Biological Resource Assessment for a 7.31-acre Project Site (APN 033-011-026) in Paso Robles, San Luis Obispo County, California

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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

December 7, 2020
Date

EXECUTIVE SUMMARY

This Biological Resources Assessment report was prepared at the request of Agzone Services, LLC for the proposed development of cannabis growing operations at 3520 Creston Road, San Luis Obispo County, California. The proposed Project includes 7.31 acres of outdoor cultivation/nursery facilities and associated access. The Project site is located entirely within pasture, agricultural fields, and anthropogenic areas of the above-listed property. The total disturbance area for the proposed Project is 318,385 square feet with approximately 492 cubic yards of cut and fill earth movement.

Pax Environmental, Inc. completed a records search and performed a field survey of the proposed Project site on December 14, 2018 and January 5, 2019. Surveys included a general botanical and wildlife inventory, identification of vegetation communities, and a habitat assessment focused on the potential for special-status species and sensitive natural communities to occur on the Project site.

No sensitive vegetation communities were identified during the survey; however, project components cross riverine swales that may be subject to a streambed alteration agreement with CDFW. No special-status species were observed or detected during the survey. Suitable habitat for a total of 5 special-status botanical species and 5 special-status wildlife species, as well as migratory nesting birds, was identified within the Project site. The project will result in the removal of one valley oak tree (*Quercus lobata*) and direct/indirect impacts on up to six additional oak trees during construction.

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 presence of oak trees protected by the County of San Luis Obispo Tree Ordinance and the potential for special status plant and wildlife species in the Project footprint. Mitigation measures have been recommended which are expected to reduce potential impacts to a less than significant level.

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1.0 INTRODUCTION

1.1 Project Location

This letter report presents the findings of December 14, 2018 and January 5, 2019 reconnaissance level biological surveys conducted on a parcel in Paso Robles, San Luis Obispo County, California. The Project site consists of approximately 7.31 acres within assessor's parcel number 033-011-026 at 3520 Creston Road in Paso Robles (Figure 1). The Project site is depicted on the Templeton USGS 7.5-minute topographic quadrangle map within Section 12 of Township 27 South and Range 12 East. This survey was 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 on the Project site.

1.2 Project Description

The proposed Project consists of cannabis cultivation operations and associated access road, a water pipeline and nursery support facilities (Figure 2). The cultivation area consists of approximately 3 acres of cannabis row crops and support infrastructure surrounded by a 6-foot-high chain link fence with PVC privacy slats. Support infrastructure includes a remote, solar-powered security station and nursery area with motion-detected lighting, a 16-foot wide electric access gate, five parking spaces, and a 9,500-gallon water tank and irrigation system. The access road consists of a 16-foot-wide aggregate base road that will extend approximately 225 feet north from the northwestern cultivation area boundary to the northern parcel boundary, and west approximately 770 feet to a proposed north-south trending road that will extend approximately 1,350 feet north to Hanson Road (an existing dirt access road). In addition, the existing Hanson Road will be improved to Project specification (16-foot width) for an additional 1,300 feet north to the intersection of Meadowlark Road. The proposed water pipeline is a 2-inch schedule 40 PVC water line that will be buried to a minimum depth of 18 inches, extending approximately 2,500 feet south and west to an existing well approximately 330 feet north of Creston Road.

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 2020), the Calflora Observation Hotline (Calflora 2020), and the Jepson Flora Project website (eFlora, 2020). The CNDDB records search was performed on the USGS 7.5-minute quadrangle encompassing the Project site and the surrounding eight quadrangles in the four cardinal directions and four equal divisions. The quadrangles included in the records search include Templeton, Creston, Santa Margarita, Estrella, Paso Robles, Atascadero, Adelaida, York Mountain, and Morro Bay.

Reconnaissance-level surveys were performed on December 14, 2018 and January 5, 2019 by Pax Senior Biologist Sam Stewart. The survey consisted of meandering transects across the study area, which included the proposed Project cultivation area with a 200-foot (ft) buffer and the proposed Project access road and water pipeline with a 50-ft buffer, for a total study area of 33 acres. The survey included a visual search for plants and wildlife, or their evidence of presence (scat, tracks, burrows, nests, etc.), with 100% visual coverage of the Project site. In addition, all habitats observed on the Project site were mapped on an aerial that was later digitized 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 1.

Timing of the survey did not coincide with the flowering period for a majority of locally occurring native plant species. Identifiable species were noted and recorded upon detection while specimens of polytypic species were collected for subsequent dry lab 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.).

TABLE 1
SURVEY CONDITIONS

Date	Start/End Time	Temperature (°Fahrenheit)	Cloud Cover (%)	Conditions	Wind Speed (miles/hour)	Surveyor
12/14/2018	08:50-09:55	42	15	Cool, breezy	5-12	S. Stewart
1/5/2019	09:20-11:00	41	80	Light rain, gusts	8-20	S. Stewart

2.0 EXISTING CONDITIONS

The Project site is located at 3520 Creston Road and consists of approximately 7.31 acres of tilled dryland grain crop and pasture land with scattered oak trees. Topography on the Project site is relatively flat, gently sloping downhill from north to south, with elevations ranging from 865 to 950 feet above mean sea level (msl). Soils on the Project site (Figure 3) consist of Arbuckle-San Ysidro complex (90%) and Lockwood-Concepcion complex (10%) (USDA 2018). Arbuckle-San Ysidro soil is alluvium derived from mixed rocks, resulting in a coarse and loamy profile that drains well. Lockwood-Concepcion soil is also alluvium but is derived from sedimentary rock, resulting in a sandy loam or sandy clay loam that drains well and can sometimes be saline. Both soils are typical of sites with gentle slopes of 2 to 9%.

The Project site has a history of agricultural use dating back to at least 1994, as determined from aerial imagery, and currently supports alfafa and barley cultivation and low-density cattle and sheep grazing. Surrounding land uses include undeveloped land, agricultural operations and widely-spaced rural residences.

3.0 RESULTS

3.1 Plants

Vegetation in the study area is representative of repeated disturbance associated with dryland grain crop cultivation and was dominated by introduced cultivars. As such, no natural or semi-natural communities, as described in A Manual of California Vegetation (Sawyer et al 2009), were identified in the study area. Habitat on the Project site was most consistent with Dryland Grain Cropland (DGR) as described by CDFW's California Wildlife Habitat Relationship System (CWHRS). Habitat acreages and distribution in the study area are presented in Table 2 and Figure 4, respectively.

TABLE 2
NATURAL COMMUNITIES AND HABITATS IN THE STUDY AREA

	Acreage	% of Study Area
Agricultural – Dryland Grain Crops	28.91	92.14%
Developed	0.92	2.93%
Disturbed/Barren	1.078	3.44%
Oak Trees	0.468	1.49%
Total	31.37	

Habitat in the Project study area is composed entirely of dryland grain crop and pasture for cattle and sheep and consists of historically tilled pasture with non-native grasses and ruderal species. The grain crops observed in the study area consisted of alfalfa (*Medicago sativa*) and common barley (*Hordeum vulgare*) which had been recently harvested and soils were freshly-tilled during the survey(s). Other non-native species observed during the surveys included tumbleweed (*Amaranthus albus*), sweet yellow starthistle (*Centaurea solstitialis*), skeleton weed (*Chondrilla juncea*), red-stemmed filaree (*Erodium cicutarium* ssp. *cicutarium*), short-pod mustard (*Hirschfeldia incana*), dwarf mallow (*Malva neglecta*), cheeseweed (*Malva parviflora*), black medick (*Medicago lupulina*), alfalfa (*Medicago sativa*), old han schismus (*Schismus barbatus*), and Aleppo pine (*Pinus halapensis*). Native species included turkey mullein (*Croton setiger*), Jimsonweed (*Datura wrightii*), Canada horseweed (*Erigeron canadensis*), coast live oak (*Quercus agrifolia*), gold cup live oak (*Quercus chrysolepis*), blue oak (*Quercus douglassii*), valley oak (*Quercus lobata*), and interior live oak (*Quercus wislizenii wislizenii*).

3.2 Wildlife

Wildlife species observed during the survey include those common to rangelands, annual grassland or savannah. No special status wildlife species were detected during the survey. Bird species observed during the survey include killdeer (*Charadrius vociferus*), turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), northern harrier (*Circus hudsonia*), American kestrel (*Falco sparverius*), California quail (*Callipepla californicus*), mourning dove (*Zenaida macroura*), band-tailed pigeon (*Columba fasciata*), white-breasted nuthatch (*Sitta carolinensis*), killdeer (*Charadrius vociferus*), acorn woodpecker (*Melanerpes formicivorus*), common raven (*Corvus corax*), Say's phoebe (*Sayornis saya*), western bluebird (*Sialia mexicana*), northern mockingbird (*Mimus polyglottos*), yellow-rumped warbler (*Setophaga coronata*), western meadowlark (*Sturnella neglecta*), European starling (*Sturnus vulgaris*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Melozone crissalis*), vesper sparrow (*Pooecetes gramineus*), golden-crowned sparrow (*Zonotrichia atracapilla*), white-crowned sparrow (*Zonotrichia leucophrys*), 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 coyote (*Canis latrans*).

3.3 Special Status Resources

The following discussion addresses special status biological resources having the potential to occur on the Project site. 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 include those that are listed as threatened or endangered on the California or federal Endangered Species Acts, as well as those that are assigned a California Rare Plant Rank (CRPR) by the CNPS. 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 2018):

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)

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. The 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 5 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] [2020]). California Natural Diversity Database (CNDDB) List of Special Plants (CDFW 2020).

- Wildlife - CNDDB List of Special Animals (CDFW 2020)

- Habitats – CNDDB List of Sensitive Natural Communities (CDFW 2020)

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			
Abies bracteata bristlecone fir	-	-	1B.3	-	Confined to steep-sided slopes and the bottoms of rocky canyons in the Santa Lucia Mountains between 600 and 5,150 ft elevation.	Not expected (4 & 6)
Abronia maritima red sand-verbena	-	-	4.2	Feb-Nov	Coastal dunes up to 330 ft elevation.	Not expected (1, 2, & 3)
Agrostis hooveri Hoover's bent grass	-	-	4.2	Apr-Jul	Sandy sites in chaparral, cismontane woodland, closed-cone coniferous forest, and grasslands between 195 and 2,510 ft elevation.	Low (7)
Amsinckia douglasiana Douglas' fiddleneck	-	-	4.2	Mar-May	Monterey shale and well-drained soils in chaparral and valley/foothill grassland between 0 and 6,400 ft elevation.	Low (7)
Antirrhinum ovatum oval-leaved snapdragon	-	-	4.2	May-Nov	Clay or gypsum soils within chaparral, cismontane woodland, pinyon and juniper woodland, valley and foothill grassland between 655 and 3,280 ft elevation.	Not expected (2 & 6)
Arctostaphylos luciana Santa Lucia manzanita	-	-	1B.2	Dec-May	Shale in chaparral and woodland between 330 and 2,700 ft elevation.	Not expected (1, 2)
Arctostaphylos obispoensis Bishop's manzanita	-	-	4.3	Feb-Jun	Woodlands and forests of the coastal range, usually on serpentine soil between 20 and 4,640 ft elevation.	Not expected (1, 2, & 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 (1, 2, & 6)
Astragalus didymocarpus var. *milesianus* Miles' milk-vetch	-	-	1B.2	Mar-Jul	Clay soils in coastal scrub between 164 and 1,265 ft elevation.	Not expected (1 & 2)
Astragalus macrodon Salinas milk-vetch	-	-	4.3	Apr-Jul	Sandstone, shale, or serpentinite in chaparral, cismontane woodland, and	Not expected (2)

					valley/foothill grassland between 350 and 5,040 ft elevation.	
Astragalus nuttallii var. nuttallii ocean bluff milk-vetch	-	-	4.2	Jan-Nov	Coastal bluff scrub and coastal dunes below 395 ft elevation.	Not expected (1 & 3)
Calandrinia breweri Brewer's calandrina	-	-	4.2	Mar-Jun	Sandy or loamy disturbed sites and burned areas in coastal scrub and chaparral between 30 and 4,000 ft elevation.	Not expected (1)
Calochortus clavatus var. clavatus club-haired mariposa-lily	-	-	4.3	May-Jun	Usually serpentine clay and rocky substrate in chaparral, coastal scrub and woodland, and valley/foothill grassland between 245 and 4,265 ft elevation.	Not expected (2)
Calochortus obispoensis San Luis mariposa-lily	-	-	1B.1	May-Jul	Grassland in serpentine soils between 50 and 1,800 ft elevation.	Not expected (2)
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)
Calycadenia villosa Dwarf calycadenia	-	-	1B.1	May-Oct	Open meadow, seep, hillside, and gravelly wash in chaparral, woodland, or grassland between 1,970 to 2,065 ft elevation.	Not expected (1 & 3)
Calystegia collina ssp. venusta South Coast Range morning-glory	-	-	4.3	Apr-Jun	Serpentine or sedimentary soils in chaparral, coastal woodland, and valley/foothill grassland between 1,390 and 4,890 ft elevation.	Not expected (2 & 3)
Calystegia subacaulis ssp. episcopalis Cambria morning-glory	-	-	4.2	Apr-Jun	Usually clay soils in chaparral, coastal woodland, coastal prairie, and valley/foothill grassland between 95 and 1,640 ft elevation.	Not expected (2)
Camissoniopsis hardhamiae Hardham's evening-primrose	-	-	1B.2	Mar-May	Sandy, decomposed carbonate soils in chaparral and cismontane woodland between 195 and 3,300 ft elevation.	Not expected (1 & 2)
Carex obispoensis San Luis Obispo sedge	-	-	1B.2	Apr-Jun	Seeps with sand, clay, serpentine, or gabbro soils from 15 to 2772 ft elevation.	Not expected (1, 2, & 5)
Castilleja densiflora var. *obispoensis* San Luis Obispo owl's-clover	-	-	1B.2	Mar-May	Grasslands, meadows, and seeps between 30 and 1,590 ft elevation.	Low (7)
Caulanthus lemmonii Lemmon's jewelflower	-	-	1B.2	Mar-May	Pinyon/ juniper woodland and grasslands between 1,085 and 3,020 ft elevation.	Not expected (3)

