# Biological Resources Assessment for a 2-acre Cannabis Cultivation Facility in Arroyo Grande (APN 047-271-031), San Luis Obispo County, California

Prepared for:

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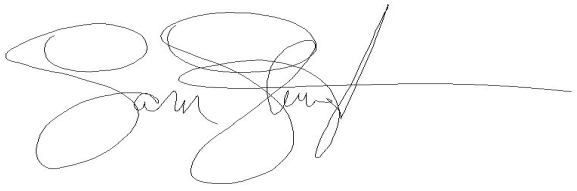
"This Biological Resources Assessment was prepared according to the County's Guidelines. The statements furnished in this report and associated maps are true and correct to the best of my knowledge and belief and the lead biologist certifies that he was present throughout the site visit associated with the report."



Sam C. Stewart IV

November 26, 2019
Date

## EXECUTIVE SUMMARY

This Biological Resources Assessment report was prepared at the request of High Farms, LLC for the proposed development of cannabis growing operations at 2450 Huasna Road (Assessor's Parcel Number 047-271-031), Arroyo Grande, San Luis Obispo County, California (Project). The proposed Project includes an outdoor cultivation area and nursery and is located entirely within approximately 2.62 acres of an existing agricultural operation on the above-listed property.

Pax Environmental, Inc. completed a records search and performed field surveys of the proposed Project site on April 26 and June 24, 2019. Surveys included a general botanical and wildlife inventory, identification of vegetation communities, focused surveys for special status plants, and an assessment of the potential for special-status wildlife species and natural communities to occur on the Project site.

No sensitive vegetation communities were identified during the survey. Potentially jurisdictional areas were identified in the study area beyond the Project disturbance limits. No special status species were observed during the survey. Suitable habitat for a total of 60 special-status botanical species and 27 special-status wildlife species, as well as migratory nesting birds, was identified in the Project study area.

The project has been designed to avoid impacts to sensitive biological resources. However, there is potential for direct and indirect impacts to occur due to the potential for special status plant and wildlife species in the project area. Mitigation measures have been recommended that are expected to reduce potential impacts to a less than significant level.

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**Attachments**

# 1.0 INTRODUCTION

## 1.1 Project Location

This letter report presents the findings of an April 26 and June 24, 2019 reconnaissance level biological survey and focused botanical surveys conducted on 2.62 acres at 2450 Huasna Road, Arroyo Grande, San Luis Obispo County, California. The Project consists of a proposed cannabis cultivation facility and access roads within the 22-acre assessor's parcel number (APN) 047-271-031 (Figure 1). The Project site is depicted on the Arroyo Grande NE USGS 7.5-minute topographic quadrangle map within Section 24 of Township 32 South and Range 13 East. The surveys were conducted to provide baseline documentation of existing conditions and an assessment of the potential impacts to common and special status biological resources occurring or potentially occurring in the Project study area.

## 1.2 Project Description

The proposed Project consists of cannabis cultivation operations and supporting infrastructure, including access roads, water pipelines, nursery and drying facilities. The cultivation area consists of cannabis row crops proposed within canopied hoop houses. The cultivation area and support infrastructure will be surrounded by a 6-foot-high chain link fence with PVC privacy slats and a 16-foot-wide entrance gate. Support infrastructure includes three 7-foot-tall, 8-foot-wide and 20-foot-long prefabricated cargo containers that will be utilized for crop-drying, six parking spaces, and a 5,000-gallon water tank and irrigation system. Existing access consists of an 18-foot-wide aggregate base road that extends to the proposed Project from the northwestern corner of the property (Figure 2).

## 1.3 Methods

Prior to performing the field survey, PAX Environmental performed a records search for special status plant and wildlife species potentially occurring in the Project region. Sources utilized during the records search included the California Natural Diversity Database (CNDDB) (CDFW 2018), the Calflora Observation Hotline (Calflora 2018), and the Jepson Flora Project website (eFlora, 2019). The CNDDB records search was performed on the USGS 7.5-minute quadrangle encompassing the Project site and the surrounding eight quadrangles in the eight cardinal directions. The quadrangles searched include Arroyo Grande NE, Pismo Beach, San Luis Obispo, Lopez Mtn, Santa Margarita Lake, Tar Spring Ridge, Nipomo, and Oceano. It should be noted that there is no quadrangle map to the southwest as this area is within the Pacific Ocean. The records search therefore covered a total of 8 quadrangles.

A reconnaissance-level survey and focused plant survey was performed on April 26, 2019 by Pax Senior Biologist Sam Stewart and Pax Botanist Brian Mayerle and a second focused plant survey was performed on June 24, 2019 by Mr. Stewart and Pax Botanist Scott Tomkinson. The study area consisted of the Project disturbance area and a 200-foot (ft) buffer. A visual search for plants and wildlife, or their evidence of presence (scat, tracks, burrows, nests, etc.) was performed with 100% visual coverage of the Project disturbance area. In addition, all vegetation alliances, as described in a California Manual of Vegetation (Sawyer Keeler Wolf 2009), and/or wildlife habitats, as described in the Guide to California Wildlife Habitats (Holland 1986), were mapped in the study area and digitized on an aerial using ArcGIS. The survey was augmented by photographic data

collection using a GPS-enabled digital camera. Survey times and conditions are presented below in Table 2.

Timing of the survey coincided with the flowering period for the majority of locally occurring native plant species. Identifiable species were noted and recorded upon detection while voucher photographs of polytypic species were collected for subsequent identification. Following the survey, a determination of the likelihood of occurrence was made for special-status species that were not detected based on species or habitat elements observed during the survey as well as putative flowering phenology (e.g., habitat type, elevation, slope, soil, etc.).

The Project area was surveyed on foot to document all plant species occurring in the Project footprint during survey visits. Survey timing was based on known blooming periods for the target species as described in the literature. Above average rainfall totals and weather conditions for the 2018/2019 rainy season were considered ideal for plant fecundity and prolonged flowering duration. The site was fully accessible, and several transects were walked throughout the project area to ensure that any special status species would be found if present. Mr. Mayerle and Mr. Tomkinson recorded all dominant plant species encountered during the field surveys (Appendix A, Table 1). Scientific nomenclature follows the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (eFlora 2019).

**TABLE 1**
**SURVEY CONDITIONS**

| Date | Start/End Time | Temperature (°Fahrenheit) | Cloud Cover (%) | Conditions | Wind Speed (miles/hour) | Surveyor |
|---|---|---|---|---|---|---|
| April 26, 2019 | 13:05-16:45 | 58-67 | 50-70 | Mostly cloudy, calm | 0-7 | S. Stewart<br>B. Mayerle |
| June 24, 2019 | 11:05-15:45 | 58-65 | 25-50 | Partly cloudy, calm | 0-4 | S. Stewart<br>S. Tomkinson |

## 2.0 EXISTING CONDITIONS

The Project site consists of approximately 2.2 acres within APN 047-271-031 at 2450 Huasna Road, Arroyo Grande, San Luis Obispo County. The site consists of existing agricultural operations within the 22-acre Bautista Family Farm. Topography is flat, with elevations ranging from 195 to 216 feet above mean sea level (msl). Soils within the Project site consist of Mocho Loam (100%), a loam alluvium weathered from sedimentary rock. It is a well-drained soil that can sometimes be very slightly saline and typically occurs at the toe of slopes (USDA 2019). Soil types occurring beyond the Project impact footprint include Los Osos loam, Salinas silty clay, Santa Lucia channery clay loam, and Corducci-typic xerofluvents (Figure 5).

The Project site has a history of fruit and vegetable farming since at least 1994 (as determined from aerial imagery), producing salad greens, beets, cabbage, snow peas, green beans, flowers, squash and strawberries. Surrounding land uses include rural residential to the north and agriculture to the east and west. The site is bound to the south by Tar Spring Creek, beyond which lies undeveloped open space on very steep foothills dominated by oak woodland.

Tar Spring Creek is an intermittent stream that contains flowing water for extended periods especially early in the growing season but is absent by the end of the growing season in most

years. When water is not flowing, it may remain in isolated pools or surface water may be absent. The stream has steep banks with bankfull widths ranging from 12 to 20 feet and height of 10 to 15 feet. Substrate within Tar Spring Creek adjacent to the Project site consists of exposed bedrock, sand, gravel, cobble and boulder. Surface water depths within the study area did not exceed 18 inches during surveys.

# 3.0 RESULTS

## 3.1 Plants

No vegetation alliances are present in the Project disturbance area. Two habitats described by Holland (1986), including irrigated row and field crops (IRF) and barren areas (BAR), were identified within the Project disturbance area. One vegetation alliance, coast live oak/poison oak riparian woodland, and developed areas, were identified in the study area beyond the impact footprint. Vegetation type acreages and distribution in the study area are presented in Table 3 and Figure 3, respectively.

Irrigated row and field crops (IRF) compose approximately 8.36 acres (72.14%) of the study area. This habitat type has been established on the State's most fertile soils, which historically supported an abundance of wildlife; however, they have greatly reduced plant and wildlife diversity due to repeated disturbance associated with tilling, monoculture, fencing, trapping, and chemical controls to prevent crop losses. Row crops identified during the surveys included English peas, tomatoes, strawberries, lettuce, and squash. Other plants incidentally occurring in this habitat type consist of weedy non-native species, including tumbleweed (*Amaranthus albus*), rough pigweed (*Amaranthus retroflexus*), slim oat (*Avena barbata*), black mustard (*Brassica nigra*), rescue grass (*Bromus catharticus*), shepherd's purse (*Capsella bursa-pastorias*), lamb's quarters (*Chenopodium album*), nettle leaf goosefoot (*Chenopodium murale*), bullthistle (*Cirsium vulgare*), field bindweed (*Convulvulus arvensis*), flax-leaaved horseweed (*Erigeron bonariensis*), storksbill (*Erodium cicutarium*), Italian rye grass (*Festuca perennis*), seaside barley (*Hordeum marinum*), foxtail barley (*Hordeum murinum*), prickly lettuce (*Lactuca serriola*), henbit (*Lamium aplexicaule*), scarlet pimpernel (*Lysimachia arvensis*), cheeseweed (*Malva parviflora*), bur clover (*Medicago polymorpha*), white sweetclover (*Melilotus albus*), annual blue grass (*Poa annua*), four leaved all seed (*Polycarpon tetraphyllum*), knotweed (*Polygonum aviculare ssp. depressum*), rabbit's foot grass (*Polypogon monspeliensis*), beard grass (*Polypogon viridis*), purslane (*Portulaca oleracea*), common groundsel (*Senecio vulgaris*), milk thistle (*Silybum marianum*), hedge mustard (*Sisymbrium officinale*), sow thistle (*Sonchus oleraceus*), chickweed (*Stellaria media*), smilo grass (*Stipa miliacea*), and annual stinging nettle (*Urtica urens*). Native species observed in this habitat type include fiddleneck (*Amsinckia menziesii*), Canada horseweed (*Erigeron canadensis*), California everlasting (*Pseudognaphalium californicum*), and Douglas' nightshade (*Solanum douglasii*).

