

Biological Resources Survey Report

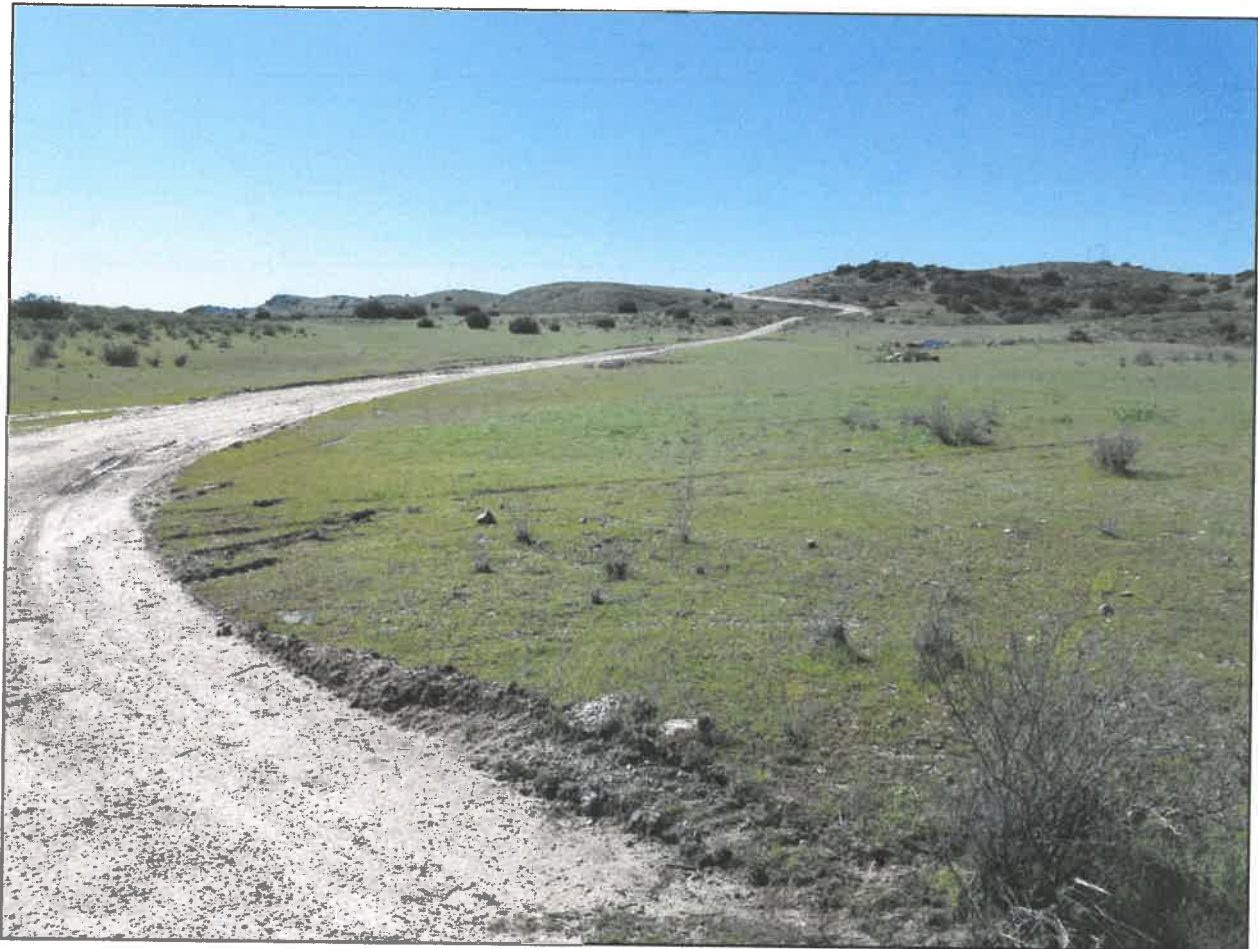
Sidifoax Cultivation

7575 Carrisa Highway

APN 072-311-008

San Luis Obispo County, California

DRC2018-00034



Prepared for:

**Sidifoax Cultivation
7575 Carrisa Highway
Santa Margarita, CA 93453**

Prepared by:



July 17, 2019

Report prepared by:

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


Signature

July 17, 2019
Date

EXECUTIVE SUMMARY

This Biological Resources Survey Report was prepared for Sidifoax Inc. for their proposed Sidifoax Cannabis Cultivation project and this report covers an approximately 30-acre portion (survey area) of a 110-acre parcel (subject parcel) located at 7575 Carrisa Highway, (APN 072-311-008) in San Luis Obispo County, California. The proposed project would construct a six-acre outdoor cannabis cultivation site with accessory buildings, parking spaces, security fencing, a single 10,000 square foot greenhouse, and stormwater collection system in an undeveloped area on the subject parcel. An additional water storage tank will also be constructed near the southern property line, adjacent to an existing water tank. The existing gravel roadway from Carrisa Highway to the developed portion of the site will be improved to meet CalFire standards.

This biological resources survey report found the survey area within the subject parcel to contain California annual grassland and upper Sonoran subshrub scrub habitats, with scattered occurrences of small juniper shrubs. Small areas of disturbed (ruderal) habitat associated with the edges of existing roads and developed areas are also present. Small ephemeral drainage channels are present near the proposed project area, but will not be directly impacted by the development.

This biological resources survey report is based on four site visits conducted in March, April and May, 2019, and provides a determination of presence/absence or potential for presence of special-status species and sensitive habitats within the survey area. The four surveys covered the blooming period of the special-status plant species with a potential to be present within the survey area. In addition to the focused blooming period botanical surveys, direct observation and evaluation of onsite and adjacent habitat conditions, review of the California Natural Diversity Data Base (CNDDB) and California Native Plant Society records documenting occurrence data from the area, and review of previous biological survey reports conducted in nearby areas were also conducted.

Two special-status bird species, California horned lark and loggerhead shrike, were observed during two of the surveys. Other special-status birds species potentially present in the survey area are grasshopper sparrow, Western burrowing owl, and several other bird species protected under the MBTA. The natural habitats present within the survey area of the subject parcel provide a variety of opportunities for bird nesting activity. The habitats within the survey area provide potentially suitable habitat for numerous other special-status species, including giant kangaroo rat, Tulare grasshopper mouse, McKittrick pocket mouse, American badger, San Joaquin kit fox, blunt-nosed leopard lizard, California glossy snake, San Joaquin coachwhip, and coast horned lizard. The adjacent drainage features do not provide habitat for aquatic or semi-aquatic species, and do not contain riparian vegetation.

Potential impacts to special-status species and water quality were identified in association with the proposed project. Avoidance, protection, and mitigation measures have been proposed within this report to address potential impacts to these special-status species and water quality.

INTRODUCTION

The following Biological Resources Survey Report has been prepared by Ecological Assets Management LLC (EAM), at the request of Sidifoax, Inc. for the proposed Sidifoax Cannabis Cultivation project. The survey area for this report consisted of a 30-acre portion of a 110-acre parcel (subject parcel) located at 7575 Carrisa Highway, in San Luis Obispo County, California.

This report presents the methods and results of four biological resources surveys conducted over the proposed project site and survey area in 2019, and provides current information on the special-status plant and animal species that may be potentially present onsite or in the vicinity. The four surveys were timed to cover the spring blooming period for all special-status annual plant species that have a potential to occur within the vicinity of the subject parcel in order to provide a complete floristic inventory of the survey area.

The surveys also evaluated the potential for special status wildlife species to be present based on observed conditions and habitat types, historical uses, CNDDDB records, and review of previous biological survey reports conducted in nearby areas.

The report assesses whether any biological impacts and effects may occur to federal and state listed species or sensitive or jurisdictional habitats from the proposed action and whether additional protocol or focused survey efforts are necessary. Avoidance, protection and mitigation measures have been proposed within this report to minimize any potential for impacts to special-status species and habitats.

SITE LOCATION

The approximate 28-acre portion (survey area) of the 110-acre parcel (subject parcel) is located at 7575 Carrisa Highway, (APN 072-311-008) in San Luis Obispo County, California (refer to Figure 1 and Figure 2). The parcel is located on the south side of Carrisa Highway, approximately 28.2 miles east of the town of Santa Margarita, and is surrounded by similar large undeveloped rural properties.

PROPOSED ACTION

The proposed project would construct approximately 3 acres of outdoor "in-ground" cultivation (not hoophouses or greenhouses), a single 10,000 square foot greenhouse, a 7,150 square foot support and nursery building, three office/operation trailers, six-foot tall chain link security fence around cultivation area, access road improvements, thirteen (13) space parking area, and a stormwater culvert and rock slope protection all located within gentle to moderately sloping undeveloped annual grassland and subshrub scrub habitats immediately adjacent to an existing access road. An additional 10,000-gallon water storage tank and waterline will also

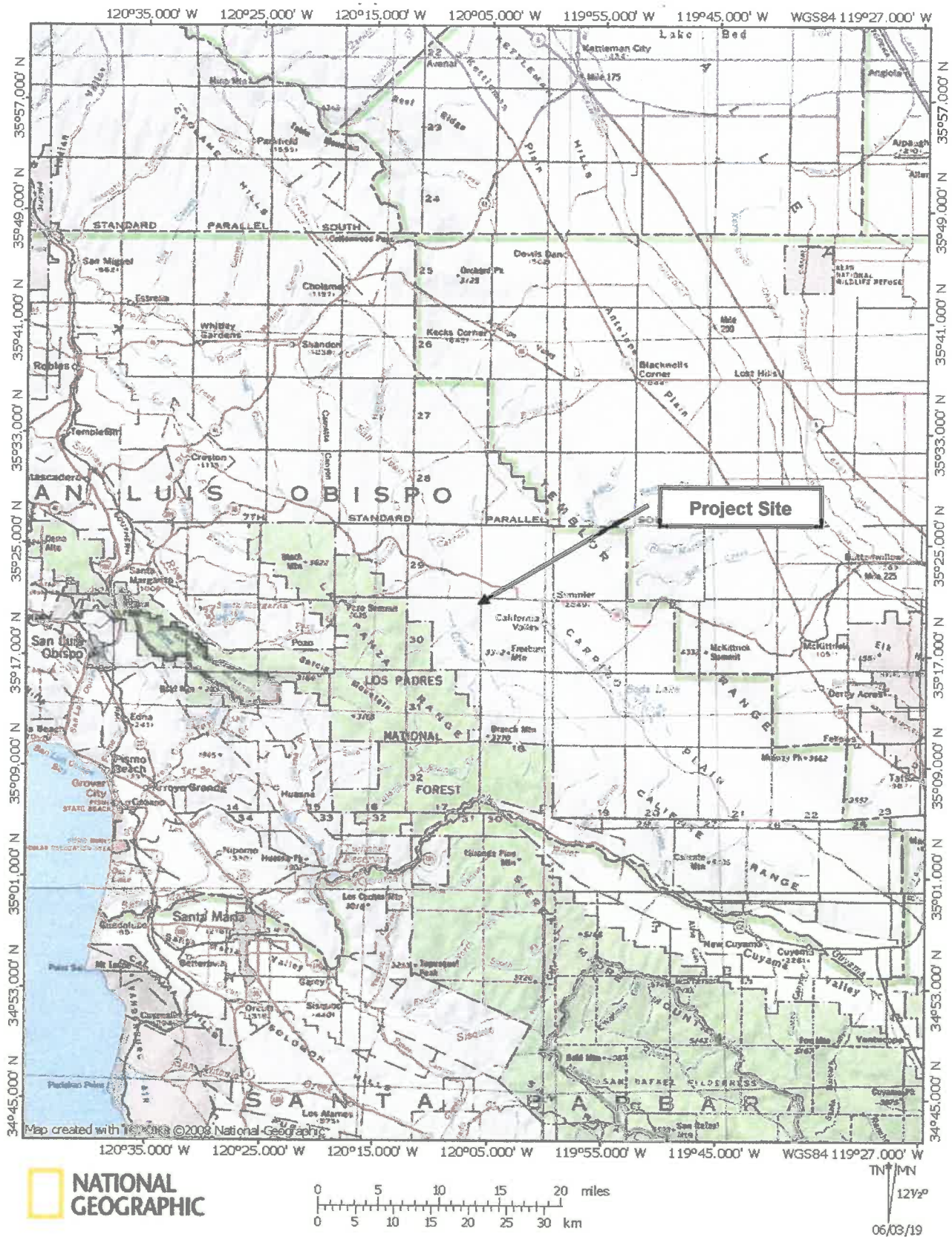


FIGURE 1. Vicinity map.