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 (1 & 2)
Chorizanthe douglasii Douglas' spineflower	-	-	4.3	Apr-Jul	Chaparral, foothill woodland, and yellow pine forest between 635 and 5,060 ft elevation.	Not expected (1)
Chorizanthe palmeri Palmer's spineflower	-	-	4.2	Apr-Aug	Rocky serpentine soils in chaparral, cismontane woodland and grassland between 180 and 3,100 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.	Not expected (1 & 2)
Cirsium fontinale var. *obispoense* Chorro Creek bog thistle	FE	SE	1B.2	Feb-Jul	Serpentine seeps in chaparral, woodland, coastal scrub, and valley/foothill grasslands between 15 and 1,265 ft elevation.	Not expected (1, 2, & 5)
Cirsium occidentale var. *lucianum* Cuesta Ridge thistle	-	-	1B.2	Apr-Jun	Openings on serpentine slopes and roadsides among chaparral between 1,591 and 2,510 ft elevation.	Not expected (2 & 3)
Clarkia exilis slender clarkia	-	-	4.3	Apr-May	Coastal montane woodland between 390 and 3,280 ft elevation.	Not expected (1)
Convulvulus simulans small-flowered morning-glory	-	-	4.2	Apr-Jun	Chaparral, coastal scrub, valley and foothill grassland, serpentine ridges between 20 and 2,700 ft elevation.	Low (7)
Deinandra paniculata paniculate tarplant	-	-	4.2	Mar-Dec	Vernally wet areas in coastal scrub and valley and foothill grasslands between 80 and 3,085 ft elevation.	Not expected (5 & 6)
Delphinium gypsophilum ssp. parviflorum small-flowered gypsum-loving larkspur	-	-	3.2	Apr-Jun	Rocky clay soils, sometimes serpentinite in cismontane woodland and valley/foothill grassland between 145 and 10,375 ft elevation.	Not expected (2)
Delphinium parryi ssp. *blochmaniae* dune larkspur	-	-	1B.2	Apr-Jun	Coastal dunes and maritime chaparral below 660 ft elevation.	Not expected (1 & 3)
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)
Delphinium umbraculorum umbrella larkspur	-	-	1B.3	Apr-Jun	Mesic sites among chaparral and cismontane woodland between 705 and 6,810 ft elevation.	Not expected (5 & 6)

Dudleya abramsii ssp. *bettinae* Betty's dudleya	-	-	1B.2	May-Jul	Serpentine outcrops in chaparral, coastal scrub, and valley/foothill grassland between 65 and 590 ft elevation.	Not expected (1 & 2)
Dudleya abramsii ssp. *murina* mouse-gray dudleya	-	-	1B.3	May-Jun	Serpentine outcrops in in chaparral, coastal scrub, and valley/foothill grassland between 65 and 1,725 ft elevation.	Not expected (1 & 2)
Dudleya blochmaniae ssp. blochmaniae Blochman's dudleya	-	-	1B.1	Apr-Jun	Serpentine or clay outcrops in coastal bluff scrub, chaparral, coastal scrub, and valley/foothill grassland between 65 and 820 ft elevation.	Not expected (2)
Eleocharis parvula small spikerush	-	-	4.3	Jun-Aug	Marshes and swamps below 9,910 ft elevation.	Not expected (1)
Eriastrum luteum Yellow-flowered eriastrum	-	-	1B.2	May-Jun	Bare, sandy, decomposed granite slopes in chaparral, broadleaved upland forest and cismontane woodland between 790 and 1,770 ft elevation.	Not expected (1 & 2)
Erigeron blochmaiae Blochman's leafy daisy	-	-	1B.2	May-Jun	Bare, sandy, decomposed granite slopes in chaparral, broadleaved upland forest and cismontane woodland between 790 and 1,770 ft elevation.	Not expected (1 & 2)
Eriogonum elegans elegant wild buckwheat	-	-	4.3	May	Barren clay or sandstone among valley/foothill grassland between 750 and 2,770 ft elevation.	Not expected (2)
Erysimum suffrutescens suffrutescent wallflower	-	-	4.2	Jan-Jul	Coastal scrub, bluff scrub, dunes, and chaparral below 500 ft elevation.	Not expected (1 & 3)
Eschscholzia hypecoides San Benito poppy	-	-	4.3	Mar-Jun	Serpentinite clay soils in chaparral, cismontane woodland, and valley/foothill grassland between 655 and 4925 ft elevation.	Not expected (2)
Extriplex joaquinana San Joaquin spearscale	-	-	1B.1	Apr-Oct	Alkaline soils in chenopod scrub, meadows, seeps, playas, and valley/foothill grassland below 2,740 ft elevation.	Not expected (2)
Fritillaria agrestis stinkbells	-	-	4.2	Mar-Jun	Cismontane woodland, chaparral, grasslands, pinyon and juniper woodland between 30 and 5,105 ft elevation.	Not expected (6)
Fritillaria ojaiensis Ojai fritillary	-	-	1B.2	Feb-May	Rocky sites and roadsides among mesic, broadleaved upland forest, chaparral, lower	Not expected (1 & 2)

					montane coniferous forest and cismontane woodland between 310 and 3,740 ft elevation.	
Fritillaria viridea San Benito fritillary	-	-	1B.2	Mar-May	Serpentinite soils on rocky streambed or roadside slopes in chaparral and coastal woodland between 655 and 5,005 ft elevation.	Not expected (1 & 2)
Gilia latiflora ssp. cuyamensis Cuyama gilia	-	-	4.3	Apr-Jun	Sandy soils in pinyon and juniper woodland between 1,950 and 6,565 ft elevation.	Not expected (1)
Gilia tenuiflora ssp. amplifaucalis trumpet-throated gilia	-	-	4.3	Mar-Apr	Sandy soils in coastal woodland and valley/foothill grassland between 1,275 and 2,955 ft elevation.	Not expected (3)
Herperevax caulescens hogwallow starfish	-	-	4.2	Mar-Jun	Sometimes alkaline soils in vernal pools and valley/foothill grassland below 1,660 ft elevation.	Not expected (1)
Horkelia cuneata var. *puberula* mesa horkelia	-	-	1B.1	Feb-July	Sandy or gravelly soils in chaparral, cismontane woodland and coastal scrub between 50 and 5,395 ft elevation.	Not expected (1)
Horkelia cuneata var. *sericea* Kellogg's horkelia	-	-	1B.1	Apr-Sept	Sandy or gravelly soils in old dunes, closed-cone forest, coastal scrub and chaparral between 15 and 1,410 ft elevation.	Not expected (1)
Horkelia yadonii Santa Lucia horkelia	-	-	4.2	Apr-Jul	Meadows and seeps with granitic, sandy soils in broadleaved upland forest, chaparral, cismontane woodland, riparian woodland between 950 and 2,855 ft elevation.	Not expected (2,5 & 6)
Juncus acutus ssp. leopoldii southwestern spiny rush	-	-	4.2	May-Jun	Coastal dunes, meadows, seeps, marshes and swamps below 2,955 ft elevation.	Not expected (1 & 5)
Juncus luciensis Santa Lucia dwarf rush	-	-	1B.2	Apr-Jul	Vernal pools, ephemeral drainages, wet meadows and streamsides among lower montane coniferous forest, chaparral, and Great Basin scrub between 915 and 6,675 ft elevation.	Not expected (1, 2, & 5)
Lasthenia leptalea Salinas Valley goldfields	-	-	4.3	Feb-Jun	Alkaline soils in playas, sinks and grasslands among coastal salt marshes,	Not expected (1 & 2)

					playas and vernal pools between sea level and 4,510 ft elevation.	
Layia jonesii Jones' layia	-	-	1B.2	Mar-Jul	Open areas with alkaline or clay soils among cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley/foothill grassland between 295 to 5,905 ft elevation.	Not expected (2)
Lepidium jaredii ssp. *jaredii* Jared's pepper-grass	-	-	1B.2	Mar-May	Alkali flats and sinks with sandy soils among valley and foothill grassland between 1,105 and 3,300 ft elevation	Not expected (2 & 3)
Leptosiphon latisectus broad-lobed leptosiphon	-	-	4.3	Apr-Jun	Broadleaved forest and coastal woodland between 555 and 4,925 ft elevation.	Not expected (1)
Lessingia tenuis spring lessingia	-	-	4.3	Mar-May	Alkali flats and sinks with sandy soils among valley and foothill grassland between 1,105 and 3,300 ft elevation.	Not expected (2 & 3)
Lomatium parviflorum small-leaved lomatium	-	-	4.2	Jan-Jun	Serpentinite soils in closed-cone coniferous forest, chaparral, coastal scrub, and riparian woodland between 65 and 2,300 ft elevation.	Not expected (2 & 3)
Malacothamnus jonesii Jones' bush-mallow	-	-	4.3	Apr-Oct	Chaparral and coastal woodland between 520 and 3,530 ft elevation.	Not expected (1)
Malacothamnus palmeri var. *palmeri* Santa Lucia bush-mallow	-	-	1B.2	May-Jul	Dry, rocky slopes among chaparral between 10 and 2,200 ft elevation.	Not expected (1 & 2)
Meconella oregana Oregon meconella	-	-	1B.1	Mar-Apr	Coastal prairie and scrub between 820 and 2,035 ft elevation.	Not expected (1)
Mielichhoferia elongata Elongate copper moss	-	-	4.3	-	Metamorphic rock in broadleafed upland forest, chaparral, coastal woodland, coastal scrub, lower montane coniferous forest, meadows, seeps, and subalpine coniferous forest below 6,430 ft elevation.	Not expected (1 & 2)
Monardella palmeri Palmer's monardella	-	-	1B.2	Jun-Aug	Serpentine soils in cismontane woodland and chaparral between 295 and 3,100 ft elevation.	Not expected (2 & 6)
Monolopia gracilens Woodland woollythreads	-	-	1B.2	Mar-Jul	Grassy sites in sandy to rocky soils among chaparral, grasslands, cismontane woodland, broad-leaved and coniferous forest between 490 and 3,640 ft elevation.	Low (7)

Navarretia fossalis Spreading navarretia	-	ST	1B.1	Mar-Jul	Hardpan or claypan in vernal pools, chenopod scrub, marshes, swamps and playas between 50 and 2,790 ft elevation.	Not expected (1, 2 & 5)
Navarretia nigelliformis ssp. *radians* Shining navarretia	-	-	1B.2	Mar-Jul	Cismontane woodland, valley/foothill grassland, and vernal pools between 525 and 1,770 ft elevation.	Low (7)
Plagiobothrys uncinatus Hooked popcorn flower	-	-	1B.2	Apr-May	Sandstone outcrops and canyon sides in chaparral, cismontane woodland, and valley/foothill grassland between 690 and 2,805 ft elevation.	Not expected (2)
Senecio aphanactis Chaparral ragwort	-	-	2B.2	Jan-Apr	Drying alkaline flats in chaparral, cismontane woodland, and coastal scrub between 65 and 2,805 ft elevation.	Not expected (1 & 2)
Senecio astephanus Chaparral ragwort	-	-	4.3	Jan-Apr	Drying alkaline flats in chaparral, cismontane woodland, and coastal scrub between 65 and 2,805 ft elevation.	Not expected (1 & 2)
Sidalcea hickmanii ssp. *anomala* Cuesta Pass checkerbloom	-	-	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)
Streptanthus albidus ssp. *peramoenus* most beautiful jewelflower	-	-	1B.2	Apr-Sept	Serpentine outcrops on ridges and slopes between 295 and 3,410 ft elevation.	Not expected (1 & 2)
Suaeda californica California seablite	-	-	1B.1	Jul-Oct	Coastal salt marshes and swamps below 50 ft elevation.	Not expected (1 & 3)

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

2A Plants presumed extirpated in California, but more common elsewhere

1B Plants Rare, Threatened, or Endangered in California & elsewhere

3 Review list of plants about which more information is needed

2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere
4 Watch list of plants with limited distribution

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: Observable perennial species 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 survey

