

Biological Resources Assessment for Four Project Sites in Santa Margarita, 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."

A handwritten signature in black ink, appearing to read 'Sam Stewart', with a long horizontal line extending to the right.

Sam C. Stewart IV

April 1, 2019

Date

EXECUTIVE SUMMARY

This Biological Resources Assessment report was prepared at the request of Agzone Services, LLC for the proposed development of the cannabis growing operations at 11520 Tule Elk Lane, 11330 Tule Elk Lane, 11525 Tule Elk Lane, and 8710 Carissa Highway in Santa Margarita, San Luis Obispo County, California (Project). The proposed project includes outdoor cultivation and nursery and is located entirely within approximately 17.79 acres of dryland grain crops, 2.42 acres of annual grassland, 0.79 acres of deciduous orchard, and .10 acres of disturbed/developed areas of the above-listed properties.

Pax Environmental, Inc. completed a records search and performed field surveys of the proposed project sites 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 sites.

No sensitive vegetation communities were identified during the survey. Potentially jurisdictional areas were identified beyond the Project limits. Several special-status species were observed or detected during the survey, including loggerhead shrike (*Lanius ludovicianus*), ferruginous hawk (*Buteo regalis*), California horned lark (*Eremophila alpestris actia*), and San Joaquin kit fox (*Vulpes macrotis mutica*).

Suitable habitat for a total of 8 special-status botanical species and 7 special-status wildlife species, as well as migratory nesting birds, was identified within the project sites. In addition, suitable habitat for San Joaquin kit fox, including a historically occupied burrow complex was documented on the western-most Carrizo Plain site.

The Project has been designed to avoid impacts to sensitive biological resources. However, there is potential for direct and indirect impacts to occur due to the potential for special-status plant and wildlife species in the project area. Mitigation measures have been recommended 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 four sites in Santa Margarita, San Luis Obispo County, California (Project). The Project consists of four distinct cannabis cultivation facilities and access roads totaling approximately 22.79 acres within assessor's parcel numbers 072-301-017 (11520 Tule Elk Lane), 072-301-009 (11525 Tule Elk Lane), 072-301-010 (11330 Tule Elk Lane), and 072-301-011 (8710 Carissa Highway) (Figure 1). The Project site is depicted on the *California Valley* USGS 7.5-minute topographic quadrangle map within Sections 29 and 30 of Township 29 South and Range 13 East. The surveys were conducted to provide baseline documentation of existing conditions and an assessment of the potential impacts to common and special-status biological resources occurring or potentially occurring on the Project sites.

**TABLE 1
PROJECT DETAILS**

Project Element	Assessor's Parcel Number	Size (Acres)	Latitude	Longitude
11520 Tule Elk Lane	072-301-017	5.20	35.370775	120.078543
11525 Tule Elk Lane	072-301-009	5.37	35.372655	120.076176
11330 Tule Elk Lane	072-301-010	5.38	35.369899	120.075819
8710 Carissa Highway	072-301-011	5.89	35.369431	120.072659
Access Roads	-	0.95	-	-
Total		22.79		

1.2 Project Description

The proposed Project consists of cannabis cultivation operations and associated access roads, water pipelines, and nursery support facilities. The cultivation areas consist of four distinct Project sites, each with 3 distinct one-acre cultivation fields with cannabis row crops. The cultivation areas and support infrastructure will be surrounded by a 6-foot-high chain link fence with PVC privacy slats. Support infrastructure at each of the four sites includes remote, solar-powered security stations and nursery areas with motion-detected lighting, a 16-foot wide electric access gate, five parking spaces, and a 9,500-gallon water tank and irrigation system. New access consists of a 16-foot-wide aggregate base road that will extend approximately 1,650 feet east from Tule Elk Lane to the 11525 Tule Elk Lane and 8710 Carissa Highway Project site entrances, approximately 200 feet from Tule Elk Lane to the 11330 Tule Elk Lane Project site entrance, and approximately 100 feet from Tule Elk Lane to the 11520 Tule Elk Lane Project site entrance (Figure 2). Approximately 2,275 feet of the existing Tule Elk Lane will be improved to Project specification (16-foot width and aggregate base) between the 11330 Tule Elk Lane entrance and Carissa Highway. The proposed water pipelines consist of 2-inch schedule 40 PVC pipe that will be connected to existing wells on their respective parcels and buried to a minimum depth of 18 inches, extending approximately 850 feet south from the 11520 Tule Elk Lane Project site, 600 feet north from the 11525 Tule Elk Lane Project site, 500 feet west and north from the 11330 Tule Elk Lane Project site, and 950 feet south from the 8710 Carissa Highway Project site (Figure 2).

1.3 Methods

Prior to performing the field survey, PAX Environmental performed a records search for special-status plant and wildlife species potentially occurring in the Project region. Sources utilized during the records search included the California Natural Diversity Database (CNDDDB) (CDFW 2018), the Calflora Observation Hotline (Calflora 2018), and the Jepson Flora Project website (eFlora, 2018). The CNDDDB records search was performed on the USGS 7.5-minute quadrangle encompassing the Project site and the surrounding eight quadrangles in the eight cardinal directions. The quadrangles included in the records search include *California Valley, La Panza NE, Las Yeguas Ranch, Simmler, Chimineas Ranch, Branch Mtn, Los Machos Hills, La Panza, and La Panza Ranch*.

Reconnaissance-level surveys were performed on December 14, 2018 and January 5, 2019 by PAX Senior Biologist Sam Stewart. The study area consisted of the Project disturbance area and a 200-foot (ft) buffer. A visual search for plants and wildlife, or their evidence of presence (scat, tracks, burrows, nests, etc.) was performed with 100% visual coverage of the Project disturbance area. In addition, all habitats observed in the study area 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 2.

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 2
SURVEY CONDITIONS**

Date	Start/End Time	Temperature (°Fahrenheit)	Cloud Cover (%)	Conditions	Wind Speed (miles/hour)	Surveyor
12/14/2018	13:00-16:35	57-64	25-40	Cool, breezy	5-14	S. Stewart
1/5/2019	12:05-14:50	55-60	100	Light rain, breezy	5-11	S. Stewart

2.0 EXISTING CONDITIONS

The Project sites consist of four separate parcels within a 0.10-square mile along Carrisa Highway in Santa Margarita, unincorporated San Luis Obispo County. The sites consist of a total of 22.79 acres of tilled agricultural fields. Topography is flat, with elevations ranging from 2,017 to 2,026 feet above mean sea level (msl). Soils consist of Yeguas-Pinspring Complex (100%), an alluvial clay loam to coarse sandy/gravelly loam derived from sandstone, shale and basalt. It is a well-drained soil that can sometimes be slightly saline and typically occurs on flats or gentle slopes up to 5% (USDA 2018).

The Project sites have a history of agricultural use dating back to at least 1994, as determined from aerial imagery, and currently supports barley cultivation. Surrounding land uses include similar agricultural operations in all directions, vineyard to the southeast, and rural residences to the north and south. On-site habitat consists of historically tilled fields.

3.0 RESULTS

3.1 Plants

Vegetation in the study area is representative of long-standing agricultural use and is dominated by dryland grain crops that are tilled annually. Based on observations during the survey, the fields were planted with barley in 2018 and were recently harvested and tilled, with very little remaining vegetation present. Annual grassland was the second most prevalent habitat in the study area, representing the only remaining semi-natural vegetation community present in fallow agricultural areas and the margins of active cropland. Developed areas in the study area consist of graded roads, bare ground, man-made structures, domestic animal enclosures, and associated landscaping. One deciduous orchard was mapped in the southeastern portion of the study area and one man-made pond was mapped as lacustrine habitat in the southwestern portion of the study area. Vegetation type acreages and distribution in the study area are presented in Table 3 and Figure 3, respectively.

