3.1 miles north of the Study Area (CCH CDA29605). Marginally suitable habitat is present in the Study Area; however, this species is unlikely to occur in the soils present within the Study Area. Small-flowered gypsum-loving larkspur was not detected during the summer 2019 survey. Appropriately timed spring surveys in 2020 are required to determine if this species is present in the Study Area.

E. Pale-yellow Layia (*Layia heterotricha*) is a CRPR 1B.1 species endemic to central California. It is known to occur on alkaline or clay soils in cismontane woodland, chaparral, and grassland habitat between 300 and 1,705 meters elevation. It is an annual herb that typically blooms between March and May. The closest known record is approximately 2.3 miles northwest of the Study Area (CNDDB #12). Marginally suitable habitat is present in the Study Area; however, this species is unlikely to occur in soils present within the Study Area. Pale- yellow layia was not detected during the summer 2019 survey. Appropriately timed spring surveys in 2020 are required to determine if this species is present in the Study Area.

F. Davidson's bush mallow (*Malacothamnus davidsonii*) is a CRPR 1B.2 species that occurs from San Mateo County south to Los Angeles County and is endemic to California. It is known to occur in chaparral, coastal scrub, cismontane woodland, and riparian woodland habitats between 185 and 1,140 meters elevation. It is a perennial deciduous shrub that typically blooms between June and January. The closest known record is approximately 3.0 miles northwest of the Study Area (CNDDB #89). The woodland habitat in the Study Area is marginally suitable for this species, but it is only known to occur in one locality within the county and is unlikely to occur in the Study Area. Davidson's bush mallow was not detected during the appropriately timed summer 2019 survey.

G. Shining navarretia (*Navarretia nigelliformis* ssp. *radians*) is a CRPR 1B.2 subspecies endemic to California, primarily occurring in central California. It is known to occur in vernal pools, grassland, and cismontane woodland habitats, often on clay and alkaline sites between 65 and 1,000 meters elevation. It is an annual herb that typically blooms between (March) April and July. The closest known record is approximately 3.7 miles northeast of the Study Area (CNDDB #49). The soils and grassland habitat are marginally suitable for this species. Shining navarretia was not detected during the summer 2019 survey. Appropriately timed spring surveys in 2020 are required to determine if this species is present in the Study Area.

Figure 5. CNDDB Plant Records & USFWS Critical Habitat



Label	Common Name
1	Abbott's bush-mallow
2	Carmel Valley malacothrix
3	Davidson's bush-mallow
4	Dwarf calycadenia
5	Hooked popcornflower
6	Indian Valley spineflower
7	Koch's cord moss
8	La Panza mariposa-lily
9	Lemmon's jewelflower
10	Pale-yellow layia
11	Prostrate vernal pool navarretia
12	Robbins' nemacladus
13	San Luis Obispo owl's-clover
14	Santa Lucia dwarf rush
15	Santa Lucia monkeyflower
16	Santa Lucia purple amole
17	Shining navarretia
18	Straight-awned spineflower
19	Yellow-flowered eriastrum

Legend

Project Location

5-Mile Radius

No USFWS Critical Habitat present for plant species

N

0 0.5 1 2 Miles

RV Storage at Heritage Ranch
Map Center: 120.89752°W 35.7355°N
San Luis Obispo County, California

CNDDB GIS Data Last Updated: July 2019

3.8.3 Botanical Survey Results

Botanical surveys conducted in July 2019 identified 50 species, subspecies, and varieties of vascular plant taxa in the Study Area (Table 5). The list includes 28 species native to California and 22 introduced (naturalized or planted) species. Native plant species account for approximately 56 percent of the Study Area flora; introduced species account for approximately 44 percent. No special status plant species were detected in the Study Area, however appropriately timed follow-up botanical surveys are required. Botanical nomenclature used in this document follows the Jepson Manual, Second Edition (Baldwin et al. 2012). Jepson Manual First Edition names are provided in brackets where nomenclature has recently changed (Hickman 1993).

TABLE 5. VASCULAR PLANT LIST

Common Name	Scientific Name	Special Status	Origin
Trees – 2 Species			
Foothill pine	*Pinus sabiniana*	None	Native
Blue oak	*Quercus douglasii*	None	Native
Forbs - 35 Species			
Spanish lotus	*Acmispon americanus var. americanus* [*Lotus purshianus* var. *purshianus*]	None	Native
Bur chervil	*Anthriscus caucalis*	None	Introduced
Indian milkweed	*Asclepias eriocarpa*	None	Native
Italian thistle	*Carduus pycnocephalus* subsp. *pycnocephalus*	None	Introduced
Narrow leaved owl's clover	*Castilleja attenuata*	None	Native
Tocalote	*Centaurea melitensis*	None	Introduced
Spikeweed	*Centromadia* [*Hemizonia*] *fitchii*	None	Native
Turkey-mullein	*Croton setiger*	None	Native
Wild carrot	*Daucus pusillus*	None	Native
Threeray tarweed	*Deinandra lobbii* [*Hemizonia lobbii*]	None	Native
Salinas river tarweed	*Deinandra* [*Hemizonia*] *pentactis*	None	Native
Flax-leaved horseweed	*Erigeron* [*Conyza*] *bonariensis*	None	Introduced
Hairy flowered buckwheat	*Eriogonum nudum* var. *pubiflorum*	None	Native
White stemmed filaree	*Erodium brachycarpum*	None	Introduced

Common Name	Scientific Name	Special Status	Origin
Yellow monkeyflower	*Erythranthe guttata*	None	Native
Phlox leaved bedstraw	*Galium andrewsii*	None	Native
Mustard	*Hirschfeldia incana*	None	Introduced
Smooth cats ear	*Hypochaeris glabra*	None	Introduced
Common toad rush	*Juncus bufonius*	None	Native
Narrowleaf cottonrose	*Logfia* [*Filago*] *gallica*	None	Introduced
Miniature lupine	*Lupinus bicolor*	None	Native
Chick lupine	*Lupinus microcarpus*	None	Native
White horehound	*Marrubium vulgare*	None	Introduced
Annual yellow sweetclover	*Melilotus indicus* [*M. indica*]	None	Introduced
Q tips	*Micropus californicus*	None	Native
Holly leaf navarretia	*Navarretia atractyloides*	None	Native
Curvepod yellow cress	*Rorippa curvisiliqua*	None	Native
Curly dock	*Rumex crispus*	None	Introduced
Pacific sanicle	*Sanicula crassicaulis*	None	Native
Oak mistletoe	*Phoradendron villosum* subsp. *villosum*	None	Native
Vinegarweed	*Trichostema lanceolatum*	None	Native
Clover	*Trifolium* sp.	None	Native
Rose clover	*Trifolium hirtum*	None	Introduced
Western vervain	*Verbena lasiostachys*	None	Native
Davy's centaury	*Zeltnera*[*Centaurium*] *davyi*	None	Native
Grasses - 13 Species			
Slender oat	*Avena barbata*	None	Introduced
Ripgut brome	*Bromus diandrus*	None	Introduced
Soft chess	*Bromus hordeaceus*	None	Introduced
Foxtail brome	*Bromus madritensis* subsp. *rubens*	None	Introduced
Orchardgrass	*Dactylis glomerata*	None	Introduced
Italian rye grass	*Festuca perennis [Lolium multiflorum]*		
Rattail grass	*Festuca myuros* [*Vulpia myuros* var. *hirsuta*]	None	Introduced
Foxtail barley	*Hordeum murinum*	None	Introduced

Common Name	Scientific Name	Special Status	Origin
California melic	*Melica californica*	None	Native
Coast range melic	*Melica imperfecta*	None	Native
Hood canarygrass	*Phalaris paradoxa*	None	Introduced
Annual beard grass	*Polypogon monspeliensis*	None	Introduced
Nodding needle grass	*Stipa* [*Nassella*] *cernua*	None	Native

3.9 Wildlife Resources

Literature review of records of special status animal occurrences within the designated search area (refer to Section 2.1) identified 36 special status animal species are known to occur in the region (refer to Appendix C). Figure 6 depicts the current GIS data for special status wildlife species and critical habitat mapped in the vicinity of the Property by the CNDDB and the United States Fish and Wildlife Service (USFWS). No critical habitat for listed species is present within the Study Area.

3.9.1 Potential Special Status Animals List

Potential special status animals that could occur in the Study Area were determine based the available habitats present in the Study Area and each species know range and habitat requirements. A total of 11 special status animal species have potential to occur in the Study Area (Table 6). Federal and California State status, Global and State rank, and CDFW status is provided for each species. Typical nesting or breeding period, habitat preference (from CNDDB), and potential to occur in the Study Area are provided. Species are listed alphabetically by scientific name.

TABLE 6. SPECIAL STATUS ANIMAL LIST

	Common Name	Scientific Name	Federal/ State Status	Global/State Rank	CDFW Status	Nesting/ Breeding Period	Habitat Preference	Potential to Occur
1.	**Grasshopper sparrow**	*Ammodramus savannarum*	-/-	G5/S3	SSC (nesting only)	March 15 - August 15	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes.	Low. Marginally suitable grassland habitat is present in the Study Area.
2.	**Northern California legless lizard**	*Anniella pulchra*	-/-	G3/S3	SSC	May - September	Sandy or loose loamy soils under sparse vegetation.	Moderate. Suitable habitat is present in the Study Area.
3.	**Pallid bat**	*Antrozous pallidus*	-/-	G5/S3	SSC	Spring - Summer	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting.	Moderate. Potential roosting habitat is present in oak woodland.
4.	**Golden eagle**	*Aquila chrysaetos*	-/-	G5/S3	WL/FP	March 15 - August 15	Rolling foothills, mountain areas, sage-juniper flats, and desert.	Low. Potential nesting habitat is present, but there is high human disturbance within the Study Area.
5.	**Burrowing owl**	*Athene cunicularia*	-/-	G4/S3	SSC	March 15 - August 15	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Moderate. Suitable grassland habitat is present in the Study Area.
6.	**White-tailed Kite***	*Elanus leucurus*	-/-	G5/S3S4	FP	March 15 - August 15	Nests in dense tree canopy near open foraging areas	High. Suitable nesting habitat present. Species seen in the Study Area.
7.	**Bald eagle**	*Haliaeetus leucocephalus*	Delisted/ CE	G5/S3	FP	March 15 - August 15	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water.	Low. Suitable nesting habitat present, but there is high human disturbance within the Study Area.
8.	**Hoary bat**	*Lasiurus cinereus*	-/-	G5/S4	SA	Spring-Fall	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding.	Moderate. Suitable roosting habitat present in the Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/State Rank	CDFW Status	Nesting/ Breeding Period	Habitat Preference	Potential to Occur
9.	**Fringed myotis**	*Myotis thysanodes*	-/-	G4/S3	SA	Spring - Summer	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood & hardwood-conifer.	Moderate. Suitable foraging habitat is present in the Study Area and only low quality roosting habitat is present.
10.	**Yuma myotis**	*Myotis yumanensis*	-/-	G5/S4	SA	Spring - Summer	Optimal habitats are open forests and woodlands with sources of water over which to feed.	Moderate. Suitable foraging habitat is present but marginal roosting habitat is present.
11.	**American badger**	*Taxidea taxus*	-/-	G5/S3	SSC	February – May	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	High. Suitable grassland habitat and abundant prey are present in the Study Area.

*Not listed in the CNDDB for the search area, but species is a possibility for the location.
See Section 1.5. for status and rank definitions.

3.9.2 Special Status Animals Discussion

Eleven special status wildlife species have potential to occur in the Study Area based on an analysis of their known habitat requirements, range, and the available habitats in the Study Area. One special status species, white-tailed kite (*Elanus leucurus*), was detected during wildlife surveys. A discussion is provided for each special status species that include special status designations, known range, habitat preferences, behavioral information, known occurrences, and survey results.

A. Grasshopper sparrow (*Ammodramus savannarum*) is a California Species of Special Concern (nesting occurrences only) that is distributed across California west of the Cascade-Sierra Nevada crest, primarily as a summer resident from March to September. It has been seen as far north as Del Norte County, with a single disjunct population in Siskiyou County, and more scattered populations as far south as San Diego County. The breeding season is generally April to July with the peak being in May and June (CDFW 2014). This bird prefers large dense, dry grasslands on rolling hills, lowland plains, lower mountain slopes, and valleys with scattered sage shrubs for perching (CDFW 2014; CDFW 2019). The bird needs grassland with patches of bare ground, which is important for its foraging behavior. Nests are built in grasses and forbs near the ground (CDFW 2014). It has been found that predation on nests is decreased by increased forb and grass cover (Sutter and Ritchison 2005). The grasshopper sparrow's main food source is grasshoppers but it also eats other insects and seeds of pigweed, knotweed, campion, and oats (Shuford and Gardali 2008). The nearest recorded occurrence of this species is over 13 miles southwest, east of Cambria (CNDDB #7). The grassland habitat of the Study Area is only marginally suitable nesting habitat for this species, and there have been no reported sightings in the immediate vicinity (eBird 2019), therefore this species is unlikely to occur. Grasshopper sparrows were not observed in the Study Area during the 2019 summer wildlife surveys.