One vegetation alliance, coast live oak/poison oak riparian woodland (Quercus agrifolia/Toxicodendron diversilobum riparian woodland [CaCode 71.060.39]) composes approximately 1.98 acres (17.83%) of the study area. This vegetation alliance would not be directly impacted by the Project and occurs approximately 50 feet to the south of the Project boundary. This vegetation alliance is dominated by coast live oak and poison oak, with other native trees and herbaceous species occurring at lower densities. This vegetation alliance is strongly associated with Tar Spring Creek, which flows from east to west south of the Project site, as well as the steep, north-facing slopes to the south of Tar Spring Creek. Other native species observed in this vegetation alliance include coastal sage brush (*Artemisia californica*), mugwort (*Artemesia douglasiana*), coyote brush (*Baccharis pilularis*), creek clematis (*Clematis*

*ligusticifolia*), tansy mustard (*Descurainia pinnata*), sticky monkeyflower (*Diplacus aurantiacus*), wood fern (*Dryopteris arguta*), giant wild rye (*Elymus condensatus*), gopher spurge (*Euphorbia lathyris*), feenel (*Foeniculum vulgare*), California coffeeberry (*Frangula californica*), cleavers (*Galium aparine*), toyon (*Heteromeles arbutifolia*), arroyo lupine (*Lupinus succulentus*), California man-root (*Marah fabacea*), fiesta flower (*Pholistoma auritum*), California blackberry (*Rubus ursinus*), arroyo willow (*Salix lasiolepis*), blue elderberry (*Sambucus nigra ssp. caerulea*), California bee plant (*Scrophularia califronica*), southern hedge nettle (*Stachys bullata*), and field hedge parsley (*Torillis arvensis*). Non-native species observed in this vegetation alliance include ripgut brome (*Bromus diandrus*), soft-chess (*Bromus hordaceus*), Italian thistle (*Carduus pycnocephalus*), tocalote (*Centaurea melitensis*), poison hemlock (*Conium maculatum*), bristly ox-tongue (*Helminthotheca echioides*), bird's foot trefoil (*Lotus corniculatus*), yellow sweetclover (*Melilotus indicus*), Harding grass (*Phalaris aquatica*), common plantain (*Plantago major*), wild radish (*Raphanus sativus*), castor bean (*Ricinus communis*), curly dock (*Rumex crispus*), and corn spurry (*Spergula arvensis*).

Barren (BAR) areas compose approximately 1.16 acres (10.02%) of the study area. This habitat type is defined by the absence of vegetation and qualifies as such when there is less than 2% total herbaceous cover and less than 10% tree or shrub cover. These areas are barren due to repeated disturbance associated with access road traffic, parking, staging, and work areas. Plant species observed in barren areas include some of the ruderal, weedy species listed above that can tolerate repeated disturbance, including black mustard, shepherd's purse, field bindweed, storksbill, scarlet pimpernel, cheeseweed, and bur clover.

Urban habitat is a developed habitat type and has marginal value for wildlife because of human disturbance and a lack of vegetation. Developed areas consist of existing barns, hoop houses and ancillary equipment storage structures associated with Bautista Farm operations constructed immediately adjacent to the north of Tar Spring Creek and northeast of the Project footprint.

**TABLE 2**
**NATURAL COMMUNITIES AND HABITATS IN THE STUDY AREA**

| Habitat | Acreage | % of Study Area |
|---|---|---|
| Irrigated Row and Field Crops | 8.36 | 72.14 |
| Coast Live Oak/Poison Oak Riparian | 1.98 | 17.83 |
| Barren | 1.16 | 10.02 |
| Urban (Developed) | 0.09 | 0.01 |
| **Total** | 11.59 | 100 |

## 3.2 Wildlife

Wildlife species observed during the survey include those common to agricultural areas, riparian areas, and coast live oak woodland. Amphibians observed during the survey were limited to the riparian area, including western toad (*Anaxyrus boreas halophilus*) and Sierran treefrog (*Pseudacris sierra*) tadpoles in Tar Spring Creek. One reptile species, Coast Range fence lizard (*Sceloporus occidentalis bocourtii*), was observed throughout the study area. Two reptile species, alligator lizard (*Elgaria multicarinata*) and California striped racer (*Coluber lateralis lateralis*), were observed within the riparian area. Common bird species observed during the survey include turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), killdeer (*Charadrius vociferus*), California quail (*Callipepla californicus*), Eurasian collared dove (*Streptopelia decaocto*), mourning dove (*Zenaida macroura*), black-chinned hummingbird (*Archilochus alexandri*), Nuttall's woodpecker (*Picoides nuttallii*), Pacific slope

flycatcher (*Empidonax difficilis*), Say's phoebe (*Sayornis saya*), western kingbird (*Tyrannus verticalis*), Hutton's vireo (*Vireo huttoni*), western scrub jay (*Aphelocoma californica*), common raven (*Corvus corax*), oak titmouse (*Baeolophus inornatus*), bushtit (*Psaltriparus minimus*), house wren (*Troglodytes aedon*), western bluebird (*Sialia mexicana*), Swainson's thrush (*Catharus ustulatus*), northern mockingbird (*Mimus polyglottos*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), song sparrow (*Melspiza melodia*), European starling (*Sturnus vulgaris*), western meadowlark (*Sturnella neglecta*), and Brewer's blackbird (*Euphagus cyanocephalus*). Mammals or evidence of their presence detected during the survey include southern pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), and mule deer (*Odocoileus hemionus*).

### 3.3 Special Status Resources

The following discussion addresses special status biological resources having the potential to occur in the Project study area. These resources include plant and wildlife species and habitats that have been afforded special status and/or recognition by the U.S. Fish and Wildlife Service (USFWS), CDFW, and California Native Plant Society (CNPS). In general, the principal reason an individual taxon (i.e., species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitations of its population size, geographic range, and/or distribution resulting in most cases from habitat loss.

Special-status plant species considered by the analysis include those potentially occurring within the direct impact footprint that are listed as threatened and/or endangered by the California or federal Endangered Species Act(s), as well as those assigned a California Rare Plant Rank (CRPR) by the CNPS that clearly meet the definition of Rare or Endangered under Guideline §15380 of the California Environmental Quality Act (CEQA). CRPR listing statuses are based on the degree of rarity (Lists 1A through 4) and threat level (0.1, 0.2, and 0.3) as follows (CNPS 2019):

*Rarity Ranks:*

- List 1A: presumed extirpated in California, and rare or extinct elsewhere
- List 1B: rare, threatened, or endangered in California and elsewhere
- List 2A: presumed extirpated in California, but more common elsewhere
- List 2B: rare, threatened, or endangered in California, but more common elsewhere
- List 3: review list of plants about which more information is needed
- List 4: watch list of plants with limited distribution

*Threat Ranks:*

- 0.1: seriously threatened in California (> 80% threatened / high degree and immediacy of threat)
- 0.2: moderately threatened in California (20-80% threatened / moderate degree and immediacy of threat)
- 0.3: not very threatened in California (< 20% threatened / low degree and immediacy or no current threats known)

Special status wildlife species considered by the analysis include those listed by the state and/or federal Endangered Species Acts as Threatened and/or Endangered, Candidate(s) for listing as Threatened and/or Endangered, and/or listed by the CDFW as Fully Protected (FP), Species of Special Concern (SSC), and/or CDFW Watchlist (WL).

Natural Communities are evaluated using NatureServe's Heritage Methodology, the same system used to assign global and state rarity ranks for plant and animal species in the CNDDB. They are assigned an overall rarity score for a single rank of 1 through 5. Evaluation is done at both the Global (full natural range within and outside of California) and State (within California) levels resulting in a single G (global) and S (state) rank ranging from 1 (very rare and threatened) to 5 (demonstrably secure). Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents.

Wetlands are protected under Section 404 of the Clean Water Act (CWA) and are under the jurisdiction of the United States Army Corps of Engineers (USACE). According to the USACE, areas considered to be a "wetland" (and subject to the regulatory jurisdiction of the USACE) must exhibit hydrology, hydric soils, and hydrophilic vegetation that meet federal criteria, as indicated in the Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (USACE 2008).

In addition, if drainages meet the criteria established by Section 1600 of the California Fish and Game Code, the CDFW may require a Streambed Alteration Agreement prior to any modification of the bed, bank, or channel of streambeds. CDFW jurisdiction generally includes the streambed and the canopy of associated riparian vegetation.

Table 3, Special Status Plant Species, and Table 4, Special Status Wildlife Species, provide a summary of special status plant and wildlife species known to occur in the Project region including information on the status, potential for occurrence, and definitions for the various status designations. Figure 4 presents the locations of special status resources in proximity to the Project site, as determined by records searches. Sources used to determine the special status of biological resources are as follows:

- Plants – Electronic Inventory of Rare and Endangered Vascular Plants of California. (California Native Plant Society [CNPS] [2019]). California Natural Diversity Database (CNDDB) List of Special Plants (CDFW 2019).

- Wildlife - CNDDB List of Special Animals (CDFW 2019)

- Habitats – CNDDB List of Sensitive Natural Communities (CDFW 2019)

**TABLE 3**
**SPECIAL STATUS PLANT SPECIES OCCURRING IN THE PROJECT REGION**

| Species | Status[1] | | | Bloom Period | Habitat Description | Likelihood for Occurrence/ Rationale[2] |
|---|---|---|---|---|---|---|
| | USFWS | CDFW | CNPS | | | |
| *Agrostis hooveri* Hoover's bent grass | - | - | 1B.2 | Apr-Jul | Chaparral, cismontane woodland, closed coniferous forest, and valley/foothill grassland between 195 and 2,510 ft elevation. | Not expected (6) |
| *Arctostaphylos luciana* Santa Lucia manzanita | - | - | 1B.2 | Dec-May | Chaparral and cismontane woodland on shale or serpentine outcrops between 345 and 2,705 ft elevation. | Not expected (3, 6) |
| *Arctostaphylos pechoensis* Pecho manzanita | - | - | 1B.2 | Nov-May | Closed-cone coniferous forest, chaparral and coastal scrub on shale between 345 and 2,705 ft elevation. | Not expected (3, 6) |
| *Arctostaphylos rudis* sand mesa manzanita | - | - | 1B.2 | Nov-Feb | Chaparral and coastal scrub on sandy soil between 195 and 1,100 ft elevation. | Not expected (6) |
| *Arctostaphylos pilosula* Santa Margarita manzanita | - | - | 1B.2 | Dec-May | Shale, decomposed granite or sandstone in chaparral, and cismontane woodland or forest between 195 and 4,000 ft elevation. | Not expected (6) |
| *Arenaria paludicola* marsh sandwort | FE | SE | 1B.1 | May-Aug | Marshes and swamps between 10 and 560 ft elevation. | Not expected (1, 6) |
| *Astragalus didymocarpus* var milesianus Miles' milk-vetch | - | - | 1B.1 | Mar-Jun | Coastal scrub in clay soils between 165 and 1,265 ft elevation | Not expected (1, 2, 6) |
| *Calochortus obispoensis* San Luis mariposa-lily | - | - | 1B.1 | May-Jul | Grassland in serpentine soils between 50 and 1,640 ft elevation | Not expected (1, 2, 6) |
| *Calochortus simulans* La Panza mariposa lily | - | - | 1B.3 | Apr-Jun | Decomposed granite and serpentine soils between 490 and 3,805 ft elevation | Not expected (2, 3, 6) |
| *Calystegia subacaulis var. episcopalis* Cambria morning glory | - | - | 4.2 | Apr-Jun | Clay soils in chaparral, cismontane woodland, coastal prairie, and valley and foothill grassland between 20 and 1,560 ft elevation | Not expected (2, 6) |
| *Cammissoniopsis hardhamiae* Hardham's evening-primrose | - | - | 1B.2 | May-Oct | Sandy, decomposed carbonate soils in chaparral, woodland, or grassland between 195 to 3,280 ft elevation | Not expected (2, 6) |