**TABLE 3
NATURAL COMMUNITIES AND HABITATS IN THE STUDY AREA**

	Acreage	% of Study Area
Dryland Grain Crops	64.6	57.8
Annual Grassland	27.6	24.7
Developed	14.7	13.2
Deciduous Orchard	4.1	3.7
Lacustrine	0.7	0.6
Total	111.7	

The variety of plants observed on the Project sites during the survey was dominated by non-native grasses and ruderal species. Non-native plants observed during the survey include slender wild oat (*Avena barbata*), foxtail chess (*Bromus madritensis* ssp. *madritensis*), yellow starthistle (*Centaurea solstitialis*), skeleton weed (*Chondrilla juncea*), red-stemmed filaree (*Erodium cicutarium* ssp. *cutarium*), short-pod mustard (*Hirschfeldia incana*), common barley (*Hordeum vulgare*), dwarf mallow (*Malva neglecta*), cheeseweed (*Malva parviflora*), Russian thistle (*Salsola australis*), old han schismus (*Schismus barbatus*), hairy vetch (*Vicia villosa*), and smaller common vetch (*Vicia sativa* ssp. *sativa*). Native plants observed during the survey include slender pod jewelflower (*Caulanthus heterophyllus*), turkey mullein (*Croton setiger*), jimsonweed (*Datura wrightii*), Canada horseweed (*Erigeron canadensis*), bright green buckwheat (*Eriogonum viridescens*), saw-toothed goldenbush (*Hazardia squarrosa*) and Chinese parsley (*Heliotropium curassavicum*).

3.2 Wildlife

Wildlife species observed during the survey included those common to agricultural areas and grasslands. Two birds that are on the CDFW Watchlist (WL), ferruginous hawk, and California horned lark, and a bird that is considered a CDFW Species of Special Concern (SSC), loggerhead shrike, were detected during the survey. In addition, abandoned burrow complexes with evidence of historic occupation by San Joaquin kit fox (e.g., suitable burrow entrance size, old scat, and bone scatters) were identified on the western-most site at 11520 Tule Elk Lane, and three additional burrow complexes were detected within 100 feet east of the same Project site's eastern boundary. Common bird species observed during the survey include California quail (*Callipepla californicus*), turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), killdeer

(*Charadrius vociferus*), rock pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), Eurasian collared dove (*Streptopelia decaocto*), common raven (*Corvus corax*), western bluebird (*Sialia mexicana*), western meadowlark (*Sturnella neglecta*), black phoebe (*Sayornis nigra*), Say's phoebe (*Sayornis saya*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), house finch (*Haemorhous mexicanus*), white-crowned sparrow (*Zonotrichia leucophrys*), lark sparrow (*Chondestes grammacus*), and (*Euphagus cyanocephalus*). Mammals or evidence of their presence detected during the survey include southern pocket gopher (*Thomomys bottae*) and California ground squirrel (*Otospermophilus beecheyi*).

3.3 Special-Status Resources

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

Special-status plant species considered by the analysis include those that are listed as threatened and/or endangered by the California or federal Endangered Species Act(s), as well as those assigned a California Rare Plant Rank (CRPR) by the CNPS that clearly meet the definition of Rare or Endangered under CEQA Guideline §15380 of the California Environmental Quality Act (CEQA). CRPR listing statuses are based on the degree of rarity (Lists 1A through 2B) 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

Threat Ranks:

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

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

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

Natural Communities to be addressed in the environmental review processes of CEQA and its equivalents.

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

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

Table 4, Special-Status Plant Species, and Table 5, 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. Figures 3 and 4 present the locations of special-status resources in proximity to the Project sites, 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] [2018]). California Natural Diversity Database (CNDDDB) List of Special Plants (CDFW 2018).
- Wildlife - CNDDDB List of Special Animals (CDFW 2018)
- Habitats – CNDDDB List of Sensitive Natural Communities (CDFW 2018)

TABLE 4
SPECIAL-STATUS PLANT SPECIES OCCURRING IN THE PROJECT REGION

Species	Status ¹			Bloom Period	Habitat Description	Likelihood for Occurrence/ Rationale ²
	USFWS	CDFW	CNPS			
<i>Arctostaphylos pilosula</i> 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)
<i>Aristocapsa insignis</i> Indian Valley spineflower	-	-	1B.2	May-Sep	Sandy soils in cismontane woodland between 590 and 4,000	Not expected (1)
<i>Atriplex coronata</i> var. <i>vallicola</i> Lost Hills crownscale	-	-	1B.2	Mar-Jul	Powdery, alkaline soils that are vernal moist among chenopod scrub, valley/foothill grasslands, and vernal pools between 150 and 2,900 ft elevation	Not expected (2)
<i>Calochortus palmeri</i> var. <i>palmeri</i> Palmer's mariposa lily	-	-	1B.2	Apr-Jun	Vernally moist meadows and seeps in chaparral and lower montane coniferous forest between 640 and 8,300 ft elevation.	Not expected (1, 7)
<i>Calochortus simulans</i> La Panza mariposa lily	-	-	1B.3	Apr-Jun	Decomposed granite and serpentine soils between 490 and 3,805 ft elevation	Not expected (2)
<i>Calycadenia villosa</i> 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	Low (7)
<i>Caulanthus californicus</i> California jewelflower	FE	SE	1B.1	Feb-May	Sandy soils in chenopod scrub, valley/foothill grassland, and pinyon/juniper woodland between 690 to 2,855 ft elevation	Low (7)
<i>Caulanthus lemmonii</i> Lemmon's jewelflower	-	-	1B.2	Mar-May	Pinyon/ juniper woodland and grasslands between 1,085 and 3,020 ft elevation	Not expected (3)
<i>Chlorogalum pomeridianum</i> var. <i>minus</i> dwarf soaproot	-	-	1B.2	May-Aug	Chaparral on serpentine soils between 390 and 4,000 ft elevation	Not expected (1, 2)
<i>Chlorogalum purpureum</i> var. <i>reductum</i> Camatta Canyon amole	FT	R	1B.2	May-Aug	Chaparral & woodland on clay or serpentine from 1,885 to 2,000 ft elevation	Not expected (1, 2)
<i>Chorizanthe breweri</i> 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)

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Species	Status ¹			Bloom Period	Habitat Description	Likelihood for Occurrence/ Rationale ²
	USFWS	CDFW	CNPS			
<i>Chorizanthe rectispina</i> 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)
<i>Deinandra halliana</i> Hall's tarplant	-	-	1B.2	Apr-May	Cismontane woodland, chenopod scrub, valley and foothill grasslands on clay, sand and alkaline soils between 505 and 3,200 ft elevation	Low (7)
<i>Delphinium parryi</i> ssp. <i>eastwoodiae</i> Eastwood's larkspur	-	-	1B.2	Apr-May	Chaparral and grassland on serpentine soils between 195 and 2,100 ft elevation	Not expected (2)
<i>Delphinium recurvatum</i> Recurved larkspur	-	-	1B.2	Mar-Jun	Alkaline soils among chenopod scrub, valley/foothill grassland, and cismontane woodland between 985 and 2,000 ft elevation	Low (7)
<i>Delphinium umbraculorum</i> Umbrella larkspur	-	-	1B.3	Apr-Jun	Mesic sites among chaparral and cismontane woodland between 705 and 6,810 ft elevation	Not expected (1, 5)
<i>Eremalche parryi</i> ssp. <i>kernensis</i> Kern mallow	FE	-	1B.1	Mar-May	Sandy to clay soils in chenopod scrub, valley/foothill grassland, and pinyon/juniper woodland between 310 and 3,545 ft elevation	Low (7)
<i>Eryngium spinosepalum</i> Spiny-sepaed button-celery	-	-	1B.2	Apr-May	Clay soils of granitic origin within vernal pools and valley/foothill grassland between 50 and 4,165 ft elevation	Not expected (2)
<i>Juncus luciensis</i> 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 680 and 6,680 ft elevation	Not expected (2, 5)
<i>Eschscholzia rhombipetala</i> Diamond-petaled California poppy	-	-	1B.1	Mar-Apr	Alkaline clay slopes and flats among valley/foothill grassland between 100 and 1,065 ft elevation	Low (7)

