

Biological Resources Assessment for the Spanish Vineyards Caretaker's Residence and Access Road, Arroyo Grande, San Luis Obispo County, California

OCTOBER 2020

PREPARED FOR
King Ventures

PREPARED BY
SWCA Environmental Consultants

**BIOLOGICAL RESOURCES ASSESSMENT FOR THE
SPANISH VINEYARDS
CARETAKER'S RESIDENCE AND ACCESS ROAD,
ARROYO GRANDE, SAN LUIS OBISPO COUNTY,
CALIFORNIA**

**#DRC2019-00256 (MUP) & PMTG2019-00091 (Grading)
Permit Type: Minor Use Permit-Residential (DRC) and Major Grading
APN 079-251-005, 044-561-004**

Prepared for

King Ventures
285 Bridge Street
San Luis Obispo, CA 93401
Attn: John E. King

Prepared by

Geoff Hoetker, M.S.

SWCA Environmental Consultants
1422 Monterey Street, Suite C200
San Luis Obispo, CA 93401
(805) 543-7095
www.swca.com

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Reporting Biologist: Geoff Hoetker, SWCA Environmental Consultants

"As a County-approved biologist, I hereby certify that this Biological Resources Assessment 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; and I further certify that I was present throughout the site visit(s) associated with this report."



October 20, 2020

EXECUTIVE SUMMARY / SYNOPSIS

SWCA Environmental Consultants (SWCA) has prepared this Biological Resources Assessment (BRA) at the request of King Ventures (Applicant) for the construction of a caretaker's residence/home and access road (project) in the hills near Arroyo Grande in San Luis Obispo, California. The purpose of this BRA is to document the biological resources on the property and identify impacts that could occur from the proposed project. This is a general report that assesses potential project-related impacts on special-status plants, wildlife, and sensitive habitats and provides recommendations for commensurate mitigation.

The proposed project is located in southwestern San Luis Obispo County along the Southern Coast Range hills north of Pismo Beach, west of Arroyo Grande, and east of the Price Canyon area. The Applicant proposes to construct a caretaker's residence/home to be located on Assessor's Parcel Number (APN) 079-251-005, with access to the site extending from Vetter Lane at APN 044-561-004. The general area is referred to by the Applicant as "Spanish Vineyards."

The residence would be 1,020 square feet in size, with an impervious surface footprint of 2,406 square feet. The area of disturbance for the residence, including septic, driveway, and California Department of Forestry and Fire Protection (CAL FIRE) fire defensible space, is approximately 0.63 acre. Total grading for the residence is estimated at 1,500 cubic yards.

The driveway from Vetter Lane is approximately 8,700 linear feet in length to the proposed residence, with a combination of asphalt paving (due to CAL FIRE slope requirements) and all-weather base, with a surface footprint of approximately 174,000 square feet (8,700 linear feet \times 18- to 22-foot variable widths [average of 20 feet] for the driveway). The area of disturbance for the driveway includes grading for the driveway along with variable CAL FIRE defensible space along the drive. For the purposes of environmental analysis, a 60-foot-wide "potential disturbance" area was used, with the width centered on the driveway. This would allow the grading and the roadway section, plus perimeter adjoining vegetation management as appropriate to CAL FIRE standards. The potential disturbance area at the full 60-foot width is approximately 11 acres, which is considered a "worst-case" scenario. Total grading for the driveway is estimated at 3,000 cubic yards. The driveway is located on/over existing ranch roads limiting the volume of grading as noted. Similarly, ground disturbance will occur largely on the surface of these existing roads and limit impacts to largely already disturbed areas. Equipment that will be used to construct the project would likely include a grader, excavator, compactor/roller, asphalt paver, dump truck, and various work trucks.

SWCA biologists conducted botanical surveys and reconnaissance wildlife surveys of the biological study area (BSA) on April 14, 15, and 22 and June 11, 2020, with the purpose of characterizing the existing conditions on and adjacent to the project site and identifying biological resources that could be impacted by future development on the site. Habitat mapping was also conducted. The BSA encompasses approximately 33.03 acres of land composed of bare ground/ruderal vegetation, non-native annual grassland, scattered areas of central maritime chaparral, and coast live oak woodland.

Special-status species observed during surveys of the BSA include Santa Margarita manzanita (*Arctostaphylos pilosula*), San Luis Obispo owl's-clover (*Castilleja densiflora* var. *obispoensis*), sand buck brush (Lompoc ceanothus) (*Ceanothus cuneatus* var. *fascicularis*), mesa horkelia (*Horkelia cuneata* var. *puberula*), and coast horned lizard (*Phrynosoma blainvillii*). Several other special-status species have the potential for occurrence based on regional California Natural Diversity Database (CNDDB) records and suitable habitat conditions on-site. The Applicant is proposing the removal of 12 coast live oak (*Quercus agrifolia*) trees ranging from 3 to 12 inches diameter-at-breast-height (dbh) for the proposed access road as a result of a reroute of the access road to avoid several rare plants.

Mitigation measures have been recommended to mitigate the loss of oak trees, avoid impacts to rare plants, and to avoid/minimize impacts to special-status wildlife species.

Following preparation of the initial site surveys, the Applicant's engineers and surveyors developed an alternate alignment for the driveway (refer to Page 15, Figure 5 - Vegetation/Habitat Map Sheet 3 of 5) that included re-routing the drive to the west of an accumulation of rare plants to avoid this area. The resulting impacts to oak trees are documented on Figure 5, and more fully detailed in the engineer's drawings (refer to Appendix A). This rerouting of the drive is recommended by this BRA to avoid impacts to rare plants.

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1 INTRODUCTION

1.1 Purpose of Biological Resources Assessment

SWCA Environmental Consultants (SWCA) has prepared this Biological Resources Assessment (BRA) at the request of King Ventures (Applicant) for the construction of a caretaker's residence/home and access road (project) in the hills near Arroyo Grande in San Luis Obispo, California. The purpose of this BRA is to document the biological resources on the property and identify impacts that could occur from the proposed project. This is a general report that assesses potential project-related impacts on special-status plants, wildlife, and sensitive habitats and provides recommendations for commensurate mitigation.

For those instances where potential impacts to sensitive biological resources may occur, SWCA has provided recommendations with the objective of avoiding or minimizing the potential impacts. SWCA understands that this BRA would be used by the Applicant, the County of San Luis Obispo Planning and Building Department (County), and affected regulatory agencies during the environmental review process for the proposed project. This BRA has been prepared in accordance with the County's *Draft Standard Guidelines for Biological Resources Assessments* (County of San Luis Obispo 2016).

1.2 Project Location and Setting

The general area is referred to by the Applicant as "Spanish Vineyards." The proposed project is located in southwestern San Luis Obispo County along the Southern Coast Range hills north of Pismo Beach, west of Arroyo Grande, and east of the Price Canyon area. The Applicant proposes to construct a caretaker's residence/home on Assessor's Parcel Number (APN) 079-251-005, with access to the site extending from Vetter Lane at APN 044-561-004 (Figures 1 and 2).

1.3 Development Proposal Description

The residence would be 1,020 square feet in size, with an impervious surface footprint of 2,406 square feet. The area of disturbance for the residence, including septic, driveway, and California Department of Forestry and Fire Protection (CAL FIRE) fire defensible space, is approximately 0.63 acre. Total grading for the residence is estimated at 1,500 cubic yards.

The driveway from Vetter Lane is approximately 8,700 linear feet in length to the proposed residence, with a combination of asphalt paving (due to CAL FIRE slope requirements) and all-weather base, with a surface footprint of approximately 174,000 square feet (8,700 linear feet × 18- to 22-foot variable widths [average of 20 feet] for the driveway). The area of disturbance for the driveway includes grading for the driveway along with variable CAL FIRE defensible space along the drive. For the purposes of environmental analysis, a 60-foot-wide "potential disturbance" area was used, with the width centered on the driveway. This would allow the grading and the roadway section, plus perimeter adjoining vegetation management as appropriate to CAL FIRE standards. The potential disturbance area at the full 60-foot width is approximately 11 acres, which is considered a "worst-case" scenario. Total grading for the driveway is estimated at 3,000 cubic yards. The driveway is located on/over existing ranch roads limiting the volume of grading as noted. Similarly, ground disturbance will occur largely on the surface of these existing roads and limit impacts to largely already disturbed areas. Equipment that will be used to construct the project would likely include a grader, excavator, compactor/roller, asphalt paver, dump truck, and various work trucks.

The existing land use designations for APNs 079-251-005 and 044-561-004 are "Rural Lands." Preliminary Site Plans are included in Appendix A.



Figure 1. Project vicinity map.

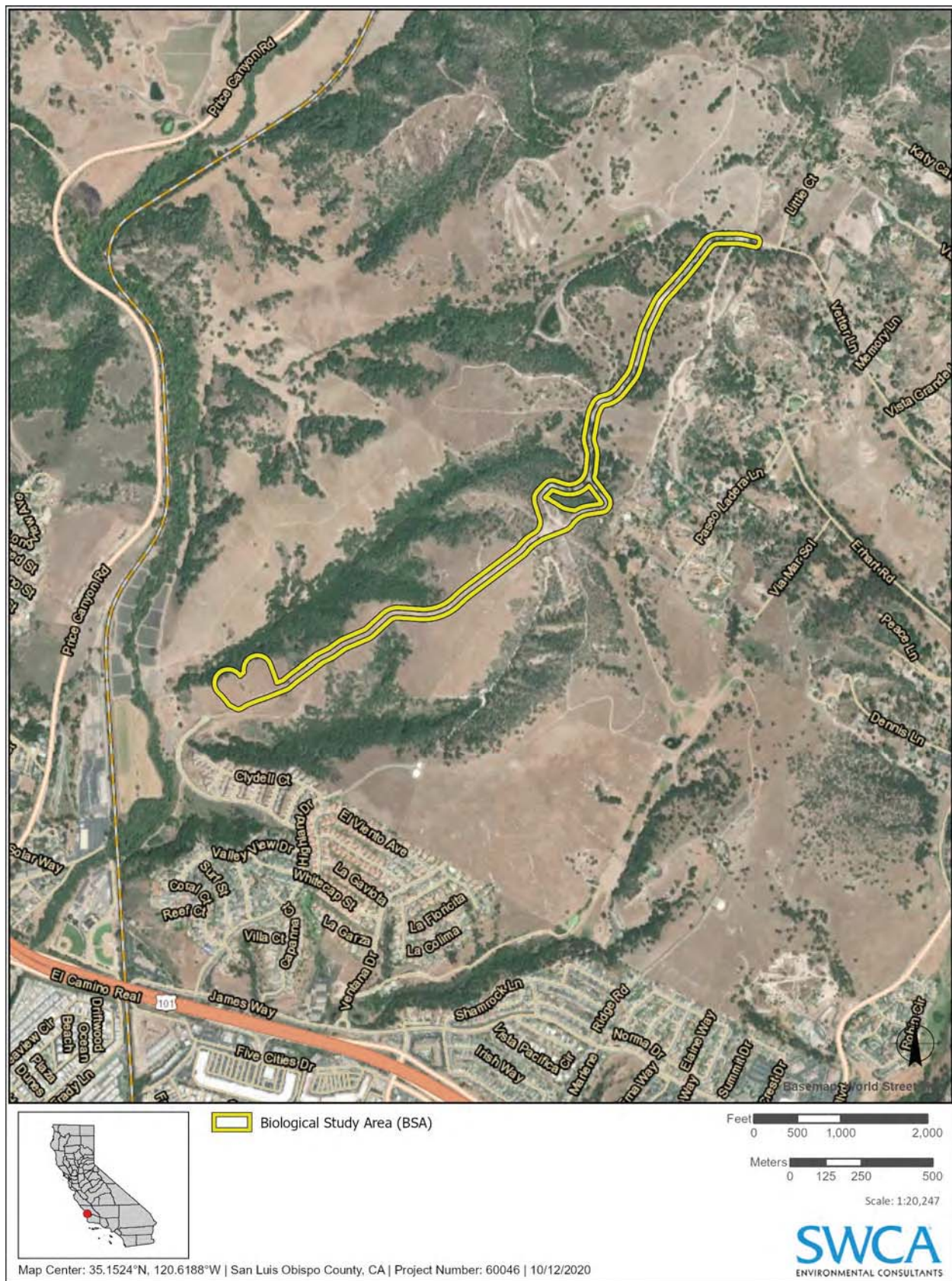


Figure 2. Project location map.

2 EXISTING CONDITIONS

The proposed project is located in southwestern San Luis Obispo County along the Southern Coast Range hills north of Pismo Beach, west of Arroyo Grande, and east of the Price Canyon area (see Figure 2). Current access to the project area is via Old Oak Park Road heading north then west along Vetter Lane at the western terminus of Vetter Lane. A network of previously graded dirt access roads supporting primarily bare ground and adjacent ruderal/disturbed vegetation extend throughout the subject parcels, proceeding through a landscape of gently rolling hills dominated by coast live oak woodland, non-native annual grassland, and scattered central maritime chaparral.

The biological study area (BSA) for the proposed access road improvements and caretaker's residence includes the proposed footprint for the access road improvements (along with an approximately 50-foot buffer on either side of the access road) and the development footprints for the proposed caretaker's residence lot and an alternative lot directly to the southwest (along with an approximately 50-foot buffer around the proposed lot development footprints) (see Figure 2). The BSA encompasses approximately 33.03 acres of land composed of bare ground/ruderal vegetation, non-native annual grassland, scattered areas of central maritime chaparral, and coast live oak woodland (discussed in more detail in Section 4).

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, soils in the BSA consist mainly of Pismo loamy sand, 9 to 30 percent slopes (Map Unit 189); Briones-Pismo loamy sands, 9 to 30 percent slopes with very small areas of Gaviota fine sandy loam, 15 to 50 percent slopes (Map Unit 142); and Xerorthents, eroded (Map Unit 222) and (Map Unit 109) (USDA NRCS 2020). Sandy soil conditions were observed as dominant throughout the BSA. Topography of the access road features gently rolling hills through the northernmost parcel, gradually sloping downward along the southernmost parcel. Elevation of the site is approximately 520 feet above mean sea level (AMSL) at the northern end of the BSA, sloping down to approximately 200 feet AMSL toward the southern end of the BSA.

3 METHODOLOGY

3.1 Literature Review

Prior to conducting a field survey, SWCA conducted a literature review to gain insight on regional special-status species occurrences. The review was initiated with a query of the most recent version of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) to identify reported occurrences of sensitive resources known to occur in the Arroyo Grande NE and Pismo Beach, California U.S. Geological Survey (USGS) 7.5-minute quadrangles and surrounding eight quadrangles (CNDDDB 2020). A list of special-status species within the CNDDDB search query area are included in Appendix B. The California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Plants of California (CNPS 2020) was reviewed to provide additional information on rare plants that are known to occur in the area. In addition, the Applicant provided for review *City of Pismo Beach Price Canyon Master Plan Pismo Beach, California Sensitive Species and Habitat Survey* (LFR/Arcadis 2009) and *Biological Resources Analysis for the Price Canyon Investment Property, San Luis Obispo County, California* (Olberding Environmental 2008); these documents were included in the Technical Appendix for *Price Canyon (Planning Area R) General Plan Update and Spanish Springs Specific Plan Draft Environmental Impact Report (DEIR)* (Firma 2012). These documents included previous studies of large areas that encompass the BSA for the proposed access road improvements and caretaker's residence.

3.2 Field Surveys

The purpose of field surveys was to conduct floristic botanical surveys and reconnaissance wildlife surveys to: (1) characterize the existing biological/habitat conditions within the BSA; and (2) identify those biological resources that could be impacted by future development within the BSA. SWCA Senior Biologists Geoff Hoetker and John Moule conducted botanical surveys and reconnaissance wildlife surveys of the BSA on April 14, 15, and 22 and June 11, 2020. Each survey was conducted during the hours of approximately 08:00 a.m. to 16:00 p.m. under sunny, clear, low wind, and mild to warm weather conditions. The botanical surveys were floristic (i.e., conducted within a range of months when target species were flowering and identifiable) following the guidelines of U.S. Fish and Wildlife Service (USFWS) (2000) and CDFW (2018). Meandering transects were walked along the access road and a 50-foot buffer on either side, and throughout the proposed caretaker's residence lot(s) (also with a 50-foot buffer). Plant species that could not be identified in the field were collected and their taxonomy later determined. Plants were identified with dichotomous keys using *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Reconnaissance wildlife surveys were conducted in cohort with the botanical surveys; no protocol wildlife surveys were determined to be necessary either due to marginal habitat conditions or complete lack of suitable habitat for target species.

3.3 Vegetation Mapping

Sensitive species locations were recorded using Samsung Galaxy S2 8.0 Tablets and/or Samsung Galaxy Tab Active 2 Tablets paired with Juniper Geode Global Positioning System (GPS) antennae capable of sub-meter accuracy for field data collection and input. Notes were made with GPS and/or on hard copy aerial maps of the BSA to provide ground-truth information on dominant vegetation/habitats within the BSA. Post-processing of GPS data with Geographic Information System (GIS) technology was conducted using the ArcGIS platform, supplemented with desktop digitization to map large blocks of vegetation/habitat using ArcGIS and analysis of aerial imagery.

4 RESULTS

4.1 Habitat Types

Vegetation/habitats within the BSA are characterized using common naming conventions, and the conventions/characterizations used in *Preliminary Description of Terrestrial Natural Communities of California* (Holland 1986) and *A Manual of California Vegetation* (Sawyer et al. 2009) are also included where appropriate. The plant community classifications were cross referenced with the CNDDB to determine which communities are recognized as "sensitive" by CDFW. The BSA encompasses approximately 33.03 of land composed of bare ground/ruderal, non-native annual grassland, coast live oak woodland, and central maritime chaparral habitat types (Figures 3 through 7). Photos of habitats and other features observed in the BSA are include in Appendix C. Maps of vegetation/habitats with locations of sensitive species observations are presented in Figures 3 through 7.

4.1.1 Bare Ground/Ruderal

Ruderal vegetation is typically found in disturbed areas that have been significantly altered by construction, landscaping, or other types of land-clearing activities. Ruderal habitats often occur along unpaved roads and roadsides, fence lines, near developments, and in other areas experiencing severe ground surface disturbance and/or compaction. There is no comparable characterization for this habitat type per Holland (1986) or Sawyer et al. (2009). This vegetation type is dominated by weedy species.

Common plant species found in ruderal areas within the BSA include brome grasses (*Bromus* spp.), wild oats (*Avena* spp.), veldt grass (*Ehrharta calycina*), Italian thistle (*Carduus pycnocephalus*), and horseweed (*Erigeron canadensis*).

In general, ruderal vegetation does not provide the habitat complexity necessary for diverse plant and wildlife communities. Areas with ruderal vegetation are not considered sensitive. Species expected to occur within this habitat type at the project site include weedy plants and grasses, various species of mice, and gophers.

Approximately 4.27 acre of bare ground/ruderal habitat was mapped within the BSA, mainly along the previously graded access road that traverses the BSA.

4.1.2 Non-Native Annual Grassland

Non-native annual grasslands are composed of a dense to sparse cover of annual grasses approximately 0.2 to 0.5 meter high (Holland 1986). These communities are typically occupied by numerous species of annual forbs, especially in years of favorable rainfall. Germination occurs with the onset of late fall rains and growth, flowering, and the setting of seeds that occurs from winter through spring. The plants are typically dead through the summer–fall dry season and persist as seeds. These communities are typically found on flat to gently rolling terrain with deep, fine-grained soils that are moist during the winter rainy season and dry during summer and fall.