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|---|---|---|---|---|---|---|
| | USFWS | CDFW | CNPS | | | |
| *Carex obispoensis* San Luis Obispo sedge | - | - | 1B.2 | Apr-Jun | Closed-cone coniferous forest, chaparral, coastal prairie, coastal scrub and valley/foothill grassland between 15 to 2,775 ft elevation | Not expected (6) |
| *Castilleja densiflora* var *obispoensis* San Luis Obispo owl's clover | - | - | 1B.2 | Mar-May | Grasslands, meadows, and seeps between 35 and 1,595 ft elevation | Not expected (1, 6) |
| *Centromadia parryi* ssp. *congdonii* Congdon's tarplant | - | - | 1B.1 | Mar-Oct | Alkaline, heavy white clay soils with valley/foothill grasslands between 0 and 755 ft elevation. | Not expected (2, 6) |
| *Chenopodium littoreum* coastal goosefoot | - | - | 1B.2 | Mar-Oct | Coastal dunes between 30 and 100 ft elevation. | Not expected (1, 3, 6) |
| *Chlorogalum pomeridianum* var. *minus* dwarf soaproot | - | - | 1B.2 | May-Aug | Chaparral on serpentine soils between 390 and 4,000 ft elevation | Not expected (1, 2, 3, 6) |
| *Chorizanthe breweri* Brewer's spineflower | - | - | 1B.3 | Apr-Aug | Chaparral, woodland, coastal scrub, and coniferous forest in rocky or gravelly soils between 150 and 2,510 ft elevation | Not expected (2, 6) |
| *Chorizanthe rectispina* Straight-awned spineflower | - | - | 1B.3 | Apr-Jul | Granite in chaparral, cismontane woodland, and coastal scrub between 150 and 3,415 ft elevation | Low (2, 6) |
| *Cirsium fontinale* var. *obispoense* San Luis Obispo fountain thistle | FE | SE | 1B.2 | Apr-Jul | Serpentine seeps in chaparral, cismontane woodland, coastal scrub, and foothill grassland between 15 and 1,265 ft elevation | Not expected (6) |
| *Cirsium occidentale* var. *lucianum* Cuesta Ridge thistle | - | - | 1B.2 | Apr-Jun | Serpentine outcrops in chaparral and disturbed areas along roadsides between 1,590 and 2,510 ft elevation | Not expected (3, 6) |
| *Cirsium scariosum* var. *loncholepis* La Graciosa thistle | FE | ST | 1B.1 | May-Aug | Mesic coastal dunes, coastal scrub, brackish marshes, valley and foothill grassland, and cismontane woodland between 10 and 720 ft elevation | Not expected (6) |
| *Cirsium rhotophilum* surf thistle | - | ST | 1B.2 | May-Aug | Mesic coastal dunes, coastal scrub, brackish marshes, valley and foothill | Not expected (6) |

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| | USFWS | CDFW | CNPS | | | |
| | | | | | grassland, and cismontane woodland between 10 and 720 ft elevation | |
| *Cladium californicum* California saw-grass | - | ST | 1B.2 | Jun-Sep | Meadows and seeps, marshes and swamps between 65 and 7,005 ft elevation | Not expected (1, 6) |
| *Clarkia speciosa* ssp. *immaculata* Pismo clarkia | FE | R | 1B.1 | May-Jul | Openings in chaparral, woodland, and grasslands in proximity to the coast with sandy soils from 95 to 610 ft elevation | Not expected (6) |
| *Delphinium parryi* ssp. *blochmaniae* dune larkspur | - | - | 1B.2 | Apr-May | Rocky/sandy soils in chaparral and dunes between 60 & 1,000 ft elevation | Not expected (2, 6) |
| *Delphinium parryi* ssp. *eastwoodiae* Eastwood's larkspur | - | - | 1B.2 | Apr-May | Chaparral and grassland on serpentine soils between 195 and 2,100 ft elevation | Not expected (2, 6) |
| *Delphinium umbraculorum* Umbrella larkspur | - | - | 1B.3 | Apr-Jun | Mesic sites among chaparral and cismontane woodland between 705 and 6,810 ft elevation | Not expected (3, 6) |
| *Dithyrea marítima* beach spectaclepod | - | - | 1B.3 | Mar-May | Coastal dunes and scrub near the sea shore between 10 and 215 ft elevation | Not expected (1, 3, 6) |
| *Dudleya abramsii* ssp *bettinae* Betty's dudleya | - | - | 1B.2 | Mar-May | Serpentine outcrops in coastal scrub, valley/foothill grassland, and chaparral between 65 and 820 ft elevation | Not expected (2, 6) |
| *Dudleya abramsii* ssp *murina* mouse-gray dudleya | - | - | 1B.3 | May-Jun | Serpentine outcrops in coastal scrub, valley/foothill grassland, and chaparral between 80 and 1,755 ft elevation | Not expected (2, 6) |
| *Dudleya blochmaniae* ssp blochmaniae Blochman's dudleya | - | - | 1B.1 | May-Jun | Serpentine outcrops or shallow clay above serpentine in coastal scrub, valley/foothill grassland, and chaparral between 15 and 1,475 ft elevation | Not expected (1, 2, 6) |
| *Eriastrum luteum* yellow-flowered eriastrum | - | - | 1B.2 | May-Jun | Broadleaved upland forest, woodland, and chaparral with sandy decomposed granite slopes between 785 and 1,905 ft elevation | Not expected (3, 6) |
| *Erigeron blochmaniae* Blochman's leafy daisy | - | - | 1B.2 | Jun-Aug | Coastal dunes and scrub between 0 and 610 ft elevation | Not expected (1, 2, 6) |

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|---|---|---|---|---|---|---|
| | USFWS | CDFW | CNPS | | | |
| *Eriodictyon altissimum* Indian Knob mountainbalm | FE | SE | 1B.1 | Mar-Jul | Ridges within chaparral on Pismo sandstone between 310 and 805 ft elevation | Not expected (1, 2, 3, 6) |
| *Eryngium aristulatum* var. *hooveri* Hoover's button-celery | - | - | 1B.1 | July | Freshwater wetlands, wet roadside ditches, vernal pools and riparian areas between 5 and 4,760 ft elevation. | Not expected (6) |
| *Fritillaria viridea* San Benito fritillary | - | - | 1B.2 | Mar-May | Serpentine slopes and rocky streambanks among chaparral and cismontane woodland between 1,195 and 4,465 ft elevation | Not expected (3, 6) |
| *Fritillaria ojaiensis* Ojai fritillary | - | - | 1B.2 | Feb-May | Rocky sites and roadsides among mesic broadleaved upland forest, chaparral, lower coniferous forest, and cismontane woodland between 310 and 3,740 ft elevation | Not expected (1, 3, 6) |
| *Horkelia cuneata* var *sericea* Kellogg's horkelia | - | - | 1B.1 | Feb-Jul | Closed-cone coniferous forest, coastal scrub, coastal dunes, and chaparral with sandy or gravelly soils between 15 and 1,410 ft elevation | Not expected (1, 2, 6) |
| *Horkelia cuneata* var *puberula* mesa horkelia | - | - | 1B.1 | Feb-Jul | Coastal scrub, cismontane woodland, and chaparral with sandy or gravelly soils between 50 and 5,400 ft elevation | Not expected (3, 6) |
| *Layia jonesii* Jones' layia | - | - | 1B.2 | Mar-May | Clay soils and serpentine outcrops in chaparral and valley/foothill grasslands between 20 and 805 ft elevation | Not expected (1, 2, 6) |
| *Lupinus ludovicianus* San Luis Obispo County lupine | - | - | 1B.2 | Mar-May | Open sandy soils in Santa Margarita formation among chaparral and cismontane woodland between 278 and 1,720 ft elevation | Not expected (2, 3, 4, 6) |
| *Lupinus nipomoensis* Nipomo Mesa lupine | FE | SE | 1B.1 | Mar-May | Coastal dunes and dry, sandy flats between 65 and 100 ft elevation | Not expected (1, 2, 3, 6) |

**TABLE 3**
**SPECIAL STATUS PLANT SPECIES OCCURRING IN THE PROJECT REGION**

| Species | Status[1] | | | Bloom Period | Habitat Description | Likelihood for Occurrence/ Rationale[2] |
|---|---|---|---|---|---|---|
| | USFWS | CDFW | CNPS | | | |
| *Malacothamnus gracilis* Slender bush-mallow | - | - | 1B.1 | May-Oct | Dry, rocky slopes among chaparral between 490 and 1,100 ft elevation | Not expected (1, 3, 6) |
| *Monardella palmeri* Palmer's monardella | - | - | 1B.2 | Mar-Sep | Coastal scrub in coastal dunes between 20 and 410 ft elevation | Not expected (1, 2, 6) |
| *Monardella undulata* ssp crispa crisp monardella | - | - | 1B.2 | Jun-Aug | Serpentine soils in chaparral and woodland between 295 and 3,100 ft elevation | Not expected (2, 3, 6) |
| *Monardella undulata* ssp undulata San Luis Obispo monardella | - | - | 1B.2 | Jun-Aug | Stabilized sand on coastal dunes with coastal scrub between 15 and 655 ft elevation | Not expected (1, 2, 6) |
| *Monardella sinuata* ssp *sinuata* southern curly-leaved monardella | - | - | 1B.2 | Apr-Sep | Sandy soils in coastal dunes, coastal scrub, chaparral and cismontane woodland between 65 and 1,000 ft elevation | Not expected (2, 6) |
| *Nasturtium gambelii* Gambel's water cress | FE | ST | 1B.1 | Apr-Oct | Freshwater or brackish marshes at or immediately above the water line between 15 and 1,000 elevation | Not expected (1, 6) |
| *Nemacaulis denudata* var *denudata* coast woolly-heads | - | - | 1B.2 | Apr-Sep | Coastal dunes between 0 and 20 ft elevation | Not expected (1, 2, 3, 6) |
| *Nemacladus secondiflorus* var *robbinsii* Robbins' nemacladus | - | - | 1B.2 | Apr-Jun | Chaparral and valley/foothill grassland with dry, sandy or gravelly slopes between 1,150 and 5,580 ft elevation | Not expected (1, 3, 6) |
| *Orobanche parishii ssp. brachyloba* short-lobed broomrape | - | - | 4.2 | Apr-Oct | Sandy soils in coastal bluff scrub, coastal dunes and coastal scrub between 10 and 1,000 ft elevation | Not expected (1, 3, 6) |
| *Plagiobothrys uncinatus* hooked popcornflower | - | - | 1B.2 | Apr-May | Chaparral, cismontane woodland, and valley/foothill grassland on sandstone outcrops and canyon sides between 690 and 2,805 ft elevation | Not expected (2, 3, 6) |
| *Sanicula maritima* adobe sanicle | - | - | 1B.1 | Feb-May | Coastal prairies, chaparral, meadows, valley grasslands, wetlands, and riparian areas between 5 and 165 ft elevation. | Not expected (3, 6) |

**TABLE 3**
**SPECIAL STATUS PLANT SPECIES OCCURRING IN THE PROJECT REGION**

| Species | Status[1] | | | Bloom Period | Habitat Description | Likelihood for Occurrence/ Rationale[2] |
|---|---|---|---|---|---|---|
| | USFWS | CDFW | CNPS | | | |
| *Scrophularia atrata* black-flowered figwort | - | - | 1B.2 | Mar-Jul | Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, and riparian scrub between 30 and 1,460 ft elevation. | Not expected (1, 6) |
| *Senecio aphanactis* chaparral ragwort | - | - | 2B.2 | Jan-Apr | Chaparral, cismontane woodland, and coastal scrub in drying alkaline flats between 65 and 2,805 ft elevation | Not expected (6) |
| *Sidalcea hickmanii* ssp. *anomala* Cuesta Pass checkerbloom | - | R | 1B.2 | May-Jun | Rocky, serpentine soils in closed-cone forest and chaparral between 1,965 and 2,625 ft elevation | Not expected (1, 2, 3, 6) |
| *Streptanthus albidus* ssp. *peramoenus* most beautiful jewelflower | - | - | 1B.2 | Apr-Sep | Serpentine outcrops in chaparral, valley/foothill grassland, & woodland between 295 and 3,415 ft elevation | Not expected (2, 3, 6) |
| *Symphyotrichum defoliatum* San Bernardino aster | - | - | 1B.2 | Jul-Nov | Meadows and seeps in cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, and valley and foothill grasslands between 10 and 6,710 ft elevation | Not expected (6) |
| *Topidocarpum capparideum* caper-fruited tropidocarpum | - | - | 1B.1 | Mar-Apr | Valley/foothill grasslands with alkaline clay soils between 0 and 1,180 ft elevation | Not expected (2, 6) |
| *Trifolium hydrophilum* saline clover | - | - | 1B.2 | Apr-Jun | Marshes, swamps, mesic and alkaline sites in valley/foothill grassland, and vernal pools between 5 and 1,100 ft elevation | Not expected (1, 2, 6) |

## TABLE 3
## SPECIAL STATUS PLANT SPECIES OCCURRING IN THE PROJECT REGION

| Species | Status[1] | | | Bloom Period | Habitat Description | Likelihood for Occurrence/ Rationale[2] |
|---|---|---|---|---|---|---|
| | USFWS | CDFW | CNPS | | | |

**1: STATUS DEFINITIONS**

**USFWS**

FE: Species designated as endangered under the federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range."