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Species	Status ¹			Bloom Period	Habitat Description	Likelihood for Occurrence/ Rationale ²
	USFWS	CDFW	CNPS			
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	-	-	1B.2	Feb-Jun	Alkaline soils in playas, sinks and grasslands among coastal salt marshes, playas and vernal pools between sea level and 4,510 ft elevation	Not expected (1, 2)
<i>Layia heterotricha</i> Pale-yellow layia	-	-	1B.1	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)
<i>Layia munzii</i> Munz's tidy-tips	-	-	1B.2	Mar-Apr	White-gray, alkaline, clay soils in chenopod scrub and valley/foothill grassland between 150 and 2,510 ft elevation	Not expected (2)
<i>Lepidium jaredii</i> ssp. <i>jaredii</i> 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 (1, 2)
<i>Madia radiata</i> Showy golden madia	-	-	1B.1	Mar-May	Adobe clay in valley/foothill grassland and cismontane woodland between 245 and 4,000 ft elevation	Not expected (2)
<i>Malacothamnus gracilis</i> Slender bush-mallow	-	-	1B.1	May-Oct	Dry, rocky slopes among chaparral between 490 and 1,100 ft elevation	Not expected (1, 2, 7)
<i>Monolopia congdonii</i> San Joaquin woollythreads	-	-	1B.2	Feb-May	Grassy sites in sandy to rocky soils among chaparral, valley/foothill grassland, cismontane woodland, broad-leaved and coniferous upland forest between 390 and 3,200 elevation	Low (7)
<i>Navarretia fossalis</i> 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)
<i>Navarretia nigelliformis</i> ssp. <i>radians</i> Shining navarretia	-	-	1B.2	Mar-Jul	Cismontane woodland, valley/foothill grassland, and vernal pools between 525 and 1,770 ft elevation	Not expected (3)

TABLE 4
SPECIAL-STATUS PLANT SPECIES OCCURRING IN THE PROJECT REGION

Species	Status ¹			Bloom Period	Habitat Description	Likelihood for Occurrence/ Rationale ²
	USFWS	CDFW	CNPS			
<i>Sidalcea hickmanii</i> ssp. <i>parishii</i> Parish's checkerbloom	-	R	1B.2	May-Jun	Rocky, serpentine soils in closed-cone forest and chaparral between 1,965 and 2,625 ft elevation	Not expected (1, 2, 3)
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. 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). CNPS 1A Plants Presumed Extinct in California 2 Plants Rare, Threatened, or Endangered in California But More Common Elsewhere 2: LIKELIHOOD FOR OCCURRENCE IN THE PROJECT DISTURBANCE 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 5
SPECIAL-STATUS WILDLIFE SPECIES OCCURRING IN THE PROJECT REGION

Species	Status ¹		Habitat Description	Likelihood for Occurrence/Rationale ²
	USFWS	CDFW		
Invertebrates				
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	FT	-	Sandstone depression pools and grassed swale, earth slump, or basalt-flow depression pools	Not expected (1)
<i>Branchinecta longiantenna</i> Longhorn fairy shrimp	FE	-	Sandstone depression pools and clear clay or grassed pools in shallow swales	Not expected (1)
Amphibians				
<i>Spea hammondii</i> western spadefoot toad	-	SSC	Grasslands and woodlands with vernal pools	Low (7)
<i>Rana draytonii</i> 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)
Reptiles				
<i>Anniella pulchra</i> northern California legless lizard	-	SSC	Moist sandy or loose loamy soils under sparse vegetation	Low (5)
<i>Anniella grinelli</i> Bakersfield legless lizard	-	SSC	Moist sandy or loose loamy soils under sparse vegetation in the eastern Carrizo Plain and within the City of Bakersfield	Not expected (4)
<i>Arizona elegans occidentalis</i> California glossy snake	-	SSC	Scrub or grassland with loose or sandy soils	Low (5)
<i>Emys marmorata</i> western pond turtle	-	SSC	Ponds, marshes, rivers, streams, and irrigation ditches with basking sites and suitable upland habitat for egg-laying	Not expected (1)
<i>Gambelia sila</i> Blunt-nosed leopard lizard	FE	SE	Sparsely vegetated alkali and desert scrub habitats in areas of low topographic relief	Not expected (4)

TABLE 5
SPECIAL-STATUS WILDLIFE SPECIES OCCURRING IN THE PROJECT REGION

Species	Status ¹		Habitat Description	Likelihood for Occurrence/Rationale ²
	USFWS	CDFW		
<i>Masticophis flagellum ruddocki</i> San Joaquin coachwhip	-	SSC	Valley grassland and saltbush scrub in the San Joaquin Valley	Low (5)
<i>Phrynosoma blainvillei</i> coast horned lizard	-	SSC	Sandy substrate with scattered low bushes and abundant native ants and other insects	Not expected (1)
Birds				
<i>Agelaius tricolor</i> 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: High (7)
<i>Asio otus</i> Long-eared owl	-	SSC	Riparian bottomlands with tall willows, cottonwoods and live oak paralleling stream course	Nesting: Not expected (1) Foraging: Moderate (5)
<i>Athene cunicularia</i> burrowing owl	-	SSC	Open, dry annual or perennial grasslands and scrublands with low-growing vegetation	Nesting: Moderate (6) Foraging: Moderate (6)
<i>Buteo regalis</i> 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: Present (8)
<i>Eremophila alpestris actia</i> California horned lark	-	FP	Short grass prairie, fallow grain fields, and alkali flats	Nesting: Moderate (6) Foraging: Present (8)
<i>Falco columbarius</i> merlin	-	FP	Seacoast, tidal estuaries, open woodlands, savannahs, grassland edges, farms and ranches	Nesting: Not expected (1) Foraging: Moderate (6)
<i>Falco mexicanus</i> Prairie falcon	-	FP	Dry open terrain and cliffs for nesting	Nesting: Not expected (1) Foraging: High (7)
<i>Gymnogyps californianus</i> California condor	FE	SE	Vast expanses of open savannah, grassland, and foothill chaparral for foraging and deep canyons with clefts in rocky walls for nesting	Nesting: Not expected (1) Foraging: Moderate (6)

TABLE 5
SPECIAL-STATUS WILDLIFE SPECIES OCCURRING IN THE PROJECT REGION

Species	Status ¹		Habitat Description	Likelihood for Occurrence/Rationale ²
	USFWS	CDFW		
<i>Lanius ludovicianus</i> loggerhead shrike	-	SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, scrub & washes	Nesting: Low (5) Foraging: Present (8)
Mammals				
<i>Ammospermophilus nelsoni</i> Nelson's antelope squirrel	-	ST	Burrows in sparsely vegetated loamy soils with scattered shrubs, forbs and grasses in broken terrain with gullies and washes between 200- and 1,300-feet elevation	Not expected (4)
<i>Antrozus pallidus</i> Pallid bat	-	SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting	Not expected (1)
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	-	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites	Not expected (1)
<i>Dipodomys ingens</i> Giant kangaroo rat	FE	SE	Flat terrain with sandy loam soils for burrowing in annual grasslands and alkali scrub	Not expected (4)
<i>Dipodomys nitratooides nitratooides</i> Tipton kangaroo rat	FE	SE	Sandy soils amid hummocks in saltbush scrub and sink scrub in the Tulare Lake Basin of the southern San Joaquin Valley	Not expected (4)
<i>Onychomys torridus tularensis</i> Tulare grasshopper mouse	-	SSC	Hot, arid valleys and scrub deserts in the southern San Joaquin Valley	Not expected (1)
<i>Taxidea taxa</i> American badger	-	SSC	Drier open stages of most shrub, forest, and herbaceous habitats, with friable soils	Low (5)
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	FE	ST	Friable soils among annual grasslands or grassy open stages with scattered shrubby vegetation.	High (7, 8)