TABLE 4
SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE PROJECT REGION

Species	Status[1]		Habitat Description	Likelihood for Occurrence/Rationale[2]
	USFWS	CDFW		
Invertebrates				
Bombus crotchii Crotch's bumble bee	CE	-	Burrows in grassland or scrub with, or in proximity to, nectar sources (perennially flowering plants) in coastal California east to the Sierra-Cascade Crest and south into Mexico.	Not expected (1)
Branchinecta lynchi Vernal pool fairy shrimp	FT	-	Sandstone depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not expected (1)
Helminthoglypta walkeriana Morro shoulderband	FT	-	Restricted to coastal dunes and scrub in the immediate vicinity of Morro Bay.	Not expected (1)
Fish				
Entosphenus tridentatus Pacific lamprey	-	SSC	Shallow eddies and backwaters of clear coastal streams. Adults typically forage in the ocean, spawning in freshwater gravel riffles and runs, but also rarely occur in landlocked water bodies.	Not expected (1)
Eucyclogobius newberryi tidewater goby	FE	-	Occurs at the bottom of shallow, coastal bodies of water where the water is still but not stagnant, including brackish water in shallow lagoons.	Not expected (1)
Lavinia exilicauda harengus Monterey hitch	-	SSC	Open waters near the surface of low gradient coastal and mountain foothill streams.	Not expected (1)
Lavinia symmetricus subditus Monterey roach	-	SSC	Pool and riffle habitat in small, low gradient coastal and mountain foothill streams, including intermittent watercourses.	Not expected (1)
Oncorhynchus mykiss irideus pop. 9	-	SSC	Coastal streams below natural and manmade impassable barriers from the Santa Maria River to the U.S.-Mexico Border.	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		
steelhead – south-central California DPS				
Amphibians				
Anaxyrus californicus arroyo toad	FT	ST	Slow-moving water courses within broad alluvial washes with sandy and/or gravelly terraces, including third order streams and their tributaries, in chaparral or scrub habitats.	Not expected (1)
Batrachoseps minor Lesser slender salamander	-	SSC	Tanbark oak, coast live oak, blue oak, sycamore and laurel woodlands in the south Santa Lucia Mountains.	Not expected (1, 4)
Rana boylii foothill yellow-legged frog	-	ST/SSC	Partly shaded, shallow streams and riffles with a rocky substrate.	Not expected (1)
Rana draytonii California red-legged frog	FT	SSC	Lowlands and foothills in or near deep permanent water sources with dense, shrubby or emergent riparian vegetation.	Not expected (1)
Spea hammondii Western spadefoot toad	-	SSC	Grasslands and woodlands with vernal pools.	Low (5)
Taricha torosa Coast Range newt	-	SSC	Woodlands near vernal pools.	Not expected (1)
Reptiles				
Anniella pulchra northern California legless lizard	-	SSC	Moist sandy or loose loamy soils under sparse vegetation.	Low (5)
Emys marmorata western pond turtle	-	SSC	Ponds, marshes, rivers, streams, and irrigation ditches with basking sites and suitable upland habitat for egg-laying.	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		
Gambelia sila Blunt-nosed leopard lizard	FE	SE	Sparsely vegetated alkali and desert scrub habitats in areas of low topographic relief.	Not expected (4)
Phrynosoma blainvillei coast horned lizard	-	SSC	Sandy substrate with scattered low bushes and abundant native ants and other insects.	Not expected (1)
Birds				
Accipiter cooperii Cooper's hawk	-	SSC	Occupies open woodland and nests in riparian growths of deciduous trees.	Nesting: Not expected (1) Foraging: Moderate (5)
Agelaius tricolor 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) Foraging: Moderate (7)
Ammodramus savannarum Grasshopper sparrow	-	SSC	Dense grasslands with scattered shrubs on rolling hills.	Nesting: Not expected (1) Foraging: Low (5)
Aquila chrysaetos Golden eagle	-	FP/SSC	Rolling foothills, mountains, sage-juniper flats, and desert with cliffs or large trees for nesting.	Nesting: Not expected (1) Foraging: Moderate (6)
Artemisiospiza belli belli grasshopper sparrow	-	WL	Rolling foothills, mountains, sage-juniper flats, and desert with cliffs or large trees for nesting.	Nesting: Not expected (1) Foraging: Low (5)
Asio otus long-eared owl	-	SSC	Small tree groves and thickets surrounded by wetlands, grasslands, marshes and farmlands.	Nesting: Not expected (1) 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		
Athene cunicularia burrowing owl	-	SSC	Open, dry annual or perennial grasslands and scrublands with low-growing vegetation.	Nesting: Low (5) Foraging: Moderate (6)
Buteo regalis Ferruginous hawk	-	WL	Open grasslands, juniper-sagebrush flats, riparian areas, savannahs, agricultural or ranch lands with groves or lines of trees.	Nesting: Not expected (9) Foraging: Moderate (6)
Chaetura vauxi Vaux's swift	-	SSC	Nests and roosts in large hollow trees in mature and old-growth coniferous and mixed forests. Forages over forest, rivers, lakes, fields, and gaps in forest.	Nesting: Not expected (1) Foraging: Moderate (6)
Charadrius alexandrinus nivosus western snowy plover	FT	SSC	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Nesting: Not expected (1) Foraging: Not expected (7)
Charadrius montanus mountain plover	-	SSC	Short grasslands, grain and/or plowed fields, grazed rangelands and other flat open areas.	Nesting: Not expected (9) Foraging: Moderate (6)
Elanus leucurus white-tailed kite	-	FP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland.	Nesting: Not expected (1) Foraging: Moderate (6)
Eremophila alpestris actia California horned lark	-	WL	Short grass prairie, fallow grain fields, and alkali flats.	Nesting: Moderate (7) Foraging: Moderate (7)
Falco mexicanus Prairie falcon	-	WL	Dry open terrain and cliffs for nesting.	Nesting: Not expected (1) 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		
Falco columbarius merlin	-	WL	Open country, including grasslands, seashores, sand dunes, marshlands, steppes, and deserts, with breeding occurring in forest and woodland edges.	Nesting: Not expected (1) Foraging: Moderate (6)
Gavia immer common loon	-	SSC	Nests offshore, on islands, islets, or floating mounds of vegetation in shallow water. In winter, loons migrate to shallow coastal marine habitat.	Nesting: Not expected (1) Foraging: Moderate (6)
Haliaeetus leucocephalus bald eagle	Delisted	FP	Nests in large, old-growth trees with open branches, especially Ponderosa pine, and roosts communally in winter	Foraging: Not expected (1) Nesting: Not expected (1)
Lanius ludovidianus loggerhead shrike	-	SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, scrub & washes	Nesting: Not expected (1) Foraging: Moderate (7)
Ixobrychus exilis least bittern	-	SSC	Freshwater and brackish marshes with tall aquatic vegetation such as cattails and other reeds and rushes.	Nesting: Not expected (1) Foraging: Not expected (1)
Larus californicus California gull	-	WL	Breeds colonially in shallow depressions on the ground lined with vegetation and feathers along lakes and marshes.	Nesting: Not expected (1) Foraging: Not expected (1)
Pelecanus occidentalis californicus California brown pelican	Delisted	FP	Feeds at sea and in lakes or marshes. Breeds colonially in secluded areas, often on islands, and in vegetated land among sand dunes, thickets, trees, and mangroves.	Nesting: Not expected (1) Foraging: 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		
Phalacrocorax auritus double-crested cormorant	-	WL	Feeds at sea and in lakes or marshes. Breeds colonially in clusters of trees in or near foraging habitat.	Nesting: Not expected (1) Foraging: Not expected (1)
Progne subis Purple martin	-	ST/FP	Inhabits woodlands and low elevation coniferous forests with douglas-fir, ponderosa pine, and Monterey pine	Nesting: Not expected (1) Foraging: Low (5)
Setophaga petechia yellow warbler	-	SSC	Breeds and forages in thickets, forests, and woodlands along streams and wetlands below 9,000 ft elevation.	Nesting: Not expected (1) Foraging: Not expected (1)
Strix occidentalis occidentalis California spotted owl	-	SSC	Mature forest stands with large-diameter trees and varied levels of vegetation, typically among oaks below 3,300 ft elevation, and in conifers above.	Nesting: Not expected (1) Foraging: Not expected (1)
Thalasseus elegans elegant tern	-	WL	Nests in the gulf of California and forages in marine and other coastal aquatic water bodies. Roosts on beaches, mudflats, rocks, and pilings (or similar artificial structures) on the coast.	Nesting: Not expected (1) Foraging: Not expected (1)
Vireo bellii pusillus Least Bell's vireo	FE	SE	Willow, baccharis mesquite in low riparian in vicinity of water or dry river bottoms below 2,000 feet elevation.	Nesting: Not expected (1) Foraging: Not expected (1)
Mammals				

TABLE 4
SPECIAL STATUS WILDLIFE SPECIES OCCURRING IN THE PROJECT REGION

Species	Status[1]		Habitat Description	Likelihood for Occurrence/Rationale[2]
	USFWS	CDFW		
Antrozus pallidus 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 Townsend's big-eared bat	-	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites.	Not expected (1)
Dipodmys heermanni morroensis Morro Bay kangaroo rat	FE	SE/FP	Coastal sage scrub on the south side of Morro Bay.	Not expected (4)
Enhydra lutris nereis southern sea otter	FT	FP	Coastal sage scrub on the south side of Morro Bay.	Not expected (4)
Lasiurus blossevillii western red bat	-	SSC	Roosts in broad-leaved trees of riparian areas dominated by walnuts, oaks, willows, cottonwoods.	Not expected (4)
Macrotus californicus California leaf-nosed bat	-	SSC	Roosts in caves and abandoned mines in deserts habitats and forages in riparian habitat.	Not expected (1)
Neotoma macrotis luciana Monterey dusky-footed woodrat	-	SSC	Woodland, forest, chaparral and scrub habitats in the Santa Lucia coast range, east down the Lake Nacimiento and Nacimiento River drainage, and south through Los Osos.	Not expected (4)
Perognathus inornatus psammophilus Salinas pocket mouse	-	SSC	Fine, sandy soils in annual grassland and desert scrub in the Salinas Valley.	Not expected (4)
Taxidea taxa American badger	-	SSC	Drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Low (5)
Vulpes macrotis mutica San Joaquin kit fox	FE	ST	Friable soils among annual grasslands or grassy open stages with scattered shrubby vegetation.	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: Observed during survey
9: Overwintering migrant

3.4 Special Status Plants

No special status plants were observed during the field survey. However, the timing of the survey was not conducive to the detection of annual species that bloom in spring and/or summer. The CNDDB and CNPS on-line inventory listed 78 special status plants occurring in the Project region. Based on the field assessment and the known habitat requirements of the special status species identified by the records search, 5 species were determined to have a low potential for occurrence on the Project site. Two CNPS List 1B.2 species, San Luis Obispo owl's clover (*Castilleja densiflora var. obispoensis*) and shining navarretia (*Navarretia nigelliformis ssp. radians*), were determined to have a low potential for occurrence. Three CNPS List 4.2 species, Hoover's bent grass (*Agrostis hooveri*), Douglas' fiddleneck (*Amsinckia douglasiana*), and small-flowered morning-glory (*Convulvulus simulans*), have a low potential to occur.

3.5 Special Status Wildlife

No special status wildlife or evidence of presence was observed during the surveys. The CNDDB on-line inventory listed 55 special status wildlife species in the region encompassing the Project site. As previously discussed, the Project site has been subject to repeated disturbance over many years because of active agricultural operations and grazing. Conditions are considered marginally suitable for 5 Species of Special Concern that were determined to have a low potential to occur on the Project site, including western spadefoot toad (*Spea hammondii*), northern California legless lizard (*Anniella pulchra*), California horned lark (*Eremophila alpestris actia*), burrowing owl (*Athene cunicularia*), and American badger (*Taxidea taxa*). These species are considered to have a low potential, meaning the likelihood of occurrence is lower than the likelihood of absence. Therefore, any potential occurrence would be low density and the overall impact to these species would be considered minimal. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-4 below would further reduce potential impacts to Species of Special Concern to a level considered less than significant.

The Project has the potential for direct or indirect impacts to active nests during construction, including direct impacts to burrowing owl and other ground nesting birds, and indirect impacts to raptors and/or passerines nesting in nearby oaks. 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 Measures BIO-4 and BIO-5 would avoid or reduce potential impacts to special status birds and all nesting birds to a level considered less than significant.

The nearest kit fox record to the Project site is a 1990 observation from Chandler Ranch within the Paso Robles city limits approximately 2.2 miles northwest. No other records are known in an approximately 8-mile radius and this species is not currently expected to occur on the Project site. Though considered highly unlikely, there are multiple California ground squirrel burrow complexes throughout the Project site that could be expanded and occupied. Mitigation Measures BIO-6 and BIO-7 are standard measures that would avoid or reduce potential impacts to a level considered less than significant.

Federally-designated Critical Habitat consists of specific geographic areas that contain features essential to the conservation of an endangered or threatened species that may require special management and protection. The Project site is not within designated Critical Habitat area and the nearest known designated area is for the federally-listed Threatened vernal pool fairy shrimp (*Branchinecta lynchi*) approximately 2.1 miles east.

3.6 Sensitive Natural Communities

The CNDDB records search identified Valley Sink Scrub (G4, S3.2), Northern Interior Cypress Forest (G2, S2.2), and Northern Claypan Vernal Pool (G1, S1.1) as special status natural communities occurring in the Project region. The Project site consists of annual grassland, pasture and/or dryland grain crops. None of the above-mentioned sensitive natural communities were identified during the survey or review of historic aerials dating back to 1994.

A water resources field assessment was performed by Pax Environmental on April 24, 2019 to identify drainages in the study area potentially subject to CDFW permitting (Appendix 2). The assessment identified two riparian swales crossing proposed project access roads (Figure 6). A riverine swale feature (Feature 1) was identified in the southern portion of the study area and consists of two depressional features that drain from northeast to southwest with a confluence approximately 840 feet southwest of the proposed Project agricultural area. A second riverine swale feature (Feature 2) was observed in the northern portion of the study area and consists of one depressional feature draining from east to west. This feature crosses the existing Hanson Road that will provide access to the proposed Project site. Feature 2 is also mapped as an unnamed blue-line stream by the U.S. Geological Survey (USGS) and classified in the National Wetlands Inventory (NWI) as R4SBJ. It is tributary to a 0.33-acre, man-made detention basin in a vineyard to the west of Hanson Road.

These riverine swales do not have hydric soils or hydrophytic vegetation and would not be subject to permitting under the Clean Water Act. However, they have areas of discernible OHWM, bed and bank, and evidence of discharge into downstream-receiving waters. Any proposed fill or removal may be subject to a 1602 Streambed Alteration Agreement with CDFW under its regulatory authority as a trustee agency.

4.0 IMPACT ASSESSMENT AND MITIGATION

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study Checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the Project would:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS;
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery Study Areas;
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
f. Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional or state habitat conservation plan.