Dominant non-native annual grassland species observed in the BSA included annual Mediterranean grasses such as slender wild oats (*Avena barbata*), rip-gut brome (*Bromus diandrus*), and Italian ryegrass (*Festuca perennis*). Veldt grass (*Ehrharta calycina*), a perennial bunchgrass native to South Africa, is also common in grasslands on-site. Associated with these grasses are forbs such as filaree (*Erodium* spp.), smooth cat's ear (*Hypochaeris glabra*), sky lupine (*Lupinus nanus*), burclover (*Medicago polymorpha*), purple vetch (*Vicia benghalensis*), and others.

Non-native annual grasslands provide foraging habitat for a variety of wildlife species. Raptors often forage in annual grasslands, while species such as mourning dove (*Zenaida macroura*) may use these areas for nesting. Reptiles commonly found within non-native annual grasslands include side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*), and gopher snake (*Pituophis melanoleucus*). Mammals potentially present in non-native annual grasslands include Botta's pocket gopher (*Thomomys bottae*), voles (*Microtus* spp.), and deer mice (*Peromyscus* spp.).

There are approximately 20.83 acres of non-native annual grassland within the BSA, mainly in gaps and edges adjacent to coast live oak woodland and the access road and within the area proposed for the caretaker's lot (and alternate lot).

4.1.3 Coast Live Oak Woodland

Oak woodlands within the BSA are dominated by a single tree: coast live oak (*Quercus agrifolia*). Coast live oak is an evergreen tree with mature specimens ranging from 40 to 75 feet in height, with a spreading crown, large branches, a dense canopy of thick waxy leaves, and a massive root system. Coast live oaks are restricted to an approximately 50-mile-wide band along the coast from Mendocino County south to Baja California. Coast live oak woodland is most common from sea level to 5,000 feet on north-facing slopes, in canyons, and along rolling foothills and alluvial terraces adjacent to water courses. Most healthy stands of coast live oak woodland support mixed-age classes of oak trees, saplings, and seedlings. Most coast live oak stands are typically 40 to 110 years old, and certain individual trees are over 250 years old (DeLasaux and Pillsbury 1987).

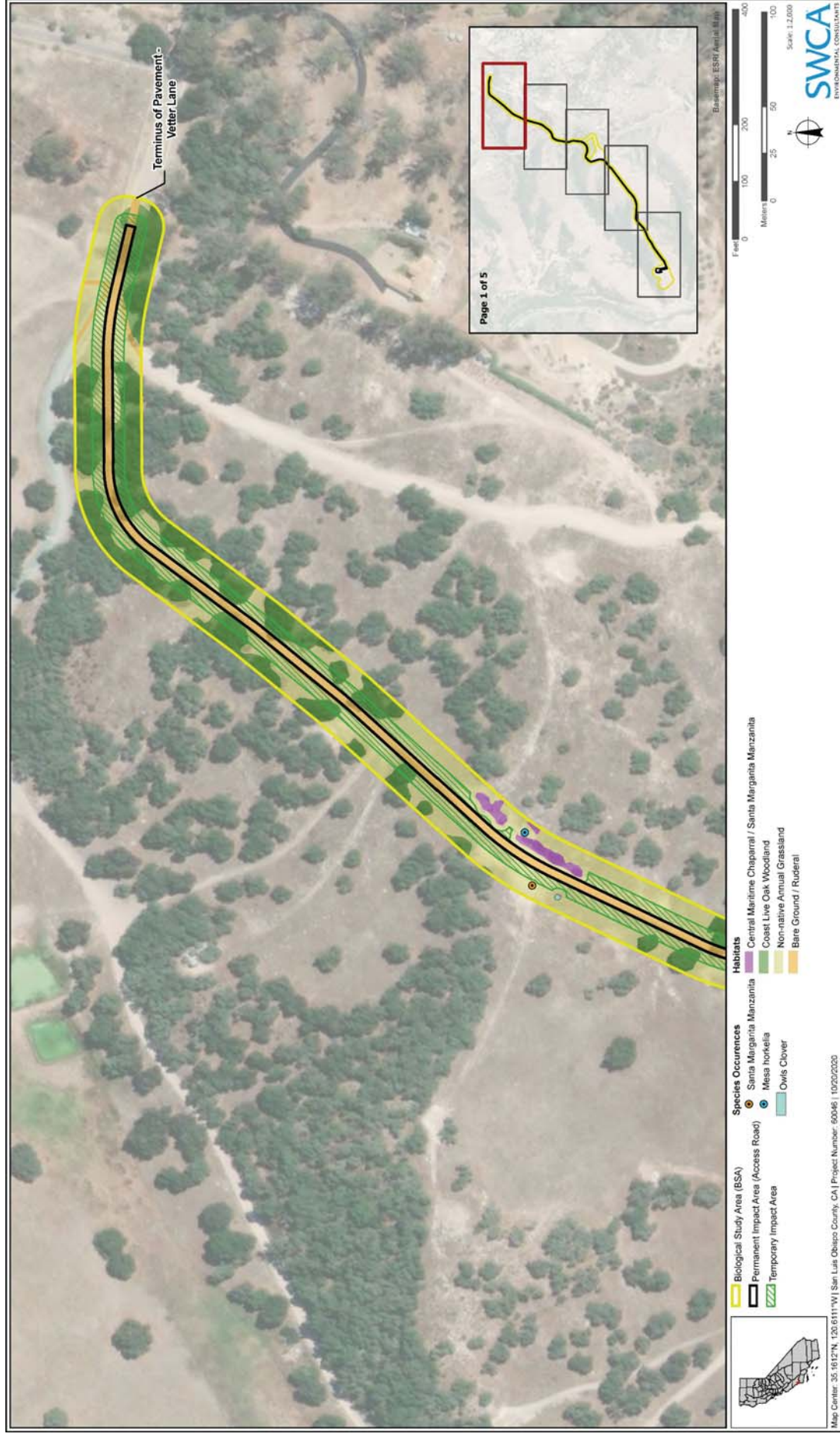


Figure 3. Vegetation/habitat map (sheet 1 of 5).

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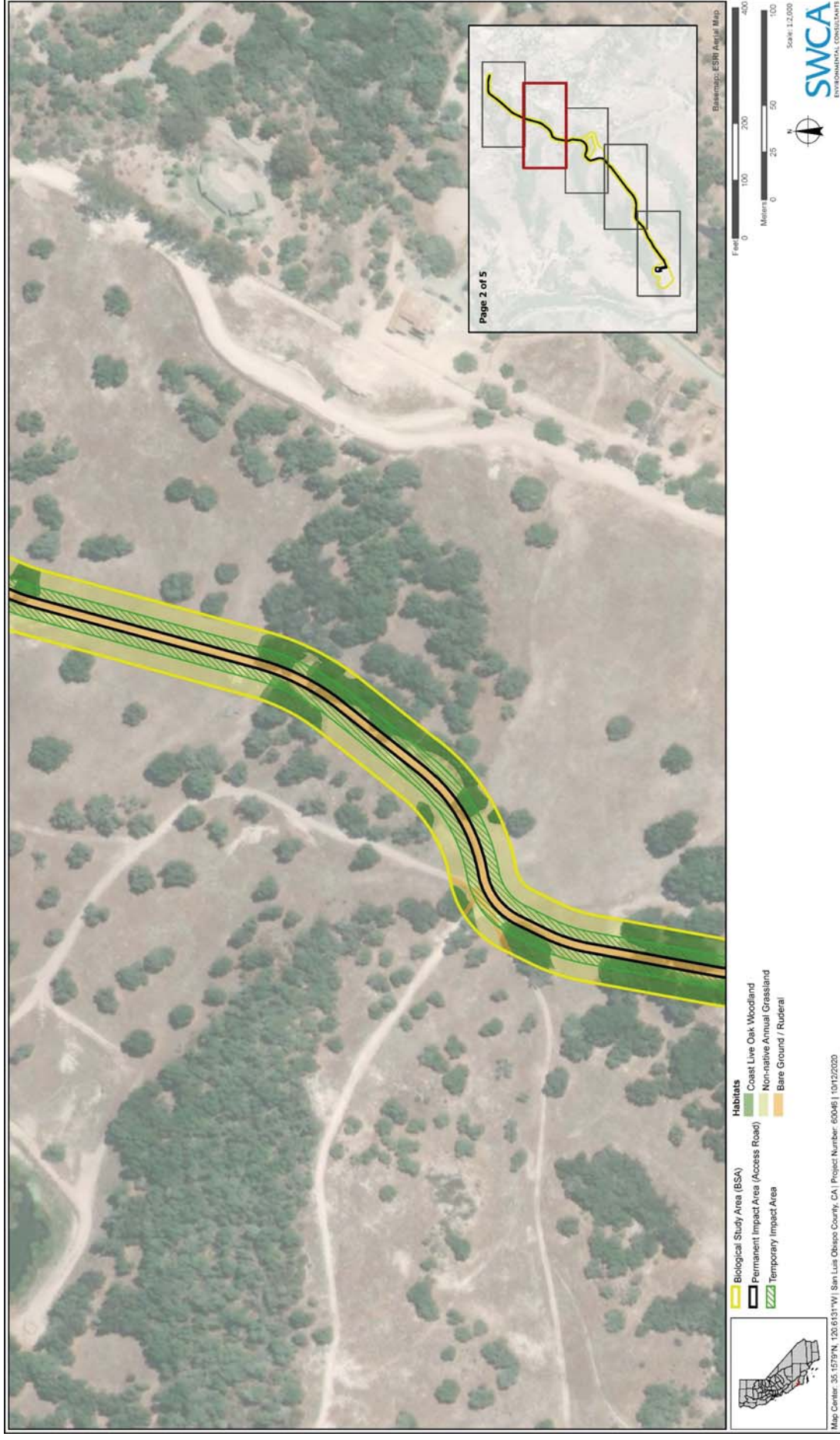


Figure 4. Vegetation/habitat map (sheet 2 of 5).

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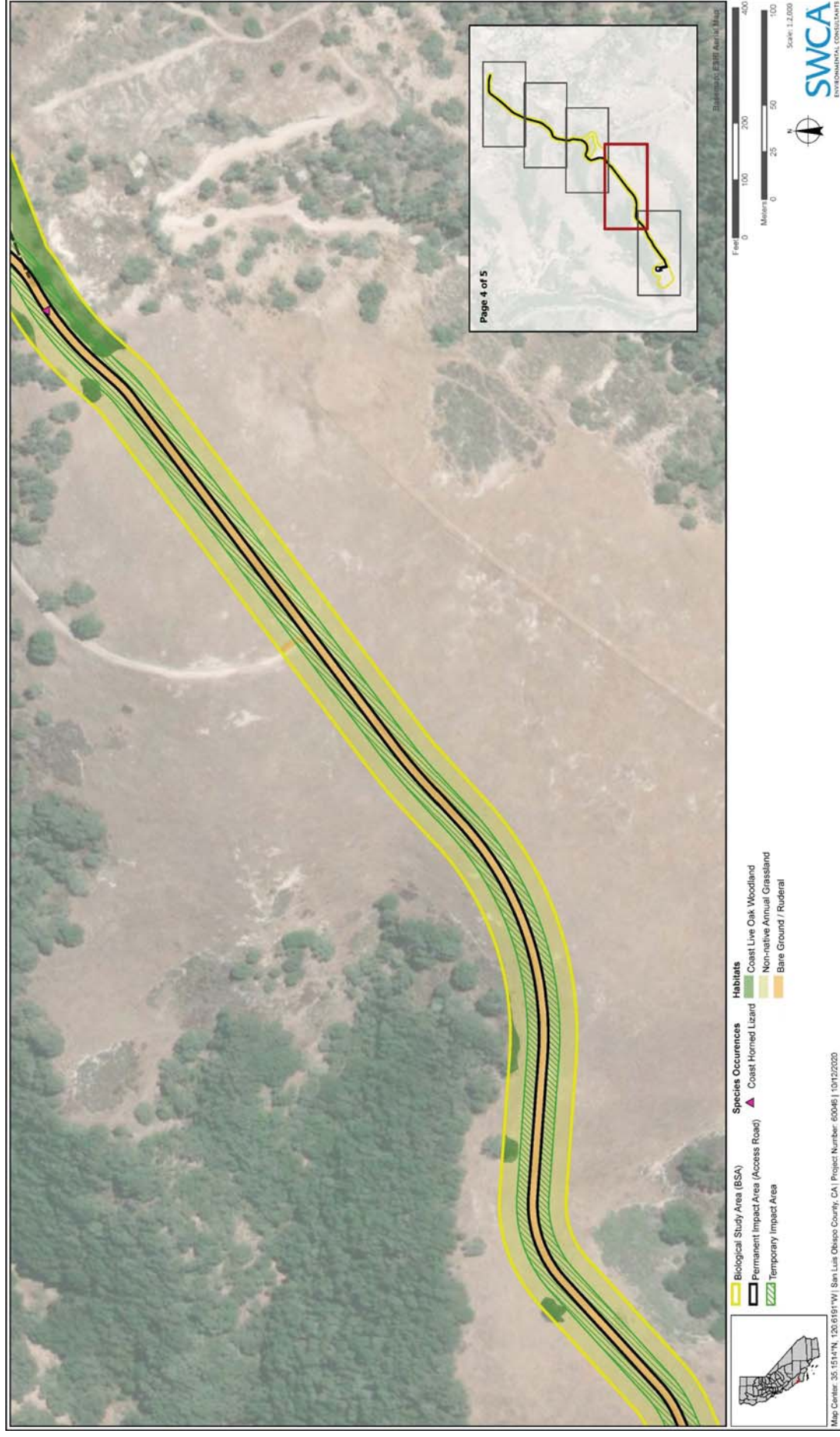


Figure 6. Vegetation/habitat map (sheet 4 of 5).

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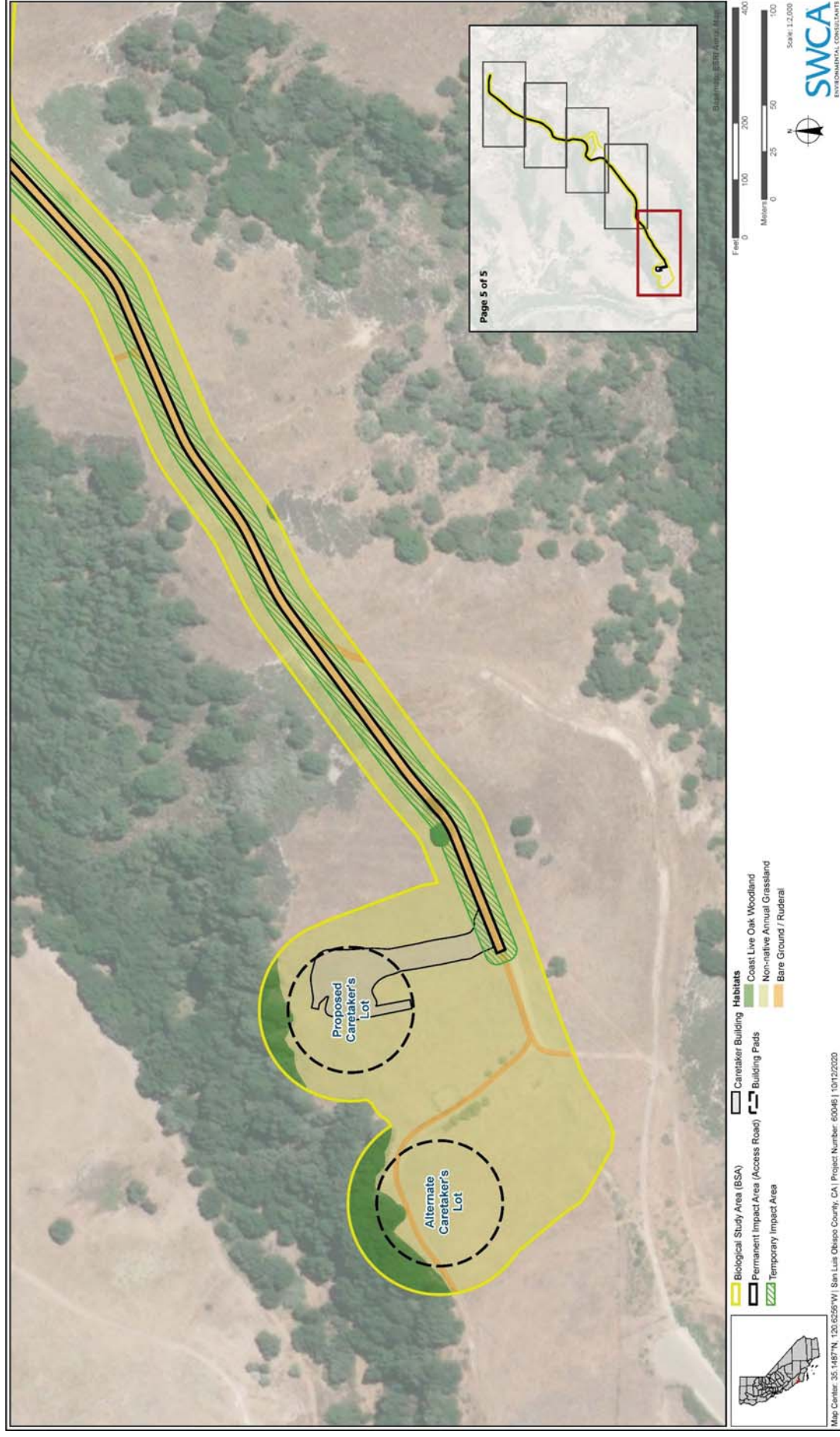


Figure 7. Vegetation/habitat map (sheet 5 of 5).

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Due to the large size of mature coast live oak trees and their dense canopy, the understory is often very well-shaded. Typical understory species include poison-oak (*Toxicodendron diversilobum*), California blackberry (*Rubus ursinus*), sticky monkey flower (*Diplacus aurantiacus*), bracken fern (*Pteridium aquilinum* var. *pubescens*), hummingbird sage (*Salvia spathacea*), miner's lettuce (*Claytonia* spp.), and various shade-tolerant grasses and forbs.

This community would be classified as the Coast Live Oak Woodland Community in the CNDDDB community classification system (Holland, 1986), and as the Coast Live Oak Series within the CNPS Manual of California Vegetation (Sawyer and Keeler-Wolf, 1995). Coast Live Oak Woodland has a global rank of G5 (secure,) and a state rank of S4 (apparently secure) (CDFW 2020). The San Luis Obispo County Conservation and Open Space Element (County of San Luis Obispo 2010) Policy BR 3.2 require mitigation measures such as tree replacement for loss of oak trees and other native trees.

There are approximately 7.72 ac of coast live oak woodland within the BSA, mainly in areas adjacent to the previously graded access road that traverses the BSA.

4.1.4 Central Maritime Chaparral

Central maritime chaparral, sometimes called sandhill chaparral, is dominated by evergreen shrubs and scattered multi-trunked coast live oaks that grow together at varying densities from open stands to almost impenetrable thickets in coastal areas of the Central Coast underlain with sand or sandstone-derived soils. The woody chaparral shrub vegetation ranges from 4 to 15 or more feet (1.2 to 4.6 meters) in height, although low-growing annuals and herbaceous perennials are scattered in exposed openings. In general, maritime chaparral is an unusual vegetation type found primarily on sandy substrates in a few coastal locations in Santa Barbara, San Luis Obispo, Monterey, and Santa Cruz Counties. Often these maritime chaparral associations are dominated by local endemic species of manzanita (*Arctostaphylos* spp.) and ceanothus (*Ceanothus* spp.) and mixed with other widespread and endemic species. Fire plays a significant role in maintaining chaparral community structure. The resinous stems and leaves of dominants such as chamise, coupled with retention of intricate branches, many of which are dead below the canopy, result in flammable vegetation. Many chaparral plants have characteristics that promote reestablishment after fires.