B. Northern California legless lizard (*Anniella pulchra*) is a California Species of Special Concern that occurs from Contra Costa to Santa Barbara County. It has a Global Rank of G3 and a State Rank of S3, both of which indicate that this species is considered Vulnerable. This species includes the subspecies formerly treated as *A. pulchra nigra* and *A. pulchra pulchra* which was shown to be an invalid designation (Pearse and Pogson 2000). Northern California legless lizard inhabits friable soils in a variety of habitats from coastal dunes to oak woodlands and chaparral. Adapted to subterranean life, the legless lizard thrives near native coastal shrubs that produce an abundance of leaf litter and have strong roots systems (Kuhnz et al. 2005). Areas of exotic vegetation and open grassland do not provide suitable habitat for the silvery legless lizard since these plant communities support smaller populations of insect prey and offer little protection from higher ground temperatures and soil desiccation (Slobodchikoff and Doyen 1977; Jennings and Hayes 1994). The closest reported occurrence of the northern California legless lizard is located approximately 3.3 miles northeast of the Study Area (CNDDB #62). The friable clay loam soils and oak woodland habitat in the Study Area is potential habitat for the northern California legless lizard. No northern California legless lizards were observed in the Study Area during 2019 summer wildlife surveys.

C. Pallid bat (*Antrozous pallidus*) is a California Species of Special Concern. The pallid bat is a large long-eared bat that occurs throughout the state and occupies a wide variety of habitats. Although most common in open, dry areas ideal for foraging with rocky outcrops for roosting, pallid bats are also found regularly in oak and pine woodlands where they roost in caves, mines, rock crevices, hollow trees and buildings (Nowak et al. 1994). Bridges are also frequently used by pallid bats, often as night roosts between foraging periods (Pierson et al. 1996). The closest reported occurrence of the pallid bat is approximately 7.8 miles northeast of the Study Area (CNDDB #213). Due to the variety of habitats this species occupies, and the presence of suitable woodland habitat for roosting and open grassland habitat for foraging, the pallid bat has moderate potential to occur in the Study Area. No pallid bats were observed during site during the 2019 summer wildlife surveys, though a focused survey for bat roosts was not conducted as part of this study.

D. Golden eagle (*Aquila chrysaetos*) is designated a Fully Protected species by the CDFW and is federally protected by the Bald and Golden Eagle Protection Act. The species range extends throughout much of North America and in California. Most golden eagles in California are residents year-round, but in the winter months this population will be augmented with individuals from other nearby western states. The breeding season in California is generally from late January through August. The golden eagle prefers open habitat and in California it extensively utilizes grazed grasslands and open shrublands for preying on its main food source of hares or rabbits and marmots or ground squirrels (Hunt 1995; Watson 2010). In California, the golden eagle nests almost exclusively in trees (82% trees in central California) but in montane regions it also has a preference for cliffs and will avoid nesting in densely forested habitat (Hunt 1995; Pagel et al. 2010). The golden eagle is highly sensitive to anthropogenic presences and will avoid nesting near urban areas (Pagel et al. 2010). Golden eagles will even abandon nests when human activity and development increases in their territory (Driscoll 2010). Golden eagles have been observed within a quarter mile of the Study Area, around Lake Nacimiento (eBird 2019). While there is potentially suitable nesting habitat in oak trees within the Study Area, the history of disturbance and proximity to human activity means there is low potential for golden eagles to occur. No golden eagles were observed during the 2019 summer wildlife survey.

E. Burrowing owl (*Athene cunicularia*) is a California Species of Special Concern. It is a small, rare owl that occupies abandoned mammal holes in the ground, most notably those of the California ground squirrel (*Spermophilus beecheyi*). In California, the burrowing owl is a year-round resident in the Carrizo Plain, Central Valley, Imperial Valley and the San Francisco Bay region. In the winter months, burrowing owl individuals from other western populations will augment the year-round Californian populations (Shuford and Gardali 2008). The breeding season is generally from March through August. Suitable habitat types for the burrowing owl are dry, open annual or perennial grasslands and deserts with an abundance of burrows (CDFW 2014; CDFW 2019). More specifically, the owl is found in coastal prairie, coastal scrub, Great Basin scrub, Mojavean scrub, Sonoran Desert scrub, valley and foothill grassland habitats (CDFW 2019). The burrowing owl commonly nests in abandoned holes in the ground, most notably those of the California ground squirrel, but the owl is also known to inhabit badger and fox dens and man-made holes, such as pipes and culverts. Rarely, it has been known to dig its own burrow in softer soil types (Coulombe 1971; Shuford and Gardali

2008). Burrows with high horizontal visibility and low vegetation coverage are preferred but burrows with dense vegetation with high perch sites will be used (Green and Anthony 1989). Orthoptera are the main food source for the owl but it will also consume other insects, as well as amphibians, carrion, small mammals, reptiles and birds (York et al. 2002; Shuford and Gardali 2008; CDFW 2014). The closest reported occurrence of the burrowing owl is approximately 5.2 miles northeast of the Study Area (CNDDB #591). The relatively small area of open grassland within the Study Area means burrowing owls are only moderately likely to occur. Burrowing owls were not observed in the Study Area during the summer 2019 wildlife surveys.

F. White-tailed kite (*Elanus leucurus*) is a CDFW Fully Protected species that can be found throughout California but known to forage and nest in certain areas of California in fluctuating numbers (CDFW 2018b; Lehman 2018). The species nests primarily in evergreen trees, especially coast live oaks, near meadows, marshes, farmlands or grasslands where it forages on small animals, especially voles (Dunk 1995). Communal nocturnal roosts sites, which may shift in location, are often used from early fall to early winter. Though there are no documented occurrences of nearby nesting white-tailed kites, this species is seen regularly around Lake Nacimiento and in the immediate vicinity (eBird 2019). Potential nesting habitat is present in mature oak trees within the Study Area. Three white-tailed kites were observed in the Study Area during summer 2019 wildlife surveys.

G. Bald eagle (*Haliaetus leucocephalus*) is a state listed endangered species and a regular winter resident on Lake Nacimiento. It requires ocean shores, lakes or rivers and usually nests in large trees with open branches within 1 mile of water. They often nest in the largest tree in a stand, building a large stick platform nest between 50 to 200 feet above ground (CDFW 2014). Bald eagles forage from a perch or in flight, and most frequently prey on fish. They also scavenge dead fish, birds, and mammals. Bald eagles are known to be sensitive to human disturbance, and have abandoned nests due to human activity (Thelander 1973). The closest known record for a bald eagle nest is 3.9 miles southwest of the Study Area (CNDDB #215) along Las Tablas Creek near Lake Nacimiento; however bald eagles are seen regularly in the immediate vicinity of the Study Area (eBird 2019). Tall pine trees in and near the Study Area provide suitable nesting habitat for this species, however the history of disturbance and proximity to human activity means there is low potential for bald eagles to occur. Bald eagles were not observed during the 2019 summer wildlife survey.

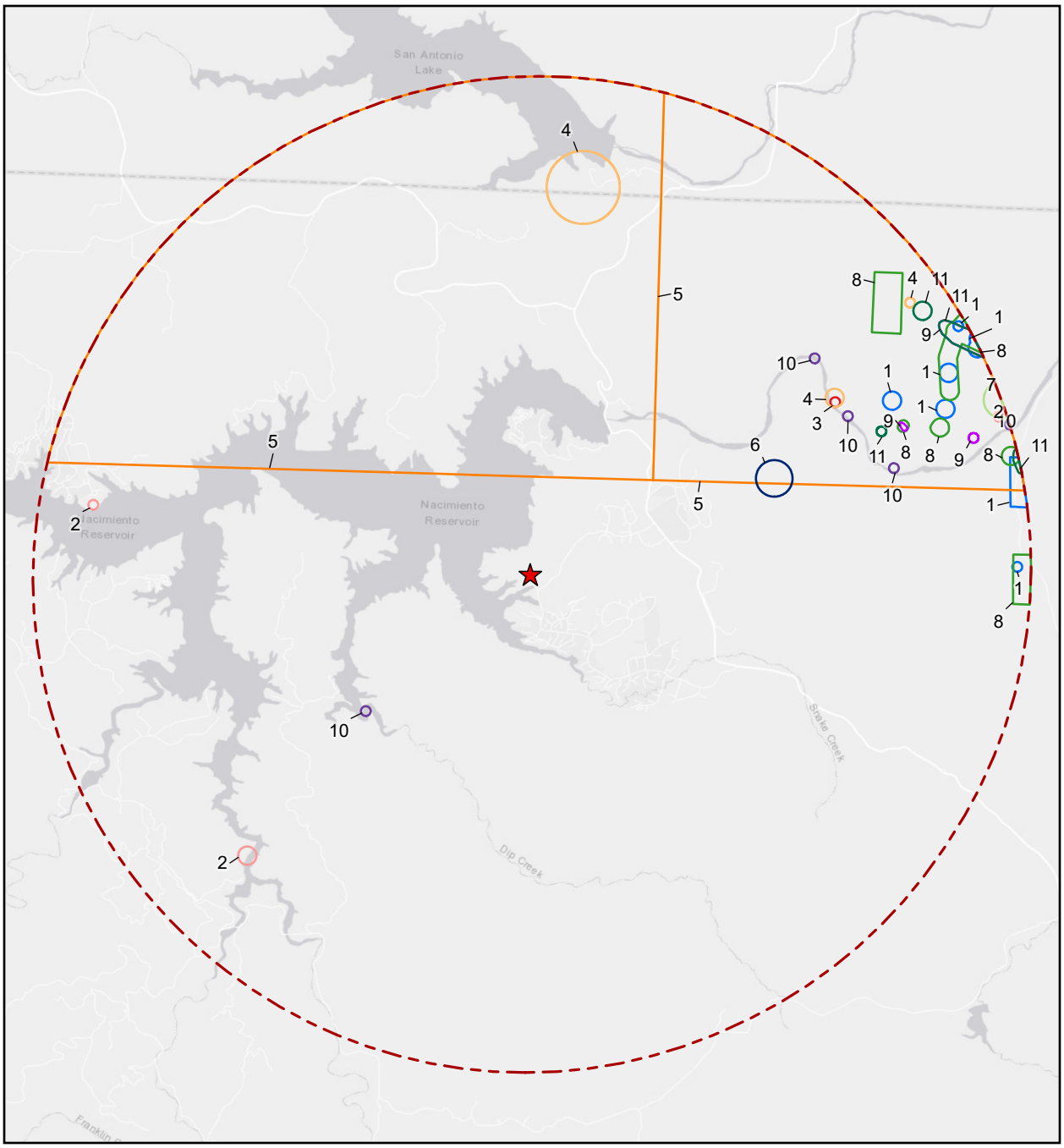
H. Hoary bat (*Lasiurus cinereus*) is a Special Animal tracked by CDFW. It is widely distributed throughout most of California, though it is uncommon in southeastern deserts. Roosting habitat is primarily woodlands and forests, and it forages for moths in open areas and along habitat edges (CDFW 2014). Hoary bats roost mainly in dense foliage of medium to large deciduous or coniferous trees, near the ends of branches, typically in trees at the edge of a clearing. Roosting has also been documented in caves, under rock ledges, and in tree hollows (Bolster 2005). The closest reported occurrence of hoary bat is located approximately 5.6 miles northeast of the Study Area (CNDDB #111). Suitable roosting habitat is present in oak woodlands within the Study Area, and this species has moderate potential to occur. Hoary were not observed in the Study Area during 2019 summer wildlife survey, though a focused survey for bat roosts was not conducted as part of this study.

I. Fringed Myotis (*Myotis thysanodes*) is a Special Animal tracked by the California Department of Fish and Wildlife. It is found throughout much of the western U.S., south from British Columbia to California and East to Montana, Colorado, and parts of Texas. This is a colonial bat that is most active from April through September with mating occurring in fall. Fringed Myotis prefer to roost in caves, mines, buildings, and other protected locations among oak, pinon, and juniper forests where they feed on a diet of moths and other insects (CDFW 2014). The nearest known occurrence is over 15 miles southwest of the Study Area, near San Simeon Creek (CNDDB #46). The oak woodland within the Study Area provides potentially suitable though suboptimal roosting habitat, and fringed myotis are moderately likely to occur. Fringed myotis were not observed during the summer 2019 wildlife surveys, though a focused survey for bat roosts was not conducted as part of this study.