Biological resource impact evaluation must consider both the resource itself and how that resource fits into a regional or local context. Impacts that diminish or eliminate a regionally important biological resource, or conflict with local, state, or federal resource conservation plans designed to protect said resources are considered substantial. Whereas, impacts to resources considered locally important may not be significant according to CEQA if there is not a regional effect.

4.1 Plants

The Project site is composed of agricultural, disturbed, and developed areas that have been subject to disking and cultivation in the past and have subsequently been invaded by non-native, weedy species occurring at much higher densities than natives. These conditions are considered unsuitable for most of the special status plants known to occur in the Project region. Habitat impacts are presented in Table 5 below.

TABLE 5
VEGETATION IMPACTS

Habitat Type	Acreage
Agricultural – Dryland Grain Crops	6.409
Developed	0.0035
Disturbed/Barren	0.714
Oak Trees	0.182
Total	7.31

Given the degree of disturbance on the Project site, conditions are considered marginally suitable for the special status plants in question and they are considered to have low potential for occurrence. No state and/or federally listed plant species have potential to occur on the Project site. Given the limited extent of the Project site, the lack of potential for state and/or federally listed species, the degraded nature of the onsite habitat and consequently limited potential population size, the proposed Project is not expected to have a significant effect on special status plants.

The proposed Project will result in the removal of at least one oak tree and potentially impact six oak trees directly and/or indirectly that are protected by the County of San Luis Obispo Tree Ordinance (No. 1544). Two valley oaks at the center of the proposed cultivation site will be removed, one of which (the eastern tree) appears to have died between 2015 and 2017 as determined by aerial imagery. One blue oak along the proposed access road approximately 925 feet south of the current terminus of Hanson Road may be directly and/or indirectly impacted by access road grading and construction, and one valley oak approximately 600 feet north of Creston Road may be directly and/or indirectly impacted by excavation for water pipeline installation. In addition, there are ornamentally planted oaks fronting a residence on the eastern side of the existing Hanson Road that may be directly and/or indirectly impacted by access road grading and construction, including one interior live oak, one gold cup oak, and two coast live oaks. Implementation of Mitigation Measure BIO-1 will reduce impacts to a level considered less than significant.

4.2 Special Status Wildlife

The proposed project has the potential to directly and/or indirectly impact common and special-status wildlife species, as well as migratory nesting birds. Short-term direct impacts to habitat could cause injury or death to wildlife because of construction-related disturbances, such as vegetation removal, grading, and/or construction. Short-term indirect impacts could result from construction noise, harassment, dust emissions, or other disruption. Potential long-term direct and indirect impacts to wildlife may result from ongoing project operations. The total area of disturbance is approximately 7.31 acres of agricultural, developed and disturbed areas. These habitats are of low quality, common in the region, and dominated by introduced, weedy species, the loss of which would not substantially reduce the extent, diversity, or quality of native or other important vegetation.

Conditions are considered marginally suitable for several Species of Special Concern, including western spadefoot toad, northern California legless lizard, California horned lark, burrowing owl, and American badger. These species are considered to have a low to moderate potential. Therefore, any potential occurrence would be low density and the overall impact to the species would be considered minimal. Mitigation Measures BIO-2, BIO-3, BIO-4, and BIO-5 below would be expected to further reduce potential impacts to Species of Special Concern to a level considered less than significant.

The Project site has a low potential for burrowing owl, a moderate potential for California horned lark, and a high potential for nesting birds. Furthermore, while Cooper's hawk (Accipiter cooperii), golden eagle (Aquila chrysaetos), and white-tailed kite (Elanus leucura) are not expected to nest on the Project site, they could potentially nest within a 500-foot radius of the Project site and active nest(s) potentially occurring may be affected by project construction. Potential direct or indirect impacts to active nests resulting in nest failure or take would conflict with the Migratory Bird Treaty

Act (16 U.S.C. §§ 703–712). Implementation of Mitigation Measures BIO-7 and BIO-8 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

The Project site consists of pasture with wild oats grassland habitat that is dominated by ruderal, weedy species. None of the above-mentioned sensitive natural communities and no potentially jurisdictional areas were identified during the survey or review of historic aerials dating back to 1989. No impacts to sensitive natural communities are anticipated.

Project completion would directly impact approximately 3,190 ft2 of riverine swale. As described above, riverine swales in the study area do not have hydric soils or hydrophytic vegetation and would not be subject to permitting under the Clean Water Act. However, they may be subject to a 1602 Streambed Alteration Agreement with CDFW under its regulatory authority as a trustee agency. The Project is expected to result in impacts to riverine swales as described in Table 5 below. Mitigation Measure BIO-8 would avoid or reduce potential impacts to riverine swales to a level considered less than significant.

Table 6. Hydrologic features in the study area.

Feature Number	Classification	Sub-Classification	State	Federal	Project Impacts
1	Riverine	Swale	Yes	No	2,878 ft^2
2	Riverine	Swale	Yes	No	312 ft^2
				Total	3,190 ft^2

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 salmon 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 by rural land uses such as rural residential, ranchlands, and agriculture. The site and its surroundings are part of a broad movement corridor for terrestrial wildlife and foraging habitat for terrestrial wildlife and birds. The project would involve fencing around the proposed crops, however, setbacks between the fence and property boundary will allow wildlife movement across the site and would not impinge movement between the extensive open areas surrounding the Project site. The project site will involve security lighting that has the potential to affect nocturnal wildlife movement on or adjacent to the Project site. However, implementation of Mitigation Measures BIO-8 would avoid impacts to wildlife movement on the project site and nocturnal use of areas adjacent to the project site.

5.0 RECOMMENDATIONS

The following avoidance, minimization, and mitigation measures are recommended to reduce

the anticipated impacts to the maximum extent feasible.

BR-1 **Tree Protection and Replacement Plan.** To minimize impacts to native trees and offset removals, a tree protection and replacement plan shall be prepared prior to initiation of construction and implemented throughout construction. At a minimum, the plan shall include the following elements: 1. The location and extent of driplines for all native trees with a diameter at breast height (dbh) of 6 inches or greater, within 25 feet of grading limits shall be identified. Construction envelopes shall be designated outside the driplines of all oak trees. All ground disturbances shall be prohibited outside construction envelopes. 2. All native trees with a dbh of 6 inches or greater, within 25 feet of proposed ground disturbances shall be temporarily fenced with chain-link or other material throughout all grading and construction activities. The fencing shall be installed six feet outside the dripline of each oak tree and shall be staked every six feet. No construction equipment shall be staged, parked, stored or operated within six feet of any oak tree dripline. 3. During construction, washing of concrete, paint or equipment shall occur only in areas where polluted water and materials can be contained for later removal from the site. Washing shall not be allowed near sensitive biological resources. An area designated for washing functions shall be identified on plans and clearly marked on the Project site during construction. 4. No permanent irrigation shall occur within the dripline of any existing oak tree. 5. No fill soil, rocks, or construction materials shall be stored or placed within six feet of the dripline of oak trees. Any trenching required within the dripline or sensitive root zone of any oak tree to be preserved shall be done by hand. Any construction activity required within three feet of an oak trees dripline to be preserved shall be completed with hand tools to the extent feasible. The plan shall identify requirements for replacement plantings, including installation, temporary irrigation, maintenance, and follow-up monitoring for a minimum of seven years. Replacement plantings shall be in kind, and shall be installed at a 4:1 ratio for each oak tree over 6 inches in diameter that is removed, and at a 2:1 ratio for each oak tree over 6 inches in diameter at breast height that is impacted. Success criteria and an adaptive management strategy shall be included in the plan. The plan shall be submitted to the County Department of Planning and Building prior to the start of construction. An annual monitoring plan summarizing implementation progress shall be submitted by January 31 of the following year until success criteria are met.

BR-2 **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-3 **Special Status Herpetofauna Avoidance and Minimization.** Within 30 days prior to initiation of ground disturbance, a focused survey for special status herpetofauna, including western spadefoot toad and northern California legless lizard, shall be performed by a qualified biologist. Nearby water bodies (agricultural ponds) in the project vicinity will be inspected by a qualified biologist for western spadefoot toad larvae between January and April. Sandy soils within the impact footprint will be surveyed for California legless lizard by a qualified biologist utilizing a raking survey methodology. A survey report summarizing results of the surveys shall be submitted to the County Department of Planning and Building within one week of completing the survey. If survey results are positive, a qualified biologist shall monitor initial vegetation clearing and ground disturbance to salvage and relocate individuals. Any sightings of California Species of Special Concern 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 of the monitoring shall be submitted to the County Department of Planning and Building within one week of completing monitoring work for these species.

BR-4 **American Badger Avoidance and Minimization.** A pre-construction survey for active badger dens shall be conducted by a County qualified biologist within 30 days of initial ground disturbance activities. The survey shall cover the entire area proposed for development plus a 50-foot buffer. Surveys shall focus on both old and new den sites. 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 50-foot buffer shall be established around active dens and no grading shall occur within the buffer between March 1 and June 30. Activity status between March 1 and June 30 may be monitored using wildlife cameras and the restriction within the 50-foot buffer may be lifted based on direction from the qualified biologist. For construction activities occurring from July 1 to March 1 the following year, the status of dens shall be established through observation of den use via multiple nights of wildlife camera monitoring. Inactive dens shall be excavated by hand with a shovel to prevent badgers from re-using them during construction. A qualified biologist shall be present during the initial clearing and grading activity. If badger dens are found, all work shall cease until the biologist can safely close the badger den. Once the badger dens have been closed, work on the site may resume.

BR-5 **Burrowing Owl Avoidance and Minimization**. No more than 30 days before the start of initial ground disturbing activities, a qualified biologist(s) shall conduct focused, pre-construction, take-avoidance surveys for burrowing owls within all areas proposed for ground disturbance that contain suitable owl habitat (CDFW 2012). Preconstruction surveys shall be consistent with CDFW recommended methods described in the Staff Report on Burrowing Owl Mitigation (CDFW 2012), conducted on foot such that 100% of the survey area is visible, and shall cover the entire impact footprint plus a 500-foot buffer. All observations of burrowing owl and sign of burrowing owl (including suitable burrows, pellets, whitewash) shall be mapped on a site-specific aerial image. A report of survey findings shall be submitted to the County Department of Planning and Building prior to initiation of construction activities. If no suitable burrows are found, a final take avoidance survey shall be completed within 48 hours prior to initiation of ground disturbing activities. If suitable burrows for burrowing owls are found during preconstruction surveys on the Project site; burrowing owl occupancy shall be

determined through up to three additional focused surveys on potential burrows during the morning and/or evening survey windows as defined in the Staff Report on Burrowing Owl Mitigation (CDFW 2012). If the burrows are determined to be unoccupied, they shall be hand excavated by a qualified biologist. If the presence of burrowing owls is confirmed, the following avoidance measures shall be implemented.

1. Occupied burrows shall not be disturbed during the nesting season (typically February through August) unless a qualified biologist verifies, through non-invasive methods, that the burrow is either not being used for breeding. Owls present after February 1 shall be assumed to be nesting unless evidence indicates otherwise. Nest-protection buffers described below shall remain in effect until August 31 or until the nest has failed or all juvenile owls are foraging independently as determined by a qualified biologist.

2. Site-specific, no-disturbance buffer zones shall be established and maintained between Project activities and occupied burrows, using the distances recommended in the CDFW guidelines (CDFW 2012). Buffer distances may be modified by a qualified biologist in consultation with CDFW. The buffer zones shall be clearly delineated by highly visible orange construction fencing, which shall be maintained in good condition through Project completion or until construction activities are no longer occurring near the burrow.

3. During the nonbreeding season (generally September 1– January 31), a qualified biologist may passively relocate burrowing owls found within construction areas. Prior to passively relocating burrowing owls, a Burrowing Owl Exclusion Plan shall be prepared by a qualified biologist in accordance with Appendix E of the Staff Report on Burrowing Owl Mitigation (CDFW 2012). The Burrowing Owl Exclusion Plan shall be submitted for review and approval to the CDFW and County Department of Planning and Building prior to implementation. The biologist shall accomplish such relocations using one-way burrow doors installed and left in place for at least two nights; owls exiting their burrows will not be able to re-enter. 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. To prevent evicted owls from occupying other burrows in the impact area, the biologist shall, before eviction occurs, (1) install one-way doors and backfill all potentially suitable burrows within the impact area, and (2) install one-way doors in all suitable burrows located within approximately 50 feet of the active burrow, then remove them once the displaced owls have settled elsewhere. When temporary or permanent burrow-exclusion methods are implemented, the following steps shall be taken: a) Prior to excavation, a qualified biologist shall verify that evicted owls have access to multiple, unoccupied, alternative burrows, located nearby (within 250 feet) and outside of the projected disturbance zone. If no suitable alternative natural burrows are available for the owls, then, for each owl that is evicted, at least two artificial burrows shall be installed in suitable nearby habitat areas. Installation of any required artificial burrows preferably shall occur at least two to three weeks before the relevant evictions occur, to give the owls time to become familiar with the new burrow locations before being evicted. The artificial burrow design and installation shall be as described in the Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans per Appendix E of the Staff Report on Burrowing Owl Mitigation (CDFW 2012). b) Passive relocation of burrowing owls shall be limited in areas adjacent to Project activities that have a sustained or low-level disturbance regime;

this approach shall allow burrowing owls that are tolerant of Project activities to occupy quality, suitable nesting and refuge burrows. The use of passive relocation techniques in a given area shall be determined by a qualified biologist who may consult with CDFW and shall depend on existing and future conditions (e.g., time of year, vegetation/topographic screening, and disturbance regimes).

BR-6 **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.