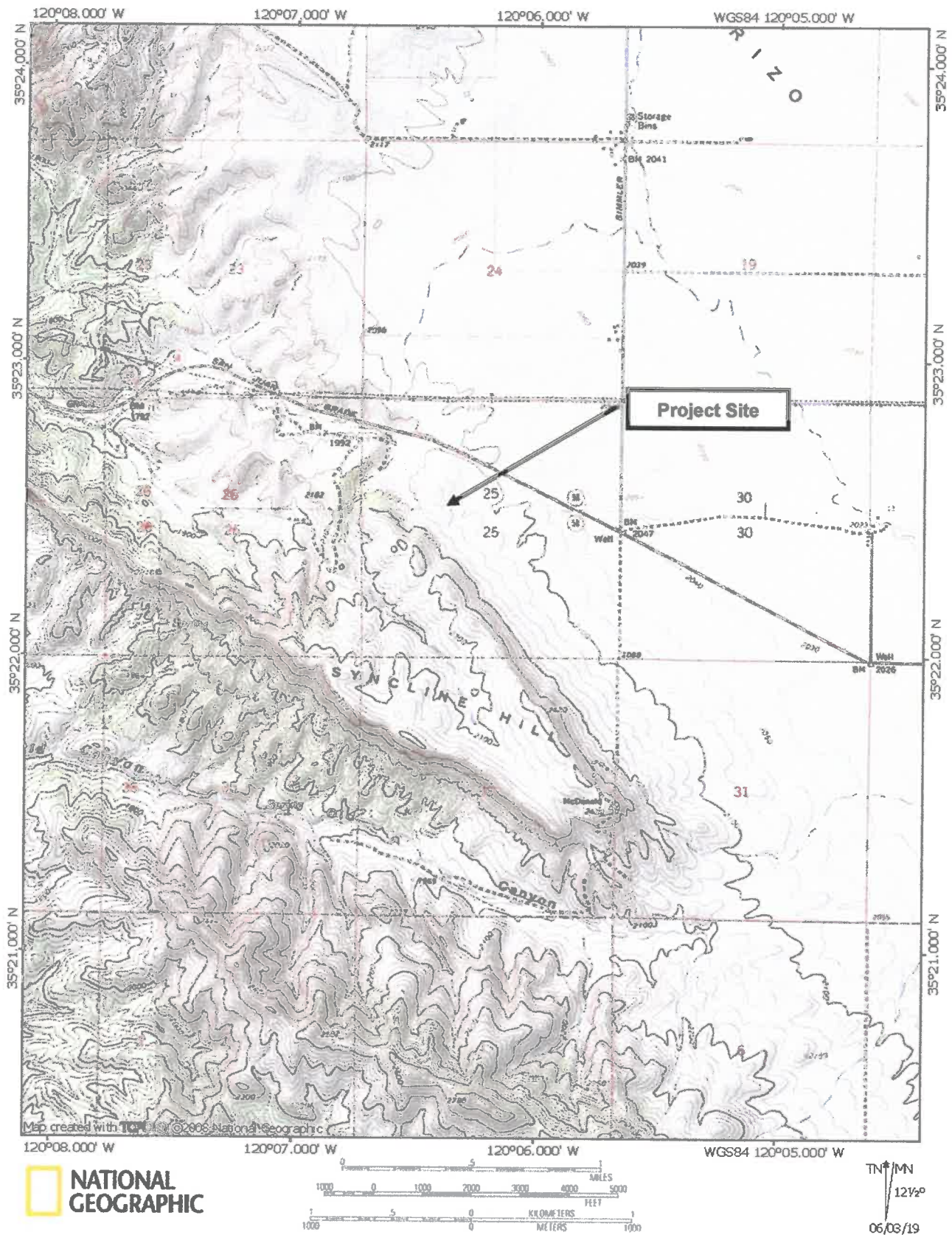


FIGURE 2. Location map.

be constructed near the southern property line, adjacent to an existing watertank. The existing gravel roadway from Carrisa Highway to the proposed project location will also be improved to meet CalFire standards. The proposed project will not use any herbicides, rodenticides or insecticides as part of the ongoing operations of the cannabis cultivation.

SURVEY METHODS

Literature Review

Prior to visiting the survey area, EAM biologists reviewed the California Natural Diversity Data Base (CNDDB) results from a nine (9) quadrangle area around the site to evaluate the potential for occurrence of special-status plant and animal species, and special-status plant communities. This review evaluated results from the La Panza Ranch, La Panza NE, Las Yeguas Ranch, La Panza, California Valley, Simmler, Los Machos Hills, Branch Mountain, and Chimineas Ranch U.S. Geological Survey (USGS) 7.5-minute quadrangles. In addition to CNDDB results, EAM reviewed the results from a search of the previously mentioned nine quads at the California Native Plant Society's online Inventory of Rare and Endangered Plants. Other literature reviewed for the project included recent environmental documents and reports from nearby areas, including the Bureau of Land Management Carrizo Plain National Monument Resource Management Plan, Pacific Gas and Electric's Biological Assessment for the Carrizo-Midway 230 KV Reconductoring Project, and the 2010 Final Biological Report for the Topaz Solar Farm. The biological report for the Topaz Solar Farm was an important reference for this assessment due to its location less than 0.60-mile to the northeast of the subject parcel.

Site Visits

EAM biologists Dwayne Oberhoff and Bob Sloan conducted a total of four site visits on March 14, April 10, May 2, and May 30, 2019, and spent a total of 11-person hours walking the site and assessing existing conditions and biological resources. Four site visits were conducted for this assessment in order to provide a full botanical resources inventory of the survey area to determine if special-status plants species were present. During the surveys, plant communities were characterized, plant species were identified, and the potential for occurrence of special-status plants, animals and habitats listed by the CNDDB were evaluated. All four surveys of the project area were timed to cover the spring blooming period for all special-status annual plant species that have a potential to occur within the nine (9) quadrangle search area. The surveys also assessed the potential for special-status wildlife species to be present based on observed conditions, habitats present, historical uses, and the nine (9) quadrangle search area of the CNDDB.

Vegetation classification generally followed Holland's Preliminary Descriptions of the Terrestrial Natural Communities of California (1986) and was cross-referenced with A

Manual of California Vegetation, Second Edition (Sawyer et al., 2009) for consistency. Plant species observed during the surveys were recorded, and are included as an appendix to this report (refer to Appendix C). Plant taxonomy followed the Jepson Manual, Second Edition (Baldwin et al., 2012).

Photos of notable features of the survey area were taken, and photos are included as an appendix to this report (refer to Appendix E).

RESULTS

Existing Conditions

The 28-acre survey area is located to the south of State Route 58 (Carrisa Highway) and consists of grassy and shrubby areas that slopes gently to the north (refer to Appendix E: Photo Documentation and Appendix G: Site Plans). Elevations range from 2116 feet (645 meters) (above mean sea level) at the far northern portion of the project site to 2207 feet (672 meters) at the existing water tank along the southern property boundary.

The specific project site is along an existing gated private gravel access road that originates from Carrisa Highway and this access road is bordered by annual grassland and ruderal habitats. Away from the access road the project site is dominated by annual grassland, and contains elements of Upper Sonoran Subshrub Scrub habitat, with scattered occurrences of small juniper shrubs also present. Aerial imagery shows that large portions of the survey may have been dry-farmed at some point in the past (>20 years). In addition, an area of miscellaneous debris/equipment is located in the northern part of the survey area and west of the dirt access road (refer to Appendix E, Photo 6). The survey area is surrounded by similar annual grassland and scrub habitats, with denser occurrences of goldenbush shrubs, and large junipers present in higher elevation areas. The water tank location is dominated by annual grasses, but also includes several juniper shrubs.

Several small ephemeral drainage channels are present near the proposed project site, but none will be directly impacted by the proposed project development. The adjacent small drainage features contain annual grassland plants and bare soils, and do not provide habitat for aquatic or semi-aquatic species, or riparian vegetation.

Soils

The University of California Davis, Soil Resource Laboratory website, SoilWeb (<http://casoilresource.lawr.ucdavis.edu/>), maps the underlying soils of the project area as the Bellysring-Panoza complex, 9 to 15 percent slopes. This moderately sloping association of sandy loams is found on hillslopes/backslopes, and was formed from residuum weathered from calcareous, sandstone, shale and/or conglomerate. Surface runoff is very high, and the hazard of water erosion is high.

Soil conditions observed onsite matched the mapped soil characteristics, with the addition of gravels in some areas.

Observed Habitats

The four site visits conducted by EAM biologists thoroughly covered the project area and identified three natural plant communities: annual grassland, upper Sonoran subshrub scrub and ruderal/disturbed. The observed conditions within these plant communities are discussed below. Refer to Appendix F for an "Existing Conditions and Habitat Map" of the survey area.

- California Annual Grassland

California annual grassland, corresponding to the wild oats and annual brome grasslands described in the Manual of California Vegetation (2009, second edition) and the Non-native Grassland described by Holland (1986), is present in portions of the survey area. The annual grassland habitat present contained a mix of native and non-native grasses, and many native wildflowers and other native forbs. Dominant native species include annual fescue (*Vulpia microstachys*), miniature lupine (*Lupinus bicolor*), several owl's clovers (*Castilleja* spp.), short-podded lotus (*Lotus humistratus*), California plantain (*Plantago erecta*), and Valley popcorn flower (*Plagiobothrys canescens*).

Dominant non-native grassland species included redstem filaree (*Erodium cicutarium*), soft chess brome (*Bromus hordeaceus*), red brome (*Bromus madritensis*), annual fescue (*Vulpia myuros*), and foxtail barley (*Hordeum murinum*).

California grasslands can provide foraging, breeding habitat and movement opportunities for many wildlife species. Botta's pocket gopher (*Thomomys bottae*) and deer mice (*Peromyscus* spp.) are known to occur within this habitat type, and these species can serve as a prey base for predator animals, including snakes, raptors, San Joaquin kit fox, American badger, and coyote (*Canis latrans*). Numerous invertebrate species which could provide a food source for larger animals such as lizards, birds and small mammals are typically found within grassland communities. A variety of birds rely on open expanses of grasslands for foraging habitat, and several species nest in grasslands.

- Upper Sonoran Subshrub Scrub

This scrub type is the most common shrub vegetation community on the Carrizo Plain (BLM, 2010). Elements of upper Sonoran subshrub scrub habitat are present along the access road and the low hilltops around the survey area. This habitat is characterized by soft-wooded relatively low shrubs (one to four-feet tall), interior goldenbush (*Ericameria linearifolia*), with California buckwheat (*Eriogonum fasciculatum*), with areas between the shrubs dominated by non-native grasses such as soft chess brome, redstem filaree, and red brome, as well as native species such as fescue, fiddleneck, and valley popcornflower. Scattered occurrences of small to medium sized California juniper (*Juniperus californicus*), are also present in the scrub areas. This habitat type provides shade, nesting, and foraging opportunities for many of the species found in

the adjacent and intermixed annual grasslands. Burrowing mammal activity is often abundant in these areas.

- Ruderal/Disturbed

Ruderal/disturbed conditions are common along roadsides and other areas that are affected by construction, agriculture, ornamental landscaping, or other types of regular disturbance that affect plant growth. If vegetated, these areas are typically dominated by non-native annual grasses and herbaceous plants adapted to the regular cycle of disturbance from traffic, grading, and weed reduction practices such as mowing and herbicide application. Typical plants consist primarily of introduced species and escaped ornamentals that exhibit clinging seeds, adhesive stems, and rough leaves that assist their colonization of disturbed or unmaintained lands. This is not a native plant community, and is not described in the Manual of California Vegetation or in Holland's (1986) vegetation classification.

Ruderal or disturbed areas within the survey area were present along road edges and developed areas. These areas exhibited disturbed and compacted soils, and were either unvegetated or contained patchy occurrences of non-native weedy plants. Plant species observed within ruderal/disturbed areas included the common annual grass species listed above, summer mustard (*Hirschfeldia incana*), and red-stemmed filaree.

Hydrologic Features

The headwater portion of a small ephemeral drainage channel is present near the southwest portion of the proposed survey area. However, general project site topography directs runoff to the north (toward State Route 58) away from the ephemeral drainage. Runoff from the specific project site eventually connects with another smaller ephemeral drainage located within the shoulder of State Route 58 and is directed to the west where it flows through a culvert under the property's access road (at the entry gate) and then eventually flows into San Juan Creek located approximately 2.5 miles to the west. During the March site visit these drainages contained moist soils and showed evidence of recent flows, but were completely dry during the April and May site visits. These drainage features do not provide habitat for aquatic or semi-aquatic species, due to the lack of persistent soil moisture, riparian vegetation and very limited duration of water.

Based on the observed conditions, these drainages (bank to bank) may fall under the jurisdiction of the CDFW under California Fish and Game Code Section 1600 et seq, and would also be regulated by RWQCB as waters of the state.

The presence of bed and bank features, and connectivity to downstream water features indicate that channel areas below the Ordinary High-Water Mark (OHWM) may fall within the jurisdiction of the USACE as waters of the U.S. pursuant to Section 404

of the Clean Water Act. Because no direct impacts are currently proposed to the channels, a formal wetland delineation was not conducted for this report.

If future activities or other actions that would encroach upon or impact jurisdictional areas are proposed, permits from one or more of the above agencies are likely to be required prior to such construction.

SPECIAL-STATUS SPECIES

Special-Status Plant Species

Four site visits were conducted during the blooming period for all special-status species known from the nine-quad search area and these site visits involved walking all portions of the survey area and identifying all plant species observed. Plants were identified to species, or sub-species, with dichotomous keys used as necessary (Hoover, 1970; Hickman, ed. 1993). Special-status plant species known to occur in habitats, elevations, and/or soil types similar to those found on the parcel were the focus of the survey effort. During the surveys, forty-four (44) vascular plant species were identified. Of the species observed, 36 (thirty-six) were native and eight were non-native. A complete list of all plant species observed during the survey is provided in Appendix C.

For the purpose of this study, special-status plants are vascular plants listed, proposed for listing, or candidates for listing as Threatened or Endangered by the U.S. Fish and Wildlife Service (USFWS) under the federal Endangered Species Act (ESA); those listed or proposed for listing as Rare, Threatened, or Endangered by the California Department of Fish and Wildlife (CDFW) under the California Endangered Species Act (CESA); and plants occurring on California Rare Plant Rank 1, 2, 3 and 4, as developed by the CDFW and the California Native Plant Society (CNPS). Sensitive natural communities are those plant communities listed as rare in the CNDDB.

The specific Rare Plant Rank code definitions are as follows:

- *Rank 1A = Plants presumed extinct in California;*
- *Rank 1B.1 = Rare or endangered in California and elsewhere; seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);*
- *Rank 1B.2 = Rare or endangered in California and elsewhere; fairly endangered in California (20-80% occurrences threatened);*
- *Rank 1B.3 = Rare or endangered in California and elsewhere, not very endangered in California (<20% of occurrences threatened or no current threats known);*
- *Rank 2 = Rare, threatened or endangered in California, but more common elsewhere;*
- *Rank 3 = Plants needing more information (most are species that are taxonomically unresolved; some species on this list meet the definitions of rarity under CNPS and CESA); and*

- Rank 4.2 = Plants of limited distribution (watch list), fairly endangered in California (20-80% occurrences threatened).
- Rank 4.3 = Plants of limited distribution (watch list), not very endangered in California.

CNDDDB and CNPS records for a nine (9) quadrangle search area surrounding the subject parcel were examined to identify known occurrences of special-status plant species surrounding the project site. A total of 46 (forty-six) sensitive plant species were evaluated for potential to be present in the vicinity of the survey area.