TABLE 5
SPECIAL-STATUS WILDLIFE SPECIES OCCURRING IN THE PROJECT REGION

Species	Status ¹		Habitat Description	Likelihood for Occurrence/Rationale ²
	USFWS	CDFW		
Status Definitions¹ 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: <u>LIKELIHOOD TO OCCUR IN THE PROJECT DISTURBANCE AREA</u> 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			²: <u>RATIONALE</u> 1: Lack of suitable habitat 2: Lack of suitable substrate 3: Beyond known elevation range 4: Beyond known geographic range 5: Marginally suitable habitat present 6: Suitable habitat present but no known records within one mile (or appropriate distance based on typically-sized territory for the species) 7: Suitable habitat present with known records within one mile (or appropriate distance based on typically-sized territory for the species) 8: Species or evidence of presence observed during survey 9: Overwintering migrant	
³: Species not expected in the project disturbance area but may occur in the study area				

3.4 Special-Status Plants

No special-status plants were observed during the field survey (Tables 6 and 7). However, the timing of the survey was not conducive to the detection of annual species that bloom in spring and/or summer. The CNDDDB and CNPS on-line inventory listed 30 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, 7 species were determined to have a low potential for occurrence on the Project sites. Based on the presence of marginally suitable habitat, the Carrizo Plain sites have a low potential for the occurrence of California jewelflower (*Caulanthus californicus*), a CNPS List 1B.1 species that is federally- and state-listed as Endangered, and Kern mallow (*Eremalche parryi ssp kernensis*), a CNPS List 1B.1 species that is federally-listed as Endangered. In addition, two CNPS List 1B.1 species have a low potential to occur, including dwarf calycadenia (*Calycadenia villosa*) and diamond-petaled California poppy (*Eschscholzia rhombipetala*), and three CNPS List 1B.2 species have a low potential to occur, including Hall's tarplant (*Deinandra hallii*), recurved larkspur (*Delphinium recurvatum*), and San Joaquin woollythreads (*Monolopia congdonii*).

3.5 Special-Status Wildlife

One SSC, loggerhead shrike, was observed in the Project site during the survey. Two WL bird species, ferruginous hawk and California horned lark, were observed in the study area (Table 8). Burrow complexes with evidence of historic use by the federally-listed endangered and state-listed threatened San Joaquin kit fox were also documented within and adjacent to the westernmost Project site (11520 Tule Elk Way), as well as within the study area between the 11525 Tule Elk and Carissa Hwy Project sites (Table 5, Figure 4).

Table 5
Special-Status Wildlife Observations

Resource I.D. ¹	Latitude	Longitude	Description
HOLA-1	35.370291	-120.073855	Flock of California horned lark observed foraging in field
FEHA-1	35.370291	-120.073855	Ferruginous hawk observed perched on water line
LOSH-1	35.369034	-120.072905	Loggerhead shrike pair observed perched on fence
SJKF-1	35.370373	-120.077473	Complex of 6 burrow entrances within 30-ft diameter
SJKF-2	35.370533	-120.077723	Complex of 4 burrow entrances within 25-ft diameter
SJKF-3	35.370801	-120.078339	Complex of 3 burrow entrances within a 30-ft diameter
SJKF-4	35.371882	-120.077479	Complex of 8 burrow entrances potentially connected with SJKF-5 within 30-ft diameter
SJKF-5	35.371786	-120.077307	Complex of 4 burrow entrances potentially connected with SJKF-3 within 25-ft diameter
SJKF-6	35.371637	-120.077545	Complex of 10 burrow entrances within 50-ft diameter
SJKF-7	35.369190	-120.073900	Single burrow along fence line

¹ : Special-status resources mapped during the surveys are represented on Figure 3 with the above-listed resource I.D. codes, as needed.

The CNDDDB on-line inventory listed 28 special-status wildlife species in the region encompassing the Project sites. As previously discussed, the Project sites have been subject to repeated disturbance over many years as a result of active agricultural operations and grazing. Based on the presence of potentially suitable habitat, the Project sites were determined to have a low potential for occurrence of the following: western spadefoot (*Spea hammondi*), northern California legless lizard (*Anniella pulchra*), California glossy snake (*Arizona elegans occidentalis*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), American badger (*Taxidea taxa*), and loggerhead shrike (nesting).

The Project sites have moderate potential for special-status ground-nesting bird species, including California horned lark and burrowing owl (*Athene cunicularia*), as well as potential for common ground-nesting birds, nesting raptors, and passerines in nearby ornamental shrubs and/or trees. Most native bird nests are protected by the Migratory Bird Treaty Act (16 U.S.C. §§ 703–712) and California Fish and Game Code (FGC Division 4, Part 2, §§ 3503 and 3513). Additional special-status bird species with moderate foraging potential at the Project site include merlin (*Falco columbarius*), California condor (*Gymnogyps californianus*), long-eared owl (*Asio otus*), and burrowing owl.

Special-status species with high potential to occur at the project site include San Joaquin kit fox and tri-colored blackbird (*Agelaius tricolor*; foraging).

3.6 Sensitive Natural Communities

The CNDDDB 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 sites consist of dryland grain crops, annual grassland, developed areas, deciduous orchard, and a man-made pond (lacustrine). None of the above mentioned sensitive natural communities were identified during the survey or review of aerials dating back to 1994.

An unnamed riverine drainage was identified in the northeastern corner of the study area beyond the disturbance area of the northernmost Project site (11330 Tule Elk Lane). This drainage is classified by USFWS as a stream with intermittent flows and seasonal flooding (Classification code: R4SBC). Surface water is present for extended periods in this classification, especially early in the growing season, but is absent by the end of the growing season in most years. The water table varies after flooding, extending from saturated to well below the ground surface.

There is also an ephemeral depression within the study area that drains from west to east across Tule Elk Lane immediately south of the northernmost Project site (11330 Tule Elk Lane) continuing east immediately north of the Carissa Highway Project site. This depression is tributary to the above-mentioned riverine drainage and is classified by USFWS as a palustrine system with surface water present for brief periods (from a few days to a few weeks) during the growing season (Classification code: PEM1A). The water table is usually deep in this classification but may be enough to support deeper-rooted hydrophytic vegetation.

The above listed resources are within active dryland grain crop cultivation areas that have been tilled annually since at least 1994 as determined from review of historic aerials. Neither had evidence of hydric soils or hydrophytic vegetation during surveys or on aerial imagery. Nonetheless, CDFW may take jurisdiction over one or both drainages.

Additionally, there is an approximately 0.7-acre, isolated, man-made pond on the 11525 Tule Elk Lane property that is within the study area but beyond the Project disturbance area. As an isolated, privately-owned pond, this wetland resource may or may not be considered jurisdictional by the Army Corps and/or CDFW.

4.0 IMPACT ASSESSMENT AND MITIGATION

The proposed project has the potential to directly and/or indirectly impact special-status plant and wildlife species, and resident and/or 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, or demolition and 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 occur as a result of ongoing project operations. The total potential area of disturbance is approximately 17.79 acres of dryland grain crops, 2.42 acres of annual grassland, 0.79 acres of deciduous orchard, and .10 acres of disturbed/developed areas. These habitat types are very common in the region and are either devoid of plants or seminatural areas dominated by introduced, weedy species, the loss of which would not substantially reduce the extent, diversity, or quality of native or other important vegetation.

4.1 Special-Status Plants

The Project sites have been subject to repeated disturbance over many years because of active agricultural operations. As such, conditions are considered marginally suitable for the special-status plants known to occur in the region that may occur on the habitats in the study area and they are considered to have a low potential for occurrence. It is therefore unlikely that the proposed Project would have a significant effect on special-status plants. However, the Project sites have the potential for state- and/or federally-listed threatened and endangered species and a focused botanical survey is recommended to document presence or absence during the appropriate blooming period for Kern mallow, dwarf calycadenia, California jewelflower, diamond-petaled California poppy, San Luis Obispo owl's-clover, Hall's tarplant, recurved larkspur, and San Joaquin woollythreads. If present, an accounting of the extent and density of the population(s) would be required to determine impact significance and the appropriate mitigating response. Implementation of Conservation Measure BIO-1 below would avoid or reduce potential impacts to special-status plants to a level considered less than significant.