BR-7 **County Standard Mitigation of Impacts to SJKF Habitat.** In accordance with the County Guide to SJKF Mitigation Procedures under CEQA, the applicant shall adopt the Standard Kit Fox CEQA Mitigation Measures and shall include these measures on development plans. The following summarizes those that are applicable to this Project:

- A maximum 25 mph speed limit shall be required at the Project site during construction activities.
- All construction activities shall cease at dusk and not start before dawn.
- A qualified biologist shall be on-site immediately prior to initiation of Project activities to inspect for any large burrows (e.g., known and potential dens) and to ensure no wildlife are injured during Project activities. If dens are encountered, they should be avoided as discussed below.
- Exclusion zone boundaries shall be established around all known and potential SJKF dens.
- All excavations deeper than two feet shall be completely covered at the end of each working day.

- All pipes, culverts, or similar structures shall be inspected for SJKF and other wildlife before burying, capping, or moving.
- All exposed openings of pipes, culverts, or similar structures shall be capped or temporarily sealed prior to the end of each working day.
- All food-related trash shall be removed from the site at the end of each work day.
- Project-related equipment shall be prohibited outside of designated work areas and access routes.
- No firearms shall be allowed in the Project area.
- Disturbance to burrows shall be avoided to the greatest extent feasible.
- The use of pesticides or herbicides shall be in compliance with all local, state, and federal regulations so as to avoid primary or secondary poisoning of endangered species utilizing adjacent habitats and the depletion of prey upon which SJKF depend.
- Permanent fences shall allow for SJKF passage through or underneath (i.e., an approximate 4-inch passage gap shall remain at ground level).

BR-8 **Mitigation Measure 3: Lighting.** Any temporary construction lighting or permanent lighting introduced for the Project shall avoid night time illumination of potentially suitable habitat features for special-status species (i.e., off-site adjacent grasslands). Temporary construction lighting will be kept to the minimum amount necessary and shall be directed toward active work areas and away from open spaces and/or drainages. To minimize the effects of future exterior lighting on special-status wildlife species, all outdoor lighting fixtures shall be positioned and/or shielded to avoid direct lighting of off-site natural habitat areas.

BR-9 **Riverine Swales.** Prior to project initiation, all applicable agency permits with jurisdiction over the project area (i.e., CDFW and RWQCB) should be obtained, as necessary. All additional mitigation measures required by these agencies would be implemented as necessary throughout the project. At a minimum, the following measures shall be implemented:

- Construction activity occurring within 100 feet of swales 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 drainages and wetlands 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.
- Project plans, drawings, and specifications shall show the boundaries of all work areas on site 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 the swales.
- 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.

6.0 Literature Cited

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

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Table 7. List of non-native plant species observed on the Project site on December 14, 2018 and January 7, 2019.

Scientific Name	Common Name	FAMILY
Amaranthus albus	tumbleweed	AMARANTHACEAE
Avena fatua	common wild oats	POACEAE
Centaurea solstitialis	yellow starthistle	ASTERACEAE
Chondrilla juncea	skeleton weed	ASTERACEAE
Erodium cicutarium ssp. *cicutarium*	red-stemmed filaree	GERANIACEAE
Hirschfeldia incana	short-pod mustard	BRASSICACEAE
Malva neglecta	dwarf mallow	BRASSICACEAE
Malva parviflora	cheeseweed	GERANIACEAE
Medicago lupulina	black medick	FABACEAE
Medicago sativa	alfalfa	FABACEAE
Schismus barbatus	old han schismus	POACEAE
Pinus halapensis	Aleppo pine	PINACEAE

Table 8. List of native plant species observed on the Project site on December 14, 2018 and January 7, 2019.

Scientific Name	Common Name	FAMILY
Croton setiger	turkey mullein	EUPHORBIACEAE
Datura wrightii	Jimsonweed	SOLANALES
Erigeron canidensis	Canada horseweed	ASTERACEAE
Quercus agrifolia	Coast live oak	FAGACEAE
Quercus chrysolepis	Gold cup live oak	FAGACEAE
Quercus douglassii	Blue oak	FAGACEAE
Quercus lobata	Valley oak	FAGACEAE
Quercus wislizenii wislizenii	Interior live oak	FAGACEAE

Table 9. List of wildlife species observed on the Project site on December 14, 2018 and January 7, 2018.

Common Name[a]	Scientific Name	Status	Notes
BIRDS			
California quail	*Callipepla californica*	MBTA	-
band-tailed pigeon	*Columba fasciata*	MBTA	-
rock pigeon*	*Columba livia*	*Non-native*	-
Eurasian collared dove*	*Streptopelia decaocto*	*Non-native*	-
mourning dove	*Zenaida macroura*	MBTA	-
killdeer	*Charadrius vociferus*	MBTA	-
turkey vulture	*Cathartes aura*	MBTA	Flying overhead
red-tailed hawk	*Buteo jamaicensis*	MBTA	-
American kestrel	*Falco sparverius*	MBTA	-
Common raven	*Corvus corax*	MBTA	-
black phoebe	*Sayornis saya*	MBTA	-
Say's phoebe	*Sayornis saya*	MBTA	-
acorn woodpecker	*Melanerpes formicivorus*	MBTA	-
western bluebird	*Sialia mexicana*	MBTA	-
white-breasted nuthatch	*Sitta carolinensis*	MBTA	-
northern mockingbird	*Mimus polyglottos*	MBTA	-
yellow-rumped warbler	*Setophaga coronate*	MBTA	-
European starling	*Sturnus vulgaris*	*Non-native*	-
house finch	*Haemorhous mexicanus*	MBTA	-
lesser goldfinch	*Spinus psaltria*	MBTA	-
Vesper sparrow	*Pooecetes gramineus*	MBTA	-
golden-crowned sparrow	*Zonotrichia atracapilla*	MBTA	-
white-crowned sparrow	*Zonotrichia leucophrys*	MBTA	-
lark sparrow	*Chondestes grammacus*	MBTA	-
western meadowlark	*Sturnella neglecta*	MBTA	-
Brewer's blackbird	*Euphagus cyanocephalus*	MBTA	-
MAMMALS			
southern pocket gopher	*Thomomys bottae*	-	-
California ground squirrel	*Otospermophilus beecheyi*	-	-
coyote	*Canis latrans*	-	-