Central maritime chaparral occurs in two relatively small patches within the BSA, dominated by Santa margarita manzanita (*Arctostaphylos pilosula*), a sensitive species of manzanita and the only manzanita species observed within the BSA. Mapped occurrences of central maritime chaparral include mature shrubs supporting measurable cover in some areas, and an assemblage of saplings in one main area toward the central section of the BSA. In certain areas central maritime chaparral is adjacent to or interspersed with coast live oak woodland habitat. A few other herbaceous plants also occupy sunny openings in or adjacent to maritime chaparral, including herbaceous perennials such as the rare mesa horkelia (*Horkelia cuneata* var. *puberula*) and suncups (*Camissonia* sp.). Central maritime chaparral is a rare natural community and has a global rank of G2 (imperiled) and a state rank of S2 (imperiled), as listed in the CNDDDB (2020).

There are approximately 0.22 acre of central maritime chaparral within the BSA in two scattered locations.

4.1.5 ***Special-Status Plant Species***

For the purposes of this section, special-status plant species are defined as the following:

- Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (FESA) (50 Code of Federal Regulations [CFR] Section 17.12 for listed plants and various notices in the *Federal Register* for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the FESA.
- Plants that meet the definitions of rare or endangered species under the California Environmental Quality Act (CEQA) (State CEQA Guidelines Section 15380).
- Plants considered by the CNPS to be “rare, threatened, or endangered” in California (CNPS Ranks 1A, 1B, 2A, and 2B in CNPS 2018).
- Plants listed by the CNPS as plants about which we need more information and plants of limited distribution (Ranks 3 and 4 in CNPS 2018).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (14 California Code of Regulations [CCR] Section 670.5).
- Plants listed under the California Native Plant Protection Act (NPPA) (California Fish and Game Code [CFGF] Section 1900 et seq.).
- Plants considered sensitive by other federal agencies (i.e., U.S. Forest Service, U.S. Bureau of Land Management), state and local agencies, or jurisdictions.

Based on the literature review for this project, 57 special-status plant species and six CDFW Sensitive Natural Communities have been documented by the CNDDDB in the Arroyo Grande NE and Pismo Beach, California USGS 7.5-minute quadrangles and surrounding eight quadrangles (CNDDDB 2020) (Table 1). SWCA evaluated the list of special-status plant species considered in Table 1 to assess which special-status plant species have suitable habitat, soil, and elevation conditions within the BSA. The results of floristic surveys verified which special-status plant species were observed to occur within the BSA and allow for an assessment of potential project-related impacts. A list of plant species observed on-site is included in Appendix D.

Table 1. Special-Status Plant Species Evaluated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/State/CNPS Rare Plant Rank	Rationale for Expecting Presence or Absence
Hoover's bent grass <i>Agrostis hooveri</i>	Perennial herb; occurs in sandy sites in chaparral, cismontane woodland, and valley and foothill grassland. Perennial grass. Elevation: 60–610 meters.	April–July	--/–/1B.2	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
Santa Lucia manzanita <i>Arctostaphylos luciana</i>	Perennial evergreen shrub; occurs on chaparral with shale outcrops. Elevation: 350–850 meters.	February–March	--/–/1B.2	Species Absent: Suitable habitat with appropriate soils absent. BSA is below the known elevation range for species. Perennial shrub that is observable year-round was not observed during surveys and is not expected to occur in the BSA.
Oso manzanita <i>Arctostaphylos osoensis</i>	Perennial evergreen shrub; occurs in chaparral and cismontane woodland on dacite porphyry buttes. Elevation: 95–1,500 meters.	February–March	--/–/1B.2	Species Absent: Suitable habitat with appropriate soils absent. Perennial shrub that is observable year-round was not observed during surveys and is not expected to occur in the BSA.
Pecho manzanita <i>Arctostaphylos pechoensis</i>	Occurs in closed coniferous forest, chaparral, and coastal scrub on siliceous shale. Elevation: 125–850 meters.	November–March	--/–/1B.2	Species Absent: Suitable habitat with appropriate soils absent. Perennial shrub that is observable year-round was not observed during surveys and is not expected to occur in the BSA.
Santa Margarita manzanita <i>Arctostaphylos pilosula</i>	Perennial evergreen shrub; occurs in closed coniferous forest, chaparral, and cismontane woodland on shale or sandstone soils. Elevation: 170–1,100 meters.	December–March (April)	--/–/1B.2	Species Present: Suitable habitat present. Several individuals of this perennial species were observed along the proposed access road during surveys, including some that remained in flower. Santa Margarita manzanita is the only manzanita that was observed to occur in the BSA. Manzanita within the BSA will be avoided with buffers.
sand mesa manzanita <i>Arctostaphylos rudis</i>	Evergreen shrub; occurs in maritime chaparral and coastal scrub with sandy soils. Elevation: 25–322 meters.	November–February	--/–/1B.2	Species Absent: Suitable habitat present. Perennial shrub that is observable year-round was not observed during surveys and is not expected to occur in the BSA.
marsh sandwort <i>Arenaria paludicola</i>	Perennial stoloniferous herb; occurs in marshes and swamps (freshwater or brackish) in openings in sandy soil. Elevation: 3–170 meters.	May–August	FE/SE/1B.1	Species Absent: Suitable habitat absent. Species not observed during surveys and is not expected to occur in the BSA.
Miles' milk-vetch <i>Asragalus didymocarpus</i> var. <i>milesianus</i>	Annual herb; occurs in coastal scrub on clay soils. Elevation: 20–90 meters.	March–June	--/–/1B.2	Species Absent: Suitable habitat absent. Species not observed during surveys and is not expected to occur in the BSA.
San Luis mariposa lily <i>Calochortus obispoensis</i>	Perennial bulbiferous herb; occurs in chaparral, coastal scrub, and valley and foothill grassland; often in serpentine soils. Elevation: 50–730 meters.	May–July	--/–/1B.2	Species Absent: Marginal habitat present. Species not observed during surveys and is not expected to occur in the BSA.

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Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/State/CNPS Rare Plant Rank	Rationale for Expecting Presence or Absence
La Panza mariposa lily <i>Calochortus simulans</i>	Perennial bulbiferous herb; occurs in chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland; on sandy, often granitic, sometimes serpentine soils. Elevation: 325–1,100 meters.	April–May	--/1B.3	Species Absent: Suitable habitat present, but site is below the known elevation range of the species. Species not observed during surveys and is not expected to occur in the BSA.
Cambria morning-glory <i>Calystegia subacaulis</i> ssp. <i>episcopalis</i>	Perennial rhizomatous herb; occurs in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland. Elevation: 30–500 meters.	(March) April–June (July)	--/4.2	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
Hardham's evening primrose <i>Camissoniopsis hardhamiae</i>	Annual herb; occurs in chaparral and cismontane woodland on sandy soils, decomposed carbonate, or disturbed or burned areas. Elevation: 140–945 meters.	March–May	--/1B.2	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
San Luis Obispo sedge <i>Carex obispoensis</i>	Perennial herb; occurs in closed-cone coniferous forests, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland; often in serpentine seeps, sometimes gabbro, often on clay soils. Elevation: 10–820 meters	April–June	--/1B.2	Species Absent: Suitable habitat absent. Species not observed during surveys and is not expected to occur in the BSA.
San Luis Obispo owl's-clover <i>Castilleja densiflora</i> var. <i>obispoensis</i>	Annual hemiparasitic herb; occurs in meadows, seeps, and valley and foothill grassland; sometimes serpentine soils. Elevation: 10–430 meters.	March–May	--/1B.2	Species Present: Suitable habitat present. Approximately 50 individuals observed adjacent to proposed access road at one location. San Luis Obispo owl's clover plants within the BSA will be avoided with buffers.
sand buck brush (Lompoc ceanothus) <i>Ceanothus cuneatus</i> var. <i>fascicularis</i>	Perennial evergreen shrub; occurs in chaparral on sandy soils. Elevation: 5–400 meters.	February–April	--/4.2	Species Present: Suitable habitat present. One individual observed adjacent to originally proposed access route at one location. The access road has been rerouted and the Lompoc ceanothus shrub within the BSA will be avoided.
Nipomo Mesa ceanothus <i>Ceanothus impressus</i> var. <i>nipomensis</i>	Perennial evergreen shrub; occurs in chaparral on sandy soils. Elevation: 30–245 meters.	February–April	--/1B.2	Species Absent: Suitable habitat absent. Species not observed during surveys and is not expected to occur in the BSA.
Congdon's tarplant <i>Centromadia parryi</i> ssp. <i>congdonii</i>	Annual herb; occurs in valley and foothill grassland on alkaline soils. Elevation: 0–230 meters.	May–October (November)	--/1B.1	Species Absent: Suitable habitat with appropriate soils absent. Species not observed during surveys and is not expected to occur in the BSA.
coastal goosefoot <i>Chenopodium littoreum</i>	Annual herb; occurs on coastal dunes. Elevation: 10–30 meters.	April–August	--/1B.2	Species Absent: Suitable habitat absent. BSA is above the known elevation range of the species. Species not observed during surveys and is not expected to occur in the BSA.

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Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/State/ CNPS Rare Plant Rank	Rationale for Expecting Presence or Absence
dwarf soaproot <i>Chlorogalum pomeridianum</i> var. <i>minus</i>	Perennial bulbiferous herb; occurs in chaparral habitats with serpentine soils. Elevation: 305–1,000 meters.	May–August	--/~/1B.2	Species Absent: Suitable habitat with appropriate soils absent. BSA is below the known elevation range for species. Species not observed during surveys and is not expected to occur in the BSA.
Irish Hills spineflower <i>Chorizanthe aphanantha</i>	Annual herb; newly discovered species currently known only from the Irish Hills area of western San Luis Obispo County; occurs in serpentine scrub and chaparral. Elevation: 100 to 370 meters.	April–August	--/~/1B.1	Species Absent: Suitable habitat with appropriate soils absent. BSA is outside of the known range for species. Species not observed during surveys and is not expected to occur in the BSA.
Brewer's spineflower <i>Chorizanthe breweri</i>	Annual herb; occurs in chaparral, cismontane woodland, coastal scrub, and closed-cone coniferous forest; rocky or gravelly serpentine sites. Elevation: 45–800 meters.	April–August	--/~/1B.3	Species Absent: Suitable habitat with appropriate soils absent. Species not observed during surveys and is not expected to occur in the BSA.
straight-awned spineflower <i>Chorizanthe rectispina</i>	Annual herb; occurs in chaparral, cismontane woodland, and coastal scrub. Elevation: 85–1,035 meters.	April–July	--/~/1B.3	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
San Luis Obispo fountain thistle <i>Cirsium fontinale</i> var. <i>obispoense</i>	Perennial herb; occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland; serpentine seeps and drainages. Elevation: 35–380 meters.	February–July	FE/SE/1B.2	Species Absent: Suitable habitat with appropriate soils absent. Species not observed during surveys and is not expected to occur in the BSA.
Cuesta Ridge thistle <i>Cirsium occidentale</i> var. <i>lucianum</i>	Perennial herb; occurs in openings in chaparral on serpentine; often along steep rocky slopes and disturbed roadsides. Elevation: 500–750 meters.	April–June	--/~/1B.2	Species Absent: Suitable habitat with appropriate soils absent. BSA is below the known elevation range for species. Species not observed during surveys and is not expected to occur in the BSA.
surf thistle <i>Cirsium rhotophilum</i>	Perennial herb; occurs in coastal bluff scrub and coastal dunes. Elevation: 3–60 meters.	April–June	--/ST/1B.2	Species Absent: Suitable habitat absent. BSA is above the known elevation range for species. Species not observed during surveys and is not expected to occur in the BSA.
La Graciosa thistle <i>Cirsium scariosum</i> var. <i>loncholepis</i>	Perennial herb; occurs in cismontane woodland, coastal dunes, coastal scrub, marshes and swamps (brackish), and valley and foothill grassland, usually in mesic, sandy soils. Elevation: 4–220 meters.	May–August	FE/ST/1B.1	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
California saw-grass <i>Cladium californicum</i>	Rhizomatous herb; occurs in meadows, seeps, marshes, and swamps (alkaline or freshwater). Elevation: 60–600 meters.	June–September	--/~/2B.2	Species Absent: Suitable habitat absent. Species not observed during surveys and is not expected to occur in the BSA.

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Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/State/CNPS Rare Plant Rank	Rationale for Expecting Presence or Absence
Pismo clarkia <i>Clarkia speciosa</i> ssp. <i>immaculata</i>	Annual herb; occurs in openings in chaparral, cismontane woodland, and valley and foothill grassland in sandy soil. Elevation: 25–185 meters.	May–July	FE/SR/1B.1	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
dune larkspur <i>Delphinium parryi</i> ssp. <i>blochmaniae</i>	Perennial herb; occurs in maritime chaparral and coastal dunes with sandy or rocky soils. Elevation: 0–200 meters.	April–May	--/1B.2	Species Absent: Marginal habitat present. Species not observed during surveys and is not expected to occur in the BSA.
Eastwood's larkspur <i>Delphinium parryi</i> ssp. <i>eastwoodiae</i>	Perennial herb; occurs in openings and chaparral and valley and foothill grassland (serpentine, coastal). Elevation: 75–500 meters.	February–March	--/1B.2	Species Absent: Suitable habitat with appropriate soils absent. Species not observed during surveys and is not expected to occur in the BSA.
umbrella larkspur <i>Delphinium umbraculorum</i>	Perennial herb; occurs in chaparral and cismontane woodland. Elevation: 400–1,600 meters.	April–June	--/1B.3	Species Absent: Suitable habitat present, but site is below the known elevation range of the species. Species not observed during surveys and is not expected to occur in the BSA.
beach spectaclepod <i>Dithyrea maritima</i>	Perennial rhizomatous herb; occurs in coastal dunes and coastal scrub in sandy soil. Elevation: 3–50 meters.	March–May	--/ST/1B.1	Species Absent: Suitable conditions absent. BSA is above the known elevation range of species. Species not observed during surveys and is not expected to occur in the BSA.
Betty's dudleya <i>Dudleya abramsii</i> ssp. <i>bettinae</i>	Perennial herb; occurs in chaparral, coastal scrub, and valley and foothill grassland in serpentine, rocky soils. Elevation: 20–180 meters.	May–July	--/1B.2	Species Absent: Suitable habitat with appropriate soils absent. Species not observed during surveys and is not expected to occur in the BSA.
mouse-gray dudleya <i>Dudleya abramsii</i> ssp. <i>murina</i>	Perennial leaf succulent; occurs in serpentine outcrops in chaparral, cismontane woodland, and valley and foothill grassland. Elevation: 90–525 meters.	May–June	--/1B.3	Species Absent: Suitable habitat with appropriate soils absent. Species not observed during surveys and is not expected to occur in the BSA.
Blochman's dudleya <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i>	Perennial herb; occurs in coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland habitats on rocky outcrops in clay or serpentine soils. Elevation: 5–450 meters.	April–June	--/1B.1	Species Absent: Suitable habitat with appropriate soils absent. Species not observed during surveys and is not expected to occur in the BSA.
yellow-flowered eriastrium <i>Eriastrum luteum</i>	Annual herb; occurs in broadleafed upland forest, chaparral, and cismontane woodland on sandy or gravelly soils. Elevation: 290–1,000 meters	May–June	--/1B.2	Species Absent: Suitable habitat present, but site is below the known elevation range of the species. Species not observed during surveys and is not expected to occur in the BSA.
Blochman's leafy daisy <i>Erigeron blochmaniae</i>	Perennial rhizomatous herb; occurs in coastal dunes and coastal scrub on sandy soils. Elevation: 3–45 meters.	July–August	--/1B.2	Species Absent: Suitable habitat present, but site is above the known elevation range of the species. Species not observed during surveys and is not expected to occur in the BSA.

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Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/State/CNPS Rare Plant Rank	Rationale for Expecting Presence or Absence
Indian knob mountainbalm <i>Eriodictyon altissimum</i>	Evergreen shrub; occurs in maritime chaparral, cismontane woodland, and coastal scrub with sandstone substrates. Elevation: 80–270 meters.	March–June	FE/SE/1B.1	Species Absent: Marginal habitat present. Project site is outside the known range of the species. Species not observed during surveys and is not expected to occur in the BSA.
Hoover's button-celery <i>Eryngium aristulatum</i> var. <i>hooveri</i>	Annual/perennial herb; occurs in vernal pools. Elevation: 5–45 meters.	(June) July (August)	--/1B.1	Species Absent: Suitable habitat absent. BSA is above the known elevation range for species. Species not observed during surveys and is not expected to occur in the BSA.
mesa horkelia <i>Horkelia cuneata</i> var. <i>puberula</i>	Perennial herb; occurs in chaparral (maritime), cismontane woodland, and coastal scrub on sandy or gravelly soil. Elevation: 70–810 meters.	February–July (September)	--/1B.1	Species Present: Suitable habitat present. Several individuals observed adjacent to proposed access road at several locations. Mesa horkelia plants within the BSA will be avoided with buffers.
Kellogg's horkelia <i>Horkelia cuneata</i> var. <i>sericea</i>	Perennial herb; occurs in closed-cone coniferous forest, chaparral (maritime), and coastal scrub (sandy or gravelly openings). Elevation: 10–200 meters.	April – September	--/1B.1	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
Jones's layia <i>Layia jonesii</i>	Annual herb; occurs in chaparral and valley and foothill grassland on clay or serpentine outcrops. Elevation: 5–400 meters.	March–May	--/1B.2	Species Absent: Suitable habitat with appropriate soils absent. Species not observed during surveys and is not expected to occur in the BSA.
San Luis Obispo County lupine <i>Lupinus ludovicianus</i>	Perennial herb; occurs in chaparral and cismontane woodland on sandstone or sandy soils. Elevation: 50–525 meters.	April–July	--/1B.2	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
Nipomo Mesa lupine <i>Lupinus nipomensis</i>	Annual herb; occurs in coastal dunes. Elevation: 10–50 meters.	December– May	FE/SE/1B.1	Species Absent: Suitable habitat absent. BSA is above the known elevation range for species. Species not observed during surveys and is not expected to occur in the BSA.
slender bush-mallow <i>Malacothamnus gracilis</i>	Perennial deciduous shrub; occurs in chaparral on rocky soil. Elevation: 190–575 meters.	May–October	--/1B.1	Species Absent: Suitable habitat with appropriate soils absent. BSA is below the known elevation range for species. Species not observed during surveys and is not expected to occur in the BSA.
southern curly-leaved monardella <i>Monardella sinuata</i> ssp. <i>sinuata</i>	Annual herb; occurs in sandy soil among chaparral, cismontane woodland, coastal dunes, and coastal scrub with openings. Elevation: 0–300 meters	April– September	--/1B.2	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
crisp monardella <i>Monardella undulata</i> ssp. <i>crispa</i>	Perennial rhizomatous herb; occurs in coastal dunes and coast scrub. Elevation: 10–120 meters	April–August (December)	--/1B.2	Species Absent: Suitable habitat absent. Species not observed during surveys and is not expected to occur in the BSA.