FPE: Proposed for federal listing as Endangered.

C: Candidate for federal listing as Threatened or Endangered.

FT: Species designated as threatened under the Federal Endangered Species Act = "species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."

FPT: Proposed for federal listing as Threatened.

**CDFW**

SE: Endangered = "a species is endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes" and is officially listed as such under the California Endangered Species Act (CESA).

SR: State-listed as Rare = "taxa that are biologically rare, very restricted in distribution, or declining throughout their range but not currently threatened with extirpation" (Special Vascular Plants, Bryophytes, and Lichens List.

ST: Threatened = "a species that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this Act" (CESA).

**CNPS**

1A Plants Presumed Extinct in California

1B Plants Rare, Threatened, or Endangered in California and Elsewhere

2 Plants Rare, Threatened, or Endangered in California But More Common Elsewhere

**2: LIKELIHOOD FOR OCCURRENCE**

| | |
|---|---|
| Not expected: | Not expected to occur |
| Low: | Low potential to occur |
| Moderate: | Moderate potential to occur |
| High: | High potential to occur |
| Present: | Known to occur |

**RATIONALE**

1: Lack of suitable habitat
2: Lack of suitable substrate
3: Beyond known elevation range
4: Beyond known geographic range
5: Required soil moisture regime not present
6: Not observed during survey
7: Marginally suitable habitat present
8: Suitable habitat present but no known records within one mile
9: Suitable habitat present with known records within one mile
10: Observed during surveys

**TABLE 4**
**SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE PROJECT REGION**

| Species | Status[1] | | Habitat Description | Likelihood for Occurrence/Rationale[2] |
|---|---|---|---|---|
| | USFWS | CDFW | | |
| **Invertebrates** | | | | |
| *Branchinecta lynchi*<br>Vernal pool fairy shrimp | FT | - | Sandstone depression pools and grassed swale, earth slump, or basalt-flow depression pools | Not expected (1) |
| **Fish** | | | | |
| *Eucyclogobius newberryi*<br>tidewater goby | FE | SSC | Brackish water along the California coast from Agua Hedionda Lagoon, San Diego County north to the mouth of the Smith River | Not expected (1) |
| *Gila orcuttii*<br>*arroyo chub* | - | SSC | Streams from Malibu Creek to San Luis Rey River Basin | Not expected (1) |
| *Onchorhynchus mykiss irideus* pop. 9<br>steelhead (south-central coast DPS) | FT | - | River runs in coastal basins from the Pajaro River south to, but not including, the Santa Maria River | Not expected (1) |
| **Amphibians** | | | | |
| *Batrachoseps minor*<br>Lesser slender salamander | - | SSC | Tanbark oak, coast live oak, blue oak, sycamore and laurel woodlands in the south Santa Lucia Mountains | Not expected (4) |
| *Rana boylii*<br>foothill yellow-legged frog | - | CT/SSC | Partly shaded, shallow streams and riffles with a rocky substrate | Not expected (1) |
| *Rana draytonii*<br>California red-legged frog | FT | SSC | Lowlands and foothills in or near deep permanent water sources with dense, shrubby or emergent riparian vegetation | Low (7) |
| *Spea hammondii*<br>Western spadefoot toad | - | SSC | Grasslands and woodlands with vernal pools | Not expected (1, 2) |
| *Taricha torosa*<br>Coast Range newt | - | SSC | Woodlands in the vicinity of vernal pools and slow-moving streams | Low (7) |
| **Reptiles** | | | | |

**TABLE 4**
**SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE PROJECT REGION**

| Species | Status[1] | | Habitat Description | Likelihood for Occurrence/Rationale[2] |
|---|---|---|---|---|
| | USFWS | CDFW | | |
| *Anniella pulchra*<br>northern California legless lizard | - | SSC | Moist sandy or loose loamy soils under sparse vegetation | Not expected (1) |
| *Emys marmorata*<br>western pond turtle | - | SSC | Ponds, marshes, rivers, streams, and irrigation ditches with basking sites and suitable upland habitat for egg-laying | Moderate (7) |
| *Phrynosoma blainvillei*<br>coast horned lizard | - | SSC | Sandy substrate with scattered low bushes and abundant native ants and other insects | Not expected (1) |
| **Birds** | | | | |
| *Accipiter striatus*<br>sharp-shinned hawk | - | WL | Open woodlands mainly in riparian growths of deciduous trees | Nesting: Not expected (4)<br>Foraging: Moderate (5) |
| *Agelaius tricolor*<br>Tri-colored blackbird | - | SE/SSC | Open water with cattails or other protected nesting substrate within a few kilometers of foraging habitat | Nesting: Not expected (1)<br>Foraging: Low (6) |
| *Athene cunicularia*<br>burrowing owl | - | SSC | Open, dry annual or perennial grasslands and scrublands with low-growing vegetation | Nesting: Not expected (1)<br>Foraging: Low (5) |
| *Buteo regalis*<br>Ferruginous hawk | - | WL | Open grasslands, juniper-sagebrush flats, riparian areas, savannahs, agricultural or ranch lands with groves or lines of trees | Nesting: Not expected (4)<br>Foraging: Moderate (5) |
| *Charadrius alexandrinus nivosus*<br>Snowy plover | FT | SSC | Sandy beaches, salt pond levees & shores of large alkali lakes | Nesting: Not expected (1)<br>Foraging: Not expected (1) |
| *Coccyzus americanus occidentalis*<br>Western yellow-billed cuckoo | FT | SE | Riparian habitat along large river systems | Nesting: Not expected (1)<br>Foraging: Not expected (1) |
| *Elanus leucurus*<br>white-tailed kite | - | FP | Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland | Nesting: Low (6)<br>Foraging: Moderate (6) |

**TABLE 4**
**SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE PROJECT REGION**

| Species | Status[1] | | Habitat Description | Likelihood for Occurrence/Rationale[2] |
|---|---|---|---|---|
| | USFWS | CDFW | | |
| *Eremophila alpestris actia*<br>California horned lark | - | FP | Short grass prairie, fallow grain fields, and alkali flats | Nesting: Not expected (1)<br>Foraging: Low (5) |
| *Falco columbarius*<br>merlin | - | FP | Seacoast, tidal estuaries, open woodlands, savannahs, grassland edges, farms and ranches | Nesting: Not expected (1)<br>Foraging: Moderate (6) |
| *Falco mexicanus*<br>Prairie falcon | - | FP | Dry open terrain and cliffs for nesting | Nesting: Not expected (1)<br>Foraging: Moderate (6) |
| *Gymnogyps californianus*<br>California condor | FE | SE | Vast expanses of open savannah, grassland, and foothill chaparral for foraging and deep canyons with clefts in rocky walls for nesting | Nesting: Not expected (1)<br>Foraging: Low (6) |
| *Lanius ludovidianus*<br>loggerhead shrike | - | SSC | Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, scrub & washes | Nesting: Not expected (1)<br>Foraging: Low (5) |
| *Laterallus jamicensis coturniculus*<br>California black rail | - | ST | Freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays with dense vegetation for nesting | Nesting: Not expected (1)<br>Foraging: Not expected (1) |
| *Progne subis*<br>Purple martin | - | SSC | Inhabits woodlands, low elevation coniferous forest of Douglas-fir, Ponderosa pine, and Monterey pine | Nesting: Not expected (4)<br>Foraging: Low (6) |
| *Sternula antillarum browni*<br>California least tern | FE | SE/FP | Bare or sparsely vegetated sand beaches, alkali flats, and flat substrates along the coast. | Nesting: Not expected (1)<br>Foraging: Not expected (1) |
| **Mammals** | | | | |
| *Antrozus pallidus*<br>Pallid bat | - | SSC | Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting | Not expected (1) |
| *Corynorhinus townsendii*<br>Townsend's big-eared bat | - | SSC | Throughout California in a wide variety of habitats. Most common in mesic sites. | Moderate (5) |

**TABLE 4**
**SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE PROJECT REGION**

| Species | Status[1] | | Habitat Description | Likelihood for Occurrence/Rationale[2] |
|---|---|---|---|---|
| | USFWS | CDFW | | |
| *Eumops perotis californicus*<br>western mastiff bat | - | SSC | Open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral | Not expected (1) |
| *Lasiurus blossevillii*<br>western red bat | - | SSC | Roosts in trees at forest edges from 2 to 40 feet above the ground | Moderate (6) |
| *Myotis yumanensis*<br>Yuma myotis | - | SSC | Open forests and woodlands with water sources over which to feed | Low (6) |
| *Taxidea taxa*<br>American badger | - | SSC | Drier open stages of most shrub, forest, and herbaceous habitats, with friable soils | Not expected (1) |

## TABLE 4
## SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE PROJECT REGION

| Species | Status[1] | | Habitat Description | Likelihood for Occurrence/Rationale[2] |
|---|---|---|---|---|
| | USFWS | CDFW | | |

**Status Definitions[1]**

**USFWS**

FE: Species designated as Endangered under the Federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range."
FT: Species designated as Threatened under the Federal Endangered Species Act. Threatened = "species likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range."
FPE: Proposed for federal listing as Endangered.
FPT: Proposed for federal listing as Threatened.
BCC: Bird of Conservation Concern

**CDFW**

ST: Threatened = "a species that, although not presently Threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this Act (California Endangered Species Act)."
SE: Endangered = "a species is endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes."
SR: Rare = " not presently Threatened with extinction, but in such small numbers throughout its range that it may become Endangered if its present environment worsens."
FP: Fully Protected species are protected by special legislation and cannot be taken at any time.
SSC: Species of Special Concern.
WL: Watch List

**2: LIKELIHOOD FOR OCCURRENCE**

Not expected: Not expected to occur
Low: Low potential to occur
Moderate: Moderate potential to occur
High: High potential to occur
Present: Known to occur

**RATIONALE**

1: Lack of suitable habitat
2: Lack of suitable substrate
3: Beyond known elevation range
4: Beyond known geographic range
5: Marginally suitable habitat present
6: Suitable habitat present but no known records within one mile (or appropriate distance based on typically-sized territory for the species)
7: Suitable habitat present with known records within one mile (or appropriate distance based on typically-sized territory for the species)
8: Species or evidence of presence observed during survey
9: Overwintering migrant

## 3.4 Special Status Plants

No special status plants were observed during the field surveys despite appropriately timed focused survey visits by experienced botanists in an above-average rainfall year. The CNDDB and CNPS on-line inventory listed 60 special status plants as occurring in the Project region. Based on the field surveys and the known habitat requirements of the special status species identified by the records search, no federal, state, or CNPS listed threatened or endangered plant species are expected to occur in the Project footprint at this time.