J. Yuma Myotis (*Myotis yumanensis*) is a Special Animal tracked by the California Department of Fish and Wildlife. The species is a small bat widely distributed throughout western North America and is the species of bat most commonly associated with man-made structures. It is often associated with permanent water sources. Crevices are preferred roost areas including those found in cliffs, buildings and bridges, although it will also roost in tree cavities (Bogan et al. 2005). The species emerges after sunset and forages on insects (CDFW 2014). The nearest known occurrence is over 15 miles southwest of the Study Area, near San Simeon Creek (CNDDB #40). There are no suitable structures for roosting within the Study Area, though oak trees may provide suboptimal roost sites; the open oak woodland in the Study Area provides suitable foraging habitat. Yuma myotis were not observed during the 2019 wildlife survey, though a focused survey for bat roosts was not conducted as part of this study.

K. American badger (*Taxidea taxus*) is a California Species of Special Concern with a widespread range across the state (Brehme et. al. 2015; CDFW 2014). It is a permanent but uncommon resident in all parts of California, except for forested regions of the far northwestern corner, and is more abundant in dry, open areas of most shrub and forest habitats. The American badger requires friable soil in order to dig burrows for cover and breeding. The main food source for the species is fossorial rodents, mainly ground squirrels and pocket gophers (CDFW 2014). The breeding season for badgers is in summer and early fall, and females give birth to litters usually in March and April (CDFW 2014). The closest reported occurrence of the American badger is 4.3 miles northeast of the Study Area (CNDDB #375). The grassland and woodland habitats of the Study Area support a large prey source of small mammals and the friable soils indicate the Study Area is suitable for American badgers. No American badgers or sign of badgers such as dens or dig-outs, were observed during the 2019 wildlife survey.

Figure 6. CNDDB Animal Records & USFWS Critical Habitat



Label	Common Name
1	American badger
2	Bald eagle
3	Golden eagle
4	Northern California legless lizard
5	Prairie falcon
6	Salinas pocket mouse
7	San Joaquin coachwhip
8	San Joaquin kit fox
9	Vernal pool fairy shrimp
10	Western pond turtle
11	Western spadefoot

Legend

Project Location

5-Mile Radius

Critical Habitat

Steelhead

Vernal pool fairy shrimp

N

0 0.5 1 2 Miles

RV Storage at Heritage Ranch
Map Center: 120.89752°W 35.7355°N
San Luis Obispo County, California

CNDDB GIS Data Last Updated: July 2019
Critical Habitat Data Last Updated: December 2018

WILDLIFE SURVEY RESULTS

Wildlife surveys conducted in July 2019 identified 17 species or subspecies of wildlife in the Study Area (Table 7). The list includes 1 reptile species, 12 bird species, and 4 mammal species. Other species could occur as transients, particularly avian fauna. One special status species (white-tailed kite) was observed. Other wildlife species observed included red-tailed hawk (*Buteo jamaicensis*), acorn woodpecker (*Melanerpes formicivorus*), brush rabbit (*Sylvilagus bachmani*) and California ground squirrel (*Otospermophilus beecheyi*). One dead grey pine outside of the Study Area contains a large stick nest likely used by raptors (Photo 14).

Photo 14. Large stick nest in foothill pine near Study Area, view northwest, July 18, 2019.

TABLE 7. WILDLIFE LIST

Common Name	Scientific Name	Special Status	General Habitat Preference
Reptiles – 1 species			
Coast range [western] fence lizard	*Sceloporus occidentalis bocourtii*	None	Wide range; variety of habitats
Birds – 12 species			
California scrub-jay	*Aphelocoma californica*	None	Oak, riparian woodlands
Red-tailed hawk	*Buteo jamaicensis*	None	Open, semi-open country
California quail	*Callipepla californica*	None	Shrubby habitats
Turkey vulture	*Cathartes aura*	None	Open country
American crow	*Corvus brachyrhynchos*	None	Many habitats, esp. urban

Common Name	Scientific Name	Special Status	General Habitat Preference
White-tailed kite	*Elanus leucurus*	FP (nesting)	Nests in dense live oaks
House finch	*Haemorhous mexicanus*	None	Riparian, grasslands, chaparral, woodlands, urban
Acorn woodpecker	*Melanerpes formicivorus*	None	Oak woodland, urban areas with oaks
Bushtit	*Psaltriparus minimus*	None	Woodlands, chaparral
European starling	*Sturnus vulgaris*	None	Agricultural, livestock areas
Western kingbird	*Tyrannus verticalis*	None	Grasslands, savannah
Mourning dove	*Zenaida macroura*	None	Open and semi-open habitats
Mammals – 4 species			
Mule deer	*Odocoileus hemionus*	None	Grasslands, woodlands
California ground squirrel	*Otospermophilus beecheyi*	None	Grasslands
Brush rabbit	*Sylvilagus bachmani*	None	Brushy habitats
Valley pocket gopher	*Thomomys bottae*	None	Variety of habitats

4 ENVIRONMENTAL IMPACT ANALYSIS

The proposed Project could affect various biological resources, including oak trees, native perennial grassland, special status plants, nesting birds, and special status wildlife species. Mitigation measures are recommended to reduce potential impacts to sensitive biological resources. Table 8 summarizes the potential or present biological resources within the Study Area, the proposed Project's level of effect on biological resources, and the mitigation measure recommended to reduce or offset negative effects from the Project.

TABLE 8. IMPACTS AND MITIGATIONS SUMMARY

Biological Resource	Effect of Proposed Project	Mitigation Measures	Mitigation Type
Blue oak woodland	Mitigable	BR-1 to BR-10	Avoidance/protection, restoration
Needle grass – melic grass grassland	Mitigable	BR-11	
Annual brome grassland	Negligible	None	--
Upland mustards and other ruderal forbs	Negligible	None	--
Potential Wetlands & Jurisdictional Waters	Mitigable	Recommendations A and B BR-12 to BR-15	Avoidance/protection; erosion control
Special status Plants	To be determined	Recommendation C BR-16	Botanical survey Mitigation and Monitoring Plan
Nesting birds	Mitigable	BR-17	Pre-construction surveys
California legless lizard	Mitigable	BR-18	Pre-construction surveys
Grasshopper sparrow	Mitigable	BR-17	Pre-construction surveys
Eagles	Mitigable	BR-17	Pre-construction surveys
Burrowing owl	Mitigable	BR-19 to BR-20	Pre-construction surveys
Roosting bats	Mitigable	BR-21	Pre-construction surveys
American Badger	Mitigable	BR-22	Pre-construction surveys
Wildlife Movement Corridors	Negligible	None	--

4.1 Habitats

The proposed Project would impact up to 10.2 acres. This includes impacts to 0.5 acres of anthropogenic habitat, which is not discussed further. The proposed Project would impact up to 9.7 acres total of the four habitat types present in the Study Area: blue oak woodland, needle grass – melic grass grassland, annual brome grassland, and upland mustards and other ruderal forbs (Figure 8; Table 9).

TABLE 9. POTENTIAL HABITAT IMPACTS

Habitat Type	Impact (Acres)
Blue oak woodland	0.7
Needle grass – melic grass grassland	2.5
Annual brome grassland	3.8
Upland mustards and other ruderal forbs	2.7

Annual brome grassland and upland mustard/forb habitats have Global and State rankings that do not meet the threshold of Sensitive Natural Community as defined by CDFW. Mitigation is not required for impacts to annual brome grassland or upland mustard and other ruderal forbs.

4.1.1 Blue oak woodland

The proposed Project would impact up to 0.7 acres of oak woodland habitat. Within the oak woodland, up to 58 oak trees may be impacted during grading, construction of structures, and/or road improvements (Figure 7). See Appendix D for a table of individual trees, their health rating, and impact status. Current site plans (Appendix A) call for removal of two oak trees, with remaining oak trees protected in place.

Large mature coast live oaks (dbh greater than 25") with high aesthetic and habitat significance should be preserved wherever possible. Protection measures should be implemented to minimize impacts, and protect the tree for the long-term. The following mitigation measures are provided to ensure the Project minimizes impacts to oak trees to the maximum extent feasible.

BR-1. An oak tree mitigation plan shall be prepared and approved by the County of San Luis Obispo. The mitigation plan shall incorporate the most current County standards for mitigating impacts to oak and pine trees, and oak woodland habitat.

BR-2. Impacts to the oak canopy or critical root zone (CRZ) should be avoided where practicable. Impacts include pruning, any ground disturbance within the dripline or CRZ of the tree (whichever distance is greater), and trunk damage.

BR-3. Prior to ground breaking, tree protection fencing shall be installed as close to the outer limit of the CRZ as practicable for construction operations. The fencing shall be in place throughout the duration of the project, and removed only under the direction of the project environmental monitor or arborist, while demolition is in progress.

BR-4. Trenching within the CRZ must be approved by the project arborist, and shall be done by hand or with an air spade. Any roots exposed during construction shall be treated by a tree care specialist and covered with a layer of soil to match existing topography.

BR-5. Landscape material within the CRZ must be of native, drought tolerant species. Lawns are prohibited within the CRZ.

BR-6. Paving adjacent to and within the CRZ shall utilize interlocking pavers or equivalent that will allow proper infiltration of water and exchange of oxygen to the root zone of the tree.

BR-7. Tree removal, if approved, shall commence within 30 days of inspection by a qualified biologist to determine the tree is not being used by nesting birds or bats at the time of removal.

BR-8. Impacts to oak trees shall be assessed by a licensed arborist or qualified botanist. Impacts include pruning, any ground disturbance within the dripline or CRZ of the tree (whichever distance is greater), and trunk damage.

BR-9. Impacts to native trees shall be mitigated by planting additional trees on site. Any oak tree with a dbh of five inches or greater shall require mitigation. Oaks removed shall be replaced in kind at a 4:1 ratio. Impacts to oaks shall be mitigated by planting additional oak trees, in kind, at a 2:1 ratio. Replacement trees shall be of one gallon size, of local origin, and of the same species as was impacted. Replacement trees shall be seasonally maintained (browse protection, weed reduction and irrigation, as needed) and monitored annually for at least seven years.

BR-10. Replacement trees should be seasonally maintained (browse protection, weed reduction and irrigation, as needed) and monitored annually for at least 7 years. Replacement trees shall be the same species and of local origin, as the tree impacted or removed

Figure 7. Proposed Impacts to Trees

ALTHOUSE AND MEADE, INC.
BIOLOGICAL AND ENVIRONMENTAL SERVICES

Map Updated:
August 30, 2019 10:07 AM by JBB

4.1.2 Needle grass – melic grass grassland

The proposed project would impact up to 2.5 acres of needle grass – melic grass grassland habitat The following Biological Resource (BR) mitigations are recommended to reduce potential adverse effects of the proposed Project on needle grass – melic grass grassland.

BR-11. A County-approved biologist shall develop a Native Perennial Grassland Restoration Plan that provides specific measures to enhance and maintain the remaining on-site occurrences of needle grass – melic grass grassland to be approved by the County. This Plan shall be focused on adaptive management principles, and shall identify detailed enhancement areas and strategies based on the parameters outlined below, with timing and monitoring long-term requirements. The Plan shall:

- Provide an up-to-date inventory of on-site occurrences of native perennial grassland habitat;
- Define attainable and measurable goals and objectives to achieve through implementation of the Plan;
- Provide site selection and justification;
- Detail restoration work plan including methodologies, restoration schedule, plant materials (seed), and implementation strategies.
- Provide a detailed maintenance plan to include mowing to provide a sufficient disturbance regime to keep non-native plant species from further reducing the extent of this habitat type on the property over time. This approach would also have the residual benefit of providing wildland fire protection. Enhancement and maintenance options shall employ recent techniques and effective strategies for increasing the overall area of native perennial grassland on-site and shall include but not be limited to reseeding disturbed areas with an appropriate native plant palette;
- Define performance standards within the agriculture residential cluster subdivision project area, the restored area shall include at least a 2: 1 ratio with at least 10 percent cover by native perennial grasses; and,
- Provide a monitoring plan to include methods and analysis of results. Also, include methodology to determine success or failure of restoration enhancement and an adaptive management plan.

Figure 8. Proposed Impacts to Biological Resources

Legend

- Potential Cavity Nest
- Large Stick Nest
- Ephemeral Drainage
- Proposed Impacts (10.2 acres)
- Annual Brome Grassland
- Anthropogenic
- Blue Oak Woodland
- Needle Grass - Melic Grass Grassland
- Upland Mustards and Ruderal Forbs

N

0 100 200 Feet

RV Storage at Heritage Ranch
Map Center: 120.89751°W 35.73527°N
San Luis Obispo County, California

Biological Survey Date: 07/11/2019

4.2 Potential Wetlands and Jurisdictional Waters

Potentially jurisdictional wetlands and waters occur in the Study Area. Two ephemeral drainage features in the Study Area were mapped using GPS points taken in the field based on visual estimates of hydrology. Formal wetland delineation methods according to USACE guidelines were not conducted, therefore all potential wetlands and waters boundaries as indicated on Figures 4 and 8 are approximate, and no determination of agency jurisdiction was made.