Many of the forty-six (46) special-status plant species identified by the CNDDDB and CNPS search have highly specialized habitat requirements such as restricted elevational ranges, serpentine or shale rock outcrops and soils, alkaline flats, clay soils, coniferous forests, oak woodlands, vernal pools, or freshwater seeps, that are not present within or immediately adjacent to the survey area (refer to Appendix A). Of the numerous special-status plant species known from the general area they either all occur within annual grasslands or juniper woodlands on sandy or shale-based soils, or are perennial species that would have been identifiable during the four site visits.

Based on evaluation of existing soils and habitat conditions at the project site, the following twelve (12) plant species identified in the CNDDDB and CNPS search were considered to have a moderate potential to be present within the project site or in adjacent areas. During the focused floristic surveys none of the twelve (12) special-status plants listed below were observed.

- Indian Valley spineflower (*Aristocapsa insignis*)
- La Panza mariposa-lily (*Calochortus simulans*)
- dwarf calycadenia (*Calycadenia villosa*)
- California jewel-flower (*Caulanthus californicus*)
- Lemmon's jewelflower (*Caulanthus lemmonii*)
- recurved larkspur (*Delphinium recurvatum*)
- Kern mallow (*Eremalche parryi* ssp. *kernensis*)
- diamond-petaled California poppy (*Eschscholzia rhombipetala*)
- trumpet-throated gilia (*Gilia tenuiflora* ssp. *amplifaucalis*)
- Munz's tidy-tips (*Layia munzii*)
- San Joaquin woollythreads (*Monolopia congdonii*)
- Large-flowered nemacladus (*Nemacladus secundiflorus* var. *secundiflorus*)

These twelve (12) species and the remaining thirty-four (34) special-status plants identified in Appendix A were not observed during the four blooming season surveys of the survey area. Based on the four focused blooming season survey results, no impacts to special-status plant species or habitats will occur.

Special-Status Wildlife Species

CNDDDB records for La Panza NE and the eight surrounding USGS quadrangles were examined to identify known occurrences of special-status wildlife species in the vicinity of the survey area. A total of thirty-nine (39) sensitive wildlife species were evaluated for potential to be present in the vicinity of the survey area. Appendix B discusses the habitat requirements of the special-status wildlife known from the general area and the presence or absence of suitable habitat conditions on the subject parcel and within the survey area.

Based on the four site visits to the project area, nearby occurrences, previous nearby biological reports, evaluation of soils, and habitats present, the following eleven (11) wildlife species identified in the CNDDDB search are considered to have a moderate potential to be present within the vicinity of the survey area.

- California glossy snake (*Arizona elegans occidentalis*)
- Blunt-nosed leopard lizard (*Gambelia sphaerota*)
- San Joaquin coachwhip (*Masticophis flagellum ruddocki*)
- Coast horned lizard (*Phrynosoma blainvillii*)
- Grasshopper sparrow (*Ammodramus savannarum*)
- Burrowing owl (*Athene cunicularia*)
- Giant kangaroo rat (*Dipodomys ingens*)
- Tulare grasshopper mouse (*Onychomys torridus tularensis*)
- McKittrick pocket mouse (*Perognathus inornatus neglectus*)
- American badger (*Taxidea taxus*)
- San Joaquin kit fox (*Vulpes macrotis mutica*)

During the four site visits two of the special-status bird species identified in the CNDDDB search were observed within the survey area.

- California horned lark (*Eremophila alpestris actia*)
- Loggerhead shrike (*Lanius ludovicianus*)

Many of the special-status animal species identified by the CNDDDB search have highly specialized habitat, nesting, or roosting requirements including ponded water, vernal pools, rock outcrops, cliffs, specific soil textures, streams/rivers, or riparian vegetation. None of these habitats or specific features were observed and are not present within the survey area or on the subject parcel. The following twenty-six (26) wildlife species were considered to have no potential to occur or nest within or adjacent to the project site due to the absence of suitable habitats or nesting requirements.

- California tiger salamander (*Ambystoma californiense*)
- Bakersfield legless lizard (*Anniella grinnelli*)
- Northern California legless lizard (*Anniella pulchra*)
- Western pond turtle (*Emys marmorata*)
- California red-legged frog (*Rana draytonii*)

- Western spadefoot (*Spea hammondi*)
- Tri-colored blackbird (*Agelaius tricolor*)
- Golden eagle (*Aquila chrysaetos*)
- Short-eared owl (*Asio flammeus*)
- Long-eared owl (*Asio otus*)
- Ferruginous hawk (*Buteo regalis*)
- Swainson's hawk (*Buteo swainsoni*)
- Mountain plover (*Charadrius montanus*)
- White-tailed kite (*Elanus leucurus*)
- Merlin (*Falco columbarius*)
- Prairie falcon (*Falco mexicanus*)
- California condor (*Gymnogyps californianus*)
- Bald eagle (*Haliaeetus leucocephalus*)
- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Vernal pool fairy shrimp (*Branchinecta lynchi*)
- Nelson's antelope squirrel (*Ammospermophilus nelsoni*)
- Pallid bat (*Antrozous pallidus*)
- Townsend's western big-eared bat (*Corynorhinus townsendii townsendii*)
- Short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus*)
- Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*)

The evaluation of potential special-status wildlife species occurrence within the survey area was based on habitat suitability analysis coupled with direct field observations. It did not include definitive surveys to determine presence or absence following specific protocols. The conclusions and information contained herein and detailed in Appendix B was based on review of the CNDDB records, recent biological studies from the region, personal communications with other biologists, coupled with our knowledge of the particular species' biology and ecological requirements.

As mentioned, two of the special-status bird species, California horned lark and loggerhead shrike, were observed within the survey area. A single California horned-lark was observed during the April 30, 2019, site visit within the annual grassland habitat east of the gravel access road. During the May 30, 2019, site visit a single loggerhead shrike was observed perched on a barb-wire fence located between the existing water tank and the existing residence within mix subshrub scrub and annual grassland habitats. Completed CNDDB forms for the special-status species observed during the surveys are included in Appendix H. In addition, the subject parcel, and specifically the survey area, do not provide nesting habitat for raptors that nest in trees or cliffs, but these areas do provide foraging habitat for a variety of special-status raptor species such as prairie falcon, golden eagle, etc.

In addition to the known presence of California horned lark and loggerhead shrike, there is a moderate potential for the presence of both grasshopper sparrow and

burrowing owl and a number of other migratory birds subject to the MBTA (that are not included within the CNDDB) that could potentially utilize the annual grassland and subshrub habitat as foraging and/or nesting habitat. Few burrows were observed during the site visits, but undetected burrows may be present that could provide suitable habitat for burrowing owls.

The project area is composed of annual grassland and subshrub scrub, which has the potential to provide suitable habitat for numerous special-status reptile species, such as, California glossy snake, blunt-nosed leopard lizard (blunt-nosed leopard lizard), San Joaquin coachwhip, and coast horned lizard. There are recorded occurrences for both glossy snake and coachwhip in close proximity to the survey area, with a 2010 coachwhip occurrence located along State Route 58 at the northeast corner of the subject parcel. The nearest blunt-nosed leopard lizard occurrences are located to 12 miles to the south and 14 miles to the north. Protocol surveys for blunt-nose leopard lizard were conducted on the nearby Topaz Solar Farm with no observations. However, Althouse and Meade state in the final biological report that even though the Project Study Area (PSA) for the Topaz Solar Farm consisted of Potential Habitat for blunt-nosed leopard lizard, the survey areas were likely to be disturbed (due to agriculture), grasslands generally too dense, and shrub cover was absent. Because the survey area consisted of relatively undisturbed (former agricultural uses but no recent disturbances) sparse annual grasslands with areas of scattered shrubs, the survey area could provide potentially suitable habitat for blunt-nosed leopard lizard (refer to photos in Appendix E). In addition, the low vegetation and scattered shrubs growing in a sandy soil provide potential suitable habitat for coast horned lizard.

Giant kangaroo rat, Tulare grasshopper mouse and McKittrick pocket mouse are also known from the Carrizo Plains. The annual grasslands and sparse scrub habitat within the survey area provide potentially suitable habitat for all three species. The Topaz Solar Farm Final Biological Report identified the presence of potential habitat for all three species within the PSA. Directed and focused surveys conducted for the Topaz Solar Farm detected both the Tulare grasshopper mouse and the McKittrick pocket mouse within the PSA. Althouse and Meade states that low abundance of small mammals within the Topaz Solar Farm PSA is due to "habitat degradation from farming activities and intensive grazing that eliminates stratified vegetative cover and seed crops." In addition, a phone call with small mammal biologist Mr. Bill Vanherweg (personal communication) regarding this project, Mr. Vanherweg indicated that all three species, Giant kangaroo rat, Tulare grasshopper mouse and McKittrick pocket mouse, have a potential to be present within the survey area based on his experience and knowledge of the general area around the subject parcel. Based on the feedback from Mr. Vanherweg, and absence of recent farming and grazing, the survey area has a moderate potential to provide suitable habitat for these three special-status rodents, although no signs of presence were observed.

There are numerous occurrences of San Joaquin kit fox and American badger from the general area surrounding the project site. This includes a 2011 kit fox occurrence along State Route 58 at the northeast corner of the subject parcel. Even though no kit fox or badger activity was observed within the survey area during the four surveys, these highly mobile carnivores are present within the general area and the portions of the project area composed of annual grasslands provide potentially suitable foraging and transitory habitat for these highly mobile species. In addition, even though few ground squirrel burrows were observed in the survey area it is possible that burrows are present in adjacent areas that could provide suitable dens for these species. Thus, there is a moderate potential for both kit fox and badger to be a transient visitor to the project site prior to and during construction activities. It is possible that kit fox and badger could be directly impacted if they are present during construction activities.

Other than the California horned lark and the loggerhead shrike, none of the eleven (11) other special-status wildlife species were observed during the four surveys.

Critical Habitat Identification

Review of designated critical habitat boundaries in the area indicate that the subject parcel is not located within federally designated critical habitat for any species.

Habitat Connectivity

The subject parcel, and specifically the project site, is habitat for a variety of mammal species (and potentially special-status mammal species) that likely use these areas for general movements from adjacent areas and/or foraging habitat. The proposed project will construct a six-foot chain link security fence around the proposed cultivation area that is approximately 205 meters in length (north to south) and 200 meters in width (east to west). This security fence will stop or restrict wildlife movement through this specific area. The subject parcel is large (110 acres), and is surrounded by other large undeveloped natural areas, and wildlife will be able to move around the project site (refer to Appendix F). However, this proposed project, and other projects such as the Topaz Solar Farm and other proposed future projects in the general area are cumulatively blocking/restricting habitat connectivity and the movement of wildlife species between the southern and northern Carrizo Plains.

REGULATORY OVERVIEW

Section 404 of the Clean Water Act Of 1977

Regulatory protection for water resources throughout the United States is under the jurisdiction of the U.S. Army Corps of Engineers (Corps). Section 404 of the Clean Water Act prohibits the discharge of dredged or fill material into Waters of the U. S. without formal consent from the Corps. Waters of the U.S. includes Special Aquatic Sites (e.g., marine waters, tidal areas, stream channels) and wetlands. Under Section 404, actions

in Waters of the U.S. may be subject to either an individual permit or a general permit, or may be exempt from regulatory requirements.

The small drainages adjacent to the project site may constitute potential Waters of the U.S., as defined by the Corps. The proposed project will not directly impact these drainages, but any future impacts to areas within Corps jurisdiction will require issuance of a permit under Section 404.

Section 401 of the Clean Water Act Of 1977

Section 401 of the Clean Water Act and its provisions ensure that federally permitted activities comply with the federal Clean Water Act and state water quality laws. Section 401 is implemented through a review process that is conducted by the Regional Water Quality Control Board (RWQCB), and is triggered by the Corps permitting process. Specifically, the RWQCB certifies via the 401 process that the proposed project complies with applicable effluent limitations, water quality standards, and other conditions of California law.

The small drainages adjacent to the project site may be subject to Section 401 of the Clean Water Act. The proposed project will not directly impact these drainages, but any future impacts to RWQCB jurisdiction will require issuance of a permit under Section 401, or under the Porter-Cologne Act through the State Water Quality Certification Program.

Federal Endangered Species Act Of 1973

The Federal Endangered Species Act (FESA) provides legislation to protect federally listed plant and animal species. Impacts to listed species resulting from the implementation of a project would require the responsible agency or individual to formally consult with the USFWS or National Marine Fisheries Service (NMFS) to determine the extent of impact to a particular species.

This assessment identified the subject parcel and specifically the survey area as potential habitat for three federally endangered species: blunt-nosed leopard lizard, giant kangaroo rat, and San Joaquin kit fox. Even though these three species were not observed during the four site visits, the proposed project has the potential to directly impact these species. Avoidance, protection and mitigation measures are included in this report to help reduce project related impacts to these species.

California Endangered Species Act

The State of California Endangered Species Act (CESA) ensures legal protection for plants listed as rare or endangered and species of wildlife formally listed as endangered or threatened. The state also lists "Species of Special Concern" based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, the California Department of Fish

and Game is empowered to review projects for their potential to impact state-listed species and Species of Special Concern, and their habitats.

This assessment identified the survey area as potentially suitable habitat for numerous special-status species that are either listed as endangered by the State of California or Species of Special Concern. Special-status species listed as endangered by the State of California that are potentially present onsite include blunt-nose leopard lizard, giant kangaroo rat, and San Joaquin kit fox. Special-status species listed as Species of Special Concern that are either present or potentially present onsite include California glossy snake, coast horned lizard, grasshopper sparrow, burrowing owl, loggerhead shrike, Tulare grasshopper mouse, McKittrick pocket mouse and American badger. During the four site visits to the survey area two Species of Special Concern, grasshopper sparrow and loggerhead shrike, were observed.

Based on the observation of two Species of special Concern and the presence of potentially suitable habitat for other State of California-listed species, the proposed project has the potential to directly impact these species. Avoidance, protection and mitigation measures are included in this report to help reduce project related impacts to these species.

Section 1602 of the Fish and Game Code

The CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the law requires any person, state or local government agency, or public utility proposing a project that may impact a river, stream, or lake to notify the CDFG before beginning the project. If the CDFG determines that the project may adversely affect existing fish and wildlife resources, a Lake or Streambed Alteration Agreement is required.

The small drainages adjacent to the project site may be subject to Section 1602 of the Fish and Game Code. The proposed project will not directly impact these drainages, but any future impacts to CDFW jurisdiction will require issuance of a Streambed Alteration Agreement through the CDFW.