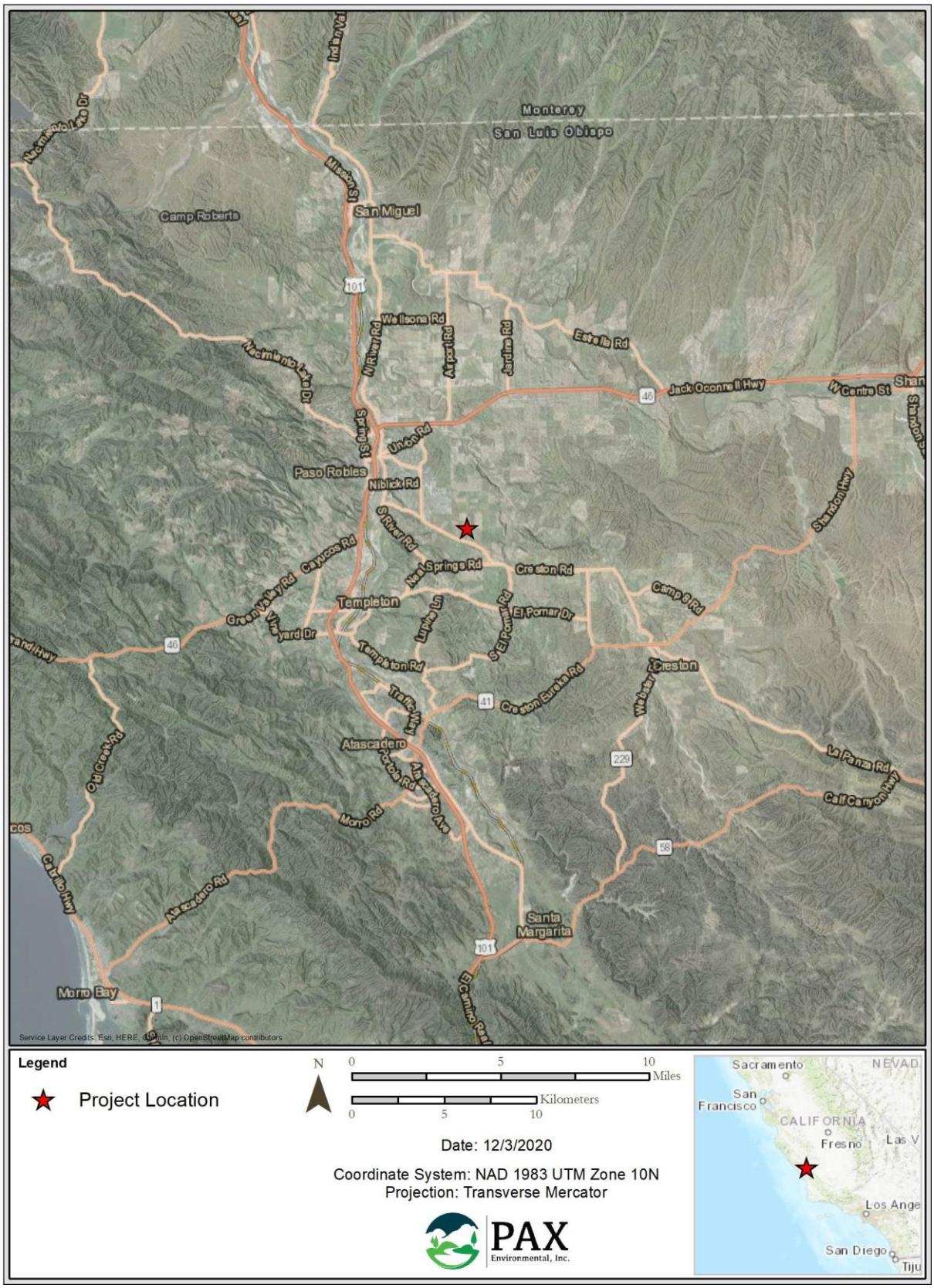

Figure 1 Project Vicinity

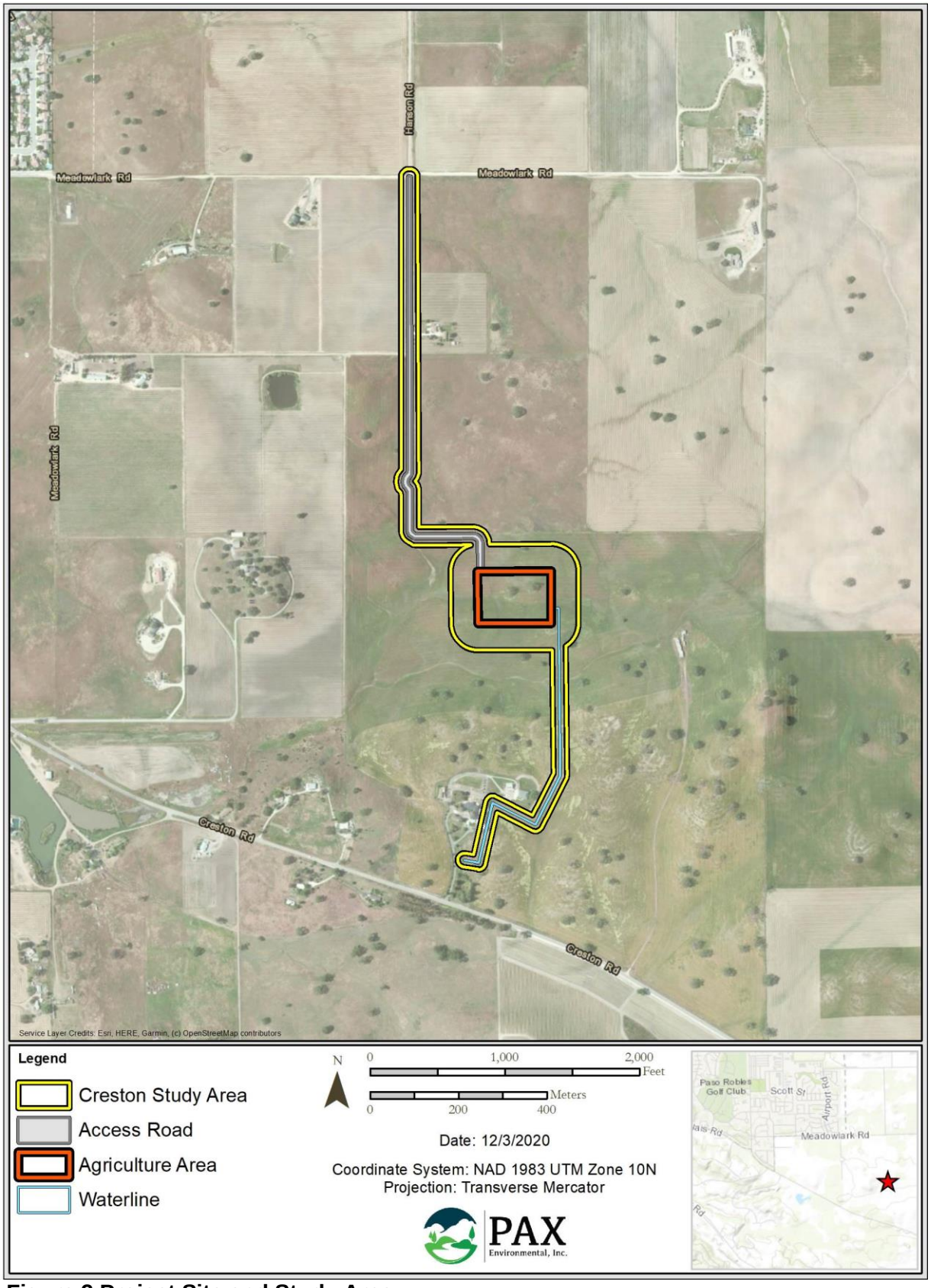

Figure 2 Project Site and Study Area

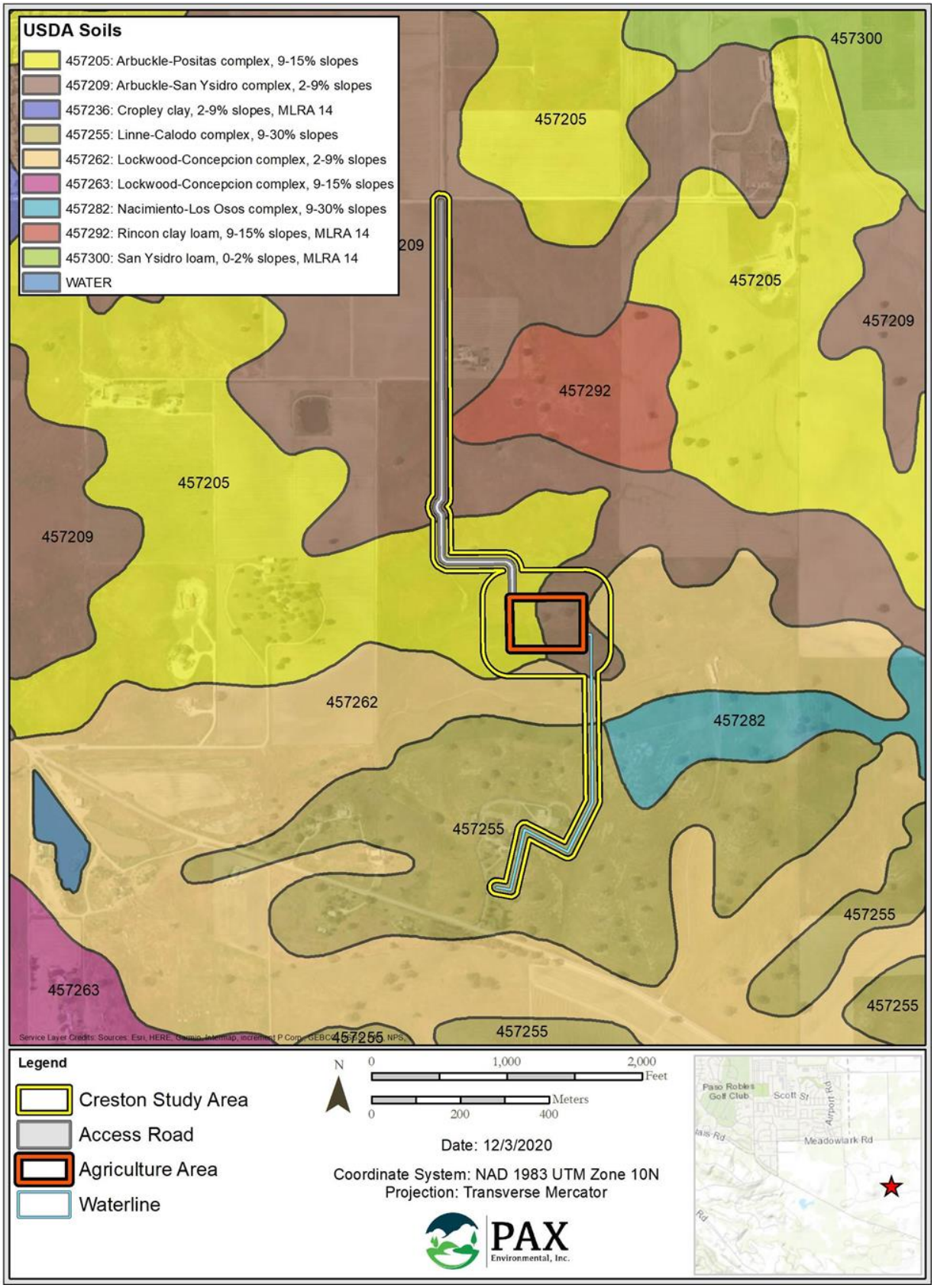

Figure 3 Soils Map

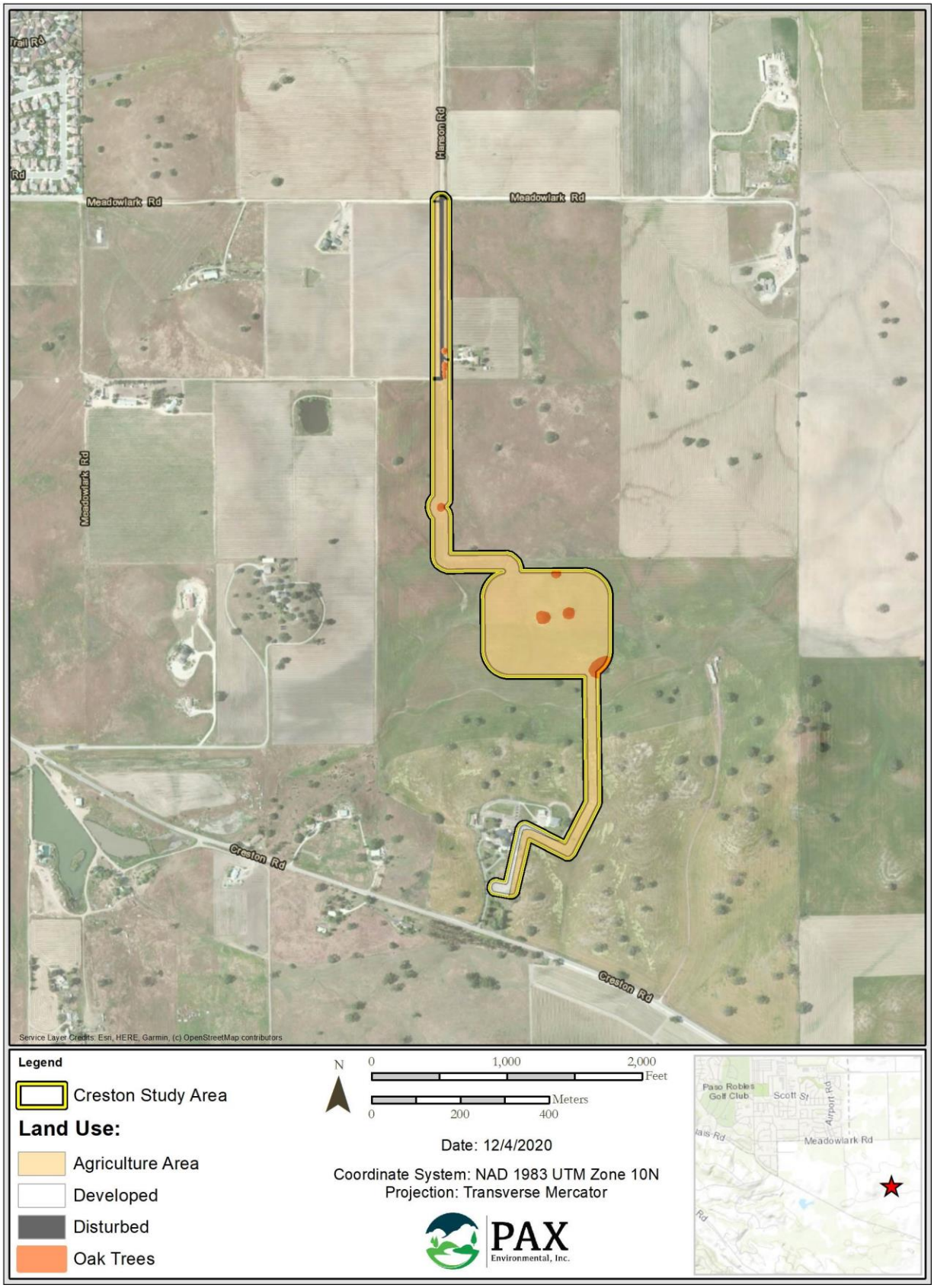

Figure 4 Land Use and Habitat Map

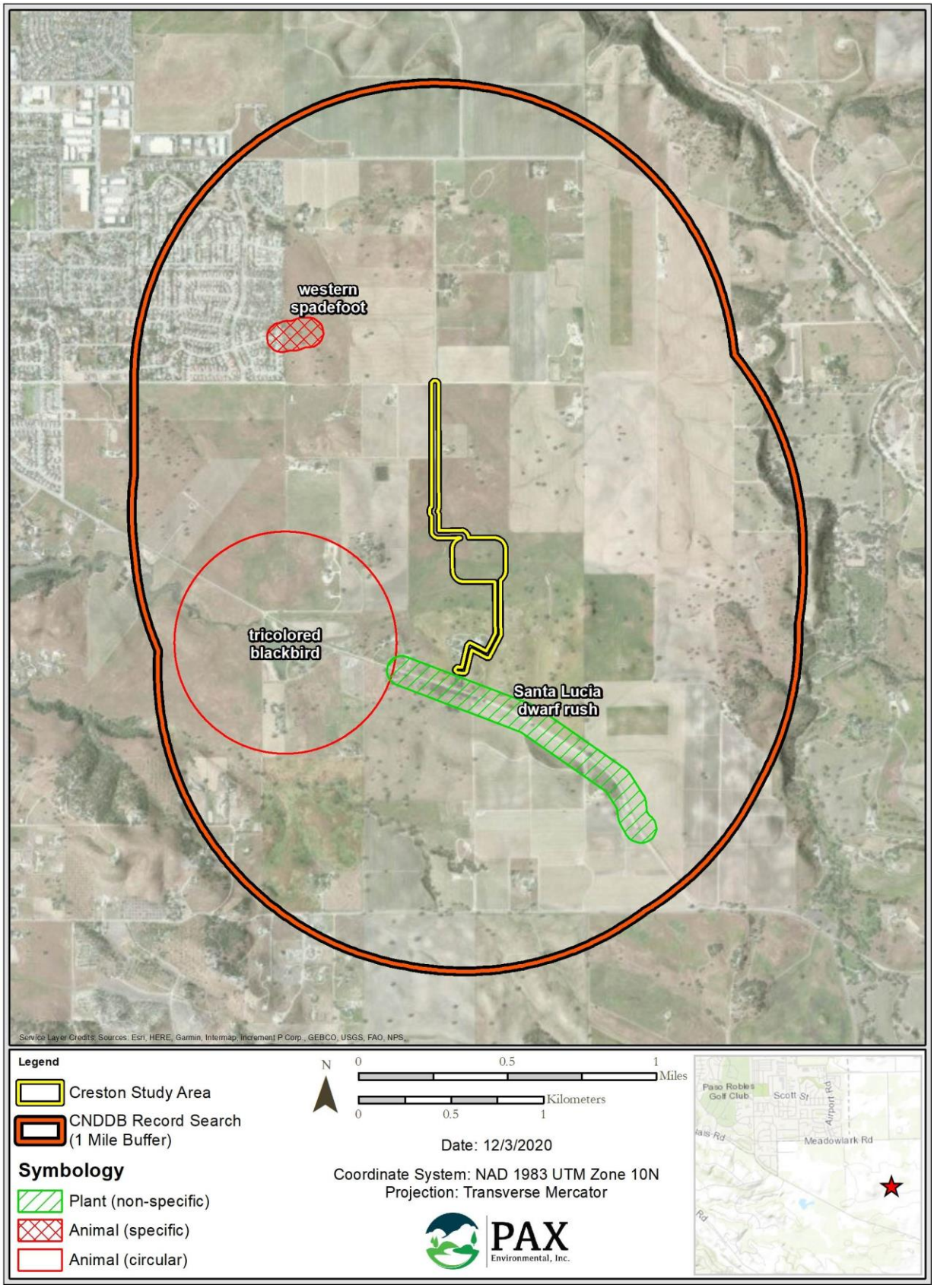

Figure 5 CNDDB

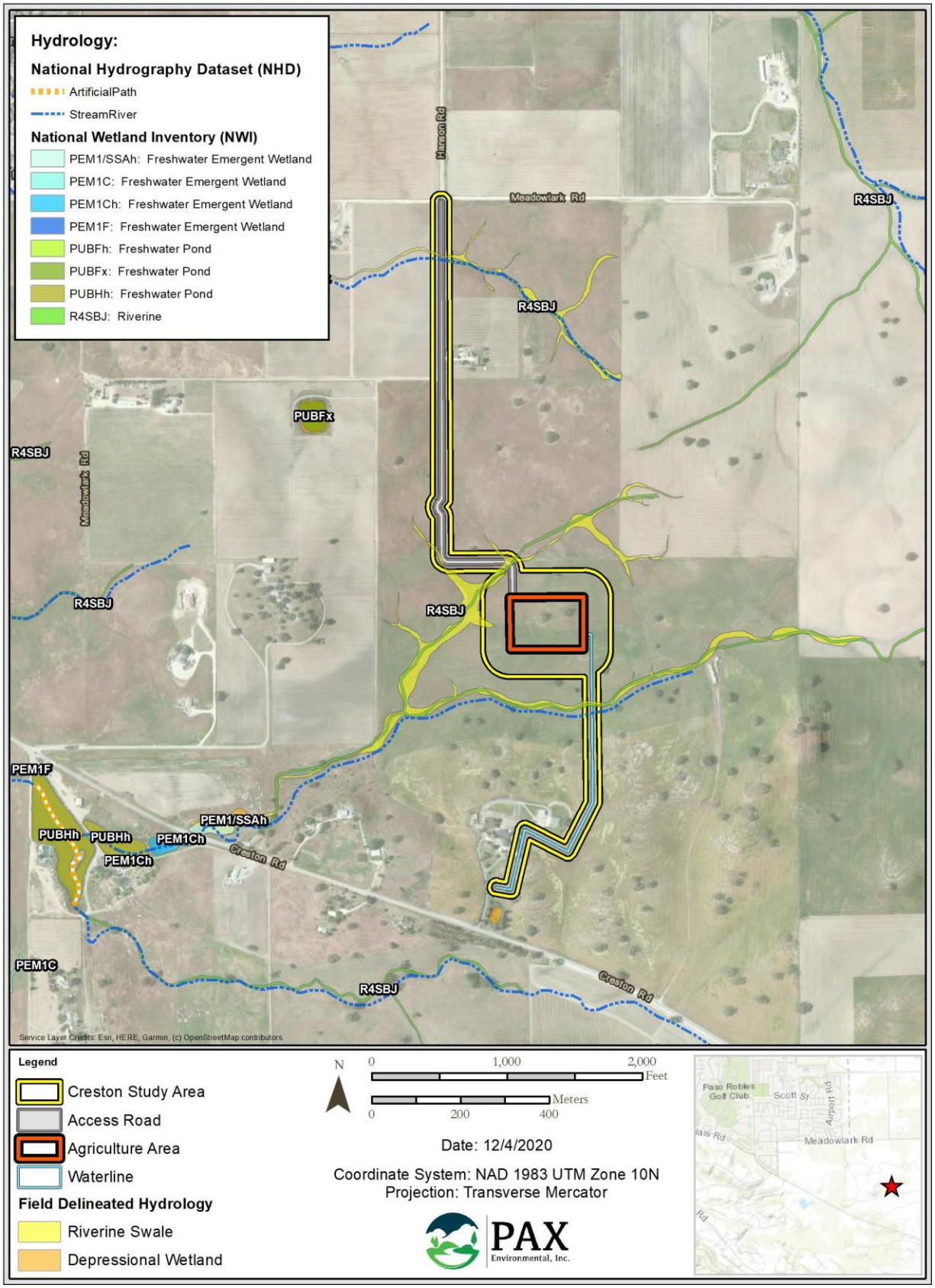

Figure 6 Hydrology Map

Photo 1: Project site panoramic photo from north facing south, east, and west (dead valley oak in right foreground).

Photo 2: Project site photographed from blue oak along proposed north-south access road alignment (tilled soil) facing south. East-west access road alignment proposed on tilled soil in background. Foreground grasslands not a part of the Project site.

Figure 7 Site Photographs

Photo 3: Valley oak in Project cultivation area footprint proposed for removal.

Photo 4: Proposed north-south access road extension of Hanson Road (tilled soil) and blue oak adjacent to east.

Photo 5: Ornamentally-planted oaks fronting residence along existing Hanson Road.

Photo 6: Annual grassland/pasture where proposed water pipeline will be buried.

APPENDIX A

WATERS ASSESSMENT ADDENDUM

June 25, 2019

Attn: Scott McKenzie
AGZONE Services, LLC
(via email)

Re: Water Resources Addendum to the Biological Resources Assessment for a Proposed Cannabis Cultivation Project at 3520 Creston Road, Paso Robles, San Luis Obispo County

Dear Mr. McKenzie,

We have prepared this memorandum as an addendum to the Biological Resources Assessment for the proposed cannabis cultivation project at 3520 Creston Road in response to information requests from the California Department of Fish and Wildlife (CDFW). Cannabis cultivators applying for an Annual License from the California Department of Food and Agriculture must have a Lake and Streambed Alteration (LSA) Agreement or written verification that one is not needed. According to the CDFW's authority under 1602 of the Fish and Game Code, an entity may not "substantially divert or obstruct the natural flow... or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material... where it may pass into any river, stream, or lake, unless it notifies the CDFW". Such notification can necessitate an LSA and potential mitigation measures imposed by the CDFW.

METHODS

Pax Environmental performed a drone flight of the Project site to obtain a high-resolution aerial image and three-dimensional topographic survey (Figures 1 & 2). The aerial was compared with historic aerial imagery, topographic maps, and online wetlands databases to identify wetland features and/or areas with evidence of water transport. Aerial imagery was evaluated in the context of antecedent moisture conditions as determined from rainfall records for the historic aerial timeframe. Sources used to identify waters on the project site include Google Earth imagery and topography (Digital Globe September 1994, July 2003, February 2004, March 2004, July 2004, August 2005, December 2005, August 2006, July 2007, June 2009, October 2009, July 2010, September 2010, June 2011, July 2011, September 2011, June 2012, August 2012, August 2013, April 2015, June 2017, and September 2018), National Wetlands Inventory (USFWS 2019), U.S. Geological Survey National Hydrography Dataset (USGS 2004), U.S. Department of Agriculture Soils Maps (USDA 2019), weather records from Cal Poly San Luis Obispo Irrigation Training and Research Center (ITRC 2019), and field surveys performed on December 14, 2018; January 5, 2019; and April 24, 2019.

The April 24, 2019 field survey included data collection on features in the study area repeatedly observed on historic aerials, including documentation of ordinary high-water mark (OHWM),

presence/absence of a defined bed and bank, photo-documentation, geographic positioning system (GPS) co-ordinates for wetland boundaries, and plant species identification. Areas that exhibited wetland characteristics, including cracked surface soils and indicator plants, were given more detailed examination, including soil test pits.

Features identified in the study area were assessed using a hydrogeomorphic system developed by Semeniuk & Semeniuk (2016). The system assesses potential wetland features based on hydrologic processes and functions in terms of 1) geomorphic setting (i.e., topographic location), (2) dominant water source and its transport (precipitation, surface flow, subsurface flow, groundwater discharge, and artesian upwelling), and (3) hydrodynamics (e.g., the direction of flow and the strength of water movement). Features are grouped into one of seven classes: (1) depressional, (2) riverine, (3) mineral soil wet flats, (4) organic soil wet flats, (5) estuarine (also referred to as tidal fringe), (6) lacustrine (also referred to as lacustrine fringe), and (7) slopes.

RESULTS

Two features classified as riverine swales were identified on the project site during data collection. Features are described below and summarized in Table 1. The project footprint relative to the features identified in the study area is presented in Figure 3.

Table 1. Hydrologic features in the study area.