The proposed Project could result in up to 375 linear feet of direct and/or indirect impacts to potential jurisdictional waters. Direct impacts to both drainages could occur from the extension of Heritage Road and construction of the storage units and parking areas. Direct or indirect impacts to the southern drainage could occur if/when the southern area of the Study Area is developed in the future. Grading and construction activities around the drainages could result in indirect impacts from erosion and sedimentation of disturbed ground.

Recommendations:

A. Wetland Delineation. If project activities are proposed that may result in fill or disturbance in an ephemeral drainage, a wetland delineation shall be conducted. The delineation shall be conducted according to current state and federal standards to determine the extent of federal and state wetlands.

B. Permits. The Applicant should demonstrate to the County that the U.S. Army Corps of Engineers, Regional Water Quality Control Board, and California Department of Fish and Wildlife have acknowledged the Project would not result in impacts to jurisdictional aquatic features, or that permits have been issued for proposed impacts.

The following mitigation measures are provided to ensure the Project avoids and protects potential jurisdictional Water of the U.S. and/or State of California to the maximum extent feasible.

BR-12. A SWPPP shall be developed and implemented. Construction activities shall implement Best Management Practices to adequately address prevention of sedimentation into drainages. The plan shall include a schedule of BMP inspection and maintenance.

BR-13. All hazardous materials shall be properly stored within secondary containment. All portable generators and portable toilets shall also be staged within secondary containment.

BR-14. Construction activities within 100 feet of drainages should be scheduled to the maximum extent practicable to occur outside of the rainy season (November through April).

BR-15. No equipment fueling, hazardous materials storage, portable restrooms, concrete washouts, or overnight vehicle or equipment staging shall be permitted within 100 feet of aquatic features during construction.

4.3 Botanical Resources

Seven special status plants were determined to have some potential to occur in the Study Area. Botanical surveys conducted in July 2019 were timed to identify two special status plants with potential to occur, Davidson's bush-mallow and Salinas milk vetch, which were not present.

Botanically timed surveys in the spring are recommended in order to determine whether the other five sensitive plant species with potential to occur are present within the Study Area.

Recommendations:

C. Spring Botanical Survey. A seasonally appropriate botanical survey should be conducted in 2020 within the Study Area defined in this report.

Construction of the proposed Project may result in impacts to special status plant species, if present. If special status plants are present in the Study Area and would be impacted by proposed Project activities, the following mitigation measure shall be implemented for each species to ensure that impacts are avoided or minimized.

BR-16. A mitigation and monitoring plan shall be prepared that provides for the retention of a viable population of the detected special status plant species on the subject property. A separate plan shall be prepared for each species detected. Implementation of the plan will reduce impacts to that species to a less than significant level.

a. The mitigation plan will require that plant materials (seeds or cuttings) come from the site so that genetic material of the original population will be reintroduced.

b. The plan shall be subject to approval by the County.

c. The mitigation site shall be within a deed-restricted area, and shall be maintained and monitored for a minimum of five years.

d. The plan shall provide for the annual success of a number of individual plants at least equal to the current population.

4.4 Wildlife Resources

4.4.1 Nesting Birds

Impacts to or take of nesting birds could occur if Project vegetation removal, grading, or construction activities are conducted during nesting season (February 1 through August 31). To reduce potential adverse effects of the proposed Project on nesting birds, the following mitigation measure is recommended.

BR-17. During the construction and operation phase of the Project, within one week prior to any ground or vegetation disturbance activities, including equipment staging and mowing, if work occurs between February 1 and September 15, nesting bird surveys shall be conducted. Surveys may be phased if appropriate to coincide with scheduled construction activities. If surveys do not locate nesting birds, construction activities may be conducted. If nesting birds are located, no construction activities shall occur within 100 feet of nests. Occupied nests of special status bird species within Project work areas shall be mapped using GPS or survey equipment. Work shall not be allowed within a 300-foot buffer (for non-raptors) or 500-foot buffer (for raptors) while the nest is in use. The buffer zone shall be delineated on the ground with highly visible fencing or rope barriers where it overlaps work areas. The Project biologist conducting the nesting survey shall have the authority to reduce or increase the recommended buffer depending upon site conditions and the species. Occupied nests of special status bird species shall be monitored at least

every two weeks through the nesting season to document nest success and check for Project compliance with buffer zones. Once nests are deemed inactive and/or chicks have fledged and are no longer dependent on the nest, work may commence in these areas. A pre-construction survey report shall be submitted to the County immediately upon completion of the survey. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements, where applicable. A map of the Project site and nest locations shall be included with the report.

4.4.2 Northern California legless lizard

One status reptile species (northern California legless lizard has potential to occur within the Study Area. California legless lizard may be present in areas of loose soils and leaf litter, which are primarily limited to oak woodland habitats. Ground disturbing activities associated with removal of oak trees and other vegetation during construction of the Project could result in injury or mortality of legless lizards. To minimize potential impacts to this species, the following mitigation measure is recommended:

BR-18. A focused preconstruction survey for legless lizards shall be conducted in proposed work areas immediately prior to ground-breaking activities that would affect potentially suitable habitat, as determined by the project biologist. The preconstruction survey shall be conducted by a qualified biologist familiar with legless lizard ecology and survey methods, and with approval from California Department of Fish and Wildlife to relocate legless lizards out of harm's way. The scope of the survey shall be determined by a qualified biologist and shall be sufficient to determine presence or absence in the project areas. If the focused survey results are negative, a letter report shall be submitted to the County, and no further action shall be required. If legless lizards are found to be present in the proposed work areas the following steps shall be taken:

- Legless lizards shall be captured by hand by the project biologist and relocated to an appropriate location well outside the project areas.
- Construction monitoring shall be required for all new ground-breaking activities located within legless lizard habitat. Construction monitors shall capture and relocate horned lizards as specified above.
- A letter report shall be submitted to the County and CDFW within 30 days of legless lizard relocation, or as directed by CDFW.

4.4.3 Birds

Five special status bird species, including bald eagle, golden eagle, white-tailed kite, grasshopper sparrow, and burrowing owl, have potential to occur in the Study Area. Vegetation removal, grading, or construction activities could impact nesting special status birds if these activities occur during nesting bird season (February 1 to August 31). Mitigation measure BR-17 in Section 4.4.1 above shall be implemented to avoid impacts to nesting special status bird species. The additional following mitigation measures shall be implemented no more than two weeks prior to ground disturbance activities to avoid impacts to nesting burrowing owls.

BR-19. Pre-construction surveys for burrowing owls shall be conducted not more than 14 days prior to any work that affects habitat containing burrows. The pre-construction surveys

shall be conducted in a manner sufficient to determine no burrowing owls are present in the work areas. Pre-construction surveys shall be conducted throughout the year, when work is proposed, to account for breeding, wintering, and transient owls.

BR-20. If burrowing owls are present in the work areas during the breeding season (February 1 through August 31), the burrows must be monitored to determine if a breeding pair is present. If a breeding pair is confirmed, the burrow must be avoided and protected from impacts via a 250-foot setback from the burrow. If a breeding pair is not present, passive relocation may be used. If burrowing owls are present during the non-breeding season, a passive relocation effort, such as a one-way door, may be implemented. Monitoring and mitigation must be conducted under guidance from a qualified wildlife biologist. Mitigation and protection procedures should incorporate recommendations outlined in the burrowing owl protocol survey guidelines (California Burrowing Owl Consortium 1993).

4.4.4 Mammals

Five special status mammal species (pallid bat, hoary bat, fringed myotis, Yuma myotis, and American badger) were determined have potential to occur within the Study Area.

Roosting bats and/or maternal bat colonies may be present in the foliage, cavities, or loose bark of mature oak trees in the Study Area. Loss of potential roosting and foraging habitat for special status bats would occur if oak trees are trimmed or removed due to Project activities. Loss of habitat would be minimized and mitigated by implementation of oak tree mitigation measures BR-1 to BR-10 in Section 4.4.1. The following mitigation measure shall be implemented to prevent impacts to sensitive bat species.

BR-21. Prior to removal of any trees over 20 inches dbh, a survey shall be conducted by a qualified biologist to determine if any of the trees proposed for removal or trimming harbor sensitive bat species or maternal bat colonies. The survey may include visual inspection of potential roost trees and/or acoustic surveys using bat detectors. If a non-maternal roost is found, the qualified biologist, with prior approval from California Department of Fish and Wildlife, will install one-way valves or other appropriate passive relocation method. For each occupied roost removed, one bat box shall be installed in similar habitat and should have similar cavity or crevices properties to those which are removed, including access, ventilation, dimensions, height above ground, and thermal conditions. Maternal bat colonies may not be disturbed.

American badger was not present in the Study Area during our 2019 surveys. Because badgers are highly mobile species with known occurrences in the region, it is possible a badger could occupy a den site in or near Study Area in the future. Project activities including grading and other construction work could result in take of American badger adults or young, or disturbance of natal dens and abandonment by adult badgers. The following measures are recommended to reduce potential impacts to American badgers.

BR-22. A pre-construction survey shall be conducted within thirty days of beginning work on the site to identify if badgers are present. The results of the survey shall be sent to the project manager and the County of San Luis Obispo. If the pre-construction survey finds

potential badger dens, they shall be inspected to determine whether they are occupied. The survey shall cover the entire impact area, plus a 500-foot buffer, and shall examine both old and new dens. If potential badger dens are too long to completely inspect from the entrance, a fiber optic scope shall be used to examine the den to the end. Inactive dens may be excavated by hand with a shovel to prevent re-use of dens during construction. If badgers are found in dens on the property between February and July, nursing young may be present. To avoid disturbance and the possibility of direct take of adults and nursing young, and to prevent badgers from becoming trapped in burrows during construction activity, no grading shall occur within 100 feet of active badger dens between February and July. Between July 1st and February 1st all potential badger dens shall be inspected to determine if badgers are present. During the winter badgers do not truly hibernate but are inactive and asleep in their dens for several days at a time. Because they can be torpid during the winter, they are vulnerable to disturbances that may collapse their dens before they rouse and emerge. Therefore, surveys shall be conducted for badger dens throughout the year. Exclusion of badgers from dens may only be done during the non-breeding season by a qualified biologist experienced in den exclusions. Dens must be fully excavated and backfilled after eviction is complete.

4.4.5 Habitat Connectivity and Wildlife Movement

The proposed Project is not anticipated to impact any significant wildlife corridors.

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6 APPENDICES

- **Appendix A. Site Plans**
- **Appendix B. Special Status Plants Reported from the Region**
- **Appendix C. Special Status Animals Reported from the Region**
- **Appendix D. Tree Assessment Results**