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Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/State/CNPS Rare Plant Rank	Rationale for Expecting Presence or Absence
San Luis Obispo monardella <i>Monardella undulata</i> ssp. <i>undulata</i>	Perennial and rhizomatous herb; occurs in coastal and coastal scrub in sandy soil. Elevation: 10–200 meters	May–September	--/1B.2	Species Absent: Suitable habitat absent. Species not observed during surveys and is not expected to occur in the BSA.
aparejo grass <i>Muhlenbergia utilis</i>	Perennial herb; occurs in coastal sage scrub, creosote bush scrub, and wetland-riparian habitats, such as along streams and ponds. Elevation: 250–1,000 meters.	October–April	--/2B.2 (per CNDDDB 2020 but not currently included in CNPS 2020)	Species Absent: Suitable habitat absent. Species not observed during surveys and is not expected to occur in the BSA.
Gambel's watercress <i>Nasturtium gambelii</i>	Perennial rhizomatous herb; occurs in marshes and swamps (freshwater or brackish). Elevation: 5–330 meters	April–October	FE/ST/1B.1	Species Absent: Suitable habitat absent. Species not observed during surveys and is not expected to occur in the BSA.
coast woolly-heads <i>Nemacaulis denudata</i> var. <i>denudata</i>	Annual herb; occurs on coastal dunes. Elevation: 0–100 meters	April – September	--/1B.2	Species Absent: Suitable habitat absent. Species not observed during surveys and is not expected to occur in the BSA.
short-lobed broomrape <i>Orobancha parishii</i> ssp. <i>brachyloba</i>	Parasitic perennial herb; occurs in coastal bluff scrub, coastal dunes, and coastal scrub in sandy soil. Elevation: 3–305 meters	April–October	--/4.2	Species Absent: Suitable habitat absent. Species not observed during surveys and is not expected to occur in the BSA.
Diablo Canyon blue grass <i>Poa diaboli</i>	Perennial rhizomatous herb; occurs in closed-cone coniferous forest, chaparral (mesic), dismontane woodland, and coastal scrub with shale substrates; sometimes in burned areas. Elevation: 120–400 meters.	March–April	--/1B.2	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
black-flowered figwort <i>Scrophularia atrata</i>	Perennial herb; occurs in closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, and riparian scrub. Elevation: 10–500 meters.	March–April	--/1B.2	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
rayless (chaparral) ragwort <i>Senecio aphanactis</i>	Annual herb; occurs in chaparral, dismontane woodland, and coastal scrub; sometimes in alkaline soil. Elevation: 15–800 meters.	January–April (May)	--/2B.2	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.
most beautiful jewel-flower <i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	Annual herb; occurs in chaparral, dismontane woodland, and valley and foothill grassland on serpentine soil. Elevation: 95–1,000 meters	(March) April–September (October)	--/1B.2	Species Absent: Suitable habitat with appropriate soils absent. Species not observed during surveys and is not expected to occur in the BSA.
San Bernardino aster <i>Symphoricarum defoliatum</i>	Perennial rhizomatous herb. Occurs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland (vernally mesic) near ditches, streams, and springs. Elevation: 2–2,040 meters	July–November (December)	--/1B.2	Species Absent: Suitable habitat present. Species not observed during surveys and is not expected to occur in the BSA.

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/State/CNPS Rare Plant Rank	Rationale for Expecting Presence or Absence
Natural Communities of Concern				
Central Dune Scrub	A backdune plant community characterized by low-growing, drought-tolerant shrubs that develop considerable cover. Diagnostic species include <i>Ericameria ericoides</i> and <i>Lupinus chamissonis</i> .			Habitat absent from BSA.
Central Foredunes	A foredune plant community characterized by scattered low-growing perennial plants including <i>Abronia</i> sp., <i>Ambrosia</i> sp., and <i>Cakile</i> sp. Usually occurring in areas exposed to tidal action.			Habitat absent from BSA.
Central Maritime Chaparral	A variable scrub community of moderate to high cover dominated by various <i>Arctostaphylos</i> sp. Found on well-drained sandy soils in areas subject to summer fog.			Habitat present within BSA: Central maritime occurs in two main locations within the BSA, dominated by Santa Margarita manzanita; areas with central maritime chaparral/Santa Margarita manzanita will be avoided with buffers.
Coastal and Valley Freshwater marsh	A wetland community that is found in areas of permanent or prolonged freshwater saturation without significant current or flow. Vegetation is dominated by perennial emergent monocots including cattails and rushes.			Habitat absent from BSA.
Northern Interior Cypress Forest	An open, fire-maintained scrubby forest dominated by one of several <i>Hesperocyparis</i> spp. Stands may be as much as 15 meters tall, but usually are lower. Occurs on dry, rocky, sterile, often ultramafic soils.			Habitat absent from BSA.
Serpentine Bunchgrass	An open grassland community dominated by perennial bunchgrasses such as <i>Stipa</i> spp. and restricted to serpentine sites. Total cover typically is low but is markedly dominated by native species (usually much more so than Valley Needlegrass Grassland or Non-native Grasslands).			Habitat absent from BSA.

General references: Baldwin et al. (2nd ed.) 2012. All plant descriptions from CNPS 2020.

Status Codes:

-- = No status

Federal: FE = Federally Endangered; FT = Federally Threatened

State: SE = State Endangered; ST = State Threatened; SR = State Rare

California Native Plant Society (CNPS):

Rank 1A = presumed extirpated in California and either rare or extinct elsewhere

Rank 1B = rare, threatened, or endangered in California and elsewhere

Rank 2A = presumed extirpated in California but common elsewhere

Rank 2B = rare, threatened, or endangered in California but more common elsewhere

Rank 3 = plants about which more information is needed

Rank 4 = Watch List: plants of limited distribution

CNPS Threat Ranks:

.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3 = Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

4.1.6 ***Special-Status Animal Species***

For the purposes of this section, special-status animal species are defined as the following:

- Animals listed or proposed for listing as threatened or endangered under the FESA (50 CFR 17.11 for listed animals and various notices in the *Federal Register* for proposed species).
- Animals that are candidates for possible future listing as threatened or endangered under the FESA.
- Animals that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines Section 15380).
- Animals listed or proposed for listing by the State of California as threatened and endangered under the CESA (14 CCR 670.5).
- Animal species considered by the State of California/CDFW to be California Species of Special Concern (SSC) or included on CDFW's Watch List (WL).
- Animal species that are fully protected in California (CFGF Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

Based on a CNDDDB query and a review of existing literature, 49 special-status wildlife species have been documented by the CNDDDB in the Arroyo Grande NE and Pismo Beach, California USGS 7.5-minute quadrangles and surrounding eight quadrangles (CNDDDB 2020) (Table 2). In addition, the "other nesting birds" category was added for the numerous species of birds with potential for occurrence in the BSA that are protected by the Migratory Bird Treaty Act (MBTA) and CFGF Section 3503. SWCA evaluated the list of special-status animal species considered in Table 2 to assess which special-status animal species have suitable habitat conditions within the BSA, which special-animal species were observed during reconnaissance surveys, and to allow for an assessment of potential project-related impacts. A list of animal species observed on-site is included in Appendix D.

According to *California Essential Connectivity Project* (Spencer et al. 2010) and *Missing Linkages: Restoring Connectivity to the California Landscape* (Penrod et al. 2001), the BSA is not located in an essential habitat connectivity or linkages area. The proposed project would include modest widening of an already existing access road and construction of a caretaker's residence and would not be anticipated to create any new barriers to habitat connectivity in the region.

Table 2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/ Other Status	Rationale for Expecting Presence or Absence
Invertebrates			
Oso Flaco robber fly <i>Ablautus schlingeri</i>	Occurs in sand dune habitat in the vicinity of Oso Flaco Lake in San Luis Obispo County.	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable sand dune habitat. Species not observed during surveys and is not expected to occur in the BSA.
Wawona riffle beetle <i>Attractelmis wawona</i>	Aquatic; found in riffles of rapid, small to medium clear mountain streams; strong preference for inhabiting submerged aquatic mosses.	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable aquatic habitat. Species not observed during surveys and is not expected to occur in the BSA.
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	Occurs in vernal pool habitats including depressions in sandstone and small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	FT/--/--	Suitable Conditions Absent: The BSA does not support suitable vernal pool habitat. Species not observed during surveys and is not expected to occur in the BSA.
obscure bumble bee <i>Bombus caliginosus</i>	Occurs in open, grassy coastal prairies and Coast Range meadows. Nesting occurs underground as well as aboveground in abandoned bird nests	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable hive habitat for bumblebees. Species not observed during surveys and is not expected to occur in the BSA.
Crotch bumble bee <i>Bombus crotchii</i>	Occurs in coastal California east to the Sierra Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	--/SCE/--	Suitable Conditions Absent: The BSA does not support suitable hive habitat for bumblebees. Species not observed during surveys and is not expected to occur in the BSA.
western bumble bee <i>Bombus occidentalis</i>	Occurs in open coniferous, deciduous, and mixed-wood forests; wet and dry meadows; montane meadows and prairie grasslands; meadows bordering riparian zones; and along roadsides in talga adjacent to wooded areas, urban parks, gardens, and agricultural areas; subalpine habitats; and more isolated natural areas.	--/SCE/--	Suitable Conditions Absent: The BSA does not support suitable hive habitat for bumblebees. Species not observed during surveys and is not expected to occur in the BSA.
Oso Flaco patch butterfly <i>Chlosyne leanira elegans</i>	Occurs in sand dune habitat in the vicinity of Oso Flaco Lake in San Luis Obispo County.	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable sand dune habitat. Species not observed during surveys and is not expected to occur in the BSA.
sandy beach tiger beetle <i>Cicindela hirticollis gravida</i>	Occurs in moist sand near the ocean, and in swales behind dunes or upper beaches beyond normal high tides. Found along the California coast from Humboldt County south to San Diego County.	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable beach habitat. Species not observed during surveys and is not expected to occur in the BSA.
globose dune beetle	Occurs in foredunes and sand hummocks; it burrows beneath the sand surface and is most common beneath dune vegetation.	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable sand dune habitat. Species not observed during surveys and is not expected to occur in the BSA.

Species Name	Habitat and Distribution	Legal Status Federal/State/ Other Status	Rationale for Expecting Presence or Absence
monarch butterfly – California overwintering population <i>Danaus plexippus</i>	Occurs along the coast from northern Mendocino County, California, to Baja California, Mexico. Winter roosts in wind-protected tree groves (eucalyptus [<i>Eucalyptus</i> sp.], Monterey pine [<i>Pinus radiata</i>], and cypress), with nectar and water sources nearby.	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable trees for winter roosting. Species not observed during surveys and is not expected to occur in the BSA.
white sand bear scarab beetle <i>Lichnanthe albipilosa</i>	Inhabits coastal sand dunes of San Luis Obispo County, in the vicinity of dune lakes. Found hovering close to the surface of the dunes, but with some distance from the surf.	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable sand dune habitat. Species not observed during surveys and is not expected to occur in the BSA.
California linderiella <i>Linderiella occidentalis</i>	Found in seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions.	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable vernal pool habitat. Species not observed during surveys and is not expected to occur in the BSA.
Morro Bay blue butterfly <i>Plebejus icaroides moroensis</i>	Inhabits stabilized dunes and adjacent areas of coastal San Luis Obispo and northwestern Santa Barbara Counties. Larval foodplant thought to be <i>Lupinus chamissonis</i> .	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable sand dune habitat. Species not observed during surveys and is not expected to occur in the BSA.
Atascadero June beetle <i>Polyphylla nubila</i>	Known only from inland sand dunes in San Luis Obispo County.	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable sand dune habitat. Species not observed during surveys and is not expected to occur in the BSA.
San Luis Obispo pyrg <i>Pyrgulopsis taylora</i>	Found in freshwater habitats in San Luis Obispo County.	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable aquatic habitat. Species not observed during surveys and is not expected to occur in the BSA.
mimic tryonia (=California brackishwater snail) <i>Tryonia imitator</i>	Inhabits coastal lagoons, estuaries, and salt marshes from Sonoma County south to San Diego County. Found only in permanently submerged areas in a variety of sediment types. Able to withstand a wide range of salinities.	--/--/SA	Suitable Conditions Absent: The BSA does not support suitable aquatic habitat. Species not observed during surveys and is not expected to occur in the BSA.
Fish			
tidewater goby <i>Eucyclogobius newberryi</i>	Occurs in brackish shallow lagoons and lower stream reaches where water is fairly still, but not stagnant.	FE/--/SSC	Suitable Conditions Absent: The BSA does not support aquatic habitat. Species not observed during surveys and is not expected to occur in the BSA.
arroyo chub <i>Gila orcuttii</i>	Small freshwater fish; occurs in coastal waters of southern California; typically occurs on sandy and muddy bottoms of flowing pools, creeks, intermittent streams, and small to medium rivers, and known populations occur in Malibu Creek and Santa Clara, San Luis Rey, and Santa Margarita Rivers.	--/--/SSC	Suitable Conditions Absent: The BSA does not support aquatic habitat. Species not observed during surveys and is not expected to occur in the BSA.

Species Name	Habitat and Distribution	Legal Status Federal/State/ Other Status	Rationale for Expecting Presence or Absence
South-Central California Coast steelhead DPS <i>Oncorhynchus mykiss</i>	Federal listing refers to runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River. Occurs in clear, cool water with abundant in-stream cover, well-vegetated stream margins, relatively stable water flow, and a 1:1 pool-to-riffle ratio.	FT, CH/--/SSC	Suitable Conditions Absent: The BSA does not support aquatic habitat. Species not observed during surveys and is not expected to occur in the BSA.
Amphibians			
lesser slender salamander <i>Batrachoseps minor</i>	Occurs in south Santa Lucia Mountains in tanbark oak, coast live oak, blue oak, sycamore, and laurel habitats. Found along shaded slopes with abundant leaf litter.	--/--/SSC	Marginal Conditions Present: The BSA supports oak woodland habitat and leaf litter; however, soil moisture is low onsite and the slopes are not very well shaded. Species not observed during surveys. Pre-construction survey to avoid/minimize impacts recommended.
Coast Range newt <i>Taricha torosa</i>	Breeds in coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats and will migrate over 1 km to breed in ponds, reservoirs, and slow-moving streams.	--/--/SSC	Suitable Conditions Absent: The BSA does not support aquatic habitat. A small pond within 1 km onsite (outside the BSA) was observed to be infested with American bullfrog (<i>Lithobates catesbeianus</i>) in April 2020 and no Coast Range newts or other amphibians were observed. Species not observed during surveys and not expected to occur in terrestrial habitats onsite.
foothill yellow-legged frog <i>Rana boylei</i>	Frequents rocky streams and rivers with rocky substrate and open, sunny banks, in forests, chaparral, and woodlands. Range in California includes the north and central coasts and the western Sierras.	--/SCT/SSC	Suitable Conditions Absent: The BSA does not support aquatic habitat. Species not observed during surveys and is not expected to occur in the BSA.
California red-legged frog <i>Rana draytonii</i>	Occurs in aquatic habitats with little or no flow and surface water depths to at least 2.3 feet, and the presence of sturdy underwater supports, such as cattails.	FT/--/SSC	Suitable Conditions Absent: The BSA does not support aquatic habitat. Species not observed during surveys and is not expected to occur in the BSA.
western spadefoot <i>Spea hammondi</i>	Inhabits vernal pools in primarily grassland, but also in valley and foothill hardwood woodlands.	--/--/SSC	Suitable Conditions Absent: The BSA does not support any ephemeral pools or seasonal water suitable for breeding. Species not observed during surveys and is not expected to occur in the BSA.
Reptiles			
northern California legless lizard <i>Anniella pulchra</i>	Occurs in sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. Prefer soils with high moisture content.	--/--/SSC	Marginal Conditions Present: Sandy soils occur within the BSA; however, soil moisture is likely low onsite. Species not observed during surveys. Species not observed during surveys. Pre-construction survey to avoid/minimize impacts recommended.
western pond turtle <i>Emys marmorata</i>	Occurs in quiet waters of ponds, lakes, streams, and marshes, typically in the deepest parts with an abundance of basking sites.	--/--/SSC	Suitable Conditions Absent: The BSA does not support aquatic habitat. Species not observed during surveys and is not expected to occur in the BSA.

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Species Name	Habitat and Distribution	Legal Status Federal/State/ Other Status	Rationale for Expecting Presence or Absence
coast horned lizard <i>Phrynosoma blainvillii</i>	Frequents a wide variety of habitats; most commonly in lowlands along sandy washes with scattered low bushes.	--/--/SSC	Suitable Conditions Present: One juvenile coast horned lizard observed within the BSA. Preconstruction survey to avoid/minimize impacts recommended.
Birds			
sharp-shinned hawk (nesting) <i>Accipiter striatus</i>	Short-distance migrant; nests in mixed and wooded forests; prefers tall trees for nest building; prey base includes small birds and mammals.	--/--/WL	Marginal Conditions Present: Marginal woodland nesting habitat occurs within the BSA adjacent to the access road. No nests observed in the BSA and species not observed during surveys. Preconstruction survey to avoid/minimize impacts recommended.
tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	Requires open water, protected nesting substrate such as cattails or tall rushes, and foraging area with insect prey.	--/ST/SSC	Suitable Conditions Absent: The BSA does not support aquatic nesting habitat. Species not observed during surveys and is not expected to occur in the BSA.
burrowing owl (burrow sites and wintering sites) <i>Athene cunicularia</i>	Occurs in open, dry grasslands, deserts, and scrublands; subterranean nester, dependent on burrowing mammals.	--/--/SSC	Marginal Conditions Present: Marginal grassland nesting habitat occurs within the BSA at the proposed caretaker's residence lot. No potential burrowing owl burrows observed in the BSA and species not observed during surveys. Preconstruction survey to avoid/minimize impacts recommended.
ferruginous hawk (nesting) <i>Buteo regalis</i>	Occurs in open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	--/--/WL	Marginal Conditions Present: Marginal woodland nesting habitat occurs within the BSA adjacent to the access road. No nests observed in the BSA and species not observed during surveys. Preconstruction survey to avoid/minimize impacts recommended.
western snowy plover (nesting) <i>Charadrius alexandrinus nivosus</i>	Occurs on sandy beaches, salt pond levees, and shores of large alkali lakes; needs sandy, gravelly, or friable soils for nesting.	FT/--/SSC	Suitable Conditions Absent: Suitable open beach habitat for nesting absent within the BSA. Species not observed during surveys and is not expected to occur in the BSA.
western yellow-billed cuckoo (nesting) <i>Coccyzus americanus occidentalis</i>	Occurs in forests to open riparian woodlands with thick understory.	FT/SE/--	Suitable Conditions Absent: Suitable riparian habitat for nesting absent from the BSA. Species not observed during surveys and is not expected to occur in the BSA.
white-tailed kite (nesting) <i>Elanus leucurus</i>	Occurs in open grasslands, meadows, or marshlands for foraging close to isolated trees for nesting and perching.	--/--/FP	Marginal Conditions Present: Marginal woodland nesting habitat occurs within the BSA adjacent to the access road. No nests observed in the BSA and species not observed during surveys. Preconstruction survey to avoid/minimize impacts recommended.