4.2 Special-Status Wildlife

Based on the presence of marginally suitable habitat, the Project sites were determined to have a low potential for occurrence of terrestrial SSC, including western spadefoot, northern California legless lizard, California glossy snake, San Joaquin coachwhip, and American badger. Given the limited size of the Project site and limited extent of occupiable habitat for these species, the likelihood of impact is considered low. Implementation of Mitigation Measures BIO-2, BIO-3 and BIO-4 would avoid or reduce potential impacts to a level considered less than significant.

One SSC, loggerhead shrike, was observed on the Carissa Highway Project site during the survey. Two WL bird species, ferruginous hawk and California horned lark, were observed in the study area. The Project has the potential for direct and/or indirect impacts to active nests during construction, including direct impacts to ground-nesting birds such as burrowing owl and California horned lark, and indirect impacts to raptors and/or passerines nesting in adjacent areas and ornamental trees in the study area. Nest failure or take resulting from Project activities would conflict with the Migratory Bird Treaty Act (16 U.S.C. §§ 703–712) and California Fish and Game Code (FGC Division 4, Part 2, §§ 3503 and 3513). Implementation of Mitigation Measures BIO-5 and BIO-6 would avoid or reduce potential impacts to special-status birds and all nesting birds to a level considered less than significant.

Burrow complexes with evidence of historic use by the federally-listed Endangered and state-listed Threatened San Joaquin kit fox were documented during the surveys. Direct impacts to

San Joaquin kit fox may occur as a result of construction-related activities, including take resulting from burial of kit fox dens in the Project disturbance area that may become occupied prior to initiation of Project activities, and potential Project-associated vehicle strikes. Indirect impacts may occur to kit foxes potentially occupying the study area beyond the Project disturbance area during long-term project activities, including increased light-pollution and restriction of movement across the Project sites.

Due to the project's location within the 4:1 County designated mitigation area, implementation of mitigation measures pursuant to the County Guide to SJKF Mitigation Procedures under the California Environmental Quality Act (CEQA) will be required. Construction and implementation of the proposed project would result in approximately 20.21 acres (880,347 square feet) of disturbance within dryland grain crop and annual grassland habitats. For projects less than 40 acres in size, completion of a SJKF habitat evaluation form may optionally be completed to receive approval for a lower mitigation ratio than what is mapped for the project site, based on site-specific conditions. Mitigation must be fulfilled by contribution to the preservation of habitat through a conservation easement agreement, compensation to a predetermined mitigation bank, or payment of an in-lieu fee to the San Francisco office of The Nature Conservancy. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-7 would avoid or reduce potential impacts to the species to a level considered less than significant.

4.3 Sensitive Natural Communities

The CNDDDB 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 pasture with annual grassland habitat. None of the above-mentioned sensitive natural communities were identified during the survey or review of historic aerials dating back to 1994. The Project would not result in impacts to the above-mentioned sensitive natural communities.

Potentially jurisdictional wetland resources were identified within the study area beyond the Project disturbance limits. As described above, these resources are within active dryland grain croplands that have been tilled annually dating back to at least 1994. The proposed Project would not result in direct impacts to these resources, is consistent with baseline land uses, and would not be expected to increase the intensity of indirect impacts from the baseline condition.

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 land uses in all directions that are consistent with those existing and proposed on for the sites, including dryland grain crops, developed areas, and annual grasslands. Therefore, the project would not be expected to affect or impinge local or regional

wildlife movement or migration patterns. Project fencing and security lighting may restrict the use of the Project sites by terrestrial wildlife, including San Joaquin kit fox. Implementation of Mitigation Measures BIO-7 and BIO-8 require design features that would avoid impacts to wildlife movement on the project site and nocturnal use of areas adjacent to the project site (e.g., project fences include an approximate 4-inch passage gap at ground level and security lighting includes a directional/shielded design feature to prevent lighting spillover into adjacent grasslands).

5.0 RECOMMENDATIONS

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

- BR-1 Special-Status Plant Species Avoidance and Minimization Measures.** Prior to initial ground disturbance and staging activities in areas of suitable habitat for special-status plants, focused surveys shall be completed by a qualified biologist. The surveys shall be floristic in nature and shall be seasonally-timed to coincide with the blooming period of the target species. Surveys shall be conducted in accordance with the most current protocols established by the CDFW, USFWS, and consistent with the County's policies. All special-status plant species identified on-site shall be mapped onto a site-specific aerial photograph and topographic map. Survey results shall be submitted to the County Department of Planning and Building prior to initiation of construction. If special-status plant species, specifically Kern mallow, dwarf calycadenia, California jewelflower, diamond-petaled California poppy, San Luis Obispo owl's-clover, shining navarretia, recurved larkspur, and San Joaquin woollythreads, are identified within the proposed development footprint, impacts to these species will be minimized to the extent feasible to avoid impacting 90% of the plants observed. If special-status plant species are identified on the Project sites and direct impacts to special-status plants cannot be avoided, a salvage and relocation plan will be prepared to compensate for significant impacts on special-status plant species and identify suitable locations, methods, and success criteria for special-status plant mitigation through direct seeding and restoration of suitable unoccupied habitat. The plan shall, at a minimum, require replacement through collection of seed and topsoil from impact sites, a monitoring and management component that outlines weed management and monitoring techniques, and success criteria that require successful establishment of the target species over the acreage and numbers of impacted plants within five years. If onsite salvage and restoration is not feasible, the plan will identify areas that contain verified extant populations of the special-status plant species, of similar size and quality, and equal or greater density to the population(s) that would be impacted by the Project proposed for preservation as compensatory mitigation for special-status plant impacts. Offsite habitat occupied by the affected species shall be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant affected, and at least one occupied acre preserved for each occupied acre affected). The restoration plan will be prepared and submitted to the County Department of Planning and Building for approval prior to initial site disturbance.
- 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 Preconstruction Survey for American Badger and San Joaquin Kit Fox.** A qualified biologist shall complete a preconstruction survey for American badger and San Joaquin kit fox no less than 14 days and no more than 30 days prior to the start of initial project activities to ensure these special-status wildlife species are not present within proposed work areas. If dens are discovered, they shall be inspected to determine if they are currently occupied. If the qualified biologist determines that potential San Joaquin kit fox dens may be present, an exclusion buffer shall be established in accordance with the distances recommended in the USFWS' 2011 recommendations. The USFWS shall be contacted for further guidance regarding any natal San Joaquin kit fox dens encountered. If active badger dens are found, a minimum of a 50-foot, no-activity buffer shall be implemented in the den vicinity. If avoidance is not possible during construction or continued operation, the County and CDFW shall be contacted for further guidance.
- BR-4 Northern California Legless Lizard Avoidance and Minimization.** Within 30 days prior to initiation of ground disturbance, sandy soils within the impact footprint will be surveyed for legless lizard by a qualified biologist utilizing a raking survey methodology. Any individuals found shall be relocated to appropriate habitat at least 50 feet outside the development footprint. A survey report summarizing results of the survey shall be submitted to the County Department of Planning and Building within one week of completing the survey. A qualified biologist shall monitor initial vegetation clearing and ground disturbance in areas of suitable habitat to salvage and relocate individuals. 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 this species.
- BR-5 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-6 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 sites; 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-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:

The applicant shall mitigate for the loss of SJKF habitat either by:

1. establishing a conservation easement on-site or off-site in a suitable San Luis Obispo County location and provide a non-wasting endowment for management and monitoring of the property in perpetuity;
 2. depositing funds into an approved in-lieu fee program; or
 3. purchasing credits in an approved conservation bank in San Luis Obispo County.
- The following measures shall also apply on Project sites.

- 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.