APPENDIX A. SITE PLANS

STORAGE LEGEND

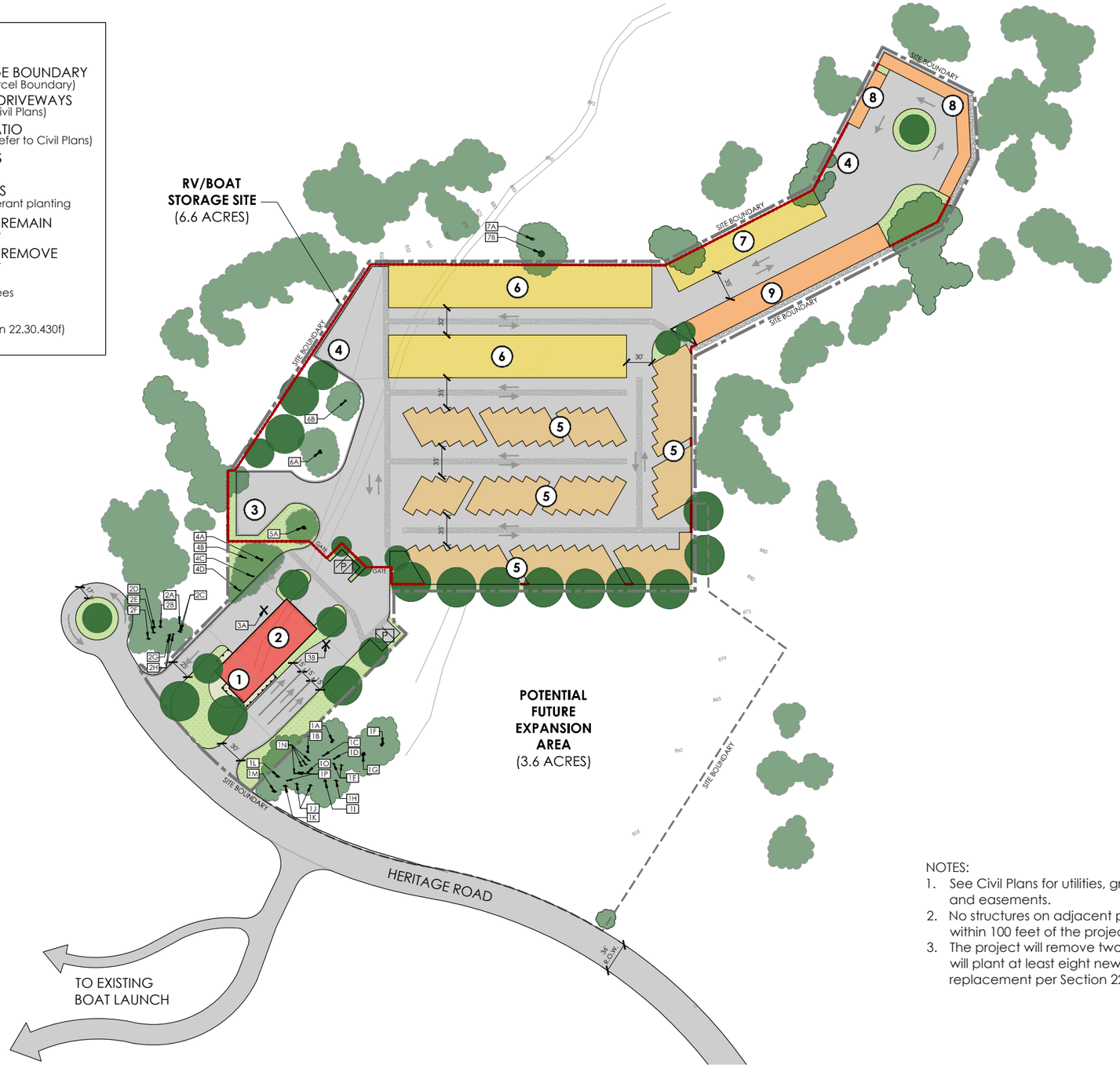
1. CHECK-IN WITH CARETAKER UNIT
   SF Area Included in Maintenance Building
2. MAINTENANCE BUILDING
   122' x 50' (See A1 Schematic Floor Plan)
3. WASH STATION
4. OPEN VEHICLE STORAGE AREA
5. ENCLOSED STORAGE (58 UNITS)
   14'x45' Units (Prefabricated)
6. COVERED STORAGE (49 SPACES)
   12'x50' Spaces(Prefabricated)
7. COVERED STORAGE (16 SPACES)
   12'x30' Spaces (Prefabricated)
8. ENCLOSED STORAGE (28 UNITS)
   10'x15' (Prefabricated)
9. ENCLOSED STORAGE (17 UNITS)
   15'x30' (Prefabricated)

SITE LEGEND

- RV/ BOAT STORAGE BOUNDARY
  Site Boundary (Not Parcel Boundary)
- ROADWAYS AND DRIVEWAYS
  AC Paving (Refer to Civil Plans)
- SIDEWALK AND PATIO
  Concrete or Pavers (Refer to Civil Plans)
- FENCE AND GATES
  6' high, 1475 l.f.
- LANDSCAPE AREAS
  30,970 s.f. drought-tolerant planting
- EXISTING TREES TO REMAIN
  Refer to Tree Inventory
- EXISTING TREES TO REMOVE
  Refer to Tree Inventory
- PROPOSED TREES
  26 drought-tolerant trees
- PARKING AREAS
  6 Spaces Provided
  (1 Required per Section 22.30.430f)

EXISTING TREE INVENTORY

Tree ID	Diameter	Species	Proposal	Note
1A	24"	Quercus agrifolia	To Remain	Two Trunks
1B	15"	Quercus agrifolia	To Remain	Two Trunks
1C	8"	Quercus agrifolia	To Remain	
1D	6"	Quercus agrifolia	To Remain	
1E	10"	Quercus agrifolia	To Remain	Two Trees
1F	28"	Quercus agrifolia	To Remain	Two Trunks
1G	18"	Quercus agrifolia	To Remain	Four Trunks
1H	12"	Quercus agrifolia	To Remain	
1I	24"	Quercus agrifolia	To Remain	
1J	12"	Quercus agrifolia	To Remain	Two Trees
1K	12"	Quercus agrifolia	To Remain	Two Trunks
1L	12"	Quercus agrifolia	To Remain	Two Trunks
1M	12"	Quercus agrifolia	To Remain	Three Trunks
1N	10"	Quercus agrifolia	To Remain	Four Trees
1O	8"	Quercus agrifolia	To Remain	
1P	6"	Quercus agrifolia	To Remain	Three Trees
2A	8"	Quercus agrifolia	To Remain	
2B	8"	Quercus agrifolia	To Remain	Three Trunks
2C	12"	Quercus agrifolia	To Remain	Three Trees
2D	15"	Quercus agrifolia	To Remain	
2E	12"	Quercus agrifolia	To Remain	
2F	10"	Quercus agrifolia	To Remain	Two Trunks
2G	12"	Quercus agrifolia	To Remain	
2H	8"	Quercus agrifolia	To Remain	Two Trees
3A	15"	Quercus agrifolia	Removed	Five Trunks
3B	18"	Quercus agrifolia	Removed	
4A	30"	Quercus agrifolia	To Remain	
4B	6"	Quercus agrifolia	To Remain	
4C	12"	Quercus agrifolia	To Remain	
4D	12"	Quercus agrifolia	To Remain	
5A	18"	Quercus agrifolia	To Remain	Four Trunks
6A	24"	Quercus agrifolia	To Remain	Three Trunks
6B	24"	Quercus agrifolia	To Remain	
7A	12"	Quercus agrifolia	To Remain	Four Trunks
7B	40"	Quercus agrifolia	To Remain	



NOTES:
1. See Civil Plans for utilities, grading, walls, and easements.
2. No structures on adjacent properties are within 100 feet of the project boundary.
3. The project will remove two Oak trees, and will plant at least eight new Oaks in a 4:1 replacement per Section 22.104.030.

SNUG HARBOR, LLC: RV/BOAT STORAGE APPLICATION

SITE DEVELOPMENT CONCEPT

SAN LUIS OBISPO COUNTY, CA

1513-01-LP18
May 20, 2019

60 30 0 60 FT

P1

rrm design group

APPENDIX B. SPECIAL STATUS PLANTS REPORTED FROM THE REGION

	Common Name	Scientific Name	Federal/State Status	Global/State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
1.	**Bristlecone fir**	*Abies bracteata*	-/-	G2G3/S2S3	1B.3		Broadleaved upland forest | Chaparral | Lower montane coniferous forest | Old growth | Riparian woodland | Ultramafic	None. No suitable habitat.
2.	**Hoover's bent grass**	*Agrostis hooveri*	-/-	G2/S2	1B.2	Apr-Jul	Chaparral | Cismontane woodland | Closed-cone coniferous forest | Valley & foothill grassland	None. No suitable habitat.
3.	**Douglas' fiddleneck**	*Amsinckia douglasiana*	-/-	G4/S4	4.2	Mar-May	Cismontane woodland, Valley and foothill grassland	Low. Suitable grassland habitat is present in the Study Area.
4.	**Arroyo de la Cruz manzanita**	*Arctostaphylos cruzensis*	-/-	G1G2/S1S2	1B.2	Dec-Mar	Broadleaved upland forest | Chaparral | Closed-cone coniferous forest | Coastal bluff scrub | Coastal scrub | Valley & foothill grassland	None. No suitable habitat.
5.	**Hoover's manzanita**	*Arctostaphylos hooveri*	-/-	G3/S3	4.3	Feb-Jun	Broad-leafed upland forest, Chaparral (rocky), Cismontane woodland, Lower montane coniferous forest	None. No suitable habitat.
6.	**Santa Lucia manzanita**	*Arctostaphylos luciana*	-/-	G2/S2	1B.2	Dec-Mar	Chaparral | Cismontane woodland	None. No suitable habitat.
7.	**Bishop manzanita**	*Arctostaphylos obispoensis*	-/-	G3/S3	4.3	Feb-Jun	Closed-cone coniferous forest, Chaparral, Cismontane woodland	None. No suitable habitat.
8.	**Santa Margarita manzanita**	*Arctostaphylos pilosula*	-/-	G2?/S2?	1B.2	Dec-May	Broad-leafed upland forest, Closed-cone coniferous forest, Chaparral, Cismontane woodland	None. No suitable habitat.

	Common Name	Scientific Name	Federal/State Status	Global/State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
9.	**Indian Valley spineflower**	*Aristocapsa insignis*	-/-	G1/S1	1B.2	May-Sep	Cismontane woodland	None. No suitable habitat.
10.	**Carlotta Hall's lace fern**	*Aspidotis carlotta-halliae*	-/-	G3/S3	4.2	Jan-Dec	Chaparral, Cismontane woodland	None. No suitable habitat.
11.	**Salinas milk-vetch**	*Astragalus macrodon*	-/-	G4/S4	4.3	Apr-Jul	Chaparral (openings), Cismontane woodland, Valley and foothill grassland	Low. Marginally suitable soils are present in the Study Area.
12.	**Ocean bluff milk-vetch**	*Astragalus nuttallii* var. *nuttallii*	-/-	G4T4/S4	4.2	Jan-Nov	Coastal bluff scrub, Coastal dunes	None. No suitable habitat.
13.	**Coastal marsh milk-vetch**	*Astragalus pycnostachyus* var. *pycnostachyus*	-/-	G2T2/S2	1B.2	(Apr)Jun-Oct	Coastal dunes | Coastal scrub | Marsh & swamp | Wetland	None. No suitable habitat.
14.	**San Simeon baccharis**	*Baccharis plummerae* ssp. *glabrata*	-/-	G3T1/S1	1B.2	Jun	Coastal scrub	None. No suitable habitat.
15.	**Club-haired mariposa lily**	*Calochortus clavatus* var. *clavatus*	-/-	G4T3/S3	4.3	(Mar)May-Jun	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	None. No suitable habitat.
16.	**Late-flowered mariposa-lily**	*Calochortus fimbriatus*	-/-	G3/S3	1B.3	Jun-Aug	Chaparral | Cismontane woodland | Riparian woodland | Ultramafic	None. No suitable habitat.
17.	**San Luis mariposa-lily**	*Calochortus obispoensis*	-/-	G2/S2	1B.2	May-Jul	Chaparral | Cismontane woodland | Coastal scrub | Ultramafic | Valley & foothill grassland	None. No suitable habitat.
18.	**La Panza mariposa-lily**	*Calochortus simulans*	-/-	G2/S2	1B.3	Apr-Jun	Chaparral | Cismontane woodland | Lower montane coniferous forest | Valley & foothill grassland	None. No suitable habitat.

	Common Name	Scientific Name	Federal/State Status	Global/State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
19.	**Dwarf calycadenia**	*Calycadenia villosa*	-/-	G3/S3	1B.1	May-Oct	Chaparral | Cismontane woodland | Meadow & seep | Valley & foothill grassland	None. No suitable habitat.
20.	**Cambria morning-glory**	*Calystegia subacaulis* ssp. *episcopalis*	-/-	G3T2?/S2?	4.2	(Mar)Apr-Jun(Jul)	Chaparral | Cismontane woodland | Coastal prairie | Valley & foothill grassland	None. No suitable habitat.
21.	**Hardham's evening-primrose**	*Camissoniopsis hardhamiae*	-/-	G2/S2	1B.2	Mar-May	Chaparral | Cismontane woodland | Limestone	None. No suitable habitat.
22.	**San Luis Obispo sedge**	*Carex obispoensis*	-/-	G3?/S3?	1B.2	Apr-Jun	Chaparral | Closed-cone coniferous forest | Coastal prairie | Coastal scrub | Ultramafic | Valley & foothill grassland	None. No suitable habitat.
23.	**San Luis Obispo owl's-clover**	*Castilleja densiflora* var. *obispoensis*	-/-	G5T2/S2	1B.2	Mar-May	Meadow & seep | Ultramafic | Valley & foothill grassland	None. No suitable habitat.
24.	**Lemmon's jewelflower**	*Caulanthus lemmonii*	-/-	G3/S3	1B.2	Feb-May	Pinon & juniper woodlands | Valley & foothill grassland	Low. Suitable grassland habitat is present in the Study Area.
25.	**Santa Lucia purple amole**	*Chlorogalum purpureum* var. *purpureum*	FT/-	G2T2/S2	1B.1	Apr-Jun	Chaparral | Cismontane woodland | Valley & foothill grassland	None. No suitable habitat.
26.	**Douglas' spineflower**	*Chorizanthe douglasii*	-/-	G4/S4	4.3	Apr-Jul	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland	None. No suitable habitat.
27.	**Palmer's spineflower**	*Chorizanthe palmeri*	-/-	G4/S4	4.2	Apr-Aug	Chaparral, Cismontane woodland, Valley and foothill grassland	None. No suitable habitat.