Spanish Vineyards Caretaker's Residence and Access Road Biological Resources Assessment

Species Name	Habitat and Distribution	Legal Status Federal/State/ Other Status	Rationale for Expecting Presence or Absence
California horned lark (nesting) <i>Eremophila alpestris actia</i>	In coastal regions, occurs chiefly from Sonoma County to San Diego County. Also occurs in main part of San Joaquin Valley and east to foothills. Occurs in short-grass prairie, bald hills, mountain meadows, open coastal plains, fallow grain fields, and alkali flats.	--/--/WL	Marginal Conditions Present: Marginal grassland nesting habitat occurs within the BSA at the proposed caretaker's residence lot. No nests observed in the BSA and species not observed during surveys. Preconstruction survey to avoid/minimize impacts recommended.
merlin (wintering) <i>Falco columbarius</i>	Occurs along the seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, and farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	--/--/WL	Marginal Conditions Present: Marginal woodland wintering habitat occurs within the BSA adjacent to the access road. No nests observed in the BSA and species not observed during surveys. Preconstruction survey to avoid/minimize impacts recommended.
prairie falcon (nesting) <i>Falco mexicanus</i>	Inhabits dry, open terrain (level or hilly). Breeding sites are located on cliffs. Forages far from nesting sites, even to marshlands and ocean shores.	--/--/WL	Suitable Conditions Absent: Suitable cliff nesting habitat absent from the BSA. Species not observed during surveys and is not expected to occur in the BSA.
California condor (nesting) <i>Gymnogyps californianus</i>	Requires vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	FE/SE/FP	Suitable Conditions Absent: Suitable nesting habitat absent from the BSA. Species not observed during surveys and is not expected to occur in the BSA.
loggerhead shrike (nesting) <i>Lanius ludovicianus</i>	Occurs in broken woodlands, savannah, pinyon-juniper, Joshua tree, riparian woodlands, desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning and fairly dense shrubs and brush for nesting.	--/--/SSC	Marginal Conditions Present: Marginal woodland nesting habitat occurs within the BSA adjacent to the access road. No nests observed in the BSA and species not observed during surveys. Preconstruction survey to avoid/minimize impacts recommended.
California black rail (nesting) <i>Laterallus jamaicensis coturniculus</i>	Shore birds known to frequent tidal salt marshes; utilize densely vegetated mud flats and high tide line in saltwater marsh systems.	--/ST/FP	Suitable Conditions Absent: Suitable salt marsh nesting habitat absent from BSA. Species not observed during surveys and is not expected to occur in the BSA.
purple martin (nesting) <i>Progne subis</i>	Inhabits woodlands, low-elevation coniferous forest of Douglas fir (<i>Pseudotsuga menziesii</i>), ponderosa pine (<i>Pinus ponderosa</i>), and Monterey pine. Mostly nests in old woodpecker cavities; also uses human-made structures. Nests are often located in tall, isolated trees/snags.	--/--/SSC	Marginal Conditions Present: Marginal woodland nesting habitat occurs within the BSA adjacent to the access road. No nests observed in the BSA and species not observed during surveys. Preconstruction survey to avoid/minimize impacts recommended.
California least tern (nesting colony) <i>Sterna antillarum browni</i>	Largely a coastal species that feeds on fish and nests on sandy dunes or beaches; once a common species in California; currently nesting colonies are isolated to southern California and scattered Bay Area beaches.	FE/SE/--	Suitable Conditions Absent: Suitable open dune nesting habitat absent within the BSA. Species not observed during surveys and is not expected to occur in the BSA.
Other nesting birds Class Aves	Various habitats (nesting).	MBTA/--/CFGCS Section 3503	Marginal Conditions Present: Marginal nesting habitat for migratory birds is present within the BSA adjacent to the access road (for tree nesting birds) and the proposed caretaker's residence lot (for ground nesting birds). Preconstruction survey to avoid/minimize impacts recommended.

Species Name	Habitat and Distribution	Legal Status Federal/State/ Other Status	Rationale for Expecting Presence or Absence
Mammals			
pallid bat <i>Antrozous pallidus</i>	Typically utilizes open, dry habitats with rocky areas for roosting; commonly roosts on bridges.	--/--/SSC	Suitable Conditions Absent: Suitable roosting habitat for bats is absent from the BSA; oak trees within the BSA do not likely provide conditions for thermoregulation for day, night, or maternity roosting bats; no sign of bats (e.g., guano) was observed during surveys. Species not observed during surveys and is not expected to occur in the BSA.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	Typically roosts in the open hanging from walls and ceilings; extremely sensitive to human disturbance.	--/--/SSC	Suitable Conditions Absent: Suitable roosting habitat for bats is absent from the BSA; oak trees within the BSA do not likely provide conditions for thermoregulation for day, night, or maternity roosting bats; no sign of bats (e.g., guano) was observed during surveys. Species not observed during surveys and is not expected to occur in the BSA.
western mastiff bat <i>Eumops perotis californicus</i>	Occurs in open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in cliff faces, buildings, trees, and tunnels.	--/--/SSC	Suitable Conditions Absent: Suitable roosting habitat for bats is absent from the BSA; oak trees within the BSA do not likely provide conditions for thermoregulation for day, night, or maternity roosting bats; no sign of bats (e.g., guano) was observed during surveys. Species not observed during surveys and is not expected to occur in the BSA.
western red bat <i>Lasiurus blossevillei</i>	Roosts primarily in trees, 2–40 feet aboveground, from sea level through mixed conifer forests. Prefers habitat edges and mosaics with trees protected from above and open below with open areas for foraging.	--/--/SSC	Suitable Conditions Absent: Suitable roosting habitat for bats is absent from the BSA; oak trees within the BSA do not likely provide conditions for thermoregulation for day, night, or maternity roosting bats; no sign of bats (e.g., guano) was observed during surveys. Species not observed during surveys and is not expected to occur in the BSA.
Yuma myotis <i>Myotis yumanensis</i>	Optimal habitats are open forests and woodlands with sources of water. Distribution is closely tied to bodies of water, maternity colonies in caves, mines, buildings, or crevices.	--/--/SA	Suitable Conditions Absent: Suitable roosting habitat for bats is absent from the BSA; oak trees within the BSA do not likely provide conditions for thermoregulation for day, night, or maternity roosting bats; no sign of bats (e.g., guano) was observed during surveys. Species not observed during surveys and is not expected to occur in the BSA.

Species Name	Habitat and Distribution	Legal Status Federal/State/ Other Status	Rationale for Expecting Presence or Absence
North American porcupine <i>Erethizon dorsatum</i>	Occurs in forested habitats in the Sierra Nevada, Cascade, and Coast Ranges with scattered observations from forested areas in the Transverse Ranges. Uses a variety of coniferous and mixed woodland habitat. Dens in hollow trees or in rocky areas	--/--/SA	Suitable Conditions Absent: The only record in the CNDDDB search is a 2016 observation of a porcupine that was reported along Manzanita Creek off High Mountain Road in the Los Padres National Forest (CNDDDB 2020). The oak woodland habitat within the BSA is likely too open and lacks large trees or hollow logs that this species typically uses for cover. Species not observed during surveys and is not expected to occur in the BSA.
American badger <i>Taxidea taxus</i>	Occurs in drier open stages of shrub, forest, and herbaceous habitats, with friable soils; needs sufficient food and open, uncultivated ground; digs burrows.	--/--/SSC	Marginal Conditions Present: Marginal denning habitat occurs within the BSA. No potential dens observed in the BSA and species not observed during surveys. Preconstruction survey to avoid/minimize impacts recommended.

General references: Unless otherwise noted all habitat and distribution data provided by the CNDDDB.

Status Codes

--= No status

Federal: FE = Federal Endangered; FT = Federal Threatened; CH = Federal Critical Habitat designated; MBTA = Protected by Federal Migratory Bird Treaty Act

State: SE = State Endangered; ST = State Threatened; SCT = State Candidate Threatened

CDFW: SSC = CDFW Species of Special Concern; FP = Fully Protected Species; WL = CDFW Watch List; SA = Included in CDFW "Special Animal" List; FGC Section 3503 = Protected by California Fish and Game Code

5 REGULATORY SETTING

5.1 Federal Policies and Regulations

5.1.1 *Federal Endangered Species Act*

The FESA provides legislation to protect federally listed plant and animal species. FESA Section 9 protects federally listed plant and animal species from unlawful take. “Take” is defined by FESA as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Under the FESA, all take of federally listed fish and wildlife species as detailed in a Biological Opinion (or Habitat Conservation Plan [HCP]) must be incidental to otherwise lawful activities and not the purpose of such activities. Impacts to listed species resulting from the implementation of a project would require the responsible agency or the applicant to coordinate with the USFWS or National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) to determine the extent of impact to a particular species. If the USFWS or NOAA Fisheries determine that impacts to a federally listed species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. The USFWS and NOAA Fisheries also regulate activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species. The proposed project would need to remain in compliance with the provisions of FESA.

5.1.2 *Migratory Bird Treaty Act*

The MBTA protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers popular in the latter part of the 1800s. The MBTA is enforced by the USFWS, and potential impacts to species protected under the MBTA are evaluated by the USFWS in consultation with other federal agencies. On April 11, 2018, the USFWS issued guidance on the recent M-Opinion affecting MBTA implementation. The M-Opinion concludes that the take of birds resulting from an activity is not prohibited by the MBTA when the underlying purpose of that activity is not to take birds. The USFWS interprets the M-Opinion to mean the MBTA prohibitions on take apply when the purpose of the action is to take migratory birds, their eggs, or their nests. Working with other federal agencies on migratory bird conservation is an integral mission of the USFWS; therefore, the USFWS maintains that potential impacts to migratory birds resulting from federal actions should be addressed under the National Environmental Policy Act (NEPA). The BSA supports marginal habitat for nesting birds. If proposed ground-disturbing activities are implemented during the nesting bird season, preconstruction nesting bird surveys should be conducted to avoid impacts to nesting migratory birds.

5.2 State Policies and Regulations

5.2.1 *California Environmental Quality Act*

Guidance for determining CEQA significance thresholds is based on Appendix G of the State CEQA Guidelines. Using these guidelines, activities requiring CEQA review within the project study area would have a significant impact on biological resources if they would:

- 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 USFWS or CDFW;

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the USFWS or CDFW;
- Have a substantial adverse effect on federally protected wetlands as defined by Clean Water Act (CWA) Section 404;
- Interfere substantially with the movement of any resident or migratory species of wildlife, wildlife corridors, or wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources; or
- Conflict with the provisions of an adopted HCP, Natural Community Conservation Plan (NCCP), or other approved state, regional, or local HCP.

This BRA has been prepared in support of the Applicant's application submittal to the County and the CEQA environmental document for the proposed project.

5.2.2 California Endangered Species Act and Species of Special Concern

California has a parallel mandate to the FESA, which is embodied in the CESA. The CESA ensures legal protection for plants listed as rare or endangered and wildlife species formally listed as endangered or threatened. The state also maintains a list of California SSC, a status assigned to species that have limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, CDFW is empowered to review projects for their potential to impact special-status species and their habitats. Under the CESA, the CDFW reserves the right to request the replacement of lost habitat that is considered important to the continued existence of CESA-protected species. The CDFW regulates activities that may result in the "take" of such species. The CESA has a much less inclusive definition of "take" (limited to direct take such as hunting, shooting, capturing, etc.) that does not include the broader definitions in federal law. The proposed project would need to remain in compliance with the provisions of the CESA.

5.2.3 California Fish and Game Code

Pursuant to Division 2, Chapter 6, Sections 1600–1602 of the CFGC, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. The CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." The CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife.

The CDFW also manages the California NPPA (CFGC Section 1900 et seq.), which was enacted to identify, designate, and protect rare plants. In accordance with CDFW guidelines, plant species with CNPS Rare Plant Ranks 1A, 1B, 2A, 2B, and 3 are considered "rare" under the NPPA. Impacts to plants with these rarity rankings must be fully evaluated under CEQA. Plants with CNPS Rank 4 have limited distributions but are not necessarily eligible for listing; however, it is recommended that impacts to plants with CNPS Rank 4 also be evaluated per CEQA.

Per CFGC Section 2835, in absence of a CDFW-approved NCCP, the CDFW cannot authorize take of a Fully Protected species. The classification of Fully Protected was the state's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction.

Most “fully” protected species have been listed as threatened or endangered species under the CESA. CFGC Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) include provisions to protect Fully Protected species, such as: (1) prohibiting take or possession “at any time” of the species listed in the statute, with few exceptions; (2) stating that “no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to “take” a species that has been designated as Fully Protected; and (3) stating that no previously issued permits or licenses for take of these species “shall have any force or effect” for authorizing take or possession. Unless an applicant has developed a CDFW-approved NCCP, CDFW is unable to authorize incidental take of Fully Protected species when activities are proposed in areas inhabited by those species.

CFGC Section 3503 (Protections of Bird’s Nests) includes provisions to protect the nests and eggs of birds. Section 3503 states: “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.”

5.2.4 California Coastal Act

The California Coastal Act was enacted in 1976 to provide long-term protection of California’s coastal resources. The act’s coastal resources management policies are based on recommendations contained in the California Coastal Plan. California Coastal Act policy includes protection, enhancement, and restoration of environmentally sensitive habitat areas (ESHAs), including intertidal and nearshore waters, wetlands, bays and estuaries, riparian habitat, certain wood and grasslands, streams, lakes, and habitat for rare or endangered plants or animals. The proposed project occurs inland outside of the California Coastal Zone and within the County’s South County Planning Area (San Luis Bay Inland Sub Area South); therefore, no California Coastal Act compliance or Coastal Development Permit (CDP) will be required.

6 IMPACT ASSESSMENT AND MITIGATION

This section focuses on identifying potential biological impacts associated with the proposed project. The emphasis is on determining the potential effects of the project on special-status species and habitats within the BSA. Adverse impacts could occur if project construction and/or future uses of the property would result in temporary or permanent modification to sensitive habitats, or to habitats occupied by special-status species. Where potential impacts to sensitive resources have been identified, measures for avoiding, minimizing, or mitigating adverse effects to these resources are recommended.

6.1 Sufficiency of Biological Data

The analysis includes botanical surveys conducted in April and June 2020 during the typical blooming period for the special-status plants considered in Table 1. Existing site conditions of the BSA were also documented during this time in order to evaluate the potential for special-status species to occur on-site. The botanical survey effort was determined to be sufficient to allow for determination of presence/absence of each of the special-status plant species considered and to map their distribution within the BSA. No additional botanical surveys are recommended at this time.

The analysis of wildlife species considered in Table 2 was conducted in conjunction with the botanical surveys conducted in April and June. No protocol-level surveys were conducted since there is no expected “take” of any such species requiring a protocol-level survey effort based on the limited area of impact, existing conditions of the site, and knowledge of special-status species in the area. However, due to the movements of certain wildlife species, and unpredictable site selection on the part of nesting migratory birds, SWCA has recommended preconstruction surveys be conducted to avoid and minimize any potential direct impacts to special-status wildlife species.

6.2 Impacts

6.2.1 Project Effect on Unique or Special-Status Species or Their Habitats

Estimated quantities of habitat/vegetation impacts resulting from the proposed project are included in Table 3.

Table 3. Estimated Habitat/Vegetation Impacts Resulting from the Proposed Project

Habitat / Vegetation	Permanent Impact	Temporary Impact
Bare Ground / Ruderal	3.02 acres	0.44 acre ²
Non-native Annual Grassland	0.10 acre	5.73 acres ²
Coast Live Oak Woodland	0.06 acre ¹	1.69 acres ²
Central Maritime Chaparral	0	0
TOTAL	3.18 acres	7.86 acres²

¹ Resulting from the removal 12 coast live oak trees.

² Resulting from worst-case CAL FIRE vegetation management scenario; this would involve potential clearing of vegetation below oak canopy and would not require removal of any oak trees.

6.2.1.1 SENSITIVE HABITATS

Sensitive habitats are those habitats that are considered sensitive by the resources agencies or local policies. Live oaks in San Luis Obispo County removed for new residential and commercial development typically undergo environmental review, and removed oak trees are replaced at a four-to-one (4:1) ratio in order to mitigate oak tree loss (Native Tree Committee of San Luis Obispo County 2003). The Applicant is proposing the removal of 12 coast live oak trees ranging from 3 to 12 inches diameter-at-breast-height (dbh) for the proposed access road as a result of a reroute of the access road to avoid several rare plants (see Figures 3 through 7). Some additional oaks would require the trimming of limbs to allow for equipment access in some areas. Some road grading will occur under oak canopy but is not expected to be deep enough to impact root systems. Impacts to coast live oak trees would be of relatively small scale and short-term duration and would not be expected to substantially affect the long-term viability of the habitat onsite, and cumulative impacts would be negligible with tree replacement. Mitigation Measures BIO-1, BIO-2, and BIO-3 are recommended to mitigate impacts to coast live oak trees.

Within the BSA, central maritime chaparral is designated by CDFW as a California Sensitive Natural Community (CNDDDB 2020; CDFW 2020). Central maritime chaparral in the BSA consists of mainly monotypic stands of Santa Margarita manzanita. Mitigation Measures BIO-1, BIO-2, and BIO-4 are recommended to ensure avoidance of impacts to central maritime chaparral and areas with other rare plants on-site.

6.2.1.2 SPECIAL-STATUS PLANTS

Four special-status plant species included in Table 1 were observed during botanical surveys conducted within the BSA: Santa Margarita manzanita, San Luis Obispo owl's clover (*Castilleja densiflora* var. *obispoensis*), sand buckbrush (Lompoc ceanothus) (*Ceanothus cuneatus* var. *fascicularis*), and mesa horkelia. CNDDDB forms for these special-status plant observations are included in Appendix E. Rare plant species could be directly impacted by vegetation management activities, unless mitigation measures are implemented.

6.2.1.2.1 Santa Margarita Manzanita

Santa Margarita manzanita is a perennial evergreen shrub in the heath family (Ericaceae) with smooth peeling burgundy bark that reaches up to 15 feet (6 meters) in height. Its twigs are finely tomentose (i.e., densely covered with short matted woolly hairs). The distinctive evergreen leaves extend upright on short petioles, with identical green leaf surfaces. The overall leaf shape is narrowly elliptical to ovate, with an obtuse to wedge-shaped base and acute tip. Santa Margarita manzanita has white, pendant, widely urn-shaped flowers that open during the winter months, followed by smooth shiny fruits later in the spring; the fruits become light tan with age and show obscure vertical stripes.

Santa Margarita manzanita specimens in the sandstone-derived hills north and east of Arroyo Grande and Pismo Beach in San Luis Obispo County were formerly referred to taxonomically as Wells' manzanita (*Arctostaphylos wellsii*). Parker et al. (2007) documented that Wells (1968) published a new subspecies of *Arctostaphylos pilosula* (*A. pilosula* ssp. *pismoensis*). Later, Knight (1989) changed the status and name of *A. pilosula* ssp. *pismoensis* to *A. wellsii* where he asserted that *A. wellsii* differs from *A. pilosula* in several morphological features. Parker et al. (2007) examined type specimens of both *A. pilosula* and *A. pilosula* ssp. *pismoensis*, as well as a number of additional collections from the Atascadero region, Pozo Summit, Pismo Beach, and inland sites and found that the characters used by Knight (1989) to segregate out *A. wellsii* do not differentiate collections from the type of *A. pilosula*. Following this treatment, the Second Edition of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012) eliminated the *A. wellsii* taxonomy and integrated former *A. wellsii* with *A. pilosula*. Manzanita specimens observed by SWCA within the BSA supported diagnostic characters consistent with an identification appropriate for what is now recognized as *A. pilosula*, which is also consistent with the findings of what was referred to as the former Well's manzanita (*A. wellsii*) reported in and surrounding the vicinity of the BSA by previous investigators (LFR/Arcadis 2009; Olberding Environmental 2008).

Santa margarita manzanita has been reported to typically bloom from December to March (CNPS 2020), but flowering specimens were observed within the BSA in April 2020. The species occurs at elevations from 557 to 3,610 feet (170 to 1,100 meters). Santa margarita manzanita is considered a CNPS List 1B.2 species (a plant of limited distribution that is fairly endangered in California). Several Santa Margarita manzanita shrubs, ranging from seedlings to large mature specimens, were observed in scattered locations in central maritime chaparral or along the margins of coast live oak woodland within the BSA. Mitigation Measures BIO-1, BIO-2, and BIO-4 will serve to ensure avoidance of rare plants.

6.2.1.2.2 San Luis Obispo Owl's Clover

San Luis Obispo owl's clover is a slender annual parasitic herb, it parasitizes other native annual species. It has narrow, linear to lance-shaped leaves about 0.5 to 1.5 inches long (20 to 80 millimeters), occasionally tipped with one to three finger-like lobes. The flowers are clustered near the stem tips and each flower is subtended by a lobed bract tipped in white or pale yellow. The narrow tubular white flowers widen at the tips into an upper lobe/beak narrowly pointed and covered with soft hairs, and a lower lobe extending into three inflated pouches tipped with yellow and dotted with maroon spots.