Other Sections of the Fish and Game Code

Fully Protected and Protected species may not be taken or possessed without a permit from the Fish and Game Commission and/or the CDFW. Information on these species can be found within section 3511 (birds), section 4700 (mammals), section 5050 (reptiles and amphibians), and section 5515 (fish) of the Fish and Game Code.

The blunt-nosed leopard lizard is designated as "Fully Protected" under the Fish and Game Code and potentially suitable habitat for this species occurs within the survey area. Even though blunt-nosed leopard lizard was not observed during the four site visits, the proposed project has the potential to impact this species. Avoidance,

protection and mitigation measures are included in this report to help reduce project related impacts to this species.

Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (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 1800's.

As discussed earlier, the scrub and grassland habitats on and adjacent to the survey area provide nesting opportunities for a variety of avian species, including special-status bird species, subject to the MBTA. Implementation of the proposed project has the potential to directly and indirectly impact a variety of bird species covered under the MBTA. Avoidance and protection measures such as pre-activity surveys for actively nesting birds should be conducted prior to construction occurring between February 1 and September 15.

DISCUSSION

This 2019 biological assessment documents existing conditions and potential impacts to special-status species based on current biological and regulatory information and four surveys conducted within a 28-acre survey area on the subject parcel. The proposed project would disturb annual grassland and upper Sonoran subshrub scrub habitat on site that could support special-status species, such as nesting birds, reptiles, and mammals.

This assessment found that the proposed project has a moderate potential to impact special-status species due to the direct observation of two special-status bird species and the observed presence of potentially suitable habitat for numerous other special-status wildlife species. No special-status plant species were observed during the four focused botanical surveys conducted during the blooming period for the special-status plant species known to the area. Based on the results of these four focused surveys, impacts to special-status plant species will not occur.

Although no direct impacts to the bed or bank of drainage channels are proposed, ongoing cultivation activities could indirectly impact adjacent drainages and downstream water quality by increased sedimentation from bare soil areas, and runoff or spills of fertilizer, agricultural chemicals, and fuel.

IMPACT ANALYSIS AND RECOMMENDED CONDITIONS OF APPROVAL

The following impact analysis and recommended avoidance, protection, and mitigation measures are intended to support the California Environmental Quality Act (CEQA) review process conducted by the County of San Luis Obispo acting as the lead agency for the project.

Project-related disturbances within the survey area have the potential to affect numerous species of special-status wildlife through both direct and indirect impacts. Prior to any ground disturbing activities associated with the proposed project, pre-construction and/or focused surveys will be required to protect and avoid impacts to ground nesting birds, burrowing owl, reptile species, American badger, and San Joaquin kit fox. In addition, focused and directed surveys for both blunt-nosed leopard lizard and three special-status rodent species are recommended and supplemental reports will need to be provided to the County of San Luis Obispo. Based on the site visits and survey results, impacts to special status plants, sensitive plant communities, and aquatic habitats will not occur.

The following measures are intended to help reduce project related impacts to special-status wildlife species potentially present within the survey area.

Disturbance of Non-native and Native Habitats

BIO-1. Site preparation and project construction activities would affect California annual grassland, upper Sonoran subshrub scrub, and ruderal habitats. This is anticipated to be a less-than-significant impact pursuant to CEQA, and no avoidance and protection measures are recommended.

Development of the proposed project would result in disturbance to habitats onsite, which consist of California annual grassland, upper Sonoran subshrub scrub, and ruderal habitats. Both California annual grassland and ruderal habitats and the areas between the shrubs within upper Sonoran subshrub scrub are dominated by non-native species. In addition, these three habitats are common in the region and are not considered sensitive plant communities by the CDFW. Any loss of these three habitats, that do not support special-status species would be considered a less than significant impact pursuant to CEQA, and no mitigation would be required.

Blunt-nosed Leopard Lizard

BIO-2: Site preparation and project construction activities could impact Blunt-nosed leopard lizard. This is anticipated to be a less than significant impact pursuant to CEQA with the implementation of the following avoidance and protection measure.

1. Prior to start of any ground disturbances on site, a qualified biologist should conduct a habitat assessment for blunt-nosed leopard lizard within the survey area and provide to the County a supplemental report of the assessment along with any additional recommendations and/or avoidance and protection measures.
2. If the results of the habitat assessment identifies suitable habitat for blunt-nosed leopard lizard, a qualified biologist shall perform focused protocol-level surveys for blunt-nosed leopard lizard following the California Department of Fish and Wildlife's 2004 "Approved Survey Methodology for the Blunt-Nosed Leopard

Lizard” and United States Fish and Wildlife protocols for detection of this species in all potential blunt-nosed leopard lizard habitat within the survey area previously identified in the habitat assessment. Results of the protocol survey and any recommended avoidance and protection measures should be provided to the County in a supplemental report.

Other Special-status Reptile Species

BIO-3: Site preparation and project construction activities could impact California glossy snake, Coast horned lizard, and San Joaquin coachwhip. This is anticipated to be a less than significant impact pursuant to CEQA with the implementation of the following avoidance and protection measures.

1. A qualified biologist shall conduct pre-construction surveys for California glossy snake, Coast horned lizard, and San Joaquin coachwhip immediately before initial ground disturbance. If California glossy snake, Coast horned lizard, and/or San Joaquin coachwhip are found in the area of disturbance, the biologist shall move the animals to an appropriate location outside the area of disturbance. The relocation site shall be on the subject parcel, be identified before construction and shall be selected based on the size and type of habitat present.
2. The qualified biologist shall be present and monitor all initial grubbing and grading of the site to capture any displaced special-status reptile species and relocate to an appropriate relocation site outside of the area of disturbance.

Water Quality

BIO-4. Site preparation, project construction, and future cultivation activities could affect nearby drainages and water quality. This is anticipated to be a significant, but mitigable impact pursuant to CEQA.

Site preparation, project construction, and future cultivation activities could indirectly impact adjacent drainage channels and downstream water quality by increased sedimentation from roads and other bare soil areas, and runoff or spills of agricultural chemicals and fuel. Under rainy conditions, soil, fuels, hydraulic fluids, and agricultural materials including concrete, paints, solvents, and other chemicals could wash into the channels and cause an increase in suspended sediments, sedimentation of downstream riparian areas, and introduce compounds that could potentially be toxic to aquatic organisms. Spills during the dry season could enter and travel down the dry stream channels, and would contaminate sandy/gravelly substrates. Ensuring that sediment or chemical-laden runoff, trash, and agricultural debris does not enter the creek channel, and that current site runoff is consistent with pre-project conditions, is essential to minimize impacts to the adjacent stream habitat.

The following measures are recommended to avoid and minimize potential water quality and stream habitat impacts.

1. Prior to start of construction, the project site boundaries, access routes, and staging areas should be clearly flagged so that contractors are aware of the limits of allowable site access and disturbance. Equipment access should not occur during wet weather or when access would cause ruts or soil compaction due to saturated soil conditions.
2. The project shall demonstrate compliance with the State Water Resources Control Board Cannabis Waste Discharge Requirements General Order and the associated Cannabis Cultivation Policy which provides principles and guidelines for cannabis cultivation, including regulations on the use and storage of pesticides, rodenticides, herbicides, insecticides, fungicides, disinfectants, and fertilizers.
3. Prior to start of construction, the applicant should prepare an Erosion Control Plan. The Plan should address both temporary and permanent measures to control erosion and reduce sedimentation. Erosion and soil protection should be provided on all disturbed soil areas prior to the onset of the rainy season (October 15). Project plans should show that sedimentation and erosion control measures must be installed per the engineer's requirements. The Plan should include specific BMP's to minimize impacts to adjacent native habitats. For example, washing of equipment should occur only in designated areas where polluted water and materials can be contained for subsequent removal from the site. Washing of equipment and tools should not be allowed in any location where the tainted water could leave the work area. BMP's for dust abatement should also be included.
4. All spills of fertilizer, agricultural chemicals, fuel, and other hazardous materials shall be cleaned up immediately per the requirements and methods detailed by the State Water Resources Control Board. Spill prevention and cleanup materials shall be on-site at all times. Cleaning and refueling of equipment and vehicles shall occur only within designated staging areas. No maintenance, cleaning or fueling of equipment shall occur within 50 feet of any drainage.
5. To avoid disturbance of wet soils, and limit the potential for erosion and downstream sedimentation, grading should occur outside of the rainy season (October 15 through April 15). If grading is proposed during the rainy season, such activities must be authorized under relevant provisions of the County's Grading Ordinance, and must follow approved Erosion and Sedimentation Plans. All project-related spills of hazardous materials should be cleaned up immediately. Spill prevention and cleanup materials should be on-site at all times during construction. Cleaning and refueling of equipment and vehicles should occur

only within designated staging areas. The staging areas should conform to standard BMPs applicable to attaining zero discharge of storm water runoff. No maintenance, cleaning or fueling of equipment should occur outside the work area. At a minimum, all equipment and vehicles should be checked and maintained on a daily basis to ensure proper operation and to avoid potential leaks or spills.

Nesting Birds

BIO-5. Site preparation and project construction activities could impact nesting birds if construction occurs during the nesting season (February 1st through September 15th). This is anticipated to be significant, but mitigable impact pursuant to CEQA.

The survey area is known habitat for two (2) special-status bird species (observed during site visits), California horned lark and loggerhead shrike, and potential habitat for two (2) other special-status bird species, grasshopper sparrow and western burrowing owl. In addition, the project area may also provide nesting habitat for other more common bird species protected by the MBTA. Potential direct impacts to nesting birds could occur if shrub or ground nesting birds are present within the disturbance area of the project site during construction activities. Potential indirect impacts to nesting birds could occur in nesting activities occur near construction related activities that create noise and other disturbances. Potential direct impacts to nesting raptors from tree removal or indirect impacts to nesting raptors associated with construction-related disturbances will not occur as no potential raptor nesting habitat (e.g. trees, cliffs, etc.) is within or in the vicinity of the project site. Potential impacts and recommended avoidance/protection measures to Western burrowing owl is discussed separately in BIO-6. Impacts to nesting birds are considered temporary, and would be reduced with the incorporation of the following recommended avoidance and protection measures.

1. To minimize impacts to nesting bird species, including special-status species and species protected by the MBTA, if work is proposed between February 1 through September 15, a qualified biologist should conduct a pre-construction survey for active bird nests within the limits of the project site and a 50 foot buffer no less than 14 days and no more than 30 days prior to any disturbance activities. If no nesting activity is observed, project activities can proceed. If nesting activity is identified during the preconstruction survey, the following additional measures should be implemented.
2. If active nest sites of bird species protected under the MBTA and/or California Fish and Game Code Section 3503 are observed within the project area, then the project should be modified and/or delayed as necessary to avoid direct and indirect impacts of the identified nests, eggs, and/or young. Potential project modifications may include establishing a 50-foot "no activity" buffer around the

nest site as determined by the project biologist. Construction activities should not occur in the buffer until the project biologist has determined that the nesting activity has ceased.

3. If active nest sites of special-status bird species are identified, no work shall begin until an appropriate "no activity" buffer is determined in consultation with CDFW and/or the USFWS.

Western Burrowing Owl

BIO-6: Site preparation and project construction activities could impact Western burrowing owl if active burrows are present. This is anticipated to be significant, but mitigable impact pursuant to CEQA.

Western burrowing owl was determined to have the potential to occur within the survey, due to presence of annual grassland habitat and ground squirrel burrows. Because of the limited impact area, the degree of habitat diversity in the region, and the amount of open space surrounding the proposed development, potential impacts to western burrowing owl would only be anticipated to occur during initial construction activities, and are not expected to be significant with the incorporation of the following mitigation measures.

1. A qualified biologist shall conduct pre-activity surveys for the presence of western burrowing owl and/or active burrows within the work area and within 250 feet of the work area no less than fourteen (14) days and no more than thirty (30) days prior to ground disturbing activities. Surveys will be conducted by qualified biologists by walking straight-line transects spaced 20 feet to 60 feet, adjusting for vegetation height and density.
2. Exclusion zones, or no-disturbance buffers, shall be established around active burrows. No project-related disturbances should occur within 160 feet of occupied burrows during the nonbreeding season of September 1 through January 31 or within 250 feet during the breeding season of February 1 through August 31.
3. If an active burrow is observed within 250 feet of the work area during the breeding season, construction activities shall not continue until a qualified biologist confirms the burrow is no longer active. Proposed adjustments to the buffer will be through consultation with the California Department of Fish and Wildlife (CDFW).
4. If an active burrow is observed within 160 feet of the work area during the non-breeding season, construction activities shall not continue until a qualified biologist confirms the burrow is no longer active.
5. The qualified biologist, with prior consultation and approval from the CDFW, may institute passive relocation through use of one-way burrow doors that will not

allow the owls to reenter the burrow. Then, immediately before the start of construction activities, the biologists shall remove all doors and excavate the burrows to ensure that no animals are present the burrow. The excavated burrows shall then be backfilled.

6. A qualified biologist shall be present during the initial clearing and grading activity. If additional burrowing owl burrows are found, all work should cease until the biologist can complete measures described above for inactive and active burrows. Once all burrowing owl burrows have been excavated, work on the site may resume.

Special-status Small Mammal (Rodent) Species

BIO-7: Site preparation and project construction activities could impact giant kangaroo rat, Tulare grasshopper mouse and McKittrick pocket mouse. This is anticipated to be a less than significant impact pursuant to CEQA with the implementation of the following avoidance and protection measures.

The subject parcel, and specifically the survey area, consist of habitats that are suitable for numerous special-status small mammals. Per a personal communication with Mr. Bill Vanherweg (a qualified small mammal biologist) with experience with these species in the Carrizo Plains, giant kangaroo rat, Tulare grasshopper mouse and McKittrick pocket mouse are potentially present within the undisturbed habitats present on the subject parcel and within the survey area. During the personal communication with Mr. Vanherweg the following measure was recommended to avoid and minimize impacts to the species.