6.0 LITERATURE CITED

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

Table 6. List of non-native plant species observed on the Project sites on December 14, 2018 and January 7, 2019

<u>Scientific Name</u>	<u>Common Name</u>	<u>FAMILY</u>
<i>Amaranthus albus</i>	tumbleweed	AMARANTHACEAE
<i>Avena barbata</i>	slender wild oats	POACEAE
<i>Avena fatua</i>	common wild oats	POACEAE
<i>Bromus rubens</i>	red brome	POACEAE
<i>Bromus madritensis madritensis</i>	foxtail chess	POACEAE
<i>Centaurea solstitialis</i>	yellow starthistle	ASTERACEAE
<i>Chondrilla juncea</i>	skeleton weed	ASTERACEAE
<i>Erodium cicutarium</i> ssp. <i>cutarium</i>	red-stemmed filaree	GERANIACEAE
<i>Hirschfeldia incana</i>	short-pod mustard	BRASSICACEAE
<i>Hordeum vulgare</i>	common barley	POACEAE
<i>Malva neglecta</i>	dwarf mallow	BRASSICACEAE
<i>Medicago lupulina</i>	black medick	FABACEAE
<i>Medicago sativa</i>	alfalfa	FABACEAE
<i>Malva parviflora</i>	cheeseweed	GERANIACEAE
<i>Salsola australis</i>	Russian thistle	CHENOPODIACEAE
<i>Schismus barbatus</i>	old han schismus	POACEAE
<i>Sisymbrium irio</i>	London rocket	BRASSICACEAE
<i>Vicia sativa</i> ssp. <i>sativa</i>	common vetch	FABACEAE
<i>Vicia villosa</i>	hairy vetch	FABACEAE

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

<u>Scientific Name</u>	<u>Common Name</u>	<u>FAMILY</u>
Caulanthus heterophyllus	slender pod jewelflower	BRASSICACEAE
Croton setiger	turkey mullein	EUPHORBIACEAE
Datura wrightii	Jimsonweed	SOLANALES
Erigeron canadensis	Canada horseweed	ASTERACEAE
Eriogonum viridescens	bright green buckwheat	POLYGONACEAE
Euphorbia serpyllifolia	thyme-leaved spurge	EUPHORBIACEAE
Hazardia squarrosa	saw-toothed goldenbush	ASTERACEAE
Heliotropium curassavicum	Chinese parsley	BORAGINACEAE
Laennecia coulteri	Coulter's horseweed	ASTERACEAE

Table 8. List of wildlife species observed on the Project sites on December 14, 2018 and January 7, 2018.

Common Name ^a	Scientific Name	Status	Notes
BIRDS			
California quail	<i>Callipepla californica</i>	MBTA	-
rock pigeon*	<i>Columba livia</i>	Non-native	-
Eurasian collared dove*	<i>Streptopelia decaocto</i>	Non-native	-
mourning dove	<i>Zenaida macroura</i>	MBTA	-
killdeer	<i>Charadrius vociferus</i>	MBTA	-
turkey vulture	<i>Cathartes aura</i>	MBTA	Flying overhead
red-tailed hawk	<i>Buteo jamaicensis</i>	MBTA	-
ferruginous hawk	<i>Buteo regalis</i>	MBTA/Watchlist	-
American kestrel	<i>Falco sparverius</i>	MBTA	-
Common raven	<i>Corvus corax</i>	MBTA	-
Say's phoebe	<i>Sayornis saya</i>	MBTA	-
northern mockingbird	<i>Mimus polyglottos</i>	MBTA	-
loggerhead shrike	<i>Lanius ludovicianus</i>	MBTA/SSC	-
yellow-rumped warbler	<i>Setophaga coronate</i>	MBTA	-
European starling	<i>Sturnus vulgaris</i>	Non-native	-
house finch	<i>Haemorhous mexicanus</i>	MBTA	-
lesser goldfinch	<i>Spinus psaltria</i>	MBTA	-
white-crowned sparrow	<i>Zonotrichia leucophrys</i>	MBTA	-
lark sparrow	<i>Chondestes grammacus</i>	MBTA	-
western meadowlark	<i>Sturnella neglecta</i>	MBTA	-
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	MBTA	-
MAMMALS			
southern pocket gopher	<i>Thomomys bottae</i>	-	-
California ground squirrel	<i>Otospermophilus beecheyi</i>	-	-
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE/SE	historic burrows