## 3.5 Special Status Wildlife

No federally or state-listed wildlife species were observed in the Project study area during the survey. The CNDDB on-line inventory listed 27 special status wildlife species in the region. As previously discussed, the Project site has been subject to repeated disturbance over many years as a result of agricultural operations. Based on the presence of potentially suitable habitat, the Project study area was determined to have a low to moderate potential for occurrence of five Species of Special Concern, including Coast Range newt (*Taricha torosa*), western pond turtle (*Emys marmorata*), Townsend's big-eared bat (*Corynorhinus townsendii*), western red bat (*Lasiurus blossevillii*), and Yuma myotis (*Myotis yumanensis*).

Tar Spring Creek has a low potential for Coast range newt breeding and larval development and oak woodland habitat to the south of the creek is considered potentially suitable terrestrial habitat for the species. Western pond turtle is known to occur in Tar Spring Creek approximately 0.5-mile downstream and is considered to have a moderate potential to occur in the portion of the creek within the study area. The Project site does not represent suitable refuge, breeding, or foraging habitat for these species and any occurrence would be considered incidental. Furthermore, the banks of Tar Spring Creek are nearly vertical, further reducing the likelihood of incidental occurrence in the Project footprint.

Townsend's big-eared bat, western red bat, and Yuma myotis have a low to moderate potential to roost in man-made structures and basal cavities of trees within the study area. The western red bat may also roost in tree foliage and foliage over Tar Spring Creek in the study area. These species would not be expected to occur in the Project footprint.

One federally listed Threatened species and California Species of Special Concern, California red-legged frog (*Rana draytonii*), has been recorded less than one mile west of the Project study area in Arroyo Grande Creek (CNDDB 2019). Tar Spring Creek is tributary to Arroyo Grande Creek. This species may disperse into, forage, and/or breed in Tar Spring Creek adjacent to the Project site when conditions are suitable. This species would not be expected to occur in the Project footprint.

The Project study area has the potential for the California fully-protected white-tailed kite (*Elanus leucurus*) to occur in the oak woodlands beyond the Project impact footprint to the south of Tar Spring Creek. Additionally, the Project site has the potential for common ground-nesting birds and the study area has the potential for nesting raptors and/or passerines in nearby native and ornamental shrubs and trees. Most native bird nests are protected by the Migratory Bird Treaty Act (16 U.S.C. §§ 703–712) and California Fish and Game Code (FGC Division 4, Part 2, §§ 3503 and 3513).

### 3.6 Sensitive Natural Communities

The CNDDB records search identified central foredunes (G1, S1.2), central dune scrub (G2, S2.2), central maritime chaparral (G2, S2.2), serpentine bunchgrass (G2, S2.2), coastal and valley freshwater marsh (G3, S2.1), and northern interior cypress forest (G2, S2.2), as special status natural communities occurring in the Project region. The Project site consists of irrigated row and field crops, coast live oak/poison oak riparian woodland, and barren or developed areas. None of the above-mentioned sensitive natural communities were identified during the survey or review of historic aerials dating back to 1994. No impacts to sensitive natural communities are anticipated.

Tar Spring Creek flows through the southern portion of the Project study area approximately 50 ft south of the Project footprint. This drainage is classified by USGS and USFWS as an intermittent stream (Classification code: R4SBC). Any proposed fill or removal would likely require a Section 404 permit under the federal Clean Water Act (CWA), a Section 401 certification from the Regional Water Quality Control Board (RWQCB), and a 1602 Streambed Alteration Agreement with CDFW.

## 4.0 IMPACT ASSESSMENT AND MITIGATION

The proposed project represents land use that is consistent with what has occurred historically on the property since 1994. As such, the project would not be expected to result in long-term impacts in excess of the baseline condition. Short-term direct impacts to habitat could cause injury or death to wildlife because of construction-related disturbances, such as vegetation removal, grading, and construction. Short-term indirect impacts could result from construction noise, harassment, dust emissions, or other disruption. The total potential area of direct disturbance is approximately 2.62 acres of irrigated row and field crops, barren and developed areas. These habitat types are repeatedly disturbed and dominated by introduced crops and/or weedy species, the loss of which would not substantially reduce the extent, diversity, or quality of native or other important vegetation for wildlife.

### 4.1 Special Status Plants

The Project site has been subject to repeated disturbance over many years because of agricultural operations. As such, conditions are considered unsuitable for the special status plants known to occur in the Project region. Furthermore, focused botanical surveys performed in Spring of 2019 did not detect any special status plant species in the Project footprint or study area. No impacts to special status plants are anticipated with Project implementation.

### 4.2 Special Status Wildlife

Based on the presence of potentially suitable habitat in the study area beyond the Project footprint, the following Species of Special Concern were determined to have a low to moderate potential to occur: Coast Range newt, western pond turtle, Townsend's big-eared bat, western red bat, and Yuma myotis. Coast Range newt and western pond turtle may occur in Tar Spring Creek and oak woodland to the south but are very unlikely to occur incidentally in the Project footprint. Townsend's big-eared bat, western red bat, and Yuma myotis would not be expected to occur in the Project impact footprint but may occur in oak woodland to the south of Tar Spring Creek. Given the lack of suitable habitat for these species in the Project footprint, direct impacts are considered very unlikely. Indirect impacts to these species are also considered unlikely given the proposed project would not result in a considerable increase in the intensity of ongoing

agricultural operations in the study area. Implementation of Mitigation Measures BIO-1 and BIO-2 would avoid or reduce potential impacts to a level considered less than significant.

Based on suitable habitat in Tar Spring Creek in the southern portion of the study area, the federally listed Threatened and California Species of Special Concern, California red-legged frog, was determined to have a low potential for occurrence. This species may disperse into, forage, and/or breed in Tar Spring Creek adjacent to the Project site when conditions are suitable. This species would not be expected to occur in the Project footprint but may occur incidentally, potentially resulting in take during construction. In addition, Project construction may result in discharge into downstream receiving waters, potentially impacting downstream populations.

Long-term direct and indirect impacts to California red-legged frog are unlikely given the proposed project would not result in a considerable increase in the intensity of ongoing agricultural operations in the study area. Project implementation would also not be expected to appreciably increase long-term land use intensity on the Project site or result in increased likelihood of take. Implementation of Mitigation Measure BIO-1, BIO-2, and BIO-3 would avoid or reduce potential impacts to a level considered less than significant.

One fully protected species, white-tailed kite, has the potential to nest in oak woodland to the south of Tar Spring Creek. The Project also has the potential for direct and/or indirect impacts to active nests during construction, including direct impacts to ground or low-nesting birds, and indirect impacts to raptors and/or passerines nesting in adjacent areas and ornamental trees in the study area. Nest failure or take resulting from Project activities would conflict with the Migratory Bird Treaty Act (16 U.S.C. §§ 703–712) and California Fish and Game Code (FGC Division 4, Part 2, §§ 3503 and 3513). Implementation of Mitigation Measure 4 would avoid or reduce potential impacts to special status birds and all nesting birds to a level considered less than significant.

### 4.3 Sensitive Natural Communities

None of the sensitive natural communities identified by the CNDDB records search occur in the study area. Tar Spring Creek flows through the southern portion of the Project study area approximately 50 ft south of the Project site and was identified as a potentially jurisdictional wetland resource (Figure 6). The proposed Project would not result in direct impacts to this resource and would not be expected to substantially increase the intensity of indirect impacts from the baseline condition. However, Project construction may result in discharge into receiving downstream waters. Implementation of BIO-3 would avoid or reduce potential indirect impacts to a level considered less than significant.

### 4.4 Wildlife Movement

Maintaining connectivity between areas of suitable habitat is critical for dispersal, migration, foraging, and genetic health of plant and wildlife species. A functional network of connected habitats is essential to the continued existence of California's diverse species and natural communities in the face of both human land use and climate change. Terrestrial species must navigate a habitat landscape that meets their needs for breeding, feeding and shelter. In addition, aquatic connectivity is critical for anadromous fish like steelhead trout that encounter many potential barriers as they return upstream to their places of origin. Projects that introduce substantial barriers to movement of resident or migratory fish or wildlife species or hinder the normal activities of wildlife require mitigation to offset project effects.

The Project site is surrounded to the north by rural residential land use, agriculture to the east and west, and undeveloped open space to the south. The Project would be consistent with long-standing land uses and does not introduce night-lighting or other features that would be expected to affect wildlife movement through surrounding natural habitats. Project fencing may restrict the use of the Project site by wildlife, but the loss of 2.6 acres of irrigated row and field crops, barren and developed areas would be considered less than significant.

## 5.0 RECOMMENDATIONS

The following avoidance, minimization, and mitigation measures are recommended to reduce the anticipated impacts to the maximum extent feasible.

**BR-1** **Worker Environmental Awareness Program (WEAP)**. Prior to initiation of construction activities (including staging and mobilization), all personnel associated with Project construction shall attend WEAP training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the Project area. The specifics of this program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction of the Project. All employees shall sign a form documenting that they have attended the WEAP and understand the information presented to them. The form shall be submitted to the County Department of Planning and Building to document compliance prior to initiation of construction.

**BR-2** **Special Status Herpetofauna Avoidance and Minimization.** Within 30 days prior to initiation of ground disturbance, a focused survey for special status herpetofauna, including California red-legged frog, Coast Range newt, and western pond turtle, shall be performed by a qualified biologist. A survey report summarizing results of the survey shall be submitted to the County Department of Planning and Building within one week of completing the survey. A qualified biologist shall monitor initial vegetation clearing and ground disturbance to salvage and relocate individuals. Any sightings of special status species shall be documented and reported to County and CDFW staff and the CNDDB. Mortality shall be documented and reported to County and CDFW staff, and specimens donated to the appropriate collection manager of the San Luis Obispo County Museum of Natural History or other appropriate scientific institution. A monitoring report summarizing results shall be submitted to the County Department of Planning and Building within one week of completing monitoring work for these species.

**BR-3** **Site Maintenance and General Operations.** The following general measures are recommended to minimize impacts during active construction:

- The use of heavy equipment and vehicles shall be limited to the proposed project limits and defined staging areas/access points. The boundaries of each work area shall be clearly defined and marked with high visibility fencing. No work shall occur outside these limits.
- Project plans, drawings, and specifications shall show the boundaries of all work areas onsite and the location of erosion and sediment controls, limit

delineation, and other pertinent measures to ensure the protection of sensitive habitat areas and associated resources.

- Staging of equipment and materials shall occur in designated areas at least 100 feet from Tar Spring Creek.
- Secondary containment such as drip pans shall be used to prevent leaks and spills of potential contaminants.
- Washing of concrete, paint, or equipment, and refueling and maintenance of equipment shall occur only in designated areas. Sandbags and/or absorbent pads shall be available to prevent water and/or spilled fuel from leaving the site. Construction equipment shall be inspected by the operator daily to ensure that equipment is in good working order and no fuel or lubricant leaks are present.
- Construction activity occurring within and/or within 100 feet of Tar Spring Creek to the south of the Project disturbance area shall occur only during the dry season (between June 1 and September 31).
- For short-term, temporary stabilization, an erosion and sedimentation control plan shall be developed outlining Best Management Practices (BMPs), which shall be implemented to prevent erosion and sedimentation into Tar Spring Creek during construction.
- Acceptable stabilization methods include the use of weed-free, natural fiber (i.e., non-monofilament) fiber rolls, jute or coir netting, and/or other industry standards. BMPs shall be installed and maintained for the duration of the project.