1. A qualified biologist shall perform a habitat assessment of the project area to determine if giant kangaroo rat, Tulare grasshopper mouse and McKittrick pocket mouse are potentially present. This should include pedestrian transects spaced at an appropriate distance to ensure 100% visual coverage through all areas of suitable habitat while searching for burrows, kangaroo rat precincts, vegetation clearing, haystacks, pit caches and other diagnostic sign. Timing of the habitat assessment shall be conducted during the most active time of the year for these species (i.e. optimum period is April 1 to October 31). Results of the habitat assessment and any recommended avoidance and protection measures should be provided to the County in a supplemental report.

San Joaquin Kit Fox

BIO-8: Site preparation and project construction activities could impact San Joaquin Kit Fox if active dens are present. This is anticipated to be a significant, but mitigable impact pursuant to CEQA.

The San Joaquin kit fox is listed as endangered under the Federal Endangered Species Act and as threatened under the California Endangered Species Act. In San Luis Obispo County, kit fox range from the grasslands and oak woodlands of the Salinas Valley in the north-central part of the county to the arid scrub habitat of the San Joaquin Valley and Carrizo Plains in the southeastern part of the county. There are several known historical occurrences of San Joaquin kit fox within the vicinity of the subject parcel, with one occurrence immediately adjacent to State Route 58 along the northern property line.

San Joaquin kit fox was determined to have the potential to occur within the survey area, due to presence of grassland habitat, loose soils, and the presence of burrows. Because of the limited impact area, the degree of habitat diversity in the region, and large areas of open space surrounding the site, potential direct impacts to kit fox would only be anticipated to occur during initial site preparation and construction activities, and are not expected to be significant with the incorporation of these mitigation and avoidance/protection measures.

1. To mitigate for the loss of San Joaquin kit fox habitat and due to the size of the parcel (>40 acres), a San Joaquin kit fox habitat evaluation should be completed (per County guidelines). A qualified biologist shall conduct the habitat evaluation and provide the results of the evaluation and other required information to County.
2. Retain a qualified biologist to conduct pre-construction survey of the project site prior to initiation of site disturbance and/or construction.
3. The qualified biologist shall conduct weekly site visits during site-disturbance activities (i.e. grading, disking, excavation, stock piling of dirt or gravel, etc.) that proceed longer than 14 days.
4. All personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist to minimize potential kit fox impacts. A sign-in sheet shall be used to confirm attendance of all personnel.
5. Retain a qualified biologist to monitor all initial grubbing and grading within the survey area.
6. Include standard kit fox avoidance and protection measures on project plans.
7. Require a maximum 25 mph speed limit at the project site during construction.
8. Grading and construction activities after dusk shall be prohibited unless coordinated through the County.
9. Cover excavations deeper than 2 feet at the end of each working day or or provided with one or more escape ramps constructed of earth fill or wooden planks.

10. Inspect pipes, culverts or similar structures for kit fox before burying, capping, or moving.
11. Remove food-related trash from the project site daily.
12. If pesticides or herbicides are used, they must be used according to local, state, and federal regulations to prevent secondary poisoning of kit foxes.
13. If a kit fox is discovered at any time in the project area, all construction must stop and the CDFW and USFWS must be contacted immediately. The appropriate federal and state permits must be obtained before the project can proceed.
14. Permanent fencing installed as part of the project must allow passage of dispersing kit foxes.

American Badger

BIO-9: Site preparation and project construction activities could impact American badger if active dens are present. This is anticipated to be significant, but mitigable impact pursuant to CEQA.

American badger was determined to have the potential to occur within the project area, due to presence of grassland habitat and burrows. Because of the limited impact area, the degree of habitat diversity in the region, and the amount of open space surrounding the proposed development, potential impacts to American badger would only be anticipated to occur during initial construction activities, and are not expected to be significant with the incorporation of the following mitigation measures.

1. A qualified biologist should conduct a pre-construction survey at least fourteen (14) days prior to the start of construction to identify any potential badger dens. The survey should cover the entire survey area as mapped in this report, including roadways.
2. If dens are too long to see the end, a fiber optic scope (or other acceptable method such as using tracking medium for a consecutive three-night period) should be used to assess the presence of badgers.
3. Inactive dens should be excavated by hand with a shovel to prevent badgers from re-using them during construction.
4. Badgers should be discouraged from using currently active dens prior to the grading of the site by partially blocking the entrance of the den with sticks, debris and soil for 3 to 5 days. Access to the den should be incrementally blocked to a greater degree over this period. This should cause the badger to abandon the den and move elsewhere. After badgers have stopped using any den(s) within the project boundary, the den(s) should be hand-excavated with a shovel or carefully with the use of an excavator to prevent re-use.

5. The biologist should be present during the initial clearing and grading activity. If additional badger dens are found, all work should cease until the biologist can complete measures described above for inactive and active dens. Once all badger dens have been excavated, work on the site may resume.

CONCLUSION

As documented by this biological resources assessment, the proposed project has the potential to directly and indirectly impact numerous special-status species if present during construction activities. Incorporation of the avoidance, protection, and mitigation measures included in this report, and County requirements under the Minor Use Permit process, are expected to provide sufficient protection under CEQA for biological resources during project construction.

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Appendix A: Habitat Requirements and Potential for Occurrence of Special-Status Plants Occurring in the Vicinity of the Project Site

Appendix A. Habitat Requirements and Potential for Occurrence of Special-Status Plants in the Vicinity of the Project Site (CNDDDB Information from the La Panza Ranch, La Panza NE, Las Yeguas Ranch, La Panza, California Valley, Simmler, Los Machos Hills, Branch Mountain, and Chimineas Ranch USGS quadrangles)

Species	Status* Fed/CA/CDF W	Habitat Requirements	Blooming Period	Project Site Suitability/Observations
Heart-leaved thorn-mint <i>Acanthomlintha obovata ssp. cordata</i>	--/--/4.2	Annual herb found on grassy slopes, oak woodland, chaparral. Elevation 0-1500 meters.	April - July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Howell's onion <i>Allium howellii var. howellii</i>	--/--/4.3	Perennial bulb, found in open slopes, sage brush scrub. Elevation 1300- 1850 meters.	April - June	Not present. Site is 580 meters below species elevational range. Species not observed during blooming season surveys. This plant is not present within the survey area.
Douglas' fiddleneck <i>Amsinckia douglasiana</i>	--/--/4.2	Annual herb; on Monterey shale in cismontane woodland and valley and foothill grassland. Elevation 0 to 1,950 meters.	March - May	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
California androsace <i>Androsace elongata ssp. acuta</i>	--/--/4.2	Annual herb, found on dry grassy slopes. Elevation 0- 1200 meters.	February - April	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Oval-leaved snapdragon <i>Antirrhinum ovatum</i>	--/--/4.2	Annual herb, found on heavy, adobe-clay soils on gentle, open slopes, and disturbed areas. Elevation 200-1000 meters.	May - November	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Santa Margarita manzanita <i>Arctostaphylos pilosula</i>	--/--/1B.2	Shrub. Occurs in closed coniferous forest, chaparral, and cismontane woodland; usually on shale soils. Elevation 170 - 1100 meters.	December - March	Not present. This perennial shrub is not present in the survey area.
Indian Valley spineflower <i>Aristocapsa insignis</i>	--/--/1B.2	Found in foothill woodland habitats on sand soils in eastern San Luis Obispo and southern Monterey Counties, ranging from 300-600 meters in elevation.	May - September	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Salinas milk-vetch <i>Astragalus macrodon</i>	--/--/4.3	Annual herb, found in chaparral, grassland and openings in oak woodland habitats on eroded shales or sandstone, or serpentine alluvium. Elevation 300-950 meters.	April - July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Crownscale <i>Atriplex coronata var. coronata</i>	--/--/4.2	Annual herb, found on fine alkaline soils in shadscale scrub, valley and foothill grassland, and vernal pools. Elevation 80-760 meters.	March - October	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.

Appendix A. Habitat Requirements and Potential for Occurrence of Special-Status Plants in the Vicinity of the Project Site (CNDDDB Information from the La Panza Ranch, La Panza NE, Las Yeguas Ranch, La Panza, California Valley, Simmler, Los Machos Hills, Branch Mountain, and Chimineas Ranch USGS quadrangles)

Species	Status* Fed/CA/CDF W	Habitat Requirements	Blooming Period	Project Site Suitability/Observations
Lost Hills crowscale <i>Atriplex coronata</i> <i>var. vallicola</i>	--/--/1B.2	Annual herb, found on alkaline, often clay substrate in chenopod scrub, valley and foothill grassland, and vernal pools. Elevation 50-635 meters.	April - October	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Palmer's mariposa lily <i>Calochortus</i> <i>palmeri</i> var. <i>palmeri</i>	--/--/1B.2	Bulbiferous herb. Occurs in broadleaved upland forest, chaparral, meadows and seeps. Elevation 1,000 – 2,390 meters.	April - July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
La Panza mariposa lily <i>Calochortus</i> <i>simulans</i>	--/--/1B.3	Perennial bulb. Chaparral, cismontane woodland, coniferous forest, valley and foothill grassland, on sandy, granitic or serpentine soils. Elevation 395 – 1100 meters.	April - May	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Dwarf calycadenia <i>Calycadenia</i> <i>villosa</i>	--/--/1B.1	Annual herb, found on rocky sites in chaparral, oak woodland, juniper woodland, grasslands, open dry flats and hillsides, alluvial fans; 250-850 meters.	May – October	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
California jewel- flower <i>Caulanthus</i> <i>californicus</i>	FE/SE/1B.1	Annual herb, found in chenopod scrub, valley and foothill grasslands, pinyon-juniper woodland, often on sandy soil, 65-900 meters.	February– May	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Lemmon's jewelflower <i>Caulanthus</i> <i>lemmonii</i>	--/--/1B.2	Annual herb; occurs in valley and foothill grassland, pinyon and juniper woodland. Elevation 80-1220 meters.	March - May	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Douglas' spineflower <i>Chorizanthe</i> <i>douglasii</i>	--/--/4.3	Annual herb; foothill woodland, pine forest, chaparral on sandy or gravelly soils; ranges from 200-1600 meters in elevation.	April – July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Potbelled spineflower <i>Chorizanthe</i> <i>ventricosa</i>	--/--/4.3	Annual herb; occurs on serpentine soils in cismontane woodland and valley and foothill grassland at elevations from 770 to 1280 meters.	May - September	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Small-flowered morning glory <i>Convolvulus</i> <i>simulans</i>	--/--/4.2	Annual herb; occurs on clay soils and serpentine seeps in valley and foothill grassland, coastal scrub, and openings in chaparral. Elevation 35-860 meters.	March -July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.

Appendix A. Habitat Requirements and Potential for Occurrence of Special-Status Plants in the Vicinity of the Project Site (CNDDDB Information from the La Panza Ranch, La Panza NE, Las Yeguas Ranch, La Panza, California Valley, Simmler, Los Machos Hills, Branch Mountain, and Chimineas Ranch USGS quadrangles)

Species	Status* Fed/CA/CDF W	Habitat Requirements	Blooming Period	Project Site Suitability/Observations
Hall's tarplant <i>Delnandra hallana</i>	--/--/1B.2	Annual herb found in grasslands, open slopes, sink edges, vertic clay, rarely, serpentine at elevations from 300--1000 meters.	April - May	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Small-flowered gypsum-loving larkspur <i>Delphinium gypsophilum</i> ssp. <i>parviflorum</i>	--/--/3.2	Perennial herb. Occurs in cismontane woodland, valley and foothill grassland, occasionally vernal pools; elevations 200-350 meters.	April - July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Mt. Pinos larkspur <i>Delphinium parryi</i> ssp. <i>purpureum</i>	--/--/4.3	Annual herb; occurs in sagebrush scrub, dry chaparral. Elevation 1000-2600 meters.	May - June	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Recurved larkspur <i>Delphinium recurvatum</i>	--/--/1B.2	Perennial herb. Occurs in chenopod scrub, valley and foothill grasslands, cismontane woodland on alkaline soils. 3-685 meters.	March-June	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Kern mallow <i>Eremalche parryi</i> ssp. <i>kernensis</i>	FE/--/1B.2	Annual herb; occurs on eroded hillsides, alkali flats, shadscale scrub, and valley grassland habitats. Elevation 100--1000 meters.	March - May	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Hoover's eriastrum <i>Eriastrum hooveri</i>	--/--/4.2	Annual herb; occurs in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland. Elevation 50--915 meters.	March -July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Protruding buckwheat <i>Eriogonum nudum</i> var. <i>indictum</i>	--/--/4.2	Perennial herb found on clay or serpentinite substrate in chaparral, chenopod scrub, and cismontane woodland, and adjacent open grassy areas. Elevation 220 to 870 meters.	May - October	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Tembler buckwheat <i>Eriogonum temblorense</i>	--/--/1B.2	Typically occurs on slopes of white, shattered shale and occasionally on sandstone that are nearly barren of other vegetation. At elevations from 300-1000 meters.	May - September	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Spiny-sepaled button celery <i>Eryngium spinosopalmum</i>	--/--/1B.2	Annual herb; occurs in vernal pools and swales in valley and foothill grasslands, sometimes in granitic clays. Elevation 100-1270 meters.	April - May	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
San Benito poppy <i>Eschscholzia hypocoides</i>	--/--/4.3	Annual herb; on serpentinite clay in valley and foothill grassland, chaparral, cismontane woodland. Elevation 220 to 1110 meters.	March - June	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.