San Luis Obispo owl's clover occurs in grasslands along the coast from Monterey County down into the Pismo Beach area at elevations from 33 to 1,410 feet (10 to 430 meters). San Luis Obispo owl's clover is considered a CNPS List 1B.2 species (a plant of limited distribution that is fairly endangered in California). It is threatened by residential development, energy development, grazing, recreation, road construction, and mining. It is a San Luis Obispo County endemic, restricted to a narrow portion of San Luis Obispo County.

A small population of approximately 50 individual San Luis Obispo owl's clover plants were observed toward the central section of the BSA. Mitigation Measure BIO-1, BIO-2, and BIO-4 will serve to ensure avoidance of rare plants.

6.2.1.2.3 Sand Buckbrush

Sand buckbrush, also known as Lompoc ceanothus, is an endemic variety of the more wide-ranging buckbrush ceanothus (*Ceanothus cuneatus* var. *cuneatus*). It is a perennial green shrub that can reach up to 10 feet in height, though most specimens are smaller. Sand buckbrush has intricate branches with narrow leathery leaves in clusters; these clusters occur close together along the woody stems at the tips of branches. The lilac-colored flowers bloom from February to April, followed by distinctive small leathery fruits topped with three tiny horns. These features contrast with other varieties of *Ceanothus cuneatus*, which have wider, less-clustered leaves; greater spacing of leaves along stems; and white flowers.

Sand buckbrush is a Central Coast endemic, found in chaparral habitat on sandy soil at elevations from 16 to 1,310 feet (5 to 400 meters) in San Luis Obispo and Santa Barbara County. It typically flowers from February to April and is considered a CNPS List 4.2 species (rare, threatened, or endangered in California and elsewhere; fairly endangered in California).

A single specimen of sand buckbrush was observed toward the central section of the BSA. The access road route has been rerouted to avoid this specimen and other rare plants in the vicinity. Mitigation Measures BIO-1, BIO-2, and BIO-4 will serve to ensure avoidance of rare plants.

6.2.1.2.4 Mesa Horkelia

Mesa horkelia is a perennial herb in the Rosaceae (rose family). It is a subspecies of the more widespread coast horkelia (*Horkelia cuneata* var. *cuneata*) and is differentiated from coast horkelia and the closely related Kellogg's horkelia (*Horkelia cuneata* var. *sericea*) by the glabrous (i.e., smooth or hairless) surface of its hypanthium (i.e., disk-like structure that bears the flower); [add diagnostic info on other two species]. Horkelia plants observed flowering within the BSA had glabrous hypanthia consistent with the diagnostic key character for mesa horkelia, per Baldwin et al. (2012). Horkelia plants have characteristic basal leaves divided into leaflets, with flowering stalks bearing reduced leaves and rather non-descript small white flowers at the branched tips. The flowers have five narrow white petals and 10 stamens with distinctive flattened ribbon-like filaments.

Mesa horkelia ranges from San Luis Obispo County south to San Diego County. It occurs in maritime chaparral, cismontane woodland, and coastal scrub habitats on sandy or gravelly soil at elevations from 230 to 2,660 feet (70 to 810 meters) and flowers from February to July (occasionally as late as September). It is a CNPS List 1B.1 species (rare, threatened, or endangered in California and elsewhere; seriously endangered in California). Several mesa horkelia plants were observed in scattered locations within the BSA, most commonly in sandy openings in grassland, chaparral, and/or oak woodland. Mitigation Measures BIO-1, BIO-2, and BIO-4 will serve to ensure avoidance of rare plants.

6.2.1.3 SPECIAL-STATUS ANIMALS

Of the various special-status animal species considered in Table 2, only coast horned lizard (*Phrynosoma blainvillii*) was observed during reconnaissance wildlife surveys. In addition, there is potential for other special-status wildlife species in Table 2 to occur due to marginal or suitable habitat conditions and the potential movements of these wildlife species in and out of such habitats. Special-status animal species that have potential to occur within the BSA include lesser slender salamander (*Batrachoseps minor*), Northern California legless lizard (*Anniella pulchra*), sharp-shinned hawk (*Accipiter striatus*), burrowing owl (*Athene cunicularia*), ferruginous hawk (*Buteo regalis*), white-tailed kite (*Elanus leucurus*),

California horned lark (*Eremophila alpestris actia*), merlin (*Falco columbarius*), loggerhead shrike (*Lanius ludovicianus*), purple martin (*Progne subis*), and American badger (*Taxidea taxus*). In addition, various other nesting birds protected by the MBTA and CFGC have potential to nest in trees and shrubs within the BSA.

Discussions of species accounts and potential impacts have been grouped below when justifiable by use of similar habitats, similar potential project-related impacts, and other factors, where appropriate.

6.2.1.3.1 Lesser Slender Salamander, Northern California Legless Lizard, and Coast Horned Lizard

The lesser slender salamander is considered a California SSC by CDFW. It is known only from the southern Santa Lucia range in wooded habitats. Where present, it can be found under boards, rotting logs, rocks, and surface litter (Zeiner et al. 1990).

The Northern California legless lizard is considered an SSC by CDFW. It is a fossorial species that spends most of its life underground; therefore, it is difficult to detect without shallow excavation of the soil surface. The species require sandy or loose loamy soils under sparse vegetation and a high level of moisture.

The coast horned lizard is considered an SSC by CDFW. It is a relatively large horned lizard, less rounded than other species, with numerous pointed scales along the sides of the body and over the back. Only the horns around the head are rigid. The range of the species extends from northern California to the tip of Baja California, distributed throughout foothills and coastal plains in areas with abundant, open vegetation such as chaparral or coastal sage scrub. The species typically occupies open country, especially sandy areas, washes, flood plains, and wind-blown deposits in a wide variety of habitats.

One juvenile coast horned lizard was observed along the access road toward the middle of the BSA (see Appendix C: Photos C-7 and C-8); a CNDDDB form for this observation is included in Appendix E. Suitable habitat conditions with sandy soils for this species occur throughout the BSA. No lesser slender salamanders or Northern California legless lizards were observed in the BSA during reconnaissance surveys. Habitat for lesser slender salamander is present in coast live oak woodland habitat with adequate leaf litter, and habitat for Northern California legless lizard is present with sandy soils; habitat suitability is considered marginal for these two species due to likely low moisture conditions and lack of shaded slopes. Grading activities could directly impact these species, which could be injured or crushed by construction equipment. Impacts would be expected to be of short-term duration. With the potential for lesser slender salamander, Northern California legless lizard, and coast horned lizard to occur on-site, Mitigation Measures BIO-1, BIO-2 and BIO-5 will serve to minimize impacts to these species.

6.2.1.3.2 Burrowing Owl

The burrowing owl is a small owl that lives in ground burrows. Burrowing owls typically use burrows made by fossorial mammals, such as ground squirrels or badgers, but also may use manmade structures, such as cement culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement. The burrowing owl nesting season begins as early as February 1 and continues through August 31. Winter residents (non-breeding owls) may persist during the non-breeding season from September 1 to January 31, with peak wintering season activity in December and January.

The caretaker's lot supports open grassland and marginal habitat for burrowing owl. No burrowing owls or sign of burrowing owls (e.g., whitewash, pellets) were observed during site surveys. Ground squirrel burrows were observed to be minimal. Per the Burrowing Owl Survey Protocol and Mitigation Guidelines (The Burrowing Owl Consortium 1993), no disturbance should occur within 50 meters (approximately

160 feet) of occupied burrows during the nonbreeding season of September 1 through January 31 or within 75 meters (approximately 250 feet) during the breeding season of February 1 through August 31. Construction of the caretaker's residence would be anticipated to have a very low but potential chance to directly impact burrowing owls if they are found to be using burrows on-site; burrows could be crushed and owls could be entombed in burrows, if present. Indirect impacts resulting from noise and disturbance during construction could also impact burrowing owl foraging, nesting, and/or wintering behaviors within a certain radius. Impacts would be expected to be of short-term duration. Mitigation measures BIO-1, BIO-2, and BIO-6 will serve to ensure avoidance of impacts to burrowing owls.

6.2.1.3.3 Merlin

The merlin is a small falcon that uncommonly winters but does not breed in California (Zeiner et al. 1990). It winters along the seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, and farms and ranches; clumps of trees or windbreaks are required for roosting in the open country (CNDDB 2020). Suitable wintering habitat occurs within oaks within the BSA. Removal of oak trees could directly impact merlins if they are found to wintering on-site; winter roosts could be removed, if present. Indirect impacts resulting from noise and disturbance during construction could also impact merlin wintering behaviors within a certain radius. Impacts would be expected to be of short-term duration. Mitigation Measures BIO-1, BIO-2, and BIO-7 will serve to ensure avoidance of impacts to wintering merlins.

6.2.1.3.4 Sharp-Shinned Hawk, Ferruginous Hawk, White-tailed Kite, California Horned Lark, Loggerhead Shrike, Purple Martin, and Other Nesting Birds

Various bird species have the potential to nest within the BSA including, sharp-shinned hawk, ferruginous hawk, white-tailed kite, California horned lark, loggerhead shrike, and purple martin. These and many other species are protected during their nesting period under the provisions of the federal MBTA and CFGC Section 3503. Nesting habitat in oak trees would be impacted by tree removal, and grading of grassland habitat at the caretaker's residence lot could impact ground nesting birds such as California horned lark. If project activities are conducted between February and September, birds may be nesting within or adjacent to the affected area and the individuals could be directly or indirectly impacted. Direct impacts may include the loss of active nests during vegetation removal or grading activities. Indirect impacts associated with noise or other disturbances may cause an individual to abandon a nest. Impacts would be expected to be of short-term duration. Mitigation Measures BIO-1, BIO-2, and BIO-8 include measures to avoid impacts to nesting birds.

6.2.1.3.5 American Badger

The American badger is a stocky, low-slung member of the weasel family (Mustelidae) with distinctive white and black head markings, short powerful legs, and long claws adapted for digging. Suitable habitat for badgers is characterized by herbaceous, shrub, and other open habitats with dry, friable soils (Zeiner et al. 1990). Badgers dig burrows in friable soil for cover and frequently reuse old burrows. Dens are typically greater than 6 inches in diameter and horizontally oval-shaped, occasionally with claw marks along the inner surface.

The caretaker's lot supports open grassland and marginal habitat for American badger. No potential badger dens were observed during site surveys. Construction of the caretaker's residence would be anticipated to have a very low but potential chance to directly impact badgers if they are found to be denning on-site; dens could be crushed and badgers could be entombed in dens, if present. Indirect impacts resulting from noise and disturbance during construction could also impact badger foraging and denning behaviors within a certain radius. Impacts would be expected to be of short-term duration.

Mitigation Measures BIO-1, BIO-2, and BIO-9 will serve to ensure avoidance of impacts to American badger.

6.2.2 *Project Effect on Extent, Diversity, or Quality of Native or Other Important Vegetation*

Effects on sensitive habitats and plants have been addressed in Section 6.2.1 and 6.2.1.2, respectively. Removal of 12 coast live oak trees will be mitigated through replacement by Mitigation Measure BIO-3. Impacts to maritime chaparral and rare plants will be avoided through measure BIO-4. Other impacts associated with the project would occur mainly to ruderal areas or non-native annual grassland. The project is not anticipated to substantially impact the extent, diversion, or quality of native or other important vegetation.

6.2.3 *Project Effect on Wetland or Riparian Habitat*

No potentially jurisdictional waters regulated as Waters of the United States (i.e., wetlands or other waters) by the U.S. Army Corps of Engineers (USACE) or as Waters of the State by the Regional Water Quality Control Board (RWQCB) and/or CDFW were observed/identified by SWCA during surveys conducted within the BSA; therefore, no formal delineation of potentially jurisdictional waters was determined to be necessary. It is SWCA's professional judgment that no CWA Section 404 permit from USACE, CWA Section 401 Water Quality Certification (WQC) and/or Porter-Cologne Water Quality Control Act Waste Discharge Requirement (WDR) from RWQCB, and/or CFGC Section 1600 Streambed Alteration Agreement (SAA) from CDFW would be required for the proposed project. There will be no direct or indirect effect on wetland or riparian habitat.

6.2.4 *Project Effect on Movement of Resident or Migratory Fish or Wildlife Species, or Factors Which Could Hinder the Normal Activities of Wildlife*

The proposed project will have no direct or indirect effect on the movement of resident or migratory fish and wildlife species. As mentioned previously, the BSA is not located in an essential habitat connectivity or linkages area. The proposed project would include modest widening of an already existing access road and construction of a caretaker's residence and would not be anticipated to create any new barriers to habitat connectivity in the region.

6.3 Mitigation Measures

Site disturbance (i.e., grading, construction, and/or tree removal activities) could impact certain sensitive habitats, special-status plant species, and special-status animal species. Where potential impacts to sensitive resources have been identified, mitigating impacts to these resources are recommended.

BIO-1 Prior to construction, a qualified biologist shall conduct a worker environmental training session for all construction personnel. At a minimum, the training shall include a description of the sensitive species and habitats known to occur or that could have the potential to occur within the project site, their regulatory status, the measures to be implemented to protect sensitive resources during the project, and project boundary limits.

BIO-2 Prior to construction, the limits of the work area shall be marked with stakes, brightly colored flagging, or equivalent. Site disturbance shall be minimized to the extent feasible.

- BIO-3 Within 1 year after the completion of construction, removal of coast live oak trees shall be mitigated at a replacement ratio of 4:1. Replacement plantings shall be conducted onsite in an area protected as Open Space or under conservation easement. The Applicant shall prepare a Mitigation and Monitoring Plan (MMP) detailing replacement of oak trees, monitoring schedule, and success criteria for oak replacement.
- BIO-4 Prior to ground-disturbing activities, areas mapped with central maritime chaparral/Santa margarita manzanita, San Luis Obispo Indian paintbrush, sand buckbrush, and mesa horkelia shall be marked in the field by a qualified biologist with a minimum 10-foot avoidance buffer of stakes, brightly colored flagging, or equivalent for avoidance during grading. A qualified biological monitor shall be on-site during grading within 25 feet of mapped occurrences of these species to ensure avoidance.
- BIO-5 During ground-disturbing activities, a qualified biologist shall conduct monitoring to capture slender salamanders, Northern California legless lizards, and/or coast horned lizards that may be unearthed by equipment. The biologist shall work ahead of construction equipment utilizing gentle raking and/or hand-search methods in a representative sampling of areas of disturbance where these species could be found (e.g., under shrubs, other vegetation, debris). If slender salamanders, Northern California legless lizards, and/or coast horned lizards are observed during site disturbance, the animal(s) shall be captured and relocated to suitable habitat at a minimum of 100 feet from the area of disturbance.
- BIO-6 Preconstruction survey and buffer requirements for burrowing owl are derived from the Phase II burrow survey recommendations by The California Burrowing Owl Consortium (1993) and initial take avoidance survey recommendations from the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Burrowing owls are anticipated to have a low potential for occurrence in marginal annual grassland habitat encompassing the proposed caretaker's lot on-site.
- If ground disturbance at the caretaker's lot will occur during the burrowing owl breeding season (February 1 to August 31), a qualified biologist shall survey for burrowing owl within the caretaker's lot and a 250-foot radius no less than 14 days but no more than 30 days prior to ground-disturbing activities. If active burrowing owl burrows are observed, these burrows shall be avoided with a minimum 250-foot avoidance buffer until the biologist has determined the owl(s) have permanently vacated the burrow(s).
- If ground-disturbing activities at the caretaker's lot will occur during the burrowing owl non-breeding/wintering season (September 1 to January 31), a qualified wildlife biologist shall survey for burrowing owl within the caretaker's lot and a 160-foot radius no less than 14 days but no more than 30 days prior to the site disturbance. If active burrowing owl burrows are observed, these burrows shall be avoided with a minimum 160-foot avoidance buffer until the biologist has determined the owl(s) have permanently vacated the burrow(s).
- Avoidance buffers shall be marked with stakes, brightly colored flagging, or equivalent.
- BIO-7 If construction activities (including grading, construction of the residence, and/or oak tree removal) are proposed to occur during the merlin wintering season (September 1 to May 31), a survey of the area of disturbance and a 100-foot radius shall be conducted by a qualified biologist within 30 days prior to site disturbance to determine presence/absence of wintering merlins within the project area. If wintering merlins are detected, a minimum 100-foot avoidance buffer shall be established around merlin winter roosts until the biologist has

determined that merlin(s) have permanently vacated the winter roost(s). Avoidance buffers shall be marked with stakes, brightly colored flagging, or equivalent.

BIO-8 Construction activities (including grading, construction of the residence, and/or oak tree removal) should be timed to occur from October 1 to January 31, outside of the nesting bird season, if feasible. If construction activities are proposed to occur during the nesting bird season (February 1 to September 30), a survey of the area of disturbance and a 100-foot radius shall be conducted by a qualified biologist within 30 days prior to construction activities to determine presence/absence of nesting birds within the project area. If nesting birds are detected, a minimum 100-foot avoidance buffer shall be established around active bird nests until the biologist has determined that the nest(s) are no longer active. Avoidance buffers shall be marked with stakes, brightly colored flagging, or equivalent.

BIO-9 American badgers are anticipated to have a low potential for occurrence in marginal annual grassland habitat encompassing the proposed caretaker's lot on-site. A qualified biologist shall survey for American badger within the caretaker's lot and a 100-foot radius within 30 days prior to ground-disturbing activities. If active badger dens are observed, the dens shall be avoided with a minimum 100-foot avoidance buffer. Avoidance buffers shall be marked with stakes, brightly colored flagging, or equivalent. The biologist shall consult with CDFW if the buffer cannot be maintained to determine if a requested buffer reduction or eviction of badgers from the den is authorized.

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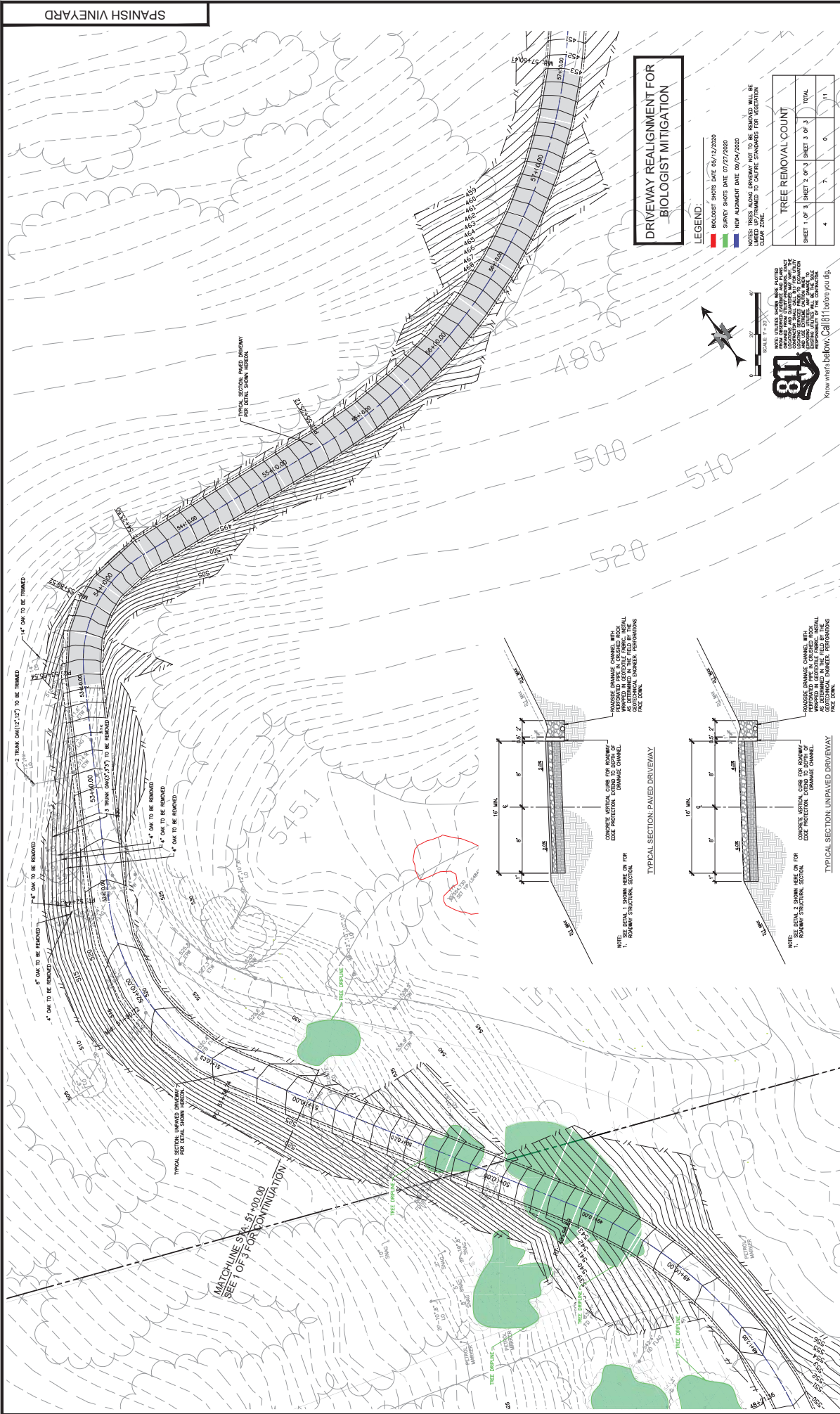
APPENDIX A

Preliminary Plans



Know what's below. Call 811 before you dig.