**BR-4** **Preconstruction Surveys for Nesting Raptors and Birds.** The applicant shall ensure the following actions are undertaken to avoid and minimize potential impacts to nesting birds: To the extent feasible, removal of vegetation within suitable nesting bird habitats will be scheduled to avoid the nesting season and occur between September and January. For activities that cannot avoid the nesting season (February 15 to August 31), not more than 30 days prior to initiation of construction activities (e.g. mobilization and staging), a qualified biologist shall conduct preconstruction surveys for nesting raptors and other native nesting birds. The survey for the presence of nesting raptors shall cover all areas within the disturbance footprint plus a 500-foot buffer where access can be secured. Survey reports shall be submitted to the County Department of Planning and Building at least one week prior to initiating construction, and within one week of completing surveys for ongoing activities. If active nests (nests with eggs or chicks) are located, the qualified biologist shall establish an appropriate avoidance buffer ranging from 50 to 300 feet based on the species biology and the current and anticipated disturbance levels occurring in vicinity of the nest, and 500 feet for nests of fully protected species (such as white-tailed kite) and raptors. All buffers shall be marked using high-visibility flagging, fencing, and/or signage. No construction activities shall be allowed within the buffers until the young have fledged from the nest or the nest fails, unless approved by the qualified biologist. The qualified biologist shall confirm that breeding/nesting is completed and young have fledged the nest prior to removal of the buffer. Encroachment into the buffer shall be conducted at the discretion of the qualified biologist. Monitoring reports summarizing nest avoidance measures, including buffers, fledge dates, and documentation of the avoidance of fully protected species, if applicable, shall be submitted to the County Department of Planning and Building on a monthly basis while nest buffers are in place or while activities are occurring within the specified buffer of an inactive nest of a fully protected species.

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World Imagery Sources: Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.

**Table 5.** List of non-native plant species observed on the Project site on April 26 and June 24, 2019.

| Common Name | Scientific name | Family | Location |
|---|---|---|---|
| Tumbleweed | *Amaranthus albus* | Amaranthaceae | Project |
| Rough pigweed | *Amaranthus retroflexus* | Amaranthaceae | Project |
| Slim oat | *Avena barbata* | Poaceae | Project |
| Black mustard | *Brassica nigra* | Brassicaceae | Project |
| Ripgut brome | *Bromus diandrus* | Poaceae | Creekside |
| Soft chess | *Bromus hordeaceus* | Poaceae | Creekside |
| Shepherd's purse | *Capsella bursa-pastoris* | Brassicaceae | Project |
| Italian thistle | *Carduus pycnocephalus* | Asteraceae | Creekside |
| Tocalote | *Centaurea melitensis* | Asteraceae | Creekside |
| Lambs quarters | *Chenopodium album* | Chenopodiaceae | Project |
| Nettle leaf goosefoot | *Chenopodium murale* | Chenopodiaceae | Project |
| Bullthistle | *Cirsium vulgare* | Asteraceae | Project |
| Poison hemlock | *Conium maculatum* | Apiaceae | Creekside |
| Field bindweed | *Convolvulus arvensis* | Convolvulaceae | Project |
| Flax-leaved horseweed | *Erigeron bonariensis* | Asteraceae | Project |
| Storksbill | *Erodium cicutarium* | Geraniaceae | Project |
| Gopher spurge | *Euphorbia lathyris* | Euphorbiaceae | Creekside |
| Italian rye grass | *Festuca perennis* | Poaceae | Project |
| Fennel | *Foeniculum vulgare* | Apiaceae | Creekside |
| Bristly ox-tongue | *Helminthotheca echioides* | Asteraceae | Creekside |
| Seaside barley | *Hordeum marinum* | Poaceae | Project |
| Foxtail barley | *Hordeum murinum* | Poaceae | Project |
| Prickly lettuce | *Lactuca serriola* | Asteraceae | Project |
| Henbit | *Lamium amplexicaule* | Lamiaceae | Project |
| Bird's foot trefoil | *Lotus corniculatus* | Fabaceae | Creekside |
| Scarlet pimpernel | *Lysimachia arvensis* | Myrsinaceae | Project |
| Cheeseweed | *Malva parviflora* | Malvaceae | Project |
| Bur clover | *Medicago polymorpha* | Fabaceae | Project |
| White sweetclover | *Melilotus albus* | Fabaceae | Project |
| Yellow sweetclover | *Melilotus indicus* | Fabaceae | Creekside |
| Harding grass | *Phalaris aquatica* | Poaceae | Creekside |
| Common plantain | *Plantago major* | Plantaginaceae | Creekside |
| Annual blue grass | *Poa annua* | Poaceae | Project |
| Four leaved all seed | *Polycarpon tetraphyllum* | Caryophyllaceae | Project |
| Knotweed | *Polygonum aviculare ssp. depressum* | Polygonaceae | Project |
| Rabbit's foot grass | *Polypogon monspeliensis* | Poaceae | Project |
| Beard grass | *Polypogon viridis* | Poaceae | Project |
| Purslane | *Portulaca oleracea* | Portulacaceae | Project |
| Wild raddish | *Raphanus sativus* | Brassicaceae | Creekside |
| Castor bean | *Ricinus communis* | Euphorbiaceae | Creekside |
| Curly dock | *Rumex crispus* | Polygonaceae | Creekside |
| Common groundsel | *Senecio vulgaris* | Asteraceae | Project |
| Milk thistle | *Silybum marianum* | Asteraceae | Project |
| Hedge mustard | *Sisymbrium officinale* | Brassicaceae | Project |
| Sow thistle | *Sonchus oleraceus* | Asteraceae | Project |
| Corn spurry | *Spergula arvensis* | Caryophyllaceae | Creekside |
| Chickweed | *Stellaria media* | Caryophyllaceae | Project |
| Smilo grass | *Stipa miliacea* | Poaceae | Project |
| Field hedge parsley | *Torilis arvensis* | Apiaceae | Creekside |

| | | | |
|---|---|---|---|
| Annual stinging nettle | *Urtica urens* | Urticaceae | Project |

**Table 6.** List of native plant species observed on the Project site on April 26 and June 24, 2019.

| Common Name | Scientific Name | Family | Location |
|---|---|---|---|
| Fiddleneck | *Amsinckia menziesii* | Boraginaceae | Project |
| Coastal sage brush | *Artemisia californica* | Asteraceae | Creekside |
| Mugwort | *Artemisia douglasiana* | Asteraceae | Creekside |
| Coyote brush | *Baccharis pilularis* | Asteraceae | Creekside |
| Rescue grass | *Bromus catharticus* | Poaceae | Project |
| Creek clematis | *Clematis ligusticifolia* | Ranunculaceae | Creekside |
| Tansy mustard | *Descurainia pinnata* | Brassicaceae | Creekside |
| Sticky monkeyflower | *Diplacus aurantiacus* | Phrymaceae | Creekside |
| Wood fern | *Dryopteris arguta* | Dryopteridaceae | Creekside |
| Giant wild rye | *Elymus condensatus* | Poaceae | Creekside |
| Canada horseweed | *Erigeron canadensis* | Asteraceae | Project |
| California coffeeberry | *Frangula californica* | Rhamnaceae | Creekside |
| Cleavers | *Galium aparine* | Rubiaceae | Creekside |
| Toyon | *Heteromeles arbutifolia* | Rosaceae | Creekside |
| Arroyo lupine | *Lupinus succulentus* | Fabaceae | Creekside |
| California man-root | *Marah fabacea* | Cucurbitaceae | Creekside |
| Pineapple weed | *Matricaria discoidea* | Asteraceae | Creekside |
| Fiesta flower | *Pholistoma auritum* | Boraginaceae | Creekside |
| California everlasting | *Pseudognaphalium californicum* | Asteraceae | Project |
| Coast live oak | *Quecus agrifolia* | Fagaceae | Creekside |
| California blackberry | *Rubus ursinus* | Rosaceae | Creekside |
| Arroyo willow | *Salix lasiolepis* | Salicaceae | Creekside |
| Blue elderberry | *Sambucus nigra ssp. caerulea* | Adoxaceae | Creekside |
| California bee plant | *Scrophularia californica* | Scrophulariaceae | Creekside |
| Douglas' nightshade | *Solanum douglasii* | Solanaceae | Project |
| Southern hedge nettle | *Stachys bullata* | Lamiaceae | Creekside |
| Poison oak | *Toxicodendron diversilobum* | Anacardiaceae | Creekside |
| Western vervain | *Verbena lasiostachys* | Verbenaceae | Creekside |

**Table 7.** List of wildlife species observed on the Project site on April 26 and June 24, 2019.

| Common Name | Scientific Name | Location | Notes |
|---|---|---|---|
| **Amphibians** | | | |
| California toad | *Anaxyrus boreas halophilus* | Creek | - |
| Sierran treefrog | *Pseudacris sierra* | Creek | - |
| **Reptiles** | | | - |
| Coast Range fence lizard | *Sceloporus occidentalis bocourtii* | Project | - |
| Woodland alligator lizard | *Elgaria multicarinata webbii* | Creek | - |
| California striped racer | *Coluber lateralis lateralis* | Creek | - |
| **Birds** | | | - |
| Turkey vulture | *Cathartes aura* | Project | Overhead |
| Red-tailed hawk | *Buteo jamaicensis* | Project | Overhead |
| American kestrel | *Falco sparverius* | Project | Overhead |
| Killdeer | *Charadrius vociferous* | Project | - |
| California quail | *Callipepla californicus* | Creek | - |
| Eurasian collared dove | *Streptopelia decaocto* | Project | Non-native |
| Mourning dove | *Zenaida macroura* | Project | - |
| Black-chinned hummingbird | *Archilochus alexandri* | Creek | - |
| Nuttall's woodpecker | *Picoides nuttallii* | Creek | - |
| Pacific slope flycatcher | *Empidonax difficilis* | Creek | - |
| Say's phoebe | *Sayornis saya* | Creek | - |
| Western kingbird | *Tyrannus verticalis* | Creek | - |
| Hutton's vireo | *Vireo huttonii* | Creek | - |
| Western scrub jay | *Aphelocoma californica* | Creek | - |
| Common raven | *Corvus corax* | Project | - |
| Oak titmouse | *Baeolophus inornatus* | Creek | - |
| Bushtit | *Psaltriparus minimus* | Project | - |
| House wren | *Troglodytes aedon* | Creek | - |
| Western bluebird | *Sialia Mexicana* | Project | - |
| Swainson's thrush | *Catharus ustulatus* | Creek | - |
| Northern mockingbird | *Mimus polyglottos* | Creek | - |
| House finch | *Haemorhous mexicanus* | Project | - |
| Lesser goldfinch | *Spinus psaltria* | Project | - |
| Song sparrow | *Melospiza melodia* | Creek | - |
| European starling | *Sturnus vulgaris* | Project | Non-native |
| Western meadowlark | *Sturnella neglecta* | Project | - |
| Brewer's blackbird | *Euphagus cyanocephalus* | Project | - |
| **Mammals** | | | - |
| Southern pocket gopher | *Thomomys bottae* | Project | - |
| California ground squirrel | *Otospermophilus beecheyi* | Project | - |
| Mule deer | *Odocoileus hemionus* | Creek | Tracks |