	Common Name	Scientific Name	Federal/State Status	Global/State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
28.	**Straight-awned spineflower**	*Chorizanthe rectispina*	-/-	G2/S2	1B.3	Apr-Jul	Chaparral | Cismontane woodland | Coastal scrub	None. No suitable habitat.
29.	**San Luis Obispo fountain thistle**	*Cirsium fontinale var. obispoense*	FE/CE	G2T2/S2	1B.2	Feb-Jul(Aug-Sep)	Chaparral | Cismontane woodland | Coastal scrub | Ultramafic | Valley & foothill grassland	None. No suitable habitat.
30.	**Compact cobwebby thistle**	*Cirsium occidentale var. compactum*	-/-	G3G4T2/S2	1B.2	Apr-Jun	Chaparral | Coastal dunes | Coastal prairie | Coastal scrub	None. No suitable habitat.
31.	**Jolon clarkia**	*Clarkia jolonensis*	-/-	G2/S2	1B.2		Chaparral | Cismontane woodland | Coastal scrub | Riparian woodland	None. No suitable habitat.
32.	**Monkey-flower savory**	*Clinopodium mimuloides*	-/-	G3/S3	4.2	Jun-Oct	Chaparral, North Coast coniferous forest	None. No suitable habitat.
33.	**San Antonio collinsia**	*Collinsia antonina*	-/-	G2/S2	1B.2	Mar-May	Chaparral | Cismontane woodland	None. No suitable habitat.
34.	**Rattan's cryptantha**	*Cryptantha rattanii*	-/-	G4/S4	4.3	Apr-Jul	Cismontane woodland, Riparian woodland, Valley and foothill grassland	None. No suitable habitat.
35.	**Small-flowered gypsum-loving larkspur**	*Delphinium gypsophilum ssp. parviflorum*	-/-	G4T2T3Q/S2 S3	3.2	(Mar)Apr-Jun	Cismontane woodland, Valley and foothill grassland	Low. Suitable grassland and woodland habitats are present in the Study Area.
36.	**Dune larkspur**	*Delphinium parryi ssp. blochmaniae*	-/-	G4T2/S2	1B.2	Apr-Jun	Chaparral (maritime), Coastal dunes	None. No suitable habitat.
37.	**Eastwood's larkspur**	*Delphinium parryi ssp. eastwoodiae*	-/-	G4T2/S2	1B.2	(Feb)Mar-Mar	Chaparral | Ultramafic | Valley & foothill grassland	None. No suitable habitat.
38.	**Umbrella larkspur**	*Delphinium umbraculorum*	-/-	G3/S3	1B.3	Apr-Jun	Chaparral | Cismontane woodland	None. No suitable habitat.

	Common Name	Scientific Name	Federal/State Status	Global/State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
39.	**Blochman's dudleya**	*Dudleya blochmaniae* ssp. *blochmaniae*	-/-	G3T2/S2	1B.1	Apr-Jun	Chaparral | Coastal bluff scrub | Coastal scrub | Ultramafic | Valley & foothill grassland	None. No suitable habitat.
40.	**Koch's cord moss**	*Entosthodon kochii*	-/-	G1/S1	1B.3		Cismontane woodland	None. No suitable habitat.
41.	**Yellow-flowered eriastrum**	*Eriastrum luteum*	-/-	G2/S2	1B.2	May-Jun	Broadleaved upland forest | Chaparral | Cismontane woodland	None. No suitable habitat.
42.	**Elegant wild buckwheat**	*Eriogonum elegans*	-/-	G4G5/S4S5	4.3	May-Nov	Cismontane woodland, Valley and foothill grassland	None. No suitable habitat.
43.	**Jepson's woolly sunflower**	*Eriophyllum jepsonii*	-/-	G3/S3	4.3	Apr-Jun	Chaparral, Cismontane woodland, Coastal scrub	None. No suitable habitat.
44.	**Hoover's button-celery**	*Eryngium aristulatum* var. *hooveri*	-/-	G5T1/S1	1B.1	(Jun)Jul(Aug)	Vernal pool | Wetland	None. No suitable habitat.
45.	**Santa Lucia monkeyflower**	*Erythranthe hardhamiae*	-/-	G1/S1	1B.1	Mar-May	Chaparral | Ultramafic	None. No suitable habitat.
46.	**San Benito poppy**	*Eschscholzia hypecoides*	-/-	G4/S4	4.3	Mar-Jun	Chaparral, Cismontane woodland, Valley and foothill grassland	None. No suitable habitat.
47.	**Ojai fritillary**	*Fritillaria ojaiensis*	-/-	G3/S3	1B.2	Feb-May	Broadleaved upland forest | Chaparral | Cismontane woodland | Lower montane coniferous forest | Ultramafic	None. No suitable habitat.
48.	**Cone Peak bedstraw**	*Galium californicum* ssp. *luciense*	-/-	G5T3/S3	1B.3	Mar-Sep	Broadleaved upland forest | Chaparral | Cismontane woodland | Lower montane coniferous forest	None. No suitable habitat.
49.	**Hardham's bedstraw**	*Galium hardhamiae*	-/-	G3/S3	1B.3	Apr-Oct	Closed-cone coniferous forest | Ultramafic	None. No suitable habitat.

	Common Name	Scientific Name	Federal/State Status	Global/State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
50.	**San Francisco gumplant**	*Grindelia hirsutula* var. *maritima*	-/-	G5T1Q/S1	3.2	Jun-Sep	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland	None. No suitable habitat.
51.	**Hogwallow starfish**	*Hesperevax caulescens*	-/-	G3/S3	4.2	Mar-Jun	Valley and foothill grassland (mesic, clay), Vernal pools (shallow)	None. No suitable habitat.
52.	**Mesa horkelia**	*Horkelia cuneata* var. *puberula*	-/-	G4T1/S1	1B.1	Feb-Jul(Sep)	Chaparral | Cismontane woodland | Coastal scrub	None. No suitable habitat.
53.	**Kellogg's horkelia**	*Horkelia cuneata* var. *sericea*	-/-	G4T1?/S1?	1B.1	Apr-Sep	Chaparral | Closed-cone coniferous forest | Coastal dunes | Coastal scrub	None. No suitable habitat.
54.	**Santa Lucia horkelia**	*Horkelia yadonii*	-/-	G3/S3	4.2	Apr-Jul	Broad-leafed upland forest, Chaparral, Cismontane woodland, Meadows and seeps, Riparian woodland	None. No suitable habitat.
55.	**Santa Lucia dwarf rush**	*Juncus luciensis*	-/-	G3/S3	1B.2	Apr-Jul	Chaparral | Great Basin scrub | Lower montane coniferous forest | Meadow & seep | Vernal pool | Wetland	None. No suitable habitat.
56.	**Perennial goldfields**	*Lasthenia californica* ssp. *macrantha*	-/-	G3T2/S2	1B.2	Jan-Nov	Coastal bluff scrub | Coastal dunes | Coastal scrub	None. No suitable habitat.
57.	**Pale-yellow layia**	*Layia heterotricha*	-/-	G2/S2	1B.1	Mar-Jun	Cismontane woodland | Coastal scrub | Pinon & juniper woodlands | Valley & foothill grassland	Low. Marginally suitable woodland habitat present.
58.	**Jones' layia**	*Layia jonesii*	-/-	G2/S2	1B.2	Mar-May	Chaparral | Ultramafic | Valley & foothill grassland	None. No suitable habitat.
59.	**Small-leaved lomatium**	*Lomatium parvifolium*	-/-	G4/S4	4.2	Jan-Jun	Closed-cone coniferous forest, Chaparral, Coastal scrub, Riparian woodland	None. No suitable habitat.

	Common Name	Scientific Name	Federal/State Status	Global/State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
60.	**San Luis Obispo County lupine**	*Lupinus ludovicianus*	-/-	G1/S1	1B.2	Apr-Jul	Chaparral, Cismontane woodland	None. No suitable habitat.
61.	**Abbott's bush-mallow**	*Malacothamnus abbottii*	-/-	G1/S1	1B.1	May-Oct	Riparian scrub	None. No suitable habitat.
62.	**Indian Valley bush-mallow**	*Malacothamnus aboriginum*	-/-	G3/S3	1B.2	Apr-Oct	Chaparral, Cismontane woodland	None. No suitable habitat.
63.	**Davidson's bush-mallow**	*Malacothamnus davidsonii*	-/-	G2/S2	1B.2	Jun-Jan	Chaparral | Cismontane woodland | Coastal scrub | Riparian woodland	Low. Marginally suitable habitat.
64.	**Jones' bush-mallow**	*Malacothamnus jonesii*	-/-	G4/S4	4.3	(Mar)Apr-Oct	Chaparral, Cismontane woodland	None. No suitable habitat.
65.	**Carmel Valley bush-mallow**	*Malacothamnus palmeri* var. *involucratus*	-/-	G3T2Q/S2	1B.2	Apr-Oct	Chaparral, Cismontane woodland, Coastal scrub	None. No suitable habitat.
66.	**Santa Lucia bush-mallow**	*Malacothamnus palmeri* var. *palmeri*	-/-	G3T2Q/S2	1B.2	May-Jul	Chaparral	None. No suitable habitat.
67.	**Carmel Valley malacothrix**	*Malacothrix saxatilis* var. *arachnoidea*	-/-	G5T2/S2	1B.2	(Mar)Jun-Dec	Chaparral | Coastal scrub	None. No suitable habitat.
68.	**Oregon meconella**	*Meconella oregana*	-/-	G2G3/S2	1B.1	Mar-Apr	Coastal prairie | Coastal scrub	None. No suitable habitat.
69.	**Marsh microseris**	*Microseris paludosa*	-/-	G2/S2	1B.2	Apr-Jun(Jul)	Closed-cone coniferous forest, Cismontane woodland, Coastal scrub, Valley and foothill grassland	None. No suitable habitat.
70.	**Palmer's monardella**	*Monardella palmeri*	-/-	G2/S2	1B.2	Jun-Aug	Chaparral | Cismontane woodland | Ultramafic	None. No suitable habitat.

	Common Name	Scientific Name	Federal/State Status	Global/State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
71.	**Woodland woollythreads**	*Monolopia gracilens*	-/-	G3/S3	1B.2	(Feb)Mar-Jul	Broadleaved upland forest | Chaparral | Cismontane woodland | North coast coniferous forest | Ultramafic | Valley & foothill grassland	None. No suitable habitat.
72.	**Shining navarretia**	*Navarretia nigelliformis* ssp. *radians*	-/-	G4T2/S2	1B.2	(Mar)Apr-Jul	Cismontane woodland | Valley & foothill grassland | Vernal pool | Wetland	Low. Marginally suitable call loam soils are present in the Study Area.
73.	**Prostrate vernal pool navarretia**	*Navarretia prostrata*	-/-	G2/S2	1B.1	Apr-Jul	Coastal scrub | Meadow & seep | Valley & foothill grassland | Vernal pool | Wetland	None. No suitable habitat.
74.	**Robbins' nemacladus**	*Nemacladus secundiflorus* var. *robbinsii*	-/-	G3T2/S2	1B.2	Apr-Jun	Chaparral | Valley & foothill grassland	None. No suitable habitat.
75.	**Large-flowered nemacladus**	*Nemacladus secundiflorus* var. *secundiflorus*	-/-	G3T3?/S3?	4.3	Apr-Jun	Chaparral, Valley and foothill grassland	None. No suitable habitat.
76.	**Monterey pine**	*Pinus radiata*	-/-	G1/S1	1B.1		Cismontane woodland | Closed-cone coniferous forest	None. No suitable habitat.
77.	**Narrow-petaled rein orchid**	*Piperia leptopetala*	-/-	G4/S4	4.3	May-Jul	Cismontane woodland, Lower montane coniferous forest, Upper montane coniferous forest	None. No suitable habitat.
78.	**Hooked popcornflower**	*Plagiobothrys uncinatus*	-/-	G2/S2	1B.2	Apr-May	Chaparral | Cismontane woodland | Valley & foothill grassland	None. No suitable habitat.

	Common Name	Scientific Name	Federal/State Status	Global/State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
79.	**Hoffmann's sanicle**	*Sanicula hoffmannii*	-/-	G3/S3	4.3	Mar-May	Broadleafed upland forest, Coastal bluff scrub, Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest	None. No suitable habitat.
80.	**Chaparral ragwort**	*Senecio aphanactis*	-/-	G3/S2	2B.2	Jan-Apr(May)	Chaparral | Cismontane woodland | Coastal scrub	None. No suitable habitat.
81.	**San Gabriel ragwort**	*Senecio astephanus*	-/-	G3/S3	4.3	May-Jul	Coastal bluff scrub, Chaparral	None. No suitable habitat.
82.	**Most beautiful jewelflower**	*Streptanthus albidus ssp. peramoenus*	-/-	G2T2/S2	1B.2	(Mar)Apr-Sep(Oct)	Chaparral | Cismontane woodland | Ultramafic | Valley & foothill grassland	None. No suitable habitat.
83.	**Mason's neststraw**	*Stylocline masonii*	-/-	G1/S1	1B.1	Mar-May	Chenopod scrub | Desert wash | Pinon & juniper woodlands	None. No suitable habitat.
84.	**Vortriede's spineflower**	*Systenotheca vortriedei*	-/-	G3/S3	4.3	May-Sep	Chaparral, Cismontane woodland	None. No suitable habitat.
85.	**Cook's triteleia**	*Triteleia ixioides* ssp. *cookii*	-/-	G5T2T3/S2S3	1B.3	May-Jun	Cismontane woodland | Closed-cone coniferous forest | Ultramafic	None. No suitable habitat.