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DRIVEWAY REALIGNMENT FOR BIOLOGIST MITIGATION

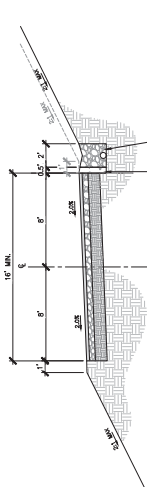
LEGEND:
RELOCATED SHOTS DATE 06/12/2020
SURVEY SHOTS DATE 07/27/2020
NEW ALIGNMENT DATE 09/04/2020
UNITS: ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED
LIMITS: ALL DIMENSIONS ARE IN FEET UNLESS OTHERWISE NOTED
CLEAR ZONE

TREE REMOVAL COUNT				
SHEET 1 OF 3	SHEET 2 OF 3	SHEET 3 OF 3	TOTAL	
4	7	0	11	

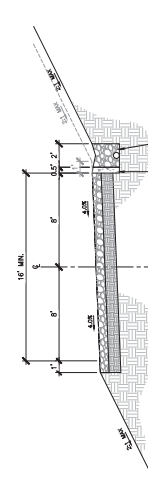
811
Know what's below. Call 811 before you dig.



SCALE: 1" = 20'



CONCRETE VERTICAL CURB FOR ROADWAY
SIDE PROTECTION. EXISTING DRIVEWAY CHANNEL.
NOTE: SEE STA. 1. SHOW USE OF FOR
1. ROADWAY STRUCTURAL SECTION.



CONCRETE VERTICAL CURB FOR ROADWAY
SIDE PROTECTION. EXISTING DRIVEWAY CHANNEL.
NOTE: SEE STA. 1. SHOW USE OF FOR
1. ROADWAY STRUCTURAL SECTION.

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SPANISH VINEYARDS, LLC
SPANISH VINEYARDS NEW RESIDENCE
COUNTY OF SAN LUIS OBISPO



DESIGNED BY: JAP
CHECKED BY: JAP
ISSUED BY: JAP
DATE: 09/04/2020

DRIVEWAY STA
47+00 - 61+00
EXHIBIT
2 OF 3

APPENDIX B

CNDDDB Species List



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



Query Criteria: Quad(Arroyo Grande NE (3512025) OR Pismo Beach (3512026) OR San Luis Obispo (3512036) OR Lopez Mtn. (3512035) OR Santa Margarita Lake (3512034) OR Tar Spring Ridge (3512024) OR Nipomo (3512014) OR Oceano (3512015))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Ablautus schlingeri</i> Oso Flaco robber fly	IIDIP42010	None	None	G1	S1	
<i>Accipiter striatus</i> sharp-shinned hawk	ABNKC12020	None	None	G5	S4	WL
<i>Agelaius tricolor</i> tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
<i>Agrostis hooveri</i> Hoover's bent grass	PMPOA040M0	None	None	G2	S2	1B.2
<i>Anniella pulchra</i> northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G5	S3	SSC
<i>Arctostaphylos luciana</i> Santa Lucia manzanita	PDERI040N0	None	None	G2	S2	1B.2
<i>Arctostaphylos osoensis</i> Oso manzanita	PDERI042S0	None	None	G1	S1	1B.2
<i>Arctostaphylos pechoensis</i> Pecho manzanita	PDERI04140	None	None	G2	S2	1B.2
<i>Arctostaphylos pilosula</i> Santa Margarita manzanita	PDERI042Z0	None	None	G2?	S2?	1B.2
<i>Arctostaphylos rudis</i> sand mesa manzanita	PDERI041E0	None	None	G2	S2	1B.2
<i>Arenaria paludicola</i> marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
<i>Areniscythis brachypteris</i> Oso Flaco flightless moth	IILEG49010	None	None	G1	S1	
<i>Astragalus didymocarpus</i> var. <i>milesianus</i> Miles' milk-vetch	PDFAB0F2X3	None	None	G5T2	S2	1B.2
<i>Athene cucularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atractelmis wawona</i> Wawona rifle beetle	IICOL58010	None	None	G1G3	S1S2	
<i>Batrachoseps minor</i> lesser slender salamander	AAAAD02170	None	None	G1	S1	SSC
<i>Bombus caliginosus</i> obscure bumble bee	IHYM24380	None	None	G4?	S1S2	
<i>Bombus crotchii</i> Crotch bumble bee	IHYM24480	None	Candidate Endangered	G3G4	S1S2	



Selected Elements by Scientific Name
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California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Bombus occidentalis</i> western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
<i>Buteo regalis</i> ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
<i>Calochortus obispoensis</i> San Luis mariposa-lily	PMLIL0D110	None	None	G2	S2	1B.2
<i>Calochortus simulans</i> La Panza mariposa-lily	PMLIL0D170	None	None	G2	S2	1B.3
<i>Calystegia subacaulis</i> ssp. <i>episcopalis</i> Cambria morning-glory	PDCON040J1	None	None	G3T2?	S2?	4.2
<i>Camissoniopsis hardhamiae</i> Hardham's evening-primrose	PDONA030N0	None	None	G2	S2	1B.2
<i>Carex obispoensis</i> San Luis Obispo sedge	PMCYP039J0	None	None	G3?	S3?	1B.2
<i>Castilleja densiflora</i> var. <i>obispoensis</i> San Luis Obispo owl's-clover	PDSCR0D453	None	None	G5T2	S2	1B.2
<i>Ceanothus impressus</i> var. <i>nipomensis</i> Nipomo Mesa ceanothus	PDRHA040L2	None	None	G3T2	S2	1B.2
<i>Central Dune Scrub</i> Central Dune Scrub	CTT21320CA	None	None	G2	S2.2	
<i>Central Foredunes</i> Central Foredunes	CTT21220CA	None	None	G1	S1.2	
<i>Central Maritime Chaparral</i> Central Maritime Chaparral	CTT37C20CA	None	None	G2	S2.2	
<i>Centromadia parryi</i> ssp. <i>congdonii</i> Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
<i>Charadrius alexandrinus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
<i>Chenopodium littoreum</i> coastal goosefoot	PDCHE091Z0	None	None	G1	S1	1B.2
<i>Chlorogalum pomeridianum</i> var. <i>minus</i> dwarf soaproot	PMLIL0G042	None	None	G5T3	S3	1B.2
<i>Chlosyne leanira elegans</i> Oso Flaco patch butterfly	IILEPJA051	None	None	G4G5T1T2	S1S2	
<i>Chorizanthe aphanantha</i> Irish Hills spineflower	PDPGN04110	None	None	G1	S1	1B.1
<i>Chorizanthe breweri</i> Brewer's spineflower	PDPGN04050	None	None	G3	S3	1B.3
<i>Chorizanthe rectispina</i> straight-awned spineflower	PDPGN040N0	None	None	G2	S2	1B.3



Selected Elements by Scientific Name
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California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Cicindela hirticollis gravida</i> sandy beach tiger beetle	IICOL02101	None	None	G5T2	S2	
<i>Cirsium fontinale</i> var. <i>obispoense</i> Chorro Creek bog thistle	PDAST2E162	Endangered	Endangered	G2T2	S2	1B.2
<i>Cirsium occidentale</i> var. <i>lucianum</i> Cuesta Ridge thistle	PDAST2E1Z6	None	None	G3G4T2	S2	1B.2
<i>Cirsium rhotophilum</i> surf thistle	PDAST2E2J0	None	Threatened	G1	S1	1B.2
<i>Cirsium scariosum</i> var. <i>loncholepis</i> La Graciosa thistle	PDAST2E1N0	Endangered	Threatened	G5T1	S1	1B.1
<i>Cladium californicum</i> California saw-grass	PMCYP04010	None	None	G4	S2	2B.2
<i>Clarkia speciosa</i> ssp. <i>immaculata</i> Pismo clarkia	PDONA05111	Endangered	Rare	G4T1	S1	1B.1
<i>Coastal and Valley Freshwater Marsh</i> Coastal and Valley Freshwater Marsh	CTT52410CA	None	None	G3	S2.1	
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Coelus globosus</i> globose dune beetle	IICOL4A010	None	None	G1G2	S1S2	
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
<i>Danaus plexippus</i> pop. 1 monarch - California overwintering population	IJLEPP2012	None	None	G4T2T3	S2S3	
<i>Delphinium parryi</i> ssp. <i>blochmaniae</i> dune larkspur	PDRAN0B1B1	None	None	G4T2	S2	1B.2
<i>Delphinium parryi</i> ssp. <i>eastwoodiae</i> Eastwood's larkspur	PDRAN0B1B2	None	None	G4T2	S2	1B.2
<i>Delphinium umbraculorum</i> umbrella larkspur	PDRAN0B1W0	None	None	G3	S3	1B.3
<i>Dithyrea maritima</i> beach spectaclerpod	PDBRA10020	None	Threatened	G1	S1	1B.1
<i>Dudleya abramsii</i> ssp. <i>bettinae</i> Betty's dudleya	PDCRA04011	None	None	G4T2	S2	1B.2
<i>Dudleya abramsii</i> ssp. <i>murina</i> mouse-gray dudleya	PDCRA04012	None	None	G4T2	S2	1B.3
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> Blochman's dudleya	PDCRA04051	None	None	G3T2	S2	1B.1
<i>Elanus leucurus</i> white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
<i>Emys marmorata</i> western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC



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



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Eremophila alpestris actia</i> California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
<i>Erethizon dorsatum</i> North American porcupine	AMAFJ01010	None	None	G5	S3	
<i>Eriastrum luteum</i> yellow-flowered eriastrum	PDPLM03080	None	None	G2	S2	1B.2
<i>Erigeron blochmaniae</i> Blochman's leafy daisy	PDAST3M5J0	None	None	G2	S2	1B.2
<i>Eriodictyon altissimum</i> Indian Knob mountainbalm	PDHYD04010	Endangered	Endangered	G1	S1	1B.1
<i>Eryngium aristulatum</i> var. <i>hooveri</i> Hoover's button-celery	PDAP02043	None	None	G5T1	S1	1B.1
<i>Eucyclogobius newberryi</i> tidewater goby	AFCQN04010	Endangered	None	G3	S3	SSC
<i>Eumops perotis californicus</i> western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
<i>Falco columbarius</i> merlin	ABNKD06030	None	None	G5	S3S4	WL
<i>Falco mexicanus</i> prairie falcon	ABNKD06090	None	None	G5	S4	WL
<i>Fritillaria ojalensis</i> Ojai fritillary	PMLIL0V0N0	None	None	G3	S3	1B.2
<i>Fritillaria viridea</i> San Benito fritillary	PMLIL0V0L0	None	None	G2	S2	1B.2
<i>Gila orcuttii</i> arroyo chub	AFCJB13120	None	None	G2	S2	SSC
<i>Gymnogyps californianus</i> California condor	ABNKA03010	Endangered	Endangered	G1	S1	FP
<i>Horkelia cuneata</i> var. <i>puberula</i> mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
<i>Horkelia cuneata</i> var. <i>sericea</i> Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
<i>Lanius ludovicianus</i> loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
<i>Lasiurus blossevillii</i> western red bat	AMACC05060	None	None	G5	S3	SSC
<i>Laterallus jamaicensis coturniculus</i> California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
<i>Layia jonesii</i> Jones' layia	PDAST5N090	None	None	G2	S2	1B.2
<i>Lichnanthe albipilosa</i> white sand bear scarab beetle	IICOL67010	None	None	G1	S1	



Selected Elements by Scientific Name
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California Natural Diversity Database



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Lindieriella occidentalis</i> California lindieriella	ICBRA06010	None	None	G2G3	S2S3	
<i>Lupinus ludovicianus</i> San Luis Obispo County lupine	PDFAB2B2G0	None	None	G1	S1	1B.2
<i>Lupinus nipomensis</i> Nipomo Mesa lupine	PDFAB2B550	Endangered	Endangered	G1	S1	1B.1
<i>Malacothamnus gracilis</i> slender bush-mallow	PDMAL0Q0J0	None	None	G1Q	S1	1B.1
<i>Monardella palmeri</i> Palmer's monardella	POLAM180H0	None	None	G2	S2	1B.2
<i>Monardella sinuata</i> ssp. <i>sinuata</i> southern curly-leaved monardella	POLAM18161	None	None	G3T2	S2	1B.2
<i>Monardella undulata</i> ssp. <i>crispa</i> crisp monardella	POLAM18070	None	None	G3T2	S2	1B.2
<i>Monardella undulata</i> ssp. <i>undulata</i> San Luis Obispo monardella	POLAM180X0	None	None	G2	S2	1B.2
<i>Muhlenbergia utilis</i> aparejo grass	PMPOA481X0	None	None	G4	S2S3	2B.2
<i>Myotis yumanensis</i> Yuma myotis	AMACC01020	None	None	G5	S4	
<i>Nasturtium gambellii</i> Gambel's water cress	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
<i>Nemacaulis denudata</i> var. <i>denudata</i> coast woolly-heads	PDPGN0G011	None	None	G3G4T2	S2	1B.2
<i>Nemacladus secundiflorus</i> var. <i>robbinsii</i> Robbins' nemacladus	PDCAM0F0B2	None	None	G3T2	S2	1B.2
<i>Northern Interior Cypress Forest</i> Northern Interior Cypress Forest	CTT83220CA	None	None	G2	S2.2	
<i>Oncorhynchus mykiss irideus</i> pop. 9 steelhead - south-central California coast DPS	AFCHA0209H	Threatened	None	G5T2Q	S2	
<i>Orobancha parishii</i> ssp. <i>brachyloba</i> short-lobed broomrape	PDORO040A2	None	None	G4?T4	S3	4.2
<i>Phrynosoma blainvillii</i> coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
<i>Plagiobothrys uncinatus</i> hooked popcornflower	PDBOR0V170	None	None	G2	S2	1B.2
<i>Plebejus icarioides moroensis</i> Morro Bay blue butterfly	IILEPG801B	None	None	G5T2	S2	
<i>Polyphylla nubila</i> Atascadero June beetle	IICOL68040	None	None	G1	S1	
<i>Progne subis</i> purple martin	ABPAU01010	None	None	G5	S3	SSC



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



Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Pyrgulopsis taylori</i>	IMGASJ0A50	None	None	G1	S1	
San Luis Obispo pyrg						
<i>Rana boylei</i>	AAABH01050	None	Candidate Threatened	G3	S3	SSC
foothill yellow-legged frog						
<i>Rana draytonii</i>	AAABH01022	Threatened	None	G2G3	S2S3	SSC
California red-legged frog						
<i>Sanicula maritima</i>	PDAP11Z0D0	None	Rare	G2	S2	1B.1
adobe sanicle						
<i>Scrophularia atrata</i>	PDSCR1S010	None	None	G2?	S2?	1B.2
black-flowered figwort						
<i>Senecio aphanactis</i>	PDAST8H060	None	None	G3	S2	2B.2
chaparral ragwort						
<i>Serpentine Bunchgrass</i>	CTT42130CA	None	None	G2	S2.2	
Serpentine Bunchgrass						
<i>Sidalcea hickmanii</i> ssp. <i>anomala</i>	PDMAL110A1	None	Rare	G3T1	S1	1B.2
Cuesta Pass checkerbloom						
<i>Spea hammondi</i>	AAABF02020	None	None	G3	S3	SSC
western spadefoot						
<i>Sternula antillarum browni</i>	ABNNM08103	Endangered	Endangered	G4T2T3Q	S2	FP
California least tern						
<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	PDBRA2G012	None	None	G2T2	S2	1B.2
most beautiful jewelflower						
<i>Symphotrichum defoliatum</i>	PDASTE80C0	None	None	G2	S2	1B.2
San Bernardino aster						
<i>Taricha torosa</i>	AAAAF02032	None	None	G4	S4	SSC
Coast Range newt						
<i>Taxidea taxus</i>	AMAJF04010	None	None	G5	S3	SSC
American badger						
<i>Trifolium hydrophilum</i>	PDFAB400R5	None	None	G2	S2	1B.2
saline clover						
<i>Tropidocarpum capparideum</i>	PDBRA2R010	None	None	G1	S1	1B.1
caper-fruited tropidocarpum						
<i>Tryonia imitator</i>	IMGASJ7040	None	None	G2	S2	
mimic tryonia (=California brackishwater snail)						

Record Count: 120

APPENDIX C

Photo Documentation



Photo C-1. South-facing view of unpaved access road and adjacent habitat in northern half of BSA; grassland is to right (west) and chaparral with Santa Margarita mesa manzanita is to left (east). Photo taken April 15, 2020.



Photo C-2. South-facing view of central maritime chaparral supporting Santa Margarita manzanita (foreground) and coast live oak woodland (background); unpaved access road is to right (west). Photo taken April 15, 2020.



Photo C-3. San Luis Obispo owl's clover (white thumb-shaped inflorescence) growing in grassland adjacent to unpaved access road; approximately 50 San Luis Obispo owl's clover were observed. Photo taken April 15, 2020.



Photo C-4. South-facing view of unpaved access road traversing through landscape of rolling hills with coast live oak woodland. Photo taken April 15, 2020.



Photo C-5. South-facing view of unpaved access road and grassland habitat; this habitat dominates southern half of BSA. Photo taken April 22, 2020.



Photo C-6. South-facing view of unpaved access road toward southern terminus of BSA; proposed caretaker's residence site (and alternative site) are located just to right (west) of access road. Photo taken April 22, 2020.



Photo C-7. Juvenile coast horned lizard (marked with arrow) observed along unpaved access road in sandy ruderal habitat. Photo taken April 22, 2020.



Photo C-8. Juvenile coast horned lizard after temporary capture and before release. Photo taken April 22, 2020.



Photo C-9. Close-up photo of lone sand buckbrush ceanothus shrub specimen observed in BSA. Photo taken April 15, 2020.



Photo C-10. Mature mesa horkelia specimen (marked with arrow) observed within BSA. Photo taken June 11, 2020.



Photo C-11. Photo C-11. North-facing view of revised access road alignment (red arrow); the revised alignment would require the removal of two to three young coast live oak trees but would avoid rare plants such as mesa horkelia and sand buckbrush ceanothus. Photo taken July 21, 2020.