Appendix A. Habitat Requirements and Potential for Occurrence of Special-Status Plants in the Vicinity of the Project Site (CNDDDB Information from the La Panza Ranch, La Panza NE, Las Yeguas Ranch, La Panza, California Valley, Simmler, Los Machos Hills, Branch Mountain, and Chimineas Ranch USGS quadrangles)

Species	Status* Fed/CA/CDF W	Habitat Requirements	Blooming Period	Project Site Suitability/Observations
Diamond-petaled California poppy <i>Eschscholzia rhombipetala</i>	--/--/1B.1	Annual herb; occurs in alkaline clay flats and slopes in grasslands, fallow fields; 0-300 meters.	March- April	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Stinkbells <i>Fritillaria agrestis</i>	--/--/4.2	Annual herb; occurs in chaparral, valley grassland, foothill woodland, and wetland riparian areas, on clay or serpentine soils. Elevation 10-1,555 meters.	March- June	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Trumpet-throated gilia <i>Gilia tenuiflora ssp. amplifaucalis</i>	--/--/4.3	Annual herb; occurs in sandy substrate in dry creeks, flood plains, and valley and foothill grassland. Elevation 30-900 meters.	March- April	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Santa Lucia horkelia <i>Horkelia yadonii</i>	--/--/4.2	Perennial herb found on sandy meadow edges, seasonal streambeds in chaparral or foothill-pine woodland. Elevation 350- 1900 meters.	April - July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Santa Lucia dwarf rush <i>Juncus luciensis</i>	--/--/1B.2	Found in wet, sandy soils of seeps, meadows, vernal pools, streams, roadsides at elevations from 300-1900 meters.	April - July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Ferris' goldfields <i>Lasthenia ferrisiae</i>	--/--/4.2	Annual herb; occurs in vernal pools or wet saline flats in alkaline clay soil. Elevation- below 700 meters.	February - May	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Coulter's goldfields <i>Lasthenia glabrata ssp. coulteri</i>	--/--/1B.1	Annual herb; occurs in saline places, marshes, playas, vernal pools. Occurs near Soda Lake in Carrizo Plain. Below 1000 meters.	February- June	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Pale-yellow layia <i>Layia heterotricha</i>	--/--/1B.1	Annual herb, on clay or alkaline soils in pinyon juniper and cismontane woodlands, valley and foothill grassland. Elevation 110-1,860 meters.	March - June	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Munz's tidy-tips <i>Layia munzii</i>	--/--/1B.2	Annual herb; occurs in cismontane woodland, pinyon juniper woodland, valley and foothill grassland, on alkaline or clay soils. Elevation 300-1705 meters.	March - April	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Jared's pepper- grass <i>Lepidium jaredii ssp. jaredii</i>	--/--/1B.2	Annual herb; occurs in valley and foothill grassland in alkaline or adobe soil. Below 500 meters.	April - May	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.

Appendix A. Habitat Requirements and Potential for Occurrence of Special-Status Plants in the Vicinity of the Project Site (CNDDDB Information from the La Panza Ranch, La Panza NE, Las Yeguas Ranch, La Panza, California Valley, Simmler, Los Machos Hills, Branch Mountain, and Chimineas Ranch USGS quadrangles)

Species	Status* Fed/CA/CDF W	Habitat Requirements	Blooming Period	Project Site Suitability/Observations
Spring lessingia <i>Lessingia tenuis</i>	--/--/4.3	Annual herb; occurs in openings in chaparral, cismontane woodland, and lower montane coniferous forest. Elevation 260-1,320 meters.	May – July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Showy golden madia <i>Madia radiata</i>	--/--/1B.1	Annual herb; occurs in adobe clay in valley and foothill grassland, cismontane woodland, and chenopod scrub. Elevation 25-1,125 meters.	March - May	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Slender bush-mallow <i>Malacothamnus gracilis</i>	-- / -- / 1B.1	Perennial shrub. Occurs in chaparral on rocky soils. Elevation 195 – 575 meters	May - October	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Jones' bush-mallow <i>Malacothamnus jonesii</i>	--/--/4.3	Perennial shrub; chaparral and foothill woodland; 25 – 830 meters in elevation.	May – July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
San Joaquin woollythreads <i>Monolopia congdonii</i>	FE/--/1B.2	Annual herb; occurs in sandy grasslands, shadscale scrub, and alkali sinks. Elevation 90-700 meters.	February - May	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Shining navarretia <i>Navarretia nigelliformis</i> ssp. <i>radicans</i>	--/--/1B.2	Annual herb; occurs in valley and foothill grasslands in vernal pools and clay depressions. Elevation 75-1000 meters.	April - July	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Large-flowered nemacladus <i>Nemacladus secundiflorus</i> var. <i>secundiflorus</i>	--/--/4.3	Found on dry, gravelly slopes at elevations from 200 to 2000 m.	April - June	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
Parish's checkerbloom <i>Sidalcea hickmanii</i> ssp. <i>parishii</i>	--/R/1B.2	Perennial herb, in chaparral, cismontane woodland, lower montane coniferous forest. Disturbed, burned or cleared areas on dry, rocky slopes. Elevation 1000-2200 meters.	June - August	Not present. Species not observed during blooming season surveys. This plant is not present within the survey area.
PLANT/NATURAL COMMUNITIES				
Northern Claypan Vernal Pool			Not present in project area	
Valley Sink Scrub			Not present in project area	

*FE = Federally Endangered; FT = Federally Threatened; SE = State Endangered; ST = State Threatened; SR = State Rare; CE = Candidate for Endangered Status; '—' = no status; List 1B – Rare, threatened, or endangered in California and elsewhere; List 2 – Rare, threatened or endangered in California, but more common elsewhere; List 3 – Plants needing more information; List 4 – Limited distribution (Watch List). Source: California Natural Diversity Database (California

Department of Fish and Wildlife March 2019); California Native Plant Society Online Inventory of Rare Plants, accessed March 2019 (online at www.cnps.org); Special Vascular Plants, Bryophytes, and Lichens List (California Department of Fish and Wildlife March 2019).

Appendix B: Habitat Requirements and Potential for Occurrence of Special-Status Animals Occurring in the Vicinity of the Project Site

Appendix B. Habitat Requirements and Potential for Occurrence of Special-Status Animals in the Vicinity of the Project Site (CNDDB Information from the La Panza Ranch, La Panza NE, Las Yeguas Ranch, La Panza, California Valley, Simmler, Los Machos Hills, Branch Mountain, and Chimineas Ranch USGS quadrangles)

Species	Status* Fed/CA/CDFW	Habitat Requirements	Project Site Suitability/Observations
AMPHIBIANS/REPTILES			
California tiger salamander <i>Ambystoma californiense</i>	FT/ST/WL	Vernal pools within grassland or oak woodlands; require seasonal water, ground squirrel burrows, or other underground refuges.	No Potential for Occurrence: No habitat for aquatic or semi-aquatic species is present. Vernal pools not present within the survey area.
Bakersfield legless lizard <i>Anniella grinnelli</i>	--/--/SSC	Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather. Often can be found under surface objects such as rocks, boards, driftwood, and logs. Restricted to east side of Carrizo Plains.	No Potential for Occurrence: Moist soils not present.
Northern California legless lizard <i>Anniella pulchra</i>	--/--/SSC	Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather. Often can be found under surface objects such as rocks, boards, driftwood, and logs.	No Potential for Occurrence: Moist soils not present.
California glossy snake <i>Arizona elegans occidentalis</i>	--/--/SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing.	Potentially Suitable Habitat Present: There are numerous nearby occurrences. The open areas and soils on the project site provide potentially suitable habitat for this species.
Southern Pacific (western) pond turtle <i>Emys marmorata</i>	--/--/SSC	Basking sites such as partially submerged logs, vegetation mats, or open mud banks.	No Potential for Occurrence: No habitat for aquatic or semi-aquatic species is present.
Blunt-nosed leopard lizard <i>Gambelia sila</i>	FE/SE/FP	Semiarid grasslands, alkali flats, and washes. Prefers flat areas with open space for running, avoiding densely vegetated areas. Uses large shrubs with dense canopy cover for refuge and thermoregulation. Uses mammal dens and burrows for cover and shelter.	Potentially Suitable Habitat Present: Nearest occurrence is 12 miles south east of the project site. This species was not observed during the site visits. In addition, the species was not observed during protocol surveys from 2008-2010 associated with the Topaz solar farm. However, soils and habitats present are potentially suitable for the species.

Appendix B. Habitat Requirements and Potential for Occurrence of Special-Status Animals in the Vicinity of the Project Site (CNDDDB Information from the La Panza Ranch, La Panza NE, Las Yeguas Ranch, La Panza, California Valley, Simmler, Los Machos Hills, Branch Mountain, and Chimineas Ranch USGS quadrangles)

Species	Status* Fed/CA/CDFW	Habitat Requirements	Project Site Suitability/Observations
San Joaquin coachwhip <i>Masticophis flagellum ruddocki</i>	--/--/SSC	Occurs in open, dry, treeless areas with little or no cover, including valley grassland and saltbush scrub. Avoids dense vegetation where it cannot move quickly, including mixed oak chaparral woodland. Takes refuge in rodent burrows, under shaded vegetation, and under surface objects.	Potentially Suitable Habitat Present: There are nearby occurrences of this species. The subshrub scrub and grassland habitats provide potentially suitable habitat.
Coast horned lizard <i>Phrynosoma blainvillii</i>	--/--/SSC	Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semiarid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads, and frequently found near ant hills.	Potentially Suitable Habitat Present: The subshrub scrub and grassland habitats, and sandy soils provide potentially suitable habitat conditions.
California red-legged frog <i>Rana draytonii</i>	FT/--/SSC	Lowland and foothills in or near permanent or semi-permanent sources of deep water with emergent wetland / riparian vegetation. May use a variety of upland habitats during the year for refugia and dispersal.	No Potential for Occurrence: No habitat for aquatic or semi-aquatic species is present.
Western spadefoot <i>Spea hammondi</i>	--/--/SSC	Inhabits vernal pools primarily in grassland, but also in valley and foothill hardwood woodlands. Requires seasonal pools for breeding and egg-laying.	No Potential for Occurrence: No habitat for aquatic or semi-aquatic species is present. Vernal pools not present within the survey area.
BIRDS			
Tricolored blackbird <i>Agelaius tricolor</i>	--/--/SSC	(Nesting colony); requires open water, protected nesting substrate, and foraging area with insect prey.	No suitable nesting habitat present. Not expected to nest within the project area or be affected by the project. Not expected to nest within the project area or be directly affected by the project.
Grasshopper sparrow <i>Ammodramus savannarum</i>	--/--/SSC	Nests in relatively extensive patches of short to medium stature grassland with scattered open areas and shrubs. Absence of trees is critical in habitat preference.	Potentially Suitable Nesting Habitat Present: Nearby occurrences are present. The annual grasslands within the project site provide suitable nesting habitat for this species.
Golden eagle <i>Aquila chrysaetos</i>	--/--/FP	Nests on cliffs and escarpments or in tall trees overlooking open country. Forages in annual grasslands, chaparral, and oak woodlands with plentiful medium and large-sized mammals.	No suitable nesting habitat present: Species may forage on or in the vicinity of the project site. Not expected to nest within the project area due to absence of large trees. Not expected to be directly affected by the project.
Short-eared owl <i>Asio flammeus</i>	--/--/SSC	Prairies, marshes, dunes, tundra. Found in open country and nests most commonly on tundra, inland and coastal prairies, extensive marshes, farmland. In winter also found in stubble fields, small meadows, coastal dunes, shrubby areas.	No suitable nesting habitat present. Species may forage on and in the vicinity of the project site during winter months. Not expected to nest within the project area or be directly affected by the project.

Appendix B. Habitat Requirements and Potential for Occurrence of Special-Status Animals in the Vicinity of the Project Site (CNDDDB Information from the La Panza Ranch, La Panza NE, Las Yeguas Ranch, La Panza, California Valley, Simmler, Los Machos Hills, Branch Mountain, and Chimineas Ranch USGS quadrangles)

Species	Status* Fed/CA/CDFW	Habitat Requirements	Project Site Suitability/Observations
Long-eared owl <i>Asio otus</i>	--/--/SSC	Nests mainly in dense woodlands and coniferous trees, often using existing abandoned stick nests built by crows or hawks. Forages over open country.	No suitable nesting habitat present. Species may forage on or in the vicinity of the project site. Not expected to nest within the project area or be affected by the project.
Burrowing owl <i>Athene cunicularia</i>	--/--/SSC	Open, dry grasslands, often short grasses without trees. Relies on ground burrowing animals for terrestrial habitat.	Potentially Suitable Nesting Habitat Present: There are nearby occurrences for the species. The annual grassland habitats may provide potential nesting habitat.
Ferruginous hawk <i>Buteo regalis</i>	--/--/WL	Prefers open terrain in plains and foothills where ground squirrels, lagomorphs and other prey are available.	No suitable nesting habitat present. Winter migrant to the area. Species may forage on and in the vicinity of the project site during winter months. Not expected to nest within the project area or be directly affected by the project.
Swainson's hawk <i>Buteo swainsoni</i>	--/ST/--	Plains, dry grassland, farmland, ranch country. Breeds most commonly on northern Great Plains. In prairie regions with scattered groves of trees for nest sites. Less common in dry grassland farther west and in heavily farmed country.	No suitable nesting habitat present. Rare winter migrant to the Carrizo Plain.
Mountain plover <i>Charadrius montanus</i>	--/--/SSC	Winters in southern and central California in sparse and/or short grasslands and plowed fields.	No suitable nesting habitat present. Winter migrant to the area. Species may forage on and in the vicinity of the project site during winter months. Not expected to nest within the project area or be directly affected by the project.
White-tailed kite <i>Elanus leucurus</i>	--/--/FP	Forages in undisturbed, open grasslands, meadows, farmlands and emergent wetlands. Nest placed near top of dense oak, willow, or other tree stand.	No suitable nesting habitat present. Not expected to nest or forage on the project site.
California horned lark <i>Eremophila alpestris actia</i>	--/--/SSC	Found in open habitats such as sparse coastal sage scrub, grasslands, coastal plains and fallow grain fields.	Present on project site. Species observed within survey area during site visits. Sparse annual grasslands on site may provide nesting habitat and species could be directly affected if project activities occur during nesting season.
Merlin <i>Falco columbarius</i>	--/--/WL	Uncommon winter migrant from September to May. Seldom found in heavily wooded areas, or open deserts. Frequents coastlines, open grasslands, savannas, woodlands, lakes, wetlands, edges, and early successional stages. Ranges from annual grasslands to ponderosa pine and montane hardwood-conifer habitats.	No suitable nesting habitat present. Winter migrant to the area. Species may forage on and in the vicinity of the project site during winter months. Not expected to nest within the project area or be directly affected by the project.
Prairie falcon <i>Falco mexicanus</i>	MBTA/--/--	Occurs in dry, open terrain that is level or hilly and breeds on cliffs.	No suitable nesting habitat present. Species likely forages on or in the vicinity of the project site. Not expected to nest within the project area or be directly affected by the project.