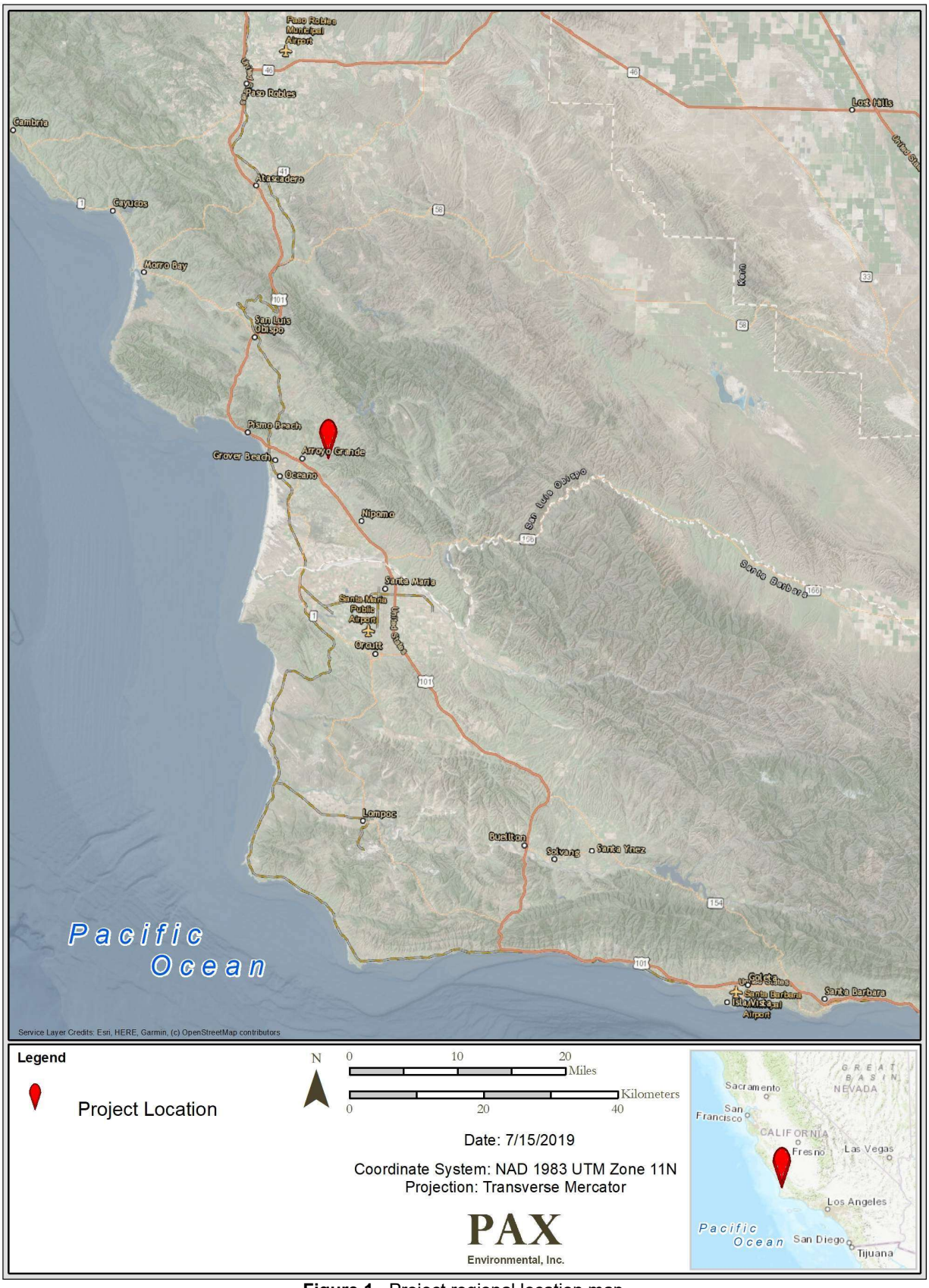


**Figure 1.** Project regional location map

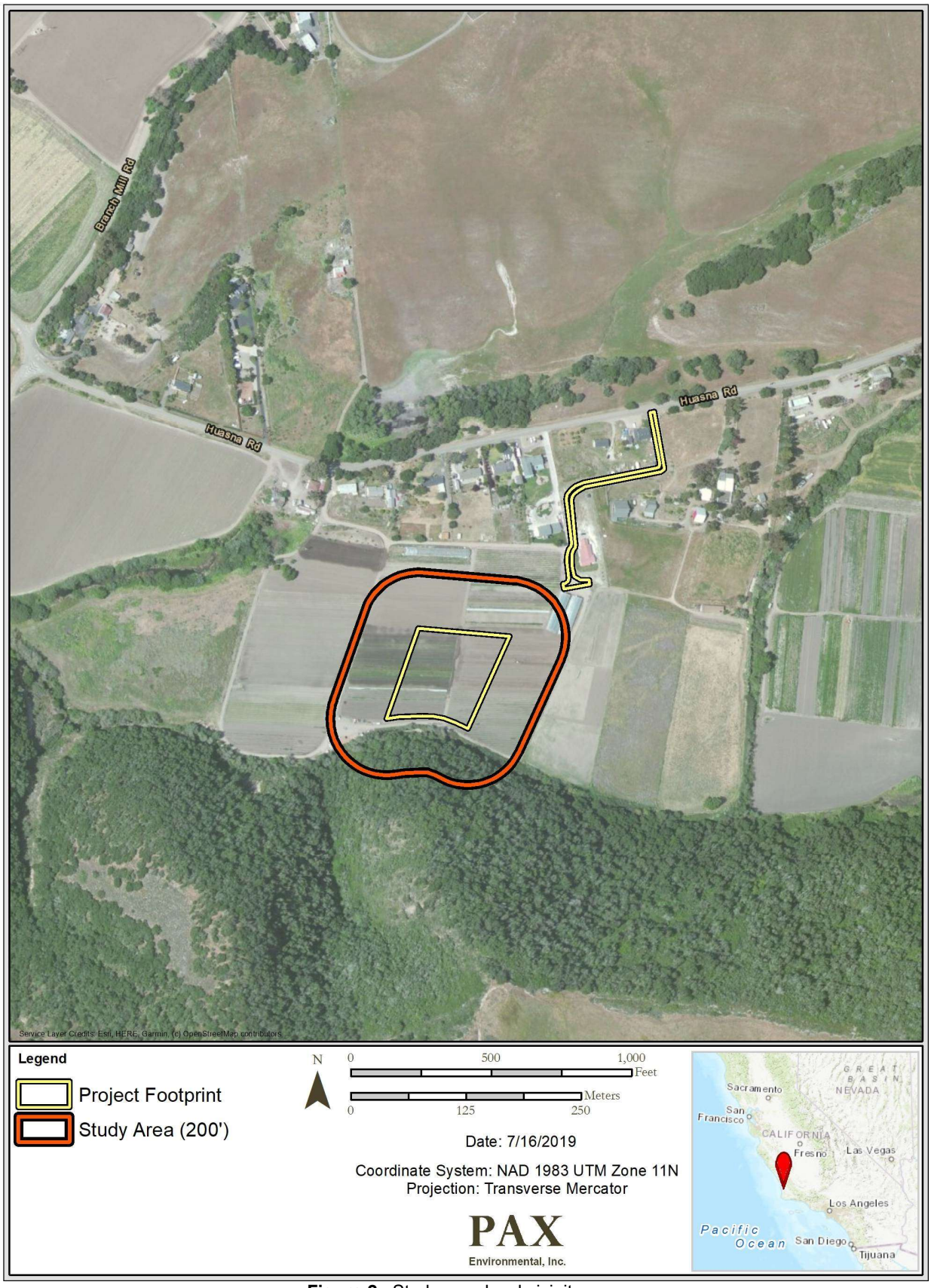


**Figure 2.** Study area local vicinity map

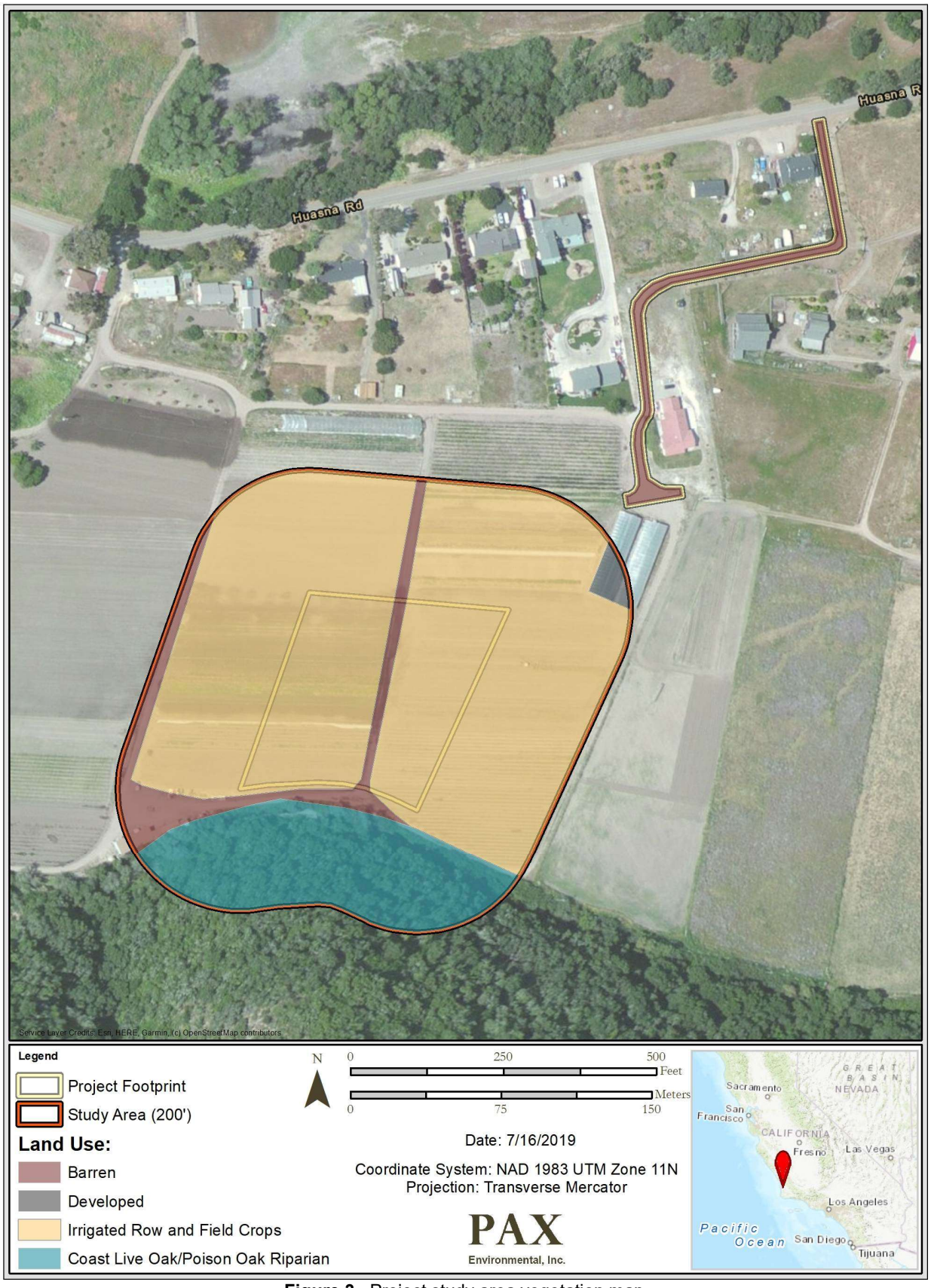


**Figure 3.** Project study area vegetation map

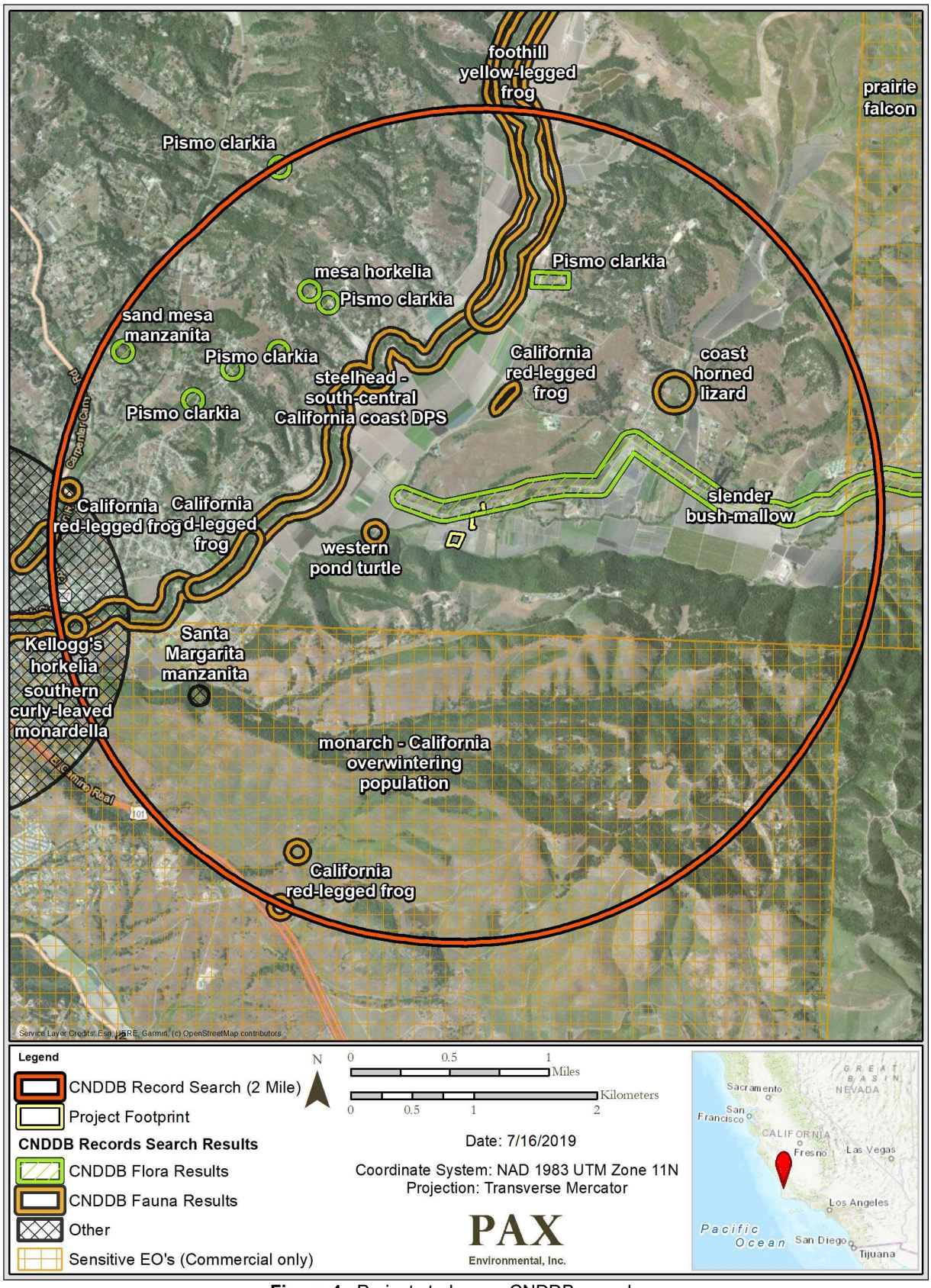


**Figure 4.** Project study area CNDDB records map

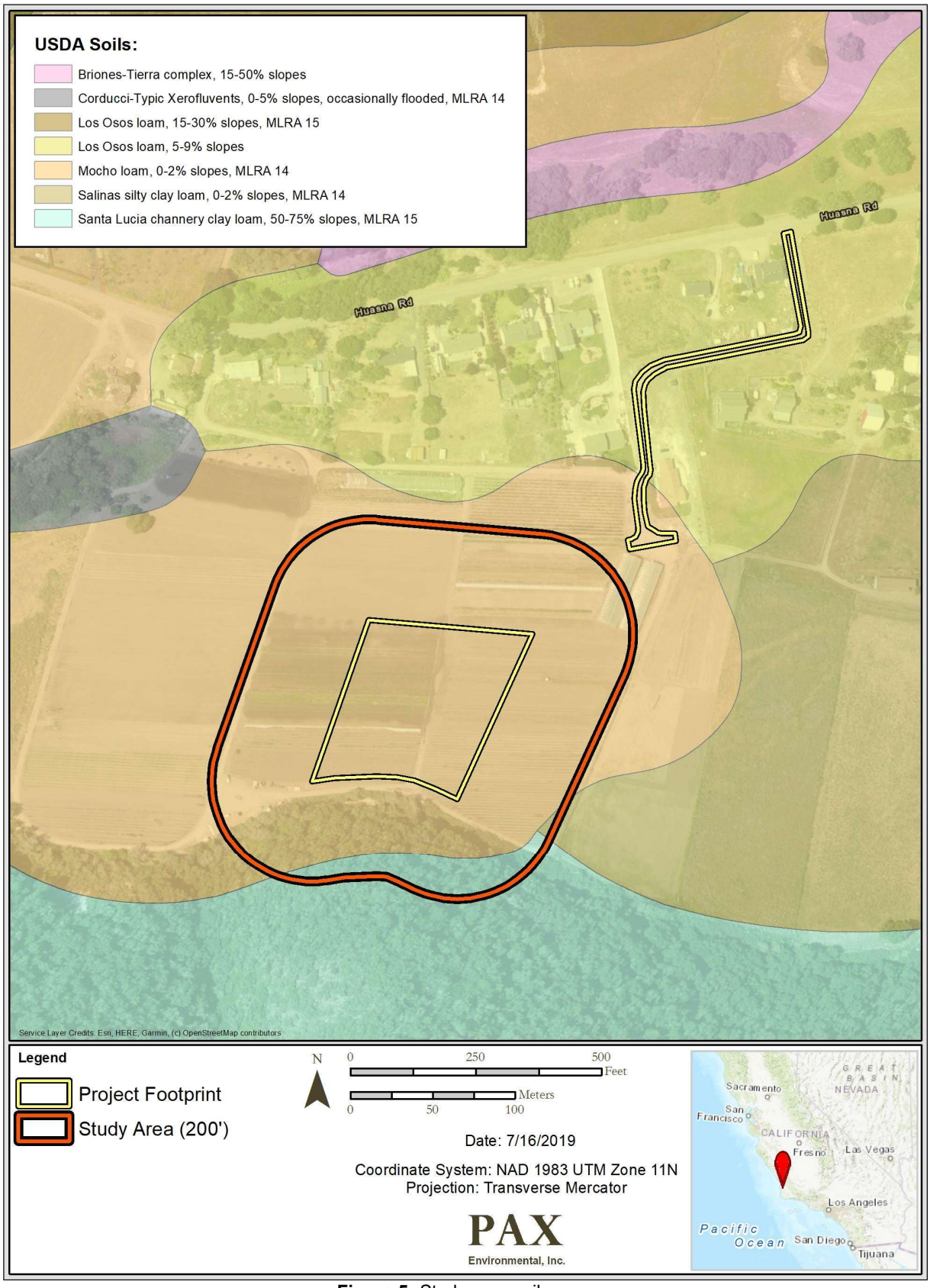


**Figure 5:** Study area soils map

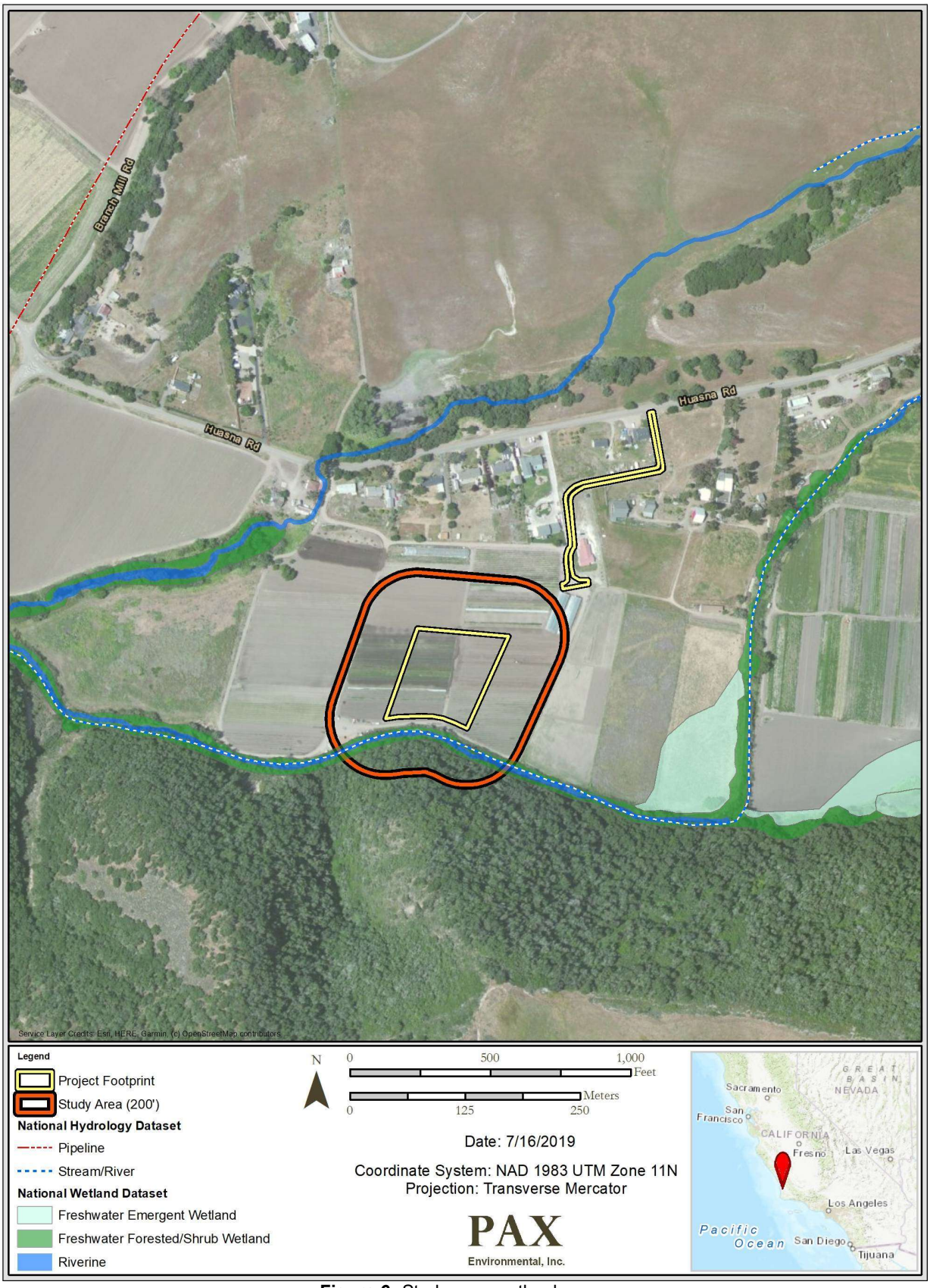


**Figure 6:** Study area wetlands map

**Figure 7:** Site photographs

**Photo 1:** Northeastern corner of Project site facing west and southwest.

**Photo 2:** South-central portion of Project site facing east.

**Photo 3:** South-central portion of Project site facing west.

**Photo 4:** South-central portion of Project site facing north.

**Photo 5:** South-central portion of Project site facing south toward ancillary structures and steep slopes behind Tar Spring Creek.

**Photo 5:** Tar Spring Creek in south-central portion of study area facing west.

**Photo 5:** Tar Spring Creek in south-central portion of study area facing east.