Photo C-12. South-facing view of revised access road alignment (red arrow). Photo taken July 21, 2020.

APPENDIX D

List of Species Observed

Table D-1. List of Species Observed (April 14, 15, and 22 and June 11, 2020)

Scientific Name	Common Name	Family	Origin / Cal-IPC Status* / Other Status
Plants			
<i>Acmispon glaber</i>	deerweed	Fabaceae	native
<i>Acmispon strigosus</i>	strigose lotus	Fabaceae	native
<i>Adenostoma fasciculatum</i>	chamise	Rosaceae	native
<i>Ambrosia psilostachya</i>	ragweed	Asteraceae	native
<i>Amsinckia menziesii</i>	small-flowered fiddleneck	Boraginaceae	native
<i>Anthriscus caucalis</i>	bur chervil	Apiaceae	exotic
<i>Arctostaphylos pilosula</i>	Santa Margarita manzanita	Ericaceae	native; rare plant; CNPS 1B.2
<i>Avena barbata</i>	slender wild oat	Poaceae	exotic / Cal-IPC moderate
<i>Avena fatua</i>	common wild oat	Poaceae	exotic / Cal-IPC moderate
<i>Baccharis pilularis</i>	coyote brush	Asteraceae	native
<i>Bromus diandrus</i>	ripgut brome	Poaceae	exotic / Cal-IPC moderate
<i>Bromus hordeaceus</i>	soft chess brome	Poaceae	exotic / Cal-IPC limited
<i>Bromus madritensis</i> ssp. <i>rubens</i>	red brome	Poaceae	exotic / Cal-IPC high
<i>Camissonia strigulosa</i>	contorted primrose	Onagraceae	native
<i>Capsella bursa-pastoris</i>	shepherd's purse	Brassicaceae	exotic
<i>Carduus pycnocephalus</i>	Italian thistle	Asteraceae	exotic / Cal-IPC moderate
<i>Castilleja densiflora</i> ssp. <i>obispoensis</i>	San Luis Obispo owls' clover	Orobanchaceae	native; rare plant; CNPS 1B.2
<i>Centaurea melitensis</i>	totalote	Asteraceae	exotic / Cal-IPC moderate
<i>Chorizanthe diffusa</i>	diffuse spineflower	Polygonaceae	native
<i>Claytonia parviflora</i>	narrow-leaved miner's lettuce	Portulacaceae	native
<i>Claytonia perfoliata</i> ssp. <i>perfoliata</i>	miner's lettuce	Portulacaceae	native
<i>Conium maculatum</i>	poison hemlock	Apiaceae	exotic / Cal-IPC moderate
<i>Crassula connata</i>	pygmy weed	Crassulaceae	native
<i>Croton californicus</i>	California croton	Euphorbiaceae	native
<i>Croton setiger</i>	turkey-mullein	Euphorbiaceae	native
<i>Deinandra increscens</i> ssp. <i>increscens</i>	grassland tarweed	Asteraceae	native
<i>Dichelostemma capitatum</i> ssp. <i>capitatum</i>	bluedicks	Themidaceae	native
<i>Diplacus [Mimulus] aurantiacus</i>	sticky monkeyflower	Phrymaceae	native
<i>Ehrharta calicina</i>	veldt grass	Poaceae	exotic / Cal-IPC high
<i>Erodium botrys</i>	long beaked filaree	Geraniaceae	exotic
<i>Erodium cicutarium</i>	red-stemmed filaree	Geraniaceae	exotic/ Cal-IPC limited
<i>Erodium moschatum</i>	white-stemmed filaree	Geraniaceae	exotic
<i>Festuca microstachys</i>	small fescue	Poaceae	native
<i>Festuca myuros</i>	rattail fescue	Poaceae	exotic / Cal-IPC moderate
<i>Festuca perennis</i>	Italian ryegrass	Poaceae	exotic / Cal-IPC moderate

Scientific Name	Common Name	Family	Origin / Cal-IPC Status* / Other Status
<i>Gamochaeta ustulata</i>	featherweed	Asteraceae	native
<i>Geranium molle</i>	dove's foot geranium	Geraniaceae	exotic
<i>Heterotheca grandiflora</i>	telegraph weed	Asteraceae	native
<i>Hordeum murinum</i>	foxtail barley	Poaceae	exotic / Cal-IPC moderate
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	Rosaceae	native; rare plant; CNPS 1B.1
<i>Hypochaeris glabra</i>	smooth cat's ear	Asteraceae	exotic / Cal-IPC limited
<i>Lamarckia aurea</i>	goldentop grass	Poaceae	exotic
<i>Lathyrus vestitus</i> var. <i>vestitus</i>	hillside pea	Fabaceae	native
<i>Lepidium nitidum</i>	shining peppergrass	Brassicaceae	native
<i>Linanthus californicus</i>	prickly phlox	Polemoniaceae	native
<i>Logfia gallica</i>	narrowleaf cottonrose	Asteraceae	native
<i>Lupinus bicolor</i>	miniature lupine	Fabaceae	native
<i>Lupinus nanus</i>	sky lupine	Fabaceae	native
<i>Lupinus succulentus</i>	succulent lupine	Fabaceae	native
<i>Lupinus truncatus</i>	blunt-leaved lupine	Fabaceae	native
<i>Lysimachia arvensis</i>	scarlet pimpernel	Primulaceae	exotic
<i>Marah fabacea</i>	California manroot	Cucurbitaceae	native
<i>Marrubium vulgare</i>	horehound	Lamiaceae	exotic / Cal-IPC limited
<i>Matricaria discoidea</i>	pineapple weed	Asteraceae	native
<i>Medicago polymorpha</i>	burclover	Fabaceae	exotic / Cal-IPC limited
<i>Melilotus indicus</i>	yellow sweetclover	Fabaceae	exotic
<i>Navarretia hamata</i> ssp. <i>parviloba</i>	hooked navarretia	Polemoniaceae	native
<i>Nicotiana glauca</i>	tree tobacco	Solanaceae	exotic / Cal-IPC moderate
<i>Pteridium aquilinum</i> var. <i>pubescens</i>	western bracken fern	Dennstaedtiaceae	native
<i>Quercus agrifolia</i> var. <i>agrifolia</i>	coast live oak	Fagaceae	native
<i>Raphanus sativus</i>	wild radish	Brassicaceae	exotic / Cal-IPC limited
<i>Rubus ursinus</i>	California blackberry	Rosaceae	native
<i>Rumex acetosella</i>	sheep sorrel	Polygonaceae	exotic / Cal-IPC moderate
<i>Salvia mellifera</i>	black sage	Lamiaceae	native
<i>Salvia spathacea</i>	hummingbird sage	Lamiaceae	native
<i>Sambucus nigra</i> ssp. <i>caerulea</i>	blue elderberry	Adoxaceae	native
<i>Schismus arabicus</i>	Arabian schismus	Poaceae	exotic / Cal-IPC limited
<i>Silene gallica</i>	windmill pink	Caryophyllaceae	exotic
<i>Silybum marianum</i>	milk thistle	Asteraceae	exotic / Cal-IPC limited
<i>Sisymbrium irio</i>	London rocket	Brassicaceae	exotic / Cal-IPC limited
<i>Solanum douglasii</i>	Douglas' nightshade	Solanaceae	native
<i>Sonchus oleraceus</i>	common sow thistle	Asteraceae	exotic
<i>Spergula arvensis</i>	corn spurry	Caryophyllaceae	exotic
<i>Stellaria media</i>	chickweed	Caryophyllaceae	exotic

Scientific Name	Common Name	Family	Origin / Cal-IPC Status* / Other Status
<i>Symphoricarpos mollis</i>	creeping snowberry	Caprifoliaceae	native
<i>Toxicodendron diversilobum</i>	poison oak	Anacardiaceae	native
<i>Trifolium hirtum</i>	rose clover	Fabaceae	exotic / Cal-IPC limited
<i>Urtica urens</i>	dwarf nettle	Urticaceae	exotic
<i>Vicia americana</i> ssp. <i>americana</i>	American vetch	Fabaceae	native
<i>Vicia benghalensis</i>	purple vetch	Fabaceae	exotic
Animals			
<i>Uta stansburiana</i>	side-blotched lizard	Phrynosomatidae	native
<i>Sceloporus occidentalis</i>	western fence lizard	Phrynosomatidae	native
<i>Phrynosoma blainvillii</i>	coast horned lizard	Phrynosomatidae	native; California SSC
<i>Aphelocoma californica</i>	western scrub jay	Corvidae	native
<i>Corvus brachyrhynchos</i>	American crow	Corvidae	native
<i>Otospermophilus beecheyi</i>	California ground squirrel	Sciuridae	native

*** California Invasive Plant Council (Cal-IPC) Ratings:**

High: These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate: These species have substantial and apparent-but generally not severe-ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited: These species are invasive, but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

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APPENDIX E

CNDDB California Native Species Field Survey Forms

For Office Use Only

Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 04/15/2020

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Arctostaphylos pilosula*

Common Name: Santa Margarita manzanita

Species Found? ☒ Yes ☐ No If not found, why?

Total No. Individuals: ~ 30 Subsequent Visit? ☐ Yes ☐ No

Is this an existing NDDDB occurrence? ☒ No ☐ Unk. Yes, Occ. #

Collection? If yes: _____ Number _____ Museum / Herbarium _____

Reporter: Geoff Hoetker, Senior Biologist

Address: SWCA Environmental
1422 Monterey St, Suite B-C200, San Luis Obispo, CA

E-mail Address: ghoetker@swca.com

Phone: _____

Plant Information

Phenology:

% vegetative 5 % flowering 50 % fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ lek ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Hills northwest of Arroyo Grande, CA (east of Price Canyon Road and west of Oak Park Road)

County: San Luis Obispo Landowner / Mgr: _____

Quad Name: Arroyo Grande NE Elevation: 490 ft

T 32S R 13E Sec 07, 1/4 of 1/4, Meridian: H ☐ M ☒ S ☐ Source of Coordinates (GPS, topo. map & type): GoogleEarth

T 32S R 13E Sec 08, 1/4 of 1/4, Meridian: H ☐ M ☒ S ☐ GPS Make & Model: Samsung Galaxy Tab&Juniper Geode

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy: 1 m meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒

Coordinates: Lat. 35.160380; Long. -120.6151935 (approximate centroid coordinates; also found in other areas onsite)

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Approximately 30 shrubs and saplings found in sandy soil in openings in non-native annual grassland or along edges of coast live oak woodland.

Please fill out separate form for other rare taxa seen at this site. Castilleja densiflora var. obispoensis

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: open space

Visible disturbances: Occasional vehicle use along nearby unpaved road.

Threats: Road paving project and maintenance for CalFire compliance.

Comments:

Determination: (check one or more, and fill in blanks)

- ☒ Keyed (cite reference): The Jepson Manual: Vascular Plants of California. 2nd ed
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? ☒ yes ☐ no

For Office Use Only

Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 04/15/2020

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Ceanothus cuneatus* var. *fascicularis*

Common Name: sand buck brush (Lompoc ceanothus)

Species Found? ☒ Yes ☐ No If not found, why?

Total No. Individuals: 1 Subsequent Visit? ☐ Yes ☐ No

Is this an existing NDDDB occurrence? ☒ No ☐ Unk. Yes, Occ. #

Collection? If yes: _____ Number _____ Museum / Herbarium _____

Reporter: Geoff Hoetker, Senior Biologist

Address: SWCA Environmental
1422 Monterey St, Suite B-C200, San Luis Obispo, CA

E-mail Address: ghoetker@swca.com

Phone: _____

Plant Information

Phenology:

% vegetative % flowering 100 % fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ lek ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Hills northwest of Arroyo Grande, CA (east of Price Canyon Road and west of Oak Park Road)

County: San Luis Obispo Landowner / Mgr: _____

Quad Name: Arroyo Grande NE Elevation: 560 ft

T 32S R 13E Sec 07, NW 1/4 of SE 1/4, Meridian: H ☐ M ☒ S ☐ Source of Coordinates (GPS, topo. map & type): GoogleEarth

T _____ R 1 Sec _____, 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model: Samsung Galaxy Tab&Juniper Geode

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy: 1 m meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒

Coordinates: Lat. 35.153377; Long. -120.615574

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

A single shrub found in sandy soil adjacent to unpaved dirt road. Area is open and sparsely vegetated with non-native annual grasses. Coast live oaks (*Quercus agrifolia*) and Santa Margarita manzanita (*Arctostaphylos pilosula*) shrubs also occur nearby.

Please fill out separate form for other rare taxa seen at this site. *Arctostaphylos pilosula*

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: open space

Visible disturbances: Occasional vehicle use along nearby unpaved road.

Threats: Road paving project and maintenance for CalFire compliance.

Comments:

Determination: (check one or more, and fill in blanks)

- ☒ Keyed (cite reference): The Jepson Manual: Vascular Plants of California. 2nd ed
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? ☒ yes ☐ no

For Office Use Only

Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 04/15/2020

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Castilleja densiflora* var. *obispoensis*

Common Name: San Luis Obispo owl's-clover

Species Found? ☒ Yes ☐ No If not found, why?

Total No. Individuals: ~ 50 Subsequent Visit? ☐ Yes ☐ No

Is this an existing NDDDB occurrence? ☒ No ☐ Unk. Yes, Occ. #

Collection? If yes: _____ Number _____ Museum / Herbarium _____

Reporter: Geoff Hoetker, Senior Biologist

Address: SWCA Environmental
1422 Monterey St, Suite B-C200, San Luis Obispo, CA

E-mail Address: ghoetker@swca.com

Phone: _____

Plant Information

Phenology:

25 75 0
% vegetative % flowering % fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ lek ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Hills northwest of Arroyo Grande, CA (east of Price Canyon Road and west of Oak Park Road)

County: San Luis Obispo Landowner / Mgr: _____

Quad Name: Arroyo Grande NE Elevation: 490 ft

T 32S R 13E Sec 08, NW 1/4 of NW 1/4, Meridian: H ☐ M ☒ S ☐ Source of Coordinates (GPS, topo. map & type): GoogleEarth

T _____ R _____ Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model: Samsung Galaxy Tab&Juniper Geode

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy: 1 m meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒

Coordinates: Lat. 35.160285 Long. -120.612143

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Approximately 50 plants observed just west of unpaved dirt road through property; found growing in loamy sand soils on level slope in non-native annual grassland with associates such as Bromus hordeaceus, Erodium cicutarium, Hypochaeris glabra, and Acmispon strigosus.

Please fill out separate form for other rare taxa seen at this site. Arctostaphylos pilosula also nearby

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: open space

Visible disturbances: Occasional vehicle use along nearby unpaved road.

Threats: Road paving project and maintenance for CalFire compliance.

Comments:

Determination: (check one or more, and fill in blanks)

- ☒ Keyed (cite reference): The Jepson Manual: Vascular Plants of California. 2nd ed
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? ☒ yes ☐ no

For Office Use Only

Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 04/15/2020

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *orkelia cuneata var. puberula*

Common Name: mesa horkelia

Species Found? ☒ Yes ☐ No If not found, why?

Total No. Individuals: ~ 20 Subsequent Visit? ☐ Yes ☐ No

Is this an existing NDDDB occurrence? ☒ No ☐ Unk. Yes, Occ. #

Collection? If yes: _____ Number _____ Museum / Herbarium _____

Reporter: Geoff Hoetker, Senior Biologist

Address: SWCA Environmental
1422 Monterey St, Suite B-C200, San Luis Obispo, CA

E-mail Address: ghoetker@swca.com

Phone: _____

Plant Information

Phenology:

% vegetative 95 % flowering % fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ lek ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Hills northwest of Arroyo Grande, CA (east of Price Canyon Road and west of Oak Park Road)

County: San Luis Obispo Landowner / Mgr: _____

Quad Name: Arroyo Grande NE Elevation: 450 to 550 ft

T 32S R 13E Sec 07, 1/4 of 1/4, Meridian: H ☐ M ☒ S ☐ Source of Coordinates (GPS, topo. map & type): GoogleEarth

T 32S R 13E Sec 08, 1/4 of 1/4, Meridian: H ☐ M ☒ S ☐ GPS Make & Model: Samsung Galaxy Tab&Juniper Geode

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy: 1 m meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒

Coordinates: Lat. 35.160380; Long. -120.6151935 (approximate centroid coordinates; also found in other areas onsite)

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

Approximately 20 plants found in sandy openings along level ground or gentle slopes; associates include non-native brome grasses (*Bromus* spp.), *Quercus agrifolia*, and *Arctostaphylos pilosula*.

Please fill out separate form for other rare taxa seen at this site. *Castilleja densiflora var. obispoensis*

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: open space

Visible disturbances: Occasional vehicle use along nearby unpaved road.

Threats: Road paving project and maintenance for CalFire compliance.

Comments:

Determination: (check one or more, and fill in blanks)

- ☒ Keyed (cite reference): The Jepson Manual: Vascular Plants of California. 2nd ed
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? ☒ yes ☐ no

For Office Use Only

Source Code: _____ Quad Code: _____
Elm Code: _____ Occ No.: _____
EO Index: _____ Map Index: _____

Date of Field Work (mm/dd/yyyy): 04/22/2020

Clear Form

California Native Species Field Survey Form

Print Form

Scientific Name: *Phrynosoma blainvillii*

Common Name: coast horned lizard

Species Found? ☒ Yes ☐ No If not found, why?

Total No. Individuals: 1 Subsequent Visit? ☐ Yes ☐ No

Is this an existing NDDDB occurrence? ☒ No ☐ Unk. Yes, Occ. #

Collection? If yes: _____ Number _____ Museum / Herbarium _____

Reporter: Geoff Hoetker, Senior Biologist

Address: SWCA Environmental
1422 Monterey St, Suite B-C200, San Luis Obispo, CA

E-mail Address: ghoetker@swca.com

Phone: _____

Plant Information

Phenology:

% vegetative % flowering % fruiting

Animal Information

adults # juveniles # larvae # egg masses # unknown
☐ wintering ☐ breeding ☐ nesting ☐ rookery ☐ burrow site ☐ lek ☐ other

Location Description (please attach map AND/OR fill out your choice of coordinates, below)

Hills northwest of Arroyo Grande, CA (east of Price Canyon Road and west of Oak Park Road)

County: San Luis Obispo Landowner / Mgr: _____

Quad Name: Arroyo Grande NE Elevation: 530 ft

T 32S R 13E Sec 07, NW 1/4 of SE 1/4, Meridian: H ☐ M ☒ S ☐ Source of Coordinates (GPS, topo. map & type): GoogleEarth

T _____ R 1 Sec _____, _____ 1/4 of _____ 1/4, Meridian: H ☐ M ☐ S ☐ GPS Make & Model: Samsung Galaxy Tab&Juniper Geode

DATUM: NAD27 ☐ NAD83 ☐ WGS84 ☐ Horizontal Accuracy: 1 m meters/feet

Coordinate System: UTM Zone 10 ☐ UTM Zone 11 ☐ OR Geographic (Latitude & Longitude) ☒

Coordinates: Lat. 35.152918; Long. -120.616740

Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope:

Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):

One juvenile coast horned lizard observed in sandy soil with sparse non-native annual grasses along edge of unpaved road.

Please fill out separate form for other rare taxa seen at this site.

Site Information Overall site/occurrence quality/viability (site + population): ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Immediate AND surrounding land use: open space

Visible disturbances: Occasional vehicle use along nearby unpaved road.

Threats: Road paving project and maintenance for CalFire compliance.

Comments:

Determination: (check one or more, and fill in blanks)

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☒ Other: personal knowledge and experience

Photographs: (check one or more)

Slide Print Digital
Plant / animal ☐ ☐ ☒
Habitat ☐ ☐ ☐
Diagnostic feature ☐ ☐ ☐

May we obtain duplicates at our expense? ☒ yes ☐ no