Appendix B. Habitat Requirements and Potential for Occurrence of Special-Status Animals in the Vicinity of the Project Site (CNDDB Information from the La Panza Ranch, La Panza NE, Las Yeguas Ranch, La Panza, California Valley, Simmler, Los Machos Hills, Branch Mountain, and Chimineas Ranch USGS quadrangles)

Species	Status* Fed/CA/CDFW	Habitat Requirements	Project Site Suitability/Observations
California condor <i>Gymnogyps californianus</i>	FE/SE/FP	Rocky scrubland, montane coniferous forest, valley and foothill grasslands, oak savannah, chaparral, woodland/ forest habitats. Nesting on cliffs and trees.	No suitable nesting habitat present. Species may forage on and in the vicinity of the project site. Not expected to nest within the project area or be directly affected by the project.
Bald eagle <i>Haliaeetus leucocephalus</i>	--/SE/--	Nests in large, old-growth, or dominant live tree with open branchwork, especially ponderosa pine. Requires large bodies of water, or free flowing rivers with a abundant fish, and adjacent snags or other perches.	No suitable nesting habitat present. No suitable nesting habitat within or adjacent to the project site. Will not be directly affected by the project.
Loggerhead shrike <i>Lanius ludovicianus</i>	--/--/SSC	Semi-open country with lookout posts; wires, trees, scrub. Breeds in any kind of semi-open terrain, from large clearings in wooded regions to open grassland or desert with a few scattered trees or large shrubs.	Present on project site. Species observed in survey area. Sparse annual grasslands onsite may provide foraging habitat while subshrub scrub and juniper shrubs may provide nesting habitat. Species could be impacted if project activities occur during the nesting season.
Other migratory bird species (nesting)	MBTA/--/--	Woodlands, riparian areas, grasslands, shrublands, and other native habitats provide nesting opportunities for a variety of migratory bird species protected under the MBTA.	Potential migratory bird nesting habitat occurs within and adjacent to the survey area.
INVERTEBRATES			
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT/--/--	Endemic to grasslands of central coast mountains; Inhabits small clear-water sandstone depression pools and grassland swales.	No Potential for Occurrence: No suitable habitat for aquatic or semi-aquatic species is present.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT/--/--	Found in clear water sandstone depression pools, grassed swale, earth slump, or basalt flow depression pools.	No Potential for Occurrence: No suitable habitat for aquatic or semi-aquatic species is present.
MAMMALS			
Nelson's antelope squirrel <i>Ammospermophilus nelsoni</i>	--/ST/--	Western San Joaquin Valley from 200-1200 ft. elevation on dry, sparsely vegetated loam soils. Known to extend into Cuyama Valley. Digs burrows or uses kangaroo rat burrows. Needs widely scattered shrubs, forbs & grasses in broken terrain with gullies & washes.	Not likely present: Species is diurnal and most active April 1 to Sept 30. Species not observed during three site visits conducted during transects of project area during this time frame.
Pallid bat <i>Antrozous pallidus</i>	--/--/SSC	Occurs in a variety of habitats from desert to coniferous forest; most closely associated with oak woodland, grassland, and desert scrub in southern California. Roosts in trees, rocky outcrops and crevices in mines and caves.	No Potential for Occurrence: No suitable roosting habitat present. Not expected to occur within the project site or be affected by the project.

Appendix B. Habitat Requirements and Potential for Occurrence of Special-Status Animals in the Vicinity of the Project Site (CNDDDB Information from the La Panza Ranch, La Panza NE, Las Yeguas Ranch, La Panza, California Valley, Simmler, Los Machos Hills, Branch Mountain, and Chimineas Ranch USGS quadrangles)

Species	Status* Fed/CA/CDFW	Habitat Requirements	Project Site Suitability/Observations
Townsend's western big-eared bat <i>Corynorhinus townsendii townsendii</i>	--/--/SSC	Requires caves, tunnels, mines, or similar man-made structures for roosting. This bat feeds primarily on moths, but will eat a variety of soft-bodied insects.	No Potential for Occurrence: No suitable roosting habitat present. Not expected to occur within the project site or be affected by the project.
Giant kangaroo rat <i>Dipodomys ingens</i>	FE/SE/--	Occurs in grassland and shrub communities on a variety of soil types and slopes. Breeds from January to May. Burrows are often marked by stacks of harvested seed heads.	Potentially Suitable habitat present: There are numerous occurrences from the general survey area. Nearest occurrence is located approx. 6.7 miles to southeast. Surveys for Topaz Solar Farm did not observe species, but that project site was heavily disturbed from agriculture/grazing. Habitats on site appear to be potentially suitable.
Short-nosed kangaroo rat <i>Dipodomys nitratoides brevinasus</i>	--/--/SSC	Found on western side of the San Joaquin Valley in grassland and desert shrub associations; occurs in alkaline soils; needs friable soils; favors flat to gently sloping terrain.	No Potential for Occurrence: Friable and alkaline soils are not present within the survey area. Not expected to occur within or be affected by the project.
Tipton kangaroo rat <i>Dipodomys nitratoides nitratoides</i>	FE/SE/--	Found in arid valleys of the Tulare basin in level or nearly level terrain, comprised of interior dune grassland and saltbush scrub communities.	No Potential for Occurrence: The nearest occurrence is from 1950 and is located 13 miles to the southeast. Most occurrences are in the San Joaquin Valley.
Tulare grasshopper mouse <i>Onychomys torridus tularensis</i>	--/--/SSC	Hot, arid valleys and shrubland deserts in the southern San Joaquin Valley. Requires abundant supply of insects for food.	Suitable habitat present: Numerous older occurrences from the general project area, but habitats and conditions are suitable for species within the project site. Was observed during small mammal trapping on the Topaz Solar Farm.
McKittrick Pocket Mouse <i>Perognathus inornatus neglectus</i>	--/--/SSC	Occurs in annual grassland, desert scrub and oak savannah communities on sandy soils and other friable soils.	Potentially Suitable habitat present: Grasslands and soils on site are potentially suitable habitat for this species.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE/SE/--	Found in grassland, open shrubby areas, and some agricultural settings. Needs loose textured sandy-soils for burrowing, and suitable prey base consisting of ground squirrels, other small mammals, birds and insects.	Potential for Occurrence: Numerous nearby occurrences. Suitable foraging habitat present in the area. Ground squirrel burrows not observed within project site, but likely present in general survey area. Species could occur onsite as a transient at any time.
American badger <i>Taxidea taxus</i>	--/--/SSC	Friable soils and open, uncultivated ground for denning. Preys on burrowing rodents such as ground squirrels.	Potential for Occurrence: Suitable foraging habitat present in the area. Ground squirrel burrows not observed within the project site, but likely occur in the survey area. Species could occur onsite as a transient at any time.
CRITICAL HABITATS			
-			None within 5 miles

*FE = Federally Endangered; FT = Federally Threatened; SE = State Endangered; ST = State Threatened; SSC = California Species of Special Concern; FP = Fully Protected; WL = Watch List; MBTA = Migratory Bird Treaty Act. Source: California Natural Diversity Database (California Department of Fish and Wildlife 2019); Special Animals List (California Department of Fish and Wildlife November 2018).

Appendix C: List of Plant Species Observed on the Project Site

Appendix C – List of Plant Species Observed within the Project Area

Scientific Name	Common Name
<i>Achyrochaena mollis</i>	Blow wibes
<i>Acmispon brachycarpus</i>	Short-podded lotus
<i>Amsinckia menziesii</i>	Small flowered fiddleneck
<i>Astragalus didymocarpus</i> var. <i>didymocarpus</i>	Common dwarf milkvetch
<i>Bloomeria crocea</i>	Common goldenstar
<i>Bromus diandrus</i> *	Ripgut brome
<i>Bromus hordeaceus</i> *	Soft chess brome
<i>Bromus madritensis</i> ssp. <i>rubens</i> *	Red brome
<i>Calandrinia ciliata</i>	Red maids
<i>Camissonia strigulosa</i>	Sun cups
<i>Castilleja brevistyla</i>	Short style owl's clover
<i>Castilleja exserta</i> ssp. <i>exserta</i>	Purple owl's clover
<i>Centaurea melitensis</i> *	Tocalote
<i>Centromadia pungens</i>	Common tarweed
<i>Chorizanthe staticoides</i>	Turkish rugging
<i>Chorizanthe xanti</i>	Xantus' spineflower
<i>Clarkia purpurea</i>	Wine cups
<i>Claytonia parviflora</i> ssp. <i>parviflora</i>	Miner's lettuce
<i>Delphinium parryi</i> ssp. <i>parryi</i>	San Bernardino larkspur
<i>Dichelostemma capitatum</i>	Blue dicks
<i>Ericameria linearifolia</i>	Interior goldenbush
<i>Eriogonum elongatum</i>	Longstem buckwheat
<i>Eriogonum nudum</i> var. <i>pubiflorum</i>	Naked buckwheat
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Erodium cicutarium</i> *	Red-stemmed filaree
<i>Hirschfeldia incana</i> *	Summer mustard
<i>Hordeum murinum</i> ssp. <i>leporinum</i> *	Foxtail barley
<i>Juniperus californicus</i>	California juniper
<i>Lactuca serriola</i> *	Prickly lettuce
<i>Lasthenia gracilis</i>	Common goldfields
<i>Lepidium nitidum</i>	Shining pepper grass
<i>Lupinus albilfrons</i> var. <i>albilfrons</i>	Silver bush lupine
<i>Lupinus bicolor</i>	Miniature lupine
<i>Lupinus succulentus</i>	Succulent lupine
<i>Marah macrocarpa</i>	Manroot
<i>Microseris douglasii</i>	Douglas' microseris
<i>Navarretia nigelliformis</i> ssp. <i>nigelliformis</i>	Adobe navarretia
<i>Navarretia mitra carpa</i>	Paso Robles navarretia
<i>Phacelia ciliata</i>	Great Valley phacelia
<i>Plagiobothrys canescens</i>	Valley popcorn flower

<i>Plantago erecta</i>	California plantain
<i>Trichostema lanceolatum</i>	Vinegar weed
<i>Trifolium gracilentum</i>	Pinpoint clover
<i>Vulpia microstachys</i>	Annual fescue

* indicates non-native species

Appendix D: List of Animal Species Observed During Site Visits

Appendix D – List of Animal Species Observed within the Project Area

Scientific Name	Common Name
Birds	
<i>Aphelocoma californica</i>	Western scrub jay
<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Cathartes aura</i>	Turkey vulture
<i>Chondestes grammacus</i>	Lark sparrow
<i>Corvus corax</i>	Common raven
<i>Eremophila alpestris</i>	Horned lark
<i>Euphagus cyanocephalus</i>	Brewer's blackbird
<i>Lanius ludovicianus</i>	Loggerhead shrike
<i>Melospiza crissalis</i>	California towhee
<i>Sayornis nigricans</i>	Black phoebe
<i>Sturnella neglecta</i>	Western meadowlark
<i>Tyrannus verticalis</i>	Western kingbird
<i>Zenaidura macroura</i>	Mourning dove
<i>Zonotrichia leucophrys</i>	White-crowned sparrow
Reptiles	
<i>Sceloporus occidentalis bocourti</i>	Coast range fence lizard
Mammals	
<i>Canis latrans</i>	Coyote (tracks)
<i>Lepus californicus</i>	Black-tailed jackrabbit
<i>Otospermophilus beecheyi</i>	California ground squirrel
<i>Sylvilagus bachmani</i>	Brush rabbit
<i>Thomomys bottae</i>	Botta's pocket gopher

Appendix E: Photo Documentation

- 7 Photos



Photo 1: Photo viewing south along access road with proposed project area in right of photo. March 14, 2019



Photo 2: Photo viewing north through project area located to east of access road. March 14, 2019



Photo 3. Photo viewing northeast from existing water tanks along alignment of proposed waterline.
April 10, 2019



Photo 4. Photo of existing water tank.

April 10, 2019



Photo 5. Photo viewing north from southern portion of survey area.

May 30, 2019



Photo 6. Photo viewing south from northern portion of survey area. Note access road in left of photo.

May 30, 2019



Photo 7. Photo viewing southwest through project area located east of access road.

May 30, 2019

Appendix F: Existing Conditions and Habitat Map

*Locations are approximate

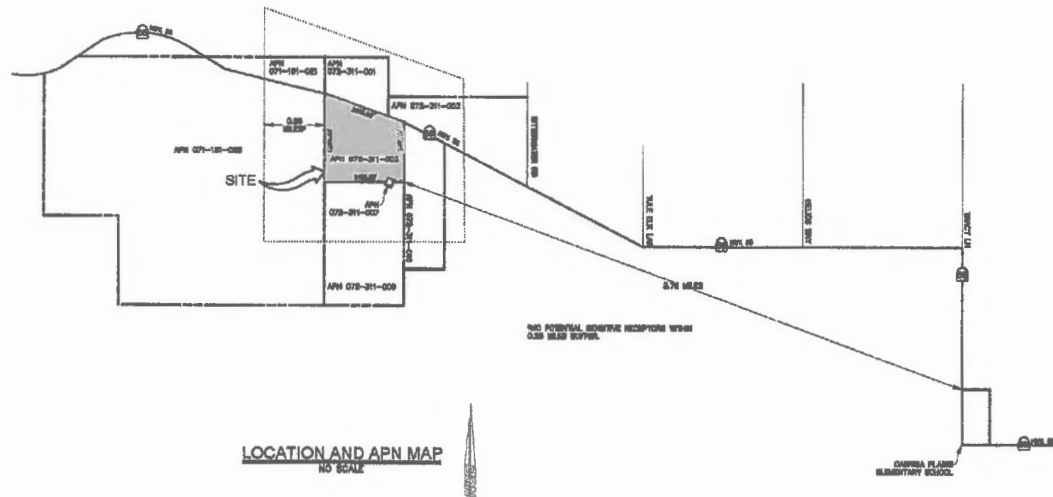
**All areas within the "Survey Area" not mapped as "Upper Sonoran Subshrub Scrub" is either ruderal or annual grassland habitats.