Feature Number	Classification	Sub-Classification	State	Federal	Project Impacts
1	Riverine	Swale	Yes	No	2,878 ft^2
2	Riverine	Swale	Yes	No	312 ft^2
				Total	3,190 ft^2

Feature 1 – Riverine Swale

A riverine swale feature (Feature 1, Figure 1) was identified in the southern portion of the study area and consists of two channels that drain from northeast to southwest with a confluence approximately 840 feet southwest of the proposed Project agricultural area. The proposed access road crosses the northern channel of Feature 1 at two locations approximately 230 ft north and 580 ft northwest of the northwestern corner of the proposed agricultural area. The proposed water pipeline also transects the southern channel of Feature 1 approximately 385 feet south of the southeastern corner of the proposed agricultural area. Feature 1 is mapped as an unnamed blue-line stream by the U.S. Geological Survey (USGS) and is tributary to off-site freshwater emergent wetlands and ponds approximately 0.45-mile southwest, the overflow of which is tributary to Salinas River approximately 3 miles west. It is classified in the National Wetlands Inventory (NWI) as R4SBJ, a sparsely vegetated, intermittent, riverine streambed with aperiodic flows. Weeks,

months, or years may intervene between periods of inundation and hydrophytes or hydric soils are typically absent in this classification. Ordinary High-Water Mark (OHWM) is consistently discernible in historic aerial imagery.

During field investigation, this feature was not readily discernible in the northern extent becoming more apparent as a shallow channel with gently sloping sides to the southwest in closer proximity to the confluence of the channels. Ordinary high-water marks (OHWM) were observed variably and bed and bank were inconsistently observed. The swale ranges from 15 to 100 ft wide and is shallow, with bankfull height less than 2 ft in the study area. Bed soils can be differentiated from surrounding uplands and are indicative of scoured exposure of underlying material. No facultative wetland plants or surface moisture were observed in this feature and test pits did not reveal hydric soils in an above-average rainy season, suggesting a very brief hydroperiod during and following rain events and a water table typically well below the ground surface. Based on field conditions, this drainage has a lack of prevailing or annual surface water with aperiodic input by storm events that percolates into the underlying soil or discharges to downstream areas. Approximately 2,878 square feet (ft^2) of Feature 2 is within the proposed impact footprint for the Project access road.

Feature 2 – Riverine Swale

A riverine swale feature (Feature 2, Figure 1) was observed in the northern portion of the study area and consists of one channel draining from east to west. This feature crosses the existing Hanson Road that will provide access to the proposed Project site. Feature 2 is also mapped as an unnamed blue-line stream by the U.S. Geological Survey (USGS) and classified in the National Wetlands Inventory (NWI) as R4SBJ. It is tributary to a 0.33-acre, man-made detention basin in a vineyard to the west of Hanson Road. This feature has OHWM and bed and bank that is consistently discernible on historic aerial imagery, but the course is not entirely consistent with NWI mapping.

During field investigation, this feature was readily discernible. OHWM were observed variably and bed and bank were inconsistently observed. The swale ranges from 8 to 50 ft wide and is shallow, with bankfull height less than 1 ft in the study area. Some bed soils can be differentiated from surrounding uplands and are indicative of scoured exposure of underlying material. No facultative wetland plants or surface moisture were observed in this feature and test pits did not reveal hydric soils in an above-average rainy season, suggesting a very brief hydroperiod during and following rain events and a water table typically well below the ground surface. Based on field conditions, this drainage has a lack of prevailing or annual surface water with aperiodic input by storm events that percolates into the underlying soil or discharges into the man-made detention basin. Approximately 312 ft^2 of Feature 2 is within the proposed Project impact footprint for roadway improvements to Hanson Road.

RECOMMENDATIONS

Project completion would directly impact approximately 3,190 ft2 of riverine swale. As described above, riverine swales in the study area do not have hydric soils or hydrophytic vegetation and would not be subject to permitting under the Clean Water Act. However, they have areas of discernible OHWM, bed and bank, and evidence of discharge into downstream-receiving waters. Any proposed fill or removal may be subject to a 1602 Streambed Alteration Agreement with CDFW under its regulatory authority as a trustee agency. Consultation with CDFW is recommended to address potential Project effects to onsite hydrology and/or downstream receiving waters and to develop measures to avoid potential effects or reduce them to a level considered less than significant.