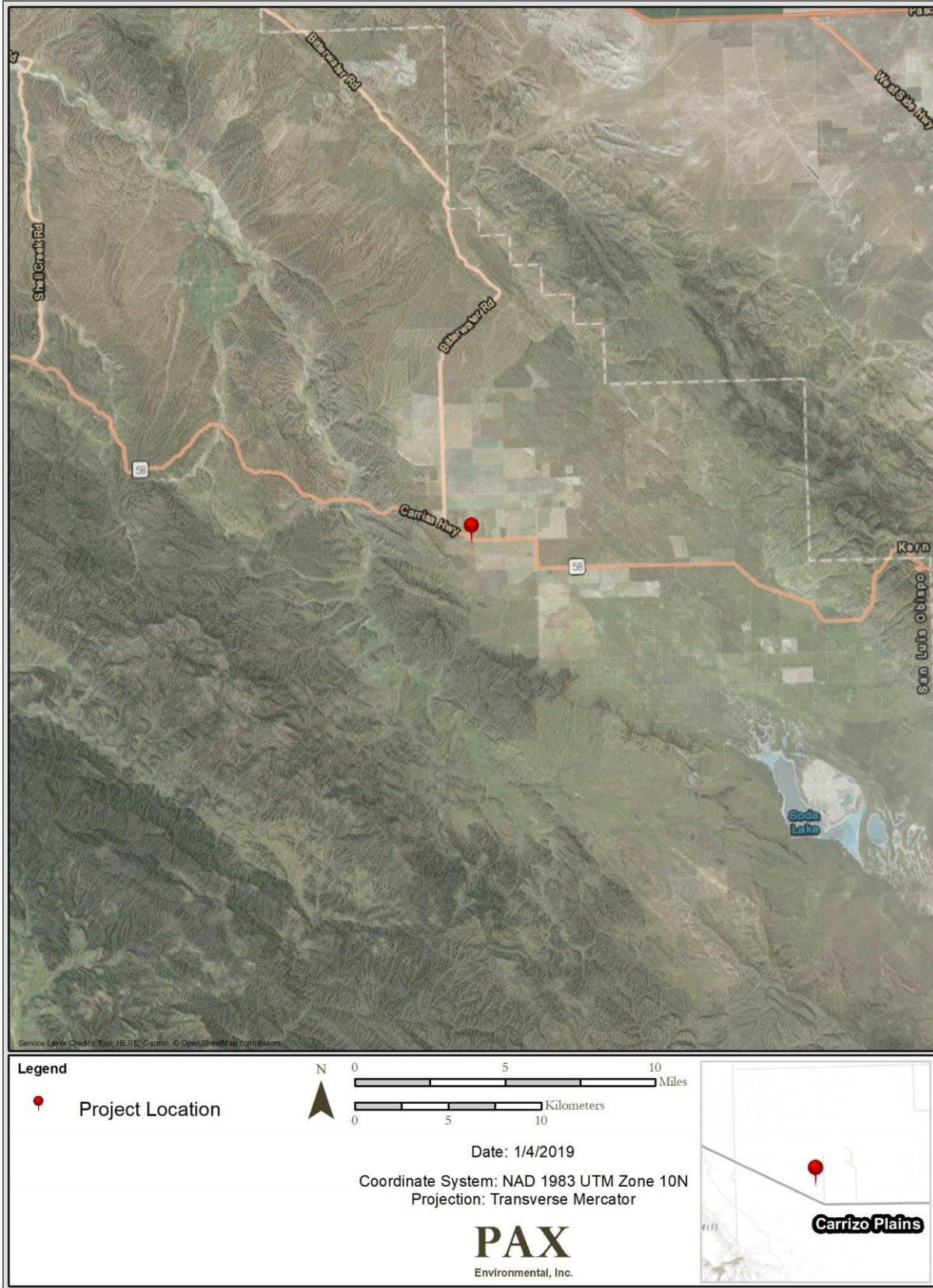


Figure 1. Project Vicinity Map

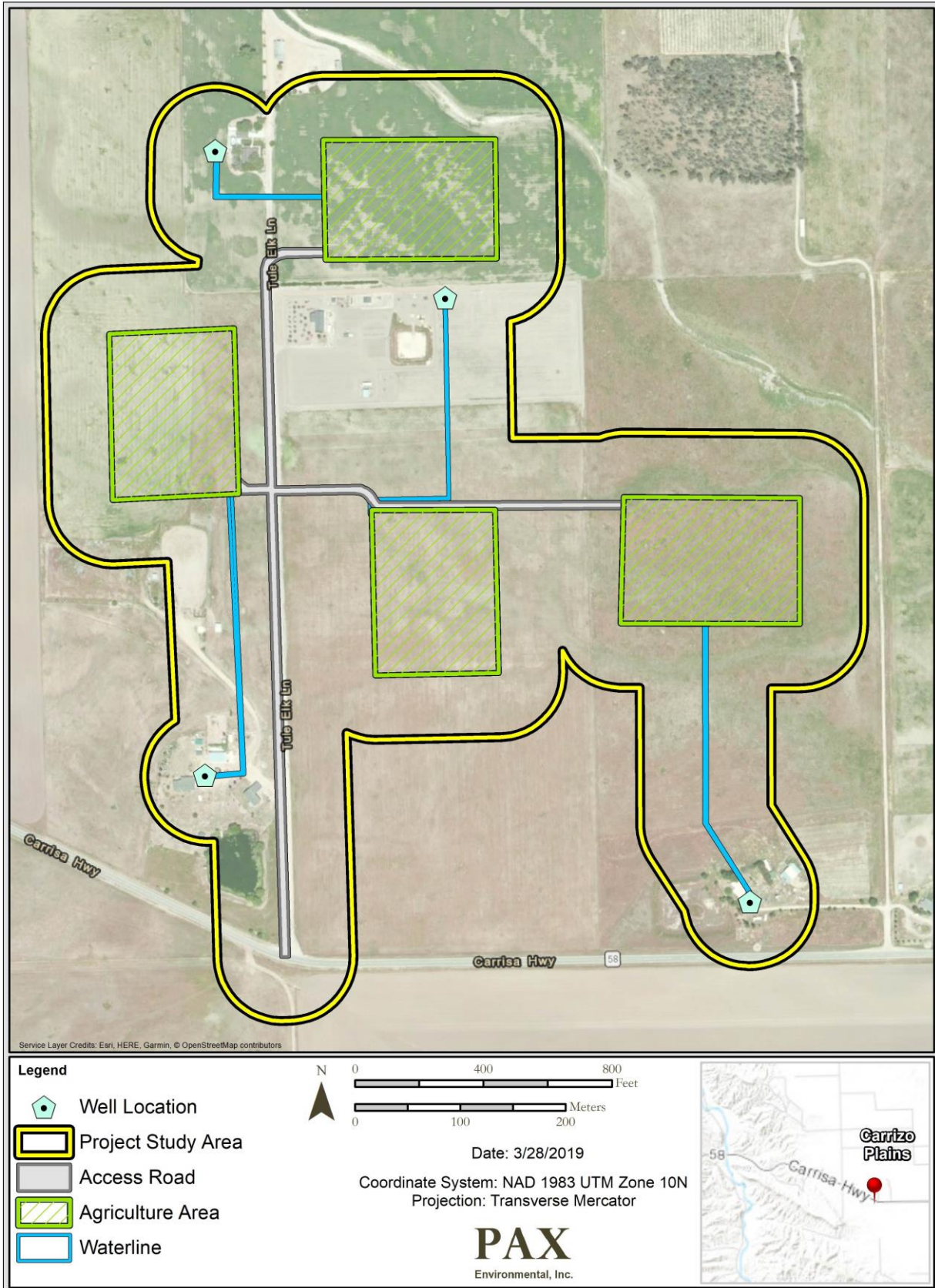


Figure 2. Study Area Vicinity Map

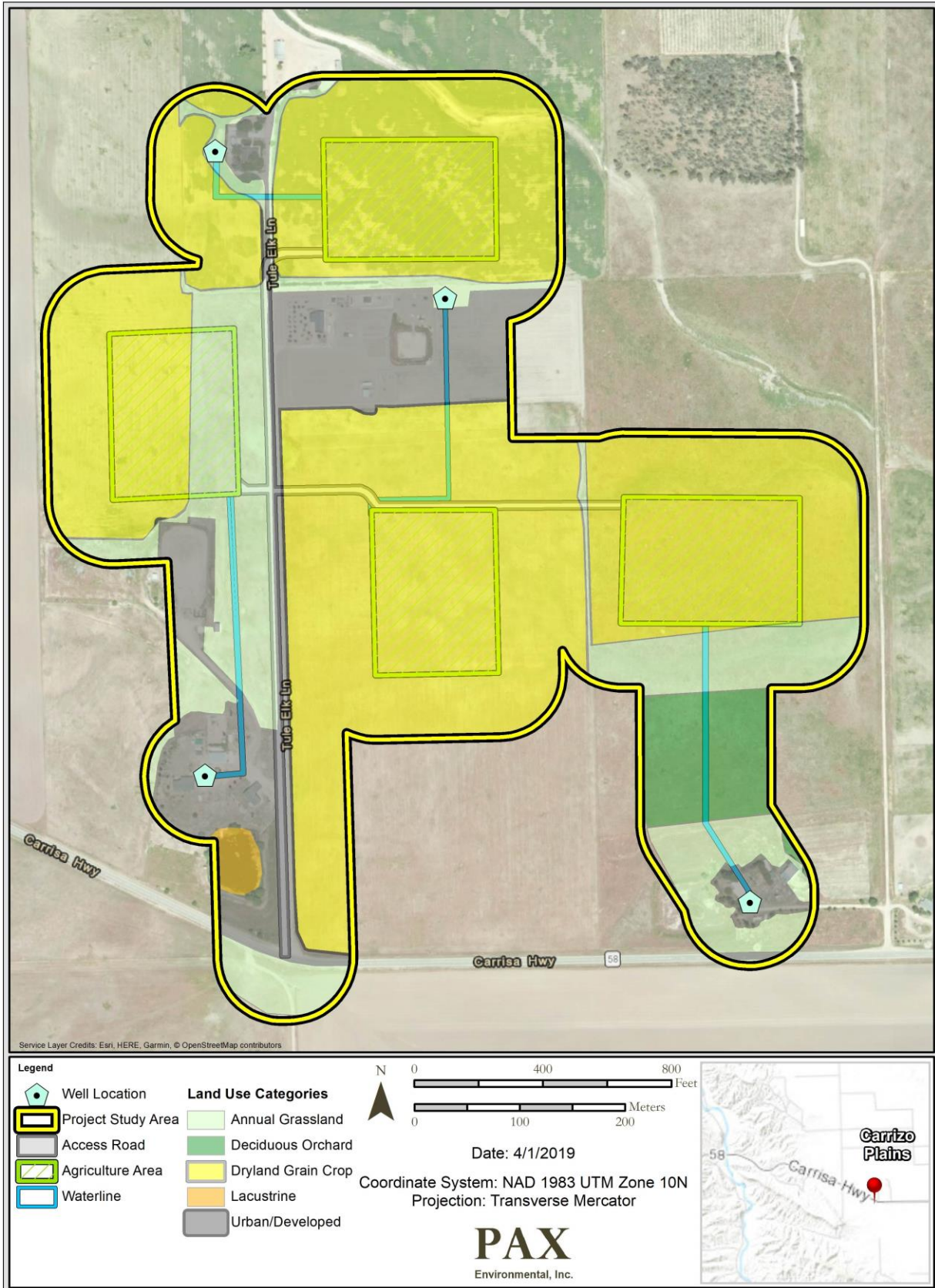