Appendix G: Proposed Site Plans

PRELIMINARY PLANS
FOR
SIDIFOAX CULTIVATION
DRC2019-00086

COUNTY OF SAN LUIS OBISPO
CALIFORNIA
7575 CARRISA HIGHWAY
SANTA MARGARITA, CA



SHEET INDEX

- 1 TITLE SHEET
2 OVERALL SITE PLAN
3 OVERALL GRADING AND DRAINAGE
4 DETAILS AND SITE SECTIONS

NCE
NORTH COAST
ENGINEERING

CIVIL ENGINEERING
LAND SURVEYING
PROJECT DEVELOPMENT

725 Creston Rd, Suite B
Paso Robles, CA 93445
(805) 239-3127
(805) 927-8851
northcoastengineering.com

GREG S. JAEGER
PRELIMINARY

RESUBMITTAL
6/8/2019

R.C.B. 00020

THES. B. JENSEN
Rm 5020

APPROVED FOR COUNTY REQUIREMENTS

DEVELOPMENT SERVICES ENGINEER DATE _____

COUNTY PLAN CHECK

COUNTY W.D. NO.

DESIGNED BY CLOED	CHECKED BY
----------------------	------------

DRAWN BY JCM	SCALE N/A
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REVISIONS

NO.	DATE	DESCRIPTION
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[illegible]

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DATE	01/01/2011
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N E

1000000

SIDIFOAX

CULTIVATION

15 SEPTEMBER 2004

10/10/2010

2010年12月15日

TITLE SHEET

JOB No. 10101

	REV
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111

1 of 4

Appendix H: CNDDB Forms for Special-Status Species Observations

CNDDDB Online Field Survey Form Report



California Natural Diversity Database
Department of Fish and Wildlife
1416 9th Street, Suite 1266
Sacramento, CA 95814
Fax: 916.324.0475
cnddb@wildlife.ca.gov
www.dfg.ca.gov/biogeodata/cnddb/



Source code xxxx
Quad code 3512041
Occ. no. _____
EO index no. _____
Map index no. _____

This data has been reported to the CNDDDB, but may not have been evaluated by the CNDDDB staff

Scientific name: *Eremophila alpestris actia*

Common name: California horned lark

Date of field work (mm-dd-yyyy): 04-30-2019

Comment about field work date(s):

OBSERVER INFORMATION

Observer: Dwayne Oberhoff

Affiliation:

Address: Ecological Assets Management, LLC

Email: dwayne@ecologicalmgmt.com

Phone: (805) 440-6137

Other observers:

DETERMINATION

Keyed in:

Compared w/ specimen at:

Compared w/ image in:

By another person:

Other: Visual observation and confirmation of ID via numerous previous observations of this species.

Identification explanation:

Identification confidence: Very confident

Species found: Yes If not found, why not?

Level of survey effort: Species observed during focused botanical survey.

Total number of individuals: 1

Collection? No

Collection number:

Museum/Herbarium:

ANIMAL INFORMATION

How was the detection made? Seen

Number detected in each age class:

1	0	0	0	0
adults	juveniles	larvae	egg mass	unknown

Age class comment:

Bird site use:

- ☐ Nesting ☐ Rookery ☐ Nesting colony ☐ Burrow site ☐ Lek
☐ Non-breeding (over-wintering) ☐ Communal roost ☒ Other

Site use description: Observed foraging in annual grassland habitat. Observed during the nesting season, but no nest or nesting behaviors were observed.

What was the observed behavior? Foraging in annual grassland habitat. Eventually flushed and flew away.

Describe any evidence of reproduction: No nests observed.

SITE INFORMATION

Habitat description: Annual grasslands

Slope: 4% slope

Land owner/manager: Private

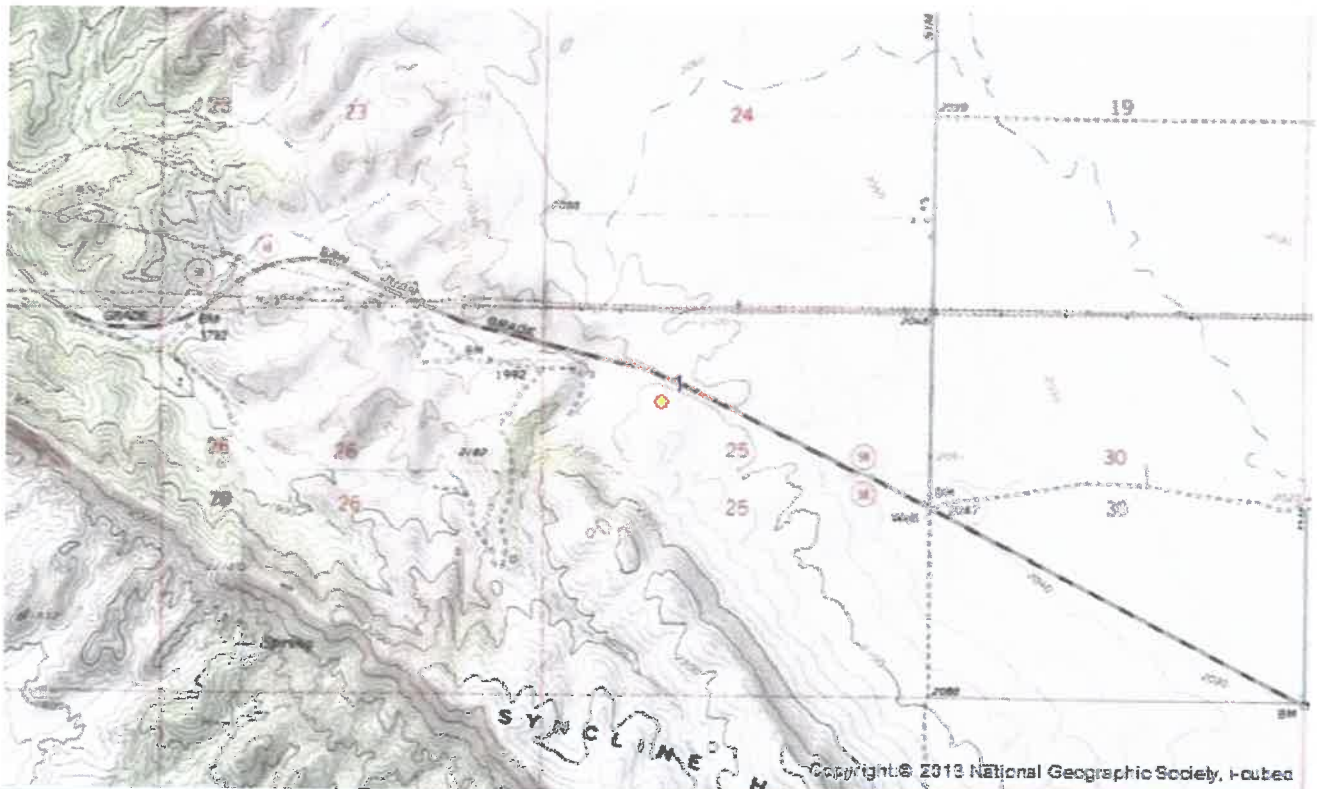
Aspect: Northeast - 13.2 deg

Site condition + population viability: Good

Immediate & surrounding land use: Large rural properties in western Carrizo Plains. To the north, east and south properties are dominated by annual grasslands and/or agriculture/cattle grazing. To the west habitats turn to mixture of annual grasslands and upper Sonoran subshrub scrub.

Visible disturbances: Current disturbances are dirt access roads and existing residence on the 110 acre parcel.

Threats: Cannabis cultivation project proposed on site.

General comments:**MAP INFORMATION**

ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	San Luis Obispo	La Panza NE	2118	35.377632	-120.106698	762837	3918766	10
1	Public Land Survey	Feature Comment						
	M T29S R17E 25							

The mapped feature is accurate within: 100 m

Source of mapped feature: [CNDDB Online field survey tool](#)

Mapping notes:

Location/directions comments: [Observed in annual grassland habitat.](#)

Attachment(s):

CNDDDB Online Field Survey Form Report



California Natural Diversity Database
Department of Fish and Wildlife
1416 9th Street, Suite 1266
Sacramento, CA 95814
Fax: 916.324.0475
cnddb@wildlife.ca.gov
www.dfg.ca.gov/biogeodata/cnddb/



Source code xxxx
Quad code 3512031
Occ. no. _____
EO index no. _____
Map index no. _____

This data has been reported to the CNDDDB, but may not have been evaluated by the CNDDDB staff

Scientific name: *Lanius ludovicianus*

Common name: loggerhead shrike

Date of field work (mm-dd-yyyy): 05-30-2019

Comment about field work date(s): Species observed during focused botanical surveys.

OBSERVER INFORMATION

Observer: Dwayne Oberhoff

Affiliation: Ecological Assets Management,

Address: Ecological Assets Management, LLC

Email: dwayne@ecologicalmgmt.com

Phone: (805) 440-6137

Other observers:

DETERMINATION

Keyed in:

Compared w/ specimen at:

Compared w/ image in:

By another person:

Other: Visual observation and confirmation of ID via numerous previous observations of this species.

Identification explanation:

Identification confidence: Very confident

Species found: Yes If not found, why not?

Level of survey effort: Species observed during transects conducted during focused botanical surveys.

Total number of individuals: 1

Collection? No

Collection number:

Museum/Herbarium:

ANIMAL INFORMATION

How was the detection made? Seen

Number detected in each age class:

1

adults

juveniles

larvae

egg mass

unknown

Age class comment:

Bird site use:

- ☐ Nesting ☐ Rookery ☐ Nesting colony ☐ Burrow site ☐ Lek
☐ Non-breeding (over-wintering) ☐ Communal roost ☒ Other

Site use description: Species observed perched on barbwire fence. Likely foraging in the area. Observed during the nesting season, but no nest or nesting behaviors were observed.

What was the observed behavior? Sitting on barbwire fence and likely foraging.

Describe any evidence of reproduction: Observed during the nesting season, but no nest or nesting behaviors were observed.

SITE INFORMATION

Habitat description: Species observed on barbwire fence at transition of annual grassland and upper Sonoran subshrub scrub habitat.

Slope: 9%

Land owner/manager: Private

Aspect: North

Site condition + population viability: Fair

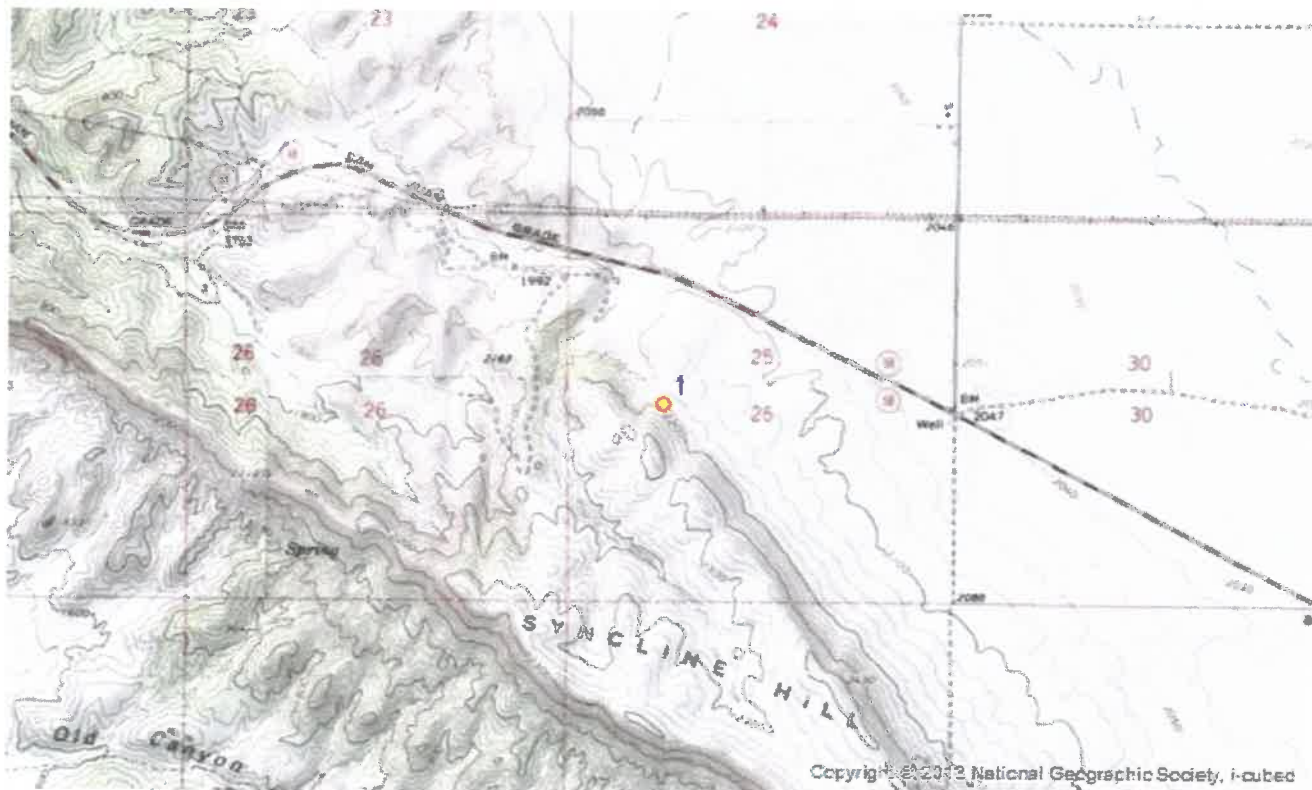
Immediate & surrounding land use: Large rural properties in western Carrizo Plains. To the north, east and south properties are dominated by annual grasslands and/or agriculture/cattle grazing. To the west habitats turn to mixture of annual grasslands and upper Sonoran subshrub scrub.

Visible disturbances: Current disturbances are dirt access roads and existing residence on the 110 acre parcel.

Threats: Cannabis cultivation project proposed on site.

General comments:

MAP INFORMATION



ID	County	24K Quadrangle	Elev. (ft)	Latitude NAD83	Longitude NAD83	UTM E NAD83	UTM N NAD83	UTM Zone
	San Luis Obispo	California Valley	2181	35.374027	-120.107746	762753	3918364	10
1	Public Land Survey	Feature Comment						
	M T29S R17E 25							

The mapped feature is accurate within: 20 m

Source of mapped feature: [CNDDB Online field survey tool](#)

Mapping notes:

Location/directions comments: [Species observed on barbwire fence.](#)

Attachment(s):