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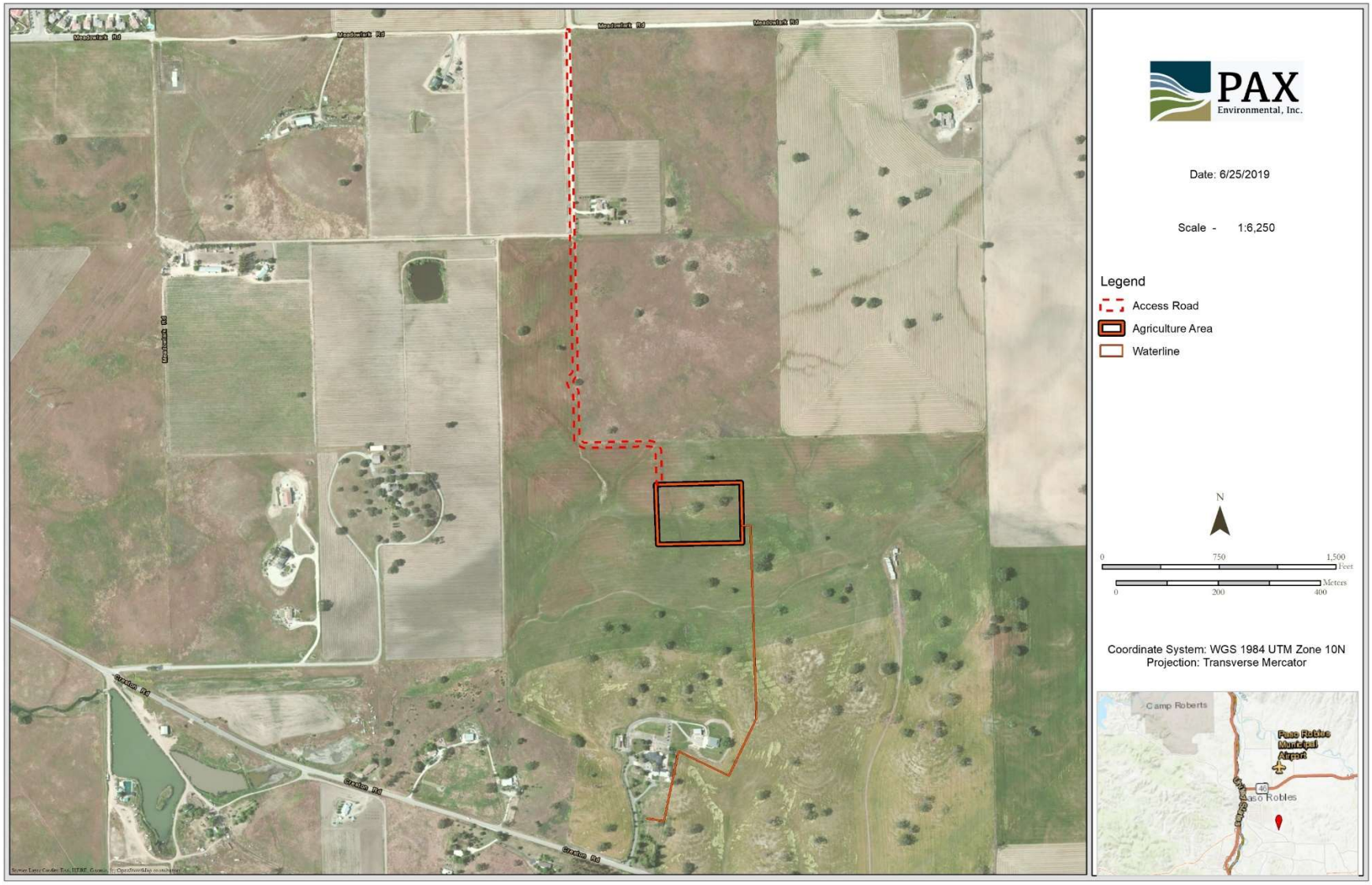
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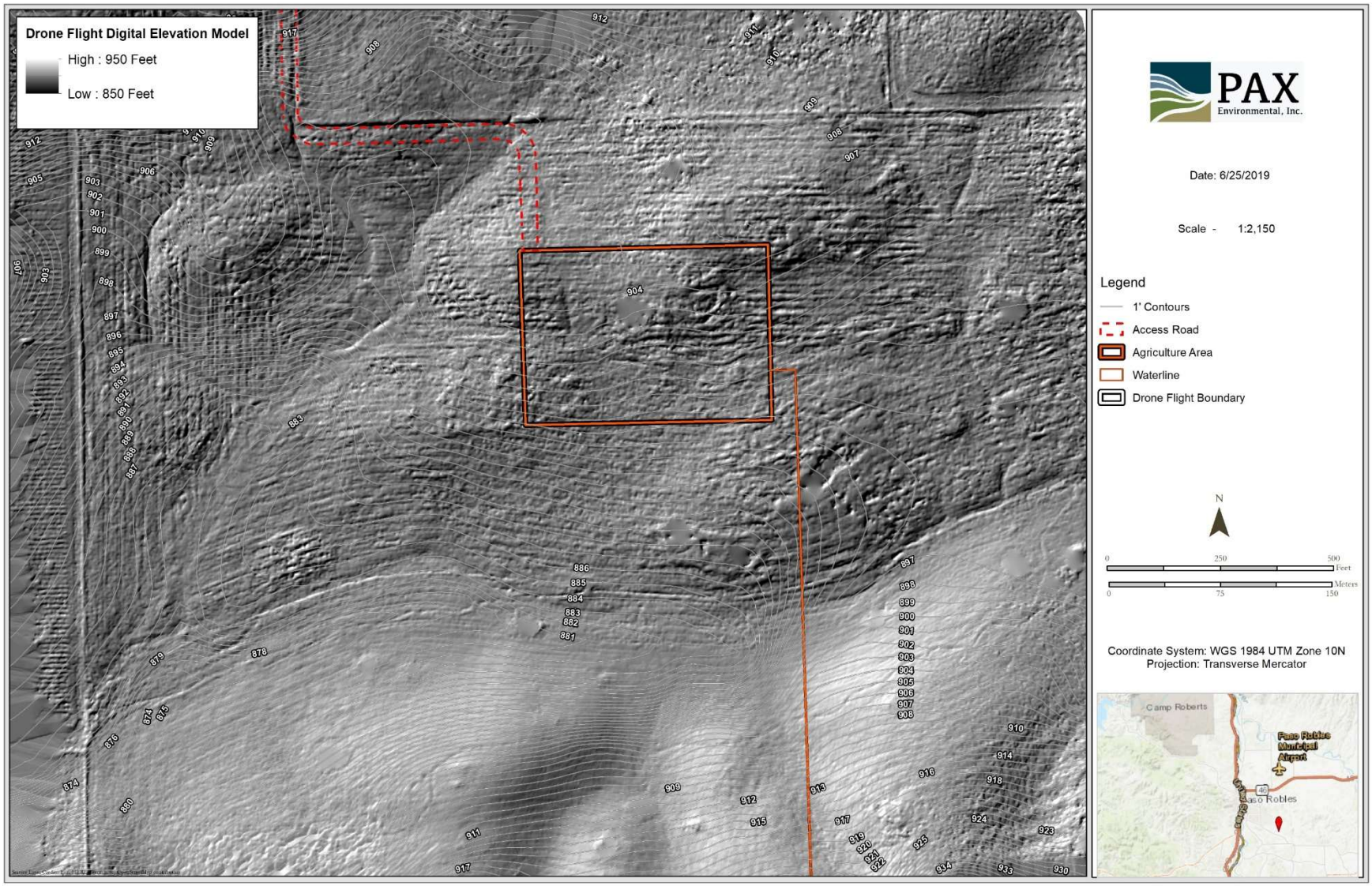
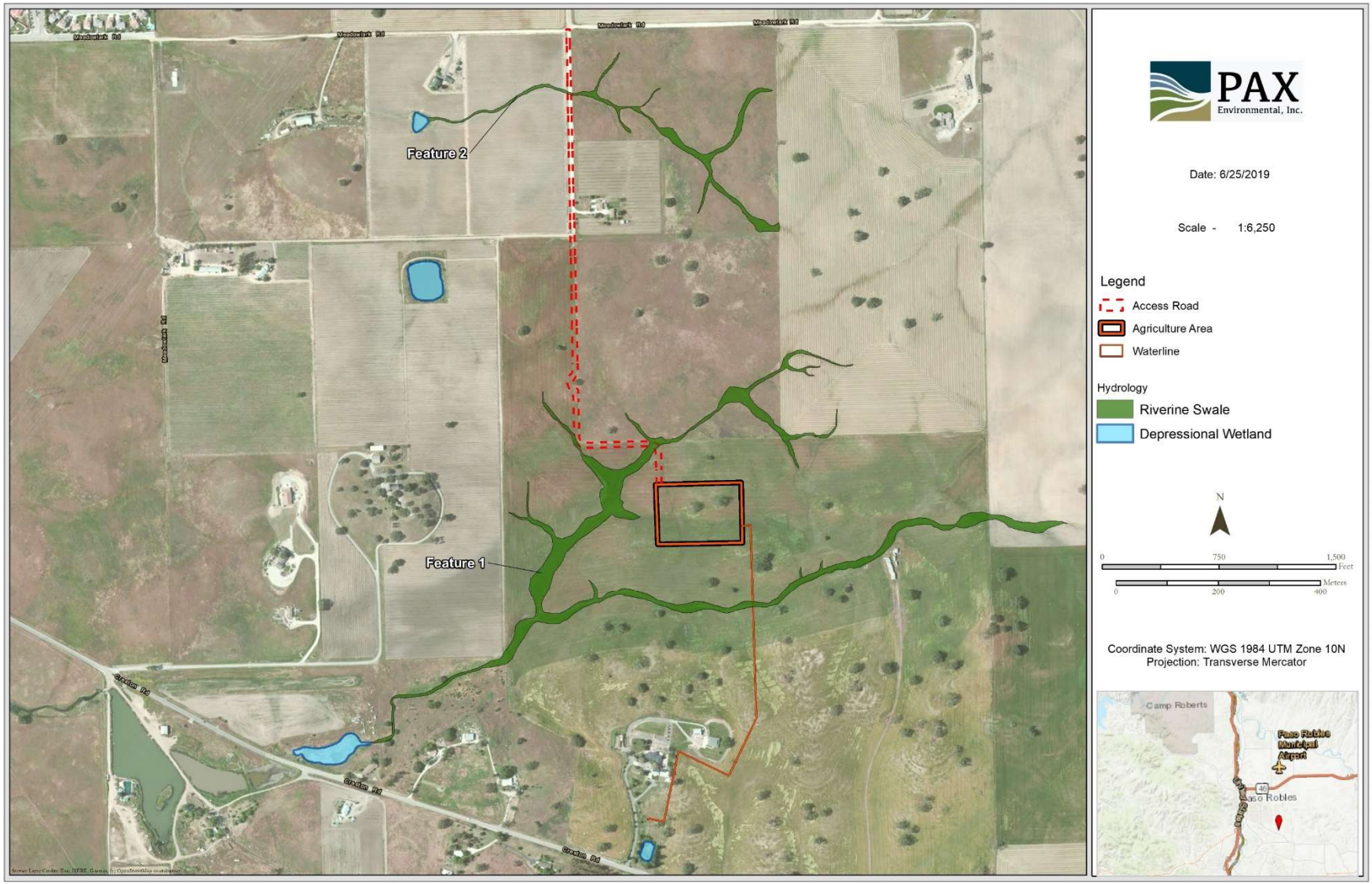
Meadowlark Rd
Meadowlark Rd
Meadowlark Rd
Meadowlark Rd
Arbor Rd
Arbor Rd
Arbor Rd
PAX
Environmental, Inc.
Date: 6/25/2019
Scale - 1:6,250
Legend
Access Road
Agriculture Area
Waterline
N
0
750
1,500
Feet
Meters
0
200
400
Coordinate System: WGS 1984 UTM Zone 10N
Projection: Transverse Mercator
Camp Roberts
Paso Robles Municipal Airport
46
Paso Robles


Drone Flight Digital Elevation Model
High : 950 Feet
Low : 850 Feet
PAX
Environmental, Inc.
Date: 6/25/2019
Scale - 1:2,150
Legend
1' Contours
Access Road
Agriculture Area
Waterline
Drone Flight Boundary
N
0 250 500 Feet
0 75 150 Meters
Coordinate System: WGS 1984 UTM Zone 10N
Projection: Transverse Mercator
Camp Roberts
Paso Robles Municipal Airport
Paso Robles


Feature 2
Feature 1
Meadowlark Rd
Graham Rd
PAX
Environmental, Inc.
Date: 6/25/2019
Scale - 1:6,250
Legend
Access Road
Agriculture Area
Waterline
Hydrology
Riverine Swale
Depressional Wetland
N
0
750
1,500
Feet
Meters
0
200
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Coordinate System: WGS 1984 UTM Zone 10N
Projection: Transverse Mercator
Camp Roberts
Paso Robles Municipal Airport
Paso Robles

APPENDIX B

KIT FOX HABITAT EVALUATION FORMS

Kit Fox Habitat Evaluation Form

(guidelines)

Cover Sheet

Project Name Paso Robles Cannabis Farm

Date 05/16/2018

Project Location* 1.25 miles southeast of Paso Robles, CA.

*Include project vicinity map and project boundary on copy of U.S.G.S. 7.5 minute map (size may be reduced)

U.S.G.S. Quad Map Name Templeton Quadrangle

Lat/Long or UTM coordinates (if available)

35.592515 N, 120.628438 W

Project Description:

Project Size 7.73 **Acres** **Amount of Kit Fox Habitat Affected** 7.73 **Acres**

Quantity of WHR Habitat Types Impacted (i.e. - 2 acres annual grassland, 3 acres blue oak woodland)

WHR type Annual grassland 7.73 Acres

WHR type _____ _____ Acres

WHR type _____ _____ Acres

WHR type _____ _____ Acres

Comments: Annual grassland pasture with scatered oak trees was recently farmed.

Form Completed By: William J. Vanherweg

Rev 3/02
G:envdiv/forms/kit fox habitat

San Joaquin Kit Fox Habitat Evaluation form

Is the project area within 10 miles of a recorded San Joaquin kit fox observation or within contiguous suitable habitat as defined in question 2 (A-E)

Yes - Continue with evaluation form
No - Evaluation form/surveys are not necessary

1. Importance of the project area relative to Recovery Plan for Upland Species of the San Joaquin Valley, California (Williams et al., 1998)

   A. Project would block or degrade an existing corridor linking core populations or isolate a subpopulation (20)
   B. Project is within core population (15)
   C. Project area is identified within satellite populations (12)
   D. Project area is within a corridor linking satellite populations (10)
   (E) Project area is not within any of the previously described areas but is within known kit fox range (5)

2. Habitat characteristics of project area.

   A. Annual grassland or saltbush scrub present >50% of site (15)
   B. Grassland or saltbush scrub present but comprises<50% of project area (10)
   C. Oak savannah present on >50% of site (8)
   (D) Fallow ag fields or grain/alfalfa crops (7)
   E. Orchards/vineyards (5)
   F. Intensively maintained row crops or suitable vegetation absent (0)

3. Isolation of project area.

   A. Project area surrounded by contiguous kit fox habitat as described in Question 2a-e (15)
   (B) Project area adjacent to at least 40 acres of contiguous habitat or part of an existing corridor (10)
   C. Project area adjacent to <40 acres of habitat but linked by existing corridor (i.e., river, canal, aqueduct) (7)
   D. Project area surrounded by ag but less than 200 yards from habitat (5)
   E. Project area completely isolated by row crops or development and is greater than 200 yards from potential habitat (0)

4. Potential for increased mortality as a result of project implementation. Mortality may come from direct (e.g., - construction related) or indirect (e.g., - vehicle strikes due to increases in post development traffic) sources.

   A. Increased mortality likely (10)
   (B) Unknown mortality effects (5)
   C. No long term effect on mortality (0)

Revised 03-02

5. Amount of potential kit fox habitat affected.

A. >320 acres (10)
B. 160 - 319 acres (7)
C. 80 - 159 acres (5)
D. 40 - 79 acres (3)
(E) < 40 acres (1)

6. Results of project implementation.

(A) Project site will be permanently converted and will no longer support foxes (10)
B. Project area will be temporarily impacted but will require periodic disturbance for ongoing maintenance (7)
C. Project area will be temporarily impacted and no maintenance necessary (5)
D. Project will result in changes to agricultural crops (2)
E. No habitat impacts (0)

7. Project Shape

(A) Large Block (10)
B. Linear with > 40 foot right-of-way (5)
C. Linear with < 40 foot right-of-way (3)

8. Have San Joaquin kit foxes been observed within 3 miles of the project area within the last 10 years?

A. Yes (10)
(B.) No (0)

Scoring

1.	Recovery importance	5
2.	Habitat condition	7
3.	Isolation	10
4.	Mortality	5
5.	Quantity of habitat impacted	1
6.	Project results	10
7.	Project shape	10
8.	Recent observations	0

TOTAL **48**

Revised 03/02-lpd