State/Rank Abbreviations:

FE: Federally Endangered
FT: Federally Threatened
PE: Proposed Federally Endangered
PT: Proposed Federally Threatened
CE: California Endangered
CR: California Rare
CT: California Threatened
Cand. CE: Candidate for California Endangered
Cand. CT: Candidate for California Threatened

California Rare Plant Ranks:

CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
CRPR 2A: Plants presumed extirpated in California, but common elsewhere
CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
CRPR 4: Plants of limited distribution - a watch list

CRPR Threat Ranks:

0.1 - Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 - Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

0.3 - Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Global/State Ranks:

G1/S1 – Critically Imperiled	Q – Element is very rare but there are taxonomic questions associated with it.
G2/S2 – Imperiled	Range rank – (e.g., S2S3 means rank is somewhere between S2 and S3)
G3/S3 – Vulnerable	? – (e.g., S2? Means rank is more certain than S2S3 but less certain that S2)
G4/S4 – Apparently Secure	
G5/S5 – Secure	

APPENDIX C. SPECIAL STATUS ANIMALS REPORTED FROM THE REGION

	Common Name	Scientific Name	Federal/ State Status	Global/State Rank	CDFW Status	Nesting/ Breeding Period	Habitat Preference	Potential to Occur
1.	**Tricolored blackbird**	*Agelaius tricolor*	-/CT	G2G3/S1S2	SSC	March 15 - August 15	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California.	No. Suitable habitat is not present in the Study Area.
2.	**Grasshopper sparrow**	*Ammodramus savannarum*	-/-	G5/S3	SSC	March 15 - August 15	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes.	Low. Marginally suitable grassland habitat is present in the Study Area.
3.	**Northern California legless lizard**	*Anniella pulchra*	-/-	G3/S3	SSC	May - September	Sandy or loose loamy soils under sparse vegetation.	Moderate. Suitable habitat is present in the Study Area.
4.	**Pallid bat**	*Antrozous pallidus*	-/-	G5/S3	SSC	Spring - Summer	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting.	Moderate. Potential roosting habitat is present in oak woodland.
5.	**Golden eagle**	*Aquila chrysaetos*	-/-	G5/S3	WL/FP	March 15 - August 15	Rolling foothills, mountain areas, sage-juniper flats, and desert.	Low. Potential nesting habitat is present, but there is high human disturbance within the Study Area.
6.	**Great blue heron**	*Ardea herodias*	-/-	G5/S4	SA (	March 15 - August 15	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes.	No. Suitable nesting habitat is not present in Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/State Rank	CDFW Status	Nesting/ Breeding Period	Habitat Preference	Potential to Occur
7.	**Burrowing owl**	*Athene cunicularia*	-/-	G4/S3	SSC	March 15 - August 15	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Moderate. Suitable grassland habitat is present in the Study Area.
8.	**Lesser slender salamander**	*Batrachoseps minor*	-/-	G1/S1	SSC	n/a	South Santa Lucia Mountains in tanbark oak, coast live oak, blue oak, sycamore & laurel.	No. Suitable mesic woodland habitats are not present in the Study Area.
9.	**Obscure bumble bee**	*Bombus caliginosus*	-/-	G4?/S1S2	SA	Spring	Coastal areas from Santa Barabara county to north to Washington state.	No. Suitable coastal habitats are not present in the Study Area.
10.	**Vernal pool fairy shrimp**	*Branchinecta lynchi*	FT/-	G3/S3	SA	Rainy Season	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools.	No. Suitable vernal pool habitat is not present in the Study Area.
11.	**Ferruginous hawk**	*Buteo regalis*	-/-	G4/S3S4	WL	October - April (Wintering)	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	No. This species does not breed or nest in this region. Study Area is suitable foraging habitat from this species.
12.	**Townsend's big-eared bat**	*Corynorhinus townsendii*	-/-	G3G4/S2	SSC	Spring – Summer	Throughout California in a wide variety of habitats. Most common in mesic sites.	No. Suitable roosting habitat is not present in the Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/State Rank	CDFW Status	Nesting/ Breeding Period	Habitat Preference	Potential to Occur
13.	**Monarch – California overwintering population**	*Danaus plexippus pop. 1*	-/-	G4T2T3/S2S3	SA	September – March (aggregations)	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	No. Suitable wind protected tree groves are not present in the Study Area.
14.	**White-tailed Kite***	*Elanus leucurus*	-/-	G5/S3S4	FP	March 15 - August 15	Nests in dense tree canopy near open foraging areas	High. Suitable nesting habitat present. Species seen in the Study Area.
15.	**Western pond turtle**	*Emys marmorata*	-/-	G3G4/S3	SSC	April - August	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	No. Suitable habitat is not present in the Study Area.
16.	**California horned lark**	*Eremophila alpestris actia*	-/-	G5T4Q/S4	WL	March 15 - August 15	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills.	No. Suitable flat open grassland habitat is not present in the Study Area.
17.	**Tidewater goby**	*Eucyclogobius newberryi*	FE/-	G3/S3	SSC	n/a	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River.	No. Brackish habitats are not present in the Study Area.
18.	**Prairie falcon**	*Falco mexicanus*	-/-	G5/S4	WL	March 15 - August 15	Inhabits dry, open terrain, either level or hilly.	No. Suitable breeding habitat is not present in the Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/State Rank	CDFW Status	Nesting/ Breeding Period	Habitat Preference	Potential to Occur
19.	**Bald eagle**	*Haliaeetus leucocephalus*	Delisted/ CE	G5/S3	FP	March 15 - August 15	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water.	Low. Suitable nesting habitat present, but there is high human disturbance within the Study Area.
20.	**Hoary bat**	*Lasiurus cinereus*	-/-	G5/S4	SA	Spring-Fall	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding.	Moderate. Suitable roosting habitat present in the Study Area.
21.	**San Joaquin coachwhip**	*Masticophis flagellum ruddocki*	-/-	G5T2T3/S2?	SSC	May	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley.	No. Study Area is outside of species known range.
22.	**Fringed myotis**	*Myotis thysanodes*	-/-	G4/S3	SA	Spring - Summer	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood & hardwood-conifer.	Moderate. Suitable foraging habitat is present in the Study Area and only low quality roosting habitat is present.
23.	**Yuma myotis**	*Myotis yumanensis*	-/-	G5/S4	SA	Spring - Summer	Optimal habitats are open forests and woodlands with sources of water over which to feed.	Moderate. Suitable foraging habitat is present but marginal roosting habitat is present.
24.	**Monterey dusky-footed woodrat**	*Neotoma macrotis luciana*	-/-	G5T3/S3	SSC	n/a	Forest habitats of moderate canopy and moderate to dense understory. Also in chaparral habitats.	No. Suitable dense habitats are not present in the Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/State Rank	CDFW Status	Nesting/ Breeding Period	Habitat Preference	Potential to Occur
25.	**Steelhead - south-central California coast DPS**	*Oncorhynchus mykiss irideus pop. 9*	FT/-	G5T2Q/S2	SA	February - April	Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River.	No. Suitable river habitat is not present in the Study Area.
26.	**Salinas pocket mouse**	*Perognathus inornatus psammophilus*	-/-	G4T2?/S1	SSC	n/a	Annual grassland and desert shrub communities in the Salinas Valley.	No. Study Area is outside of species known range.
27.	**Coast horned lizard**	*Phrynosoma blainvillii*	-/-	G3G4/S3S4	SSC	May - September	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	No. Suitable sandy soils are not present in the Study Area.
28.	**Foothill yellow-legged frog**	*Rana boylii*	-/CCT	G3/S3	SSC	March - September	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	No. Suitable stream habitat is not present in the Study Area.
29.	**California red-legged frog**	*Rana draytonii*	FT/-	G2G3/S2S3	SSC	January - September	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	No. Suitable wetland vegetation is not present in the vicinity of the Study Area.
30.	**Yellow warbler**	*Setophaga petechia*	-/-	G5/S3S4	SSC	March 15-August 15	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada.	No. Suitable riparian vegetation is not present in the Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/State Rank	CDFW Status	Nesting/ Breeding Period	Habitat Preference	Potential to Occur
31.	**Western spadefoot**	*Spea hammondii*	-/-	G3/S3	SSC	January - August	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands.	No. Vernal pool habitats are not present in the Study Area.
32.	**Coast Range newt**	*Taricha torosa*	-/-	G4/S4	SSC	December - May	Coastal drainages from Mendocino County to San Diego County.	No. Suitable coastal drainages are not present in the Study Area.
33.	**American badger**	*Taxidea taxus*	-/-	G5/S3	SSC	February – May	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	High. Suitable grassland habitat and abundant prey are present in the Study Area.
34.	**Two-striped gartersnake**	*Thamnophis hammondii*	-/-	G4/S3S4	SSC	Spring	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation.	No. suitable riparian scrub habitats are not present in the Study Area.
35.	**Least Bell's vireo**	*Vireo bellii pusillus*	FE/CE	G5T2/S2	SA	March 15 - August 15	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	No. Suitable riparian vegetation is not present in the Study Area.
36.	**San Joaquin kit fox**	*Vulpes macrotis mutica*	FE/CT	G4T2/S2	SA	December - July	Annual grasslands or grassy open stages with scattered shrubby vegetation.	No. Suitable habitat is not present in the Study Area.

Habitat characteristics are from the CDNNB.

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FT: Federally Threatened	CT: California Threatened
PE: Proposed Federally Endangered	CCE: Candidate for California Endangered

PT: Proposed Federally Threatened CCT: Candidate for California Threatened

Global/State Ranks:

G1/S1 – Critically Imperiled	Q – Element is very rare but there are taxonomic questions
G2/S2 – Imperiled	associated with it.
G3/S3 – Vulnerable	Range rank – (e.g., S2S3 means rank is somewhere
G4/S4 – Apparently Secure	between S2 and S3)
G5/S5 – Secure	? – (e.g., S2? Means rank is more certain than S2S3 but
	less certain that S2)

California Department of Fish and Wildlife Rank:

WL:	Watch Lis
SSC:	Species of Special Concern
FP:	Fully Protected
SA:	Special Animal

APPENDIX D. TREE ASSESSMENT RESULTS

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Tree ID	**Species***	**DBH (in)**	**Height (ft)**	**Width (ft)**	**Health* (P, M, H)**	**Impacted* (Y/N)***	**% of CRZ Impacted**	**Dead Wood**	**Epicormic Growth**	**Sparse Canopy**	**Included Bark**	**Unbalanced Canopy**	**Past Failures**	**Lanky Growth**	**Notes**
8	BO	20	20	25	M	Y	46	✓							Damage from barbwire, burrows
9	BO	17	28	25	M	Y	80	✓	✓		✓				
10	BO	12	20	18	P	Y	64	✓	✓		✓				Cavities
11	BO	9	24	25	M	N	0	✓	✓			✓			Burrows
12	BO	27	35	45	M	Y	75	✓	✓		✓				Burrows, mistletoe
13	BO	13	30	18	P	Y	51	✓	✓		✓			✓	Burrows
14	BO	9	30	15	P	N	0	✓	✓					✓	
15	BO	8	25	12	P	N	0	✓	✓					✓	Burrows
16	BO	11	24	22	M	N	0	✓	✓					✓	Barbwire damage, burrows
17	BO	10	31	28	M	N	0	✓	✓						
18	BO	16	26	25	P	Y	85	✓	✓		✓				
19	BO	8	22	24	M	N	0	✓	✓						
20	BO	25	30	36	M	Y	14	✓	✓						Burrows
21	BO	11	26	32	M	N	0	✓							Burrows
22	BO	13	30	32	M	N	0	✓							Burrows
23	BO	24	35	40	M	N	0	✓		✓	✓				Mistletoe
24	BO	12	20	23	M	N	0	✓	✓			✓			
25	BO	10	26	20	M	N	0	✓	✓					✓	
26	BO	25	35	46	M	Y	17	✓	✓		✓				Burrows
27	BO	28	35	60	M	Y	94	✓	✓						Burrows
28	BO	19	23	38	H	Y	100								Growing near storm water drain, ground

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1 Tree ID	2 Species*	3 DBH (in)	4 Height (ft)	5 Width (ft)	6 Health* (P, M, H)	7 Impacted* (Y/N)*	8 % of CRZ Impacted	9 Dead Wood	10 Epicormic Growth	11 Sparse Canopy	12 Included Bark	13 Unbalanced Canopy	14 Past Failures	15 Lanky Growth	16 Notes
															squirrels burrows
29	BO	14	28	32	M	N	0		✓			✓			Squirrels
30	BO	23	33	28	M	N	0	✓			✓				Squirrels
31	BO	11	32	27	M	N	0	✓		✓		✓		✓	
32	BO	17	24	33	M	N	0	✓	✓			✓			
33	BO	21	33	45	M	N	0	✓			✓				
34	BO	13	29	36	M	N	0				✓	✓			Bark damage
35	BO	24	40	48	P	Y	38	✓	✓	✓	✓				Bark damage
36	BO	8	25	22	P	N	0	✓	✓	✓				✓	Bark damage
37	BO	9	28	27	M	N	0	✓	✓					✓	
38	BO	10	32	25	M	N	0	✓	✓	✓				✓	
39	BO	9	33	24	P	N	0	✓	✓	✓		✓	✓	✓	Woodpecker holes
40	BO	8	28	26	M	N	0	✓			✓	✓		✓	
41	BO	11	32	27	M	N	0	✓		✓	✓	✓		✓	
42	BO	13	30	35	M	N	0	✓	✓		✓	✓			
43	BO	15	26	31	M	N	0	✓			✓	✓		✓	
44	BO	11	33	26	M	N	0	✓		✓				✓	
45	BO	8	20	22	P	N	0	✓	✓	✓			✓	✓	
46	BO	14	25	27	M	Y	100	✓	✓						Borderline P
47	BO	11	28	26	M	Y	100	✓							
48	BO	8	21	25	M	Y	100	✓			✓	✓			
49	BO	15	24	34	M	Y	92	✓			✓				
50	BO	17	42	50	H	Y	100	✓							Mistletoe
51	BO	8	24	23	M	Y	100	✓	✓	✓				✓	
52	BO	14	24	25	M	Y	11	✓	✓		✓	✓			
53	BO	10	25	26	M	N	0	✓		✓					

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Tree ID	**Species***	**DBH (in)**	**Height (ft)**	**Width (ft)**	**Health* (P, M, H)**	**Impacted* (Y/N)***	**% of CRZ Impacted**	**Dead Wood**	**Epicormic Growth**	**Sparse Canopy**	**Included Bark**	**Unbalanced Canopy**	**Past Failures**	**Lanky Growth**	**Notes**
54	BO	8	15	18	M	N	0	✓		✓	✓			✓	
55	BO	11	26	28	M	N	0	✓		✓					
56	BO	10	33	27	M	N	0	✓		✓				✓	
57	BO	9	33	20	M	N	0	✓		✓				✓	
58	BO	12	38	28	M	N	0	✓		✓					
59	BO	15	36	42	M	N	0	✓			✓				
60	BO	11	28	47	M	N	0	✓	✓	✓		✓			
61	BO	31	35	50	M	N	0	✓	✓		✓				Added trunks for DBH
62	FP	15	40	20	M	N	0	✓							
63	FP	18	47	40	H	N	0								
64	BO	9	26	28	M	N	0	✓		✓		✓		✓	Damage from barbwire
65	BO	11	33	26	M	N	0	✓	✓	✓				✓	Damage from barbwire
66	BO	11	34	26	M	N	0	✓	✓	✓				✓	
67	BO	11	28	33	M	N	0	✓	✓			✓			Damage from barbwire
68	BO	10	26	28	M	N	0	✓	✓			✓		✓	
69	BO	15	35	33	M	N	0	✓	✓	✓					
70	BO	12	28	27	M	Y	14	✓		✓					Damage from barbwire
71	BO	11	35	25	M	Y	1	✓		✓				✓	
72	BO	11	30	27	M	Y	23	✓		✓	✓			✓	
73	BO	10	33	25	M	Y	41	✓		✓				✓	Damage from barbwire
74	BO	10	24	25	M	Y	100	✓				✓			Damage from barbwire
75	BO	8	18	15	M	Y	100	✓			✓				
76	BO	13	18	25	M	Y	22	✓				✓			
77	BO	15	21	22	M	N	0	✓	✓		✓				

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Tree ID	**Species***	**DBH (in)**	**Height (ft)**	**Width (ft)**	**Health* (P, M, H)**	**Impacted* (Y/N)***	**% of CRZ Impacted**	**Dead Wood**	**Epicormic Growth**	**Sparse Canopy**	**Included Bark**	**Unbalanced Canopy**	**Past Failures**	**Lanky Growth**	**Notes**
78	BO	27	28	36	M	N	0	✓	✓						
601	BO	26	27	50	M	N	0				✓				Abundant ground squirrels
602	BO	16	23	36	M	N	0				✓				
603	BO	28	34	57	H	Y	13								No obvious defects
604	BO	9	30	15	P	N	0	✓	✓						Dead snags
605	BO	25	37	52	M	N	0		✓						Large tree with few defects
606	BO	22	38	60	M	N	0	✓			✓	✓			Burrows underneath
607	BO	21	43	48	M	Y	21	✓	✓						
608	BO	25	39	60	M	N	0								Ground squirrels burrowing around base
609	BO	18	41	56	P	N	0		✓	✓	✓	✓			
610	BO	20	43	58	M	N	0	✓							Could benefit from pruning. good structure., burrowing in dead wood
611	BO	25	37	60	M	N	0	✓							Good structure
612	BO	18	32	48	M	N	0	✓		✓	✓				
613	BO	21	28	60	M	N	0	✓				✓			
614	BO	19	40	58	P	N	0	✓		✓	✓	✓			
615	BO	18	31	35	P	N	0	✓			✓	✓			
616	BO	22	36	45	P	N	0			✓		✓	✓		
617	BO	17	41	37	M	N	0			✓					

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Tree ID	**Species***	**DBH (in)**	**Height (ft)**	**Width (ft)**	**Health* (P, M, H)**	**Impacted* (Y/N)***	**% of CRZ Impacted**	**Dead Wood**	**Epicormic Growth**	**Sparse Canopy**	**Included Bark**	**Unbalanced Canopy**	**Past Failures**	**Lanky Growth**	**Notes**
618	BO	14	45	35	P	N	0	✓		✓				✓	Sapsucker holes resent throughout trunk
619	BO	13	25	30	P	N	0	✓		✓				✓	Holes on dead branch
620	BO	18	36	38	M	N	0	✓		✓		✓	✓		Cavity present
621	BO	16	32	35	M	N	0	✓		✓					
622	BO	10	20	17	M	N	0	✓	✓		✓				
623	BO	15	33	36	M	N	0	✓			✓				
624	BO	14	28	27	M	N	0	✓	✓						Burrows
625	BO	11	26	18	P	N	0	✓	✓		✓	✓			
626	BO	12	33	24	P	N	0	✓		✓		✓			
627	BO	31	48	70	M	Y	45	✓	✓						Burrows
628	BO	10	38	25	M	Y	100	✓				✓			
629	BO	14	33	22	P	Y	100	✓		✓	✓	✓			
630	BO	9	38	18	P	Y	100	✓		✓				✓	
631	BO	16	42	31	P	Y	100	✓			✓	✓			
632	BO	8	27	25	M	Y	100	✓		✓		✓			
633	BO	12	42	33	M	Y	100	✓							
634	BO	19	28	40	H	Y	99	✓			✓				Burrows
635	BO	22	35	56	M	N	0	✓	✓		✓				
636	BO	14	33	40	M	N	0	✓			✓				
637	BO	16	34	37	M	N	0	✓				✓	✓		
638	BO	11	25	22	M	N	0	✓				✓			
639	BO	21	42	56	M	Y	2	✓			✓				
640	BO	13	24	23	P	N	0	✓			✓	✓	✓		
641	BO	9	27	18	M	N	0	✓		✓				✓	

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Tree ID	**Species***	**DBH (in)**	**Height (ft)**	**Width (ft)**	**Health* (P, M, H)**	**Impacted* (Y/N)***	**% of CRZ Impacted**	**Dead Wood**	**Epicormic Growth**	**Sparse Canopy**	**Included Bark**	**Unbalanced Canopy**	**Past Failures**	**Lanky Growth**	**Notes**
642	BO	23	45	62	M	N	0	✓		✓	✓				
643	BO	8	27	28	P	N	0	✓		✓	✓	✓			
644	BO	19	47	60	M	N	0	✓		✓			✓		Small nearby tree has fused with this tree
645	BO	20	39	55	M	N	0		✓		✓				
646	BO	19	37	31	M	N	0	✓			✓	✓			
647	BO	24	52	55	H	N	0	✓							
648	BO	18	35	48	M	Y	21	✓	✓		✓				
649	BO	10	33	25	M	Y	1	✓		✓				✓	Burrows
650	BO	11	33	27	M	Y	85	✓		✓					N
651	BO	12	28	20	P	N	0	✓			✓				
652	BO	16	29	28	P	Y	44	✓		✓			✓		Major trunk is completely dead. smaller 7" trunk is alive but not doing well, dead limb snags
653	BO	13	33	35	P	Y	97	✓	✓				✓		Mostly dead wood, dead snags
654	BO	17	35	45	M	Y	21	✓		✓	✓				
655	BO	14	27	25	M	Y	64	✓			✓				
656	BO	24	46	56	H	Y	9								
657	BO	11	27	20	M	N	0	✓	✓			✓			
658	BO	14	25	20	M	N	0	✓		✓					
659	BO	9	18	15	P	N	0	✓					✓		Almost dead
660	BO	17	30	37	M	N	0	✓							Burrows
661	BO	16	39	48	M	Y	13	✓				✓			Sapsucker holes

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Tree ID	**Species***	**DBH (in)**	**Height (ft)**	**Width (ft)**	**Health* (P, M, H)**	**Impacted* (Y/N)***	**% of CRZ Impacted**	**Dead Wood**	**Epicormic Growth**	**Sparse Canopy**	**Included Bark**	**Unbalanced Canopy**	**Past Failures**	**Lanky Growth**	**Notes**
662	BO	29	41	60	M	Y	11	✓	✓		✓				
663	BO	28	38	50	M	N	0	✓	✓		✓				Burrows
664	BO	21	40	38	P	N	0	✓	✓	✓					Burrows, sapsucker holes
665	BO	12	35	25	M	N	0	✓	✓					✓	Mistletoe present, birds nest
666	BO	15	35	32	P	N	0	✓	✓			✓			
667	BO	34	33	57	M	Y	12	✓			✓				Burrows, sapsucker, small cavities
668	BO	16	35	36	M	N	0	✓				✓			Sapsucker
669	BO	16	33	27	M	N	0	✓	✓		✓				Burrows
670	BO	10	30	18	M	N	0	✓	✓					✓	Burrows
671	BO	14	26	24	P	N	0	✓	✓				✓		
672	BO	28	43	66	H	Y	7	✓							Burrows
673	BO	20	35	40	M	N	0	✓	✓		✓				Burrows
674	BO	20	35	42	M	N	0	✓			✓				
675	BO	11	15	22	P	N	0	✓			✓	✓			Strong north lean, basically laying down
676	BO	19	35	52	M	N	0	✓							
677	BO	12	18	22	M	N	0	✓	✓						Burrows
678	BO	21	32	48	M	Y	100	✓	✓						
679	BO	29	34	60	H	Y	100	✓			✓				
680	BO	21	35	36	P	Y	100	✓	✓		✓				
681	BO	33	35	60	M	Y	100		✓	✓					
682	BO	12	20	22	P	Y	100	✓	✓			✓			
683	BO	12	28	27	M	Y	83	✓	✓						

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Tree ID	**Species***	**DBH (in)**	**Height (ft)**	**Width (ft)**	**Health* (P, M, H)**	**Impacted* (Y/N)***	**% of CRZ Impacted**	**Dead Wood**	**Epicormic Growth**	**Sparse Canopy**	**Included Bark**	**Unbalanced Canopy**	**Past Failures**	**Lanky Growth**	**Notes**
684	BO	21	32	33	M	Y	100		✓		✓				
685	BO	22	20	32	M	Y	100		✓		✓				Mistletoe
686	BO	17	25	30	M	Y	19	✓	✓				✓		
687	BO	21	35	60	M	N	0	✓	✓		✓				
688	BO	21	36	50	M	N	0	✓	✓		✓				
689	BO	29	37	45	M	Y	23	✓	✓				✓		
690	BO	14	35	33	M	N	0	✓	✓			✓			
691	BO	30	25	10	P	N	0	✓					✓		Basically dead, cavities, burrows
692	BO	19	30	28	M	N	0	✓	✓		✓				
693	BO	17	25	24	M	N	0	✓	✓		✓	✓			
694	BO	18	20	22	M	N	0	✓	✓		✓				
695	BO	10	27	36	M	N	0	✓	✓						Used base of split trunk as DBH
696	BO	15	32	42	M	N	0	✓	✓						
697	BO	11	30	22	M	N	0	✓	✓					✓	

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