Figure 3. Study Area Vegetation Map

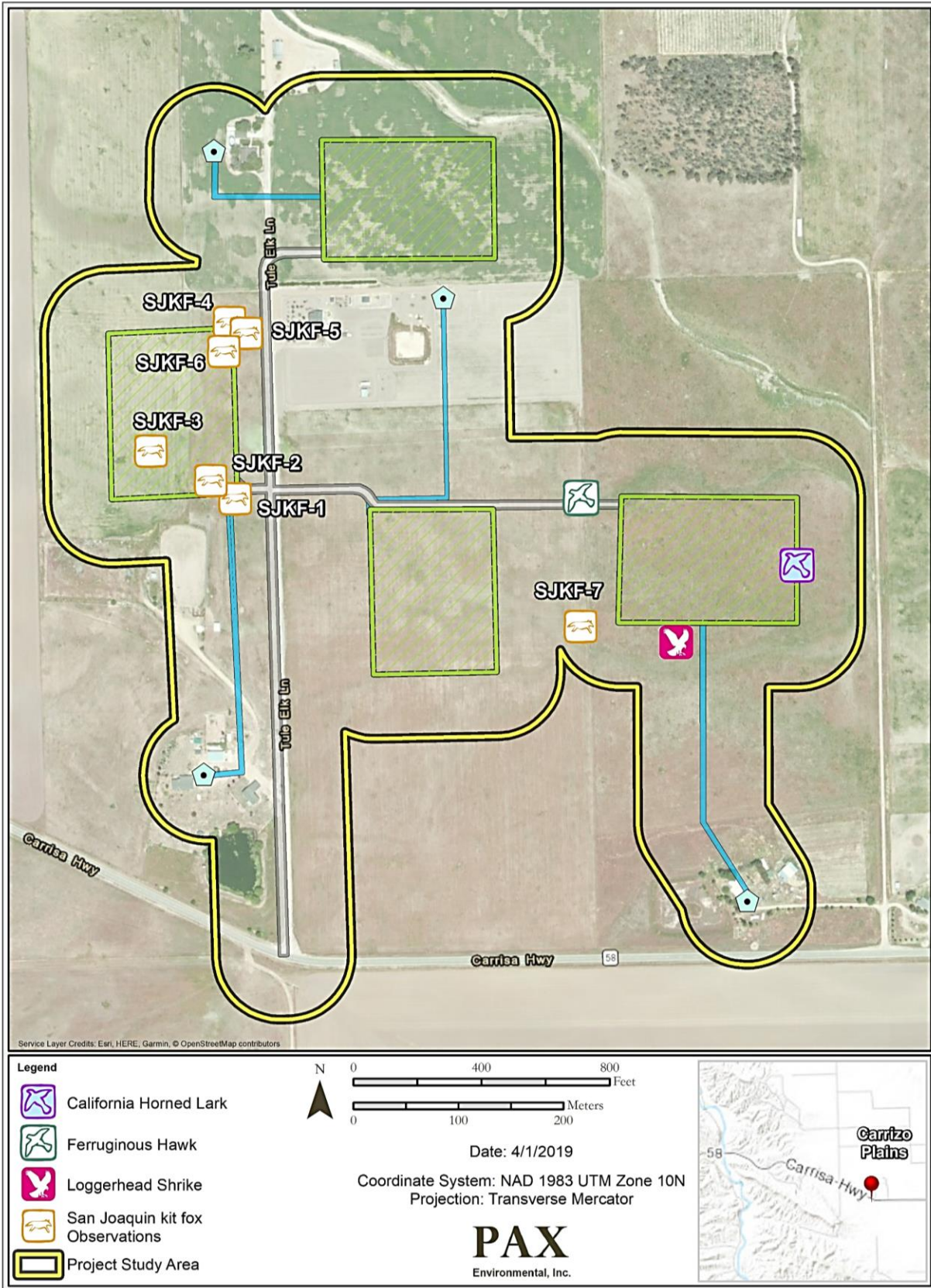


Figure 4. Study Area Special-Status Species Observation Map

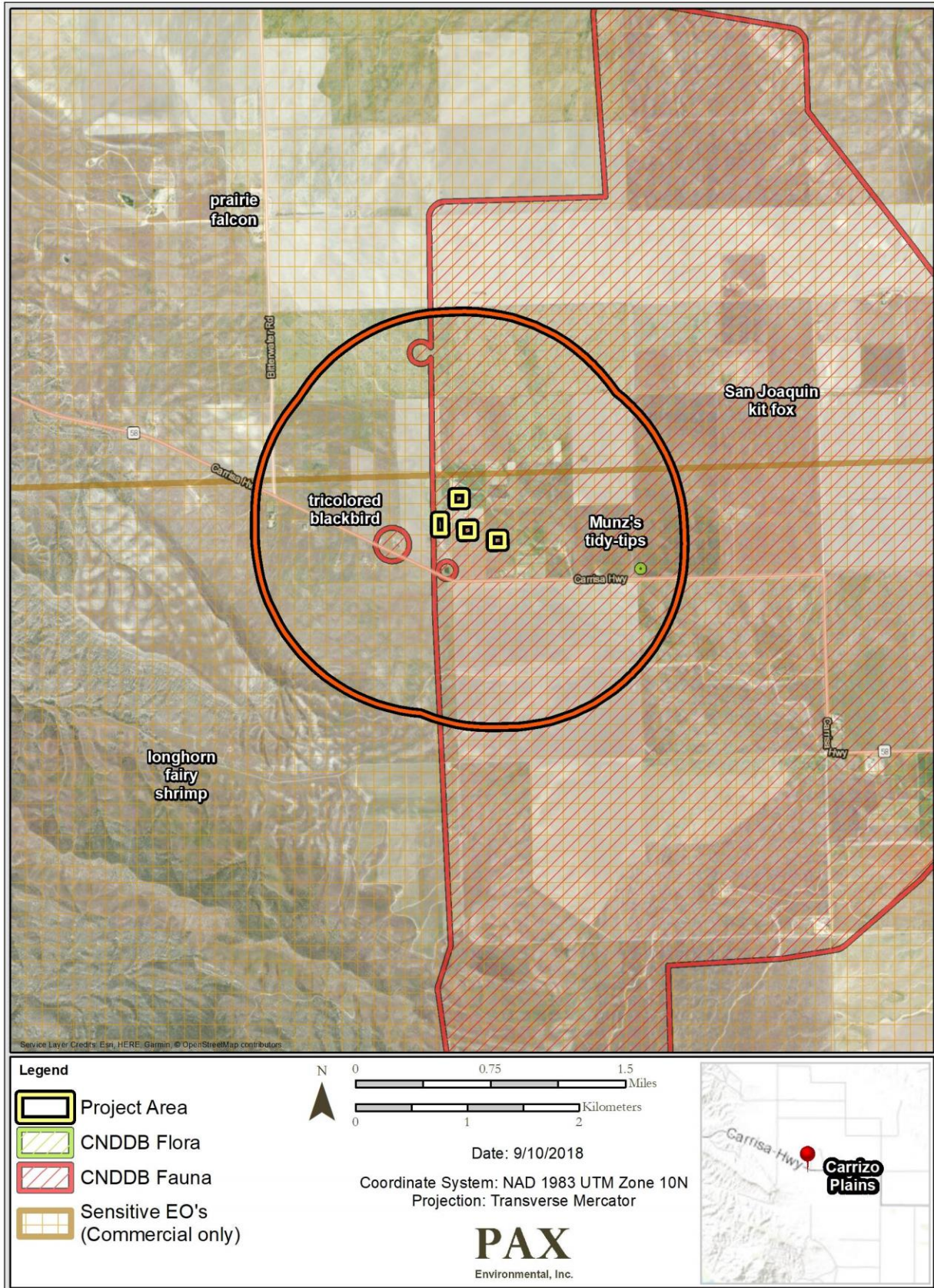


Figure 5. Study Area CNDDDB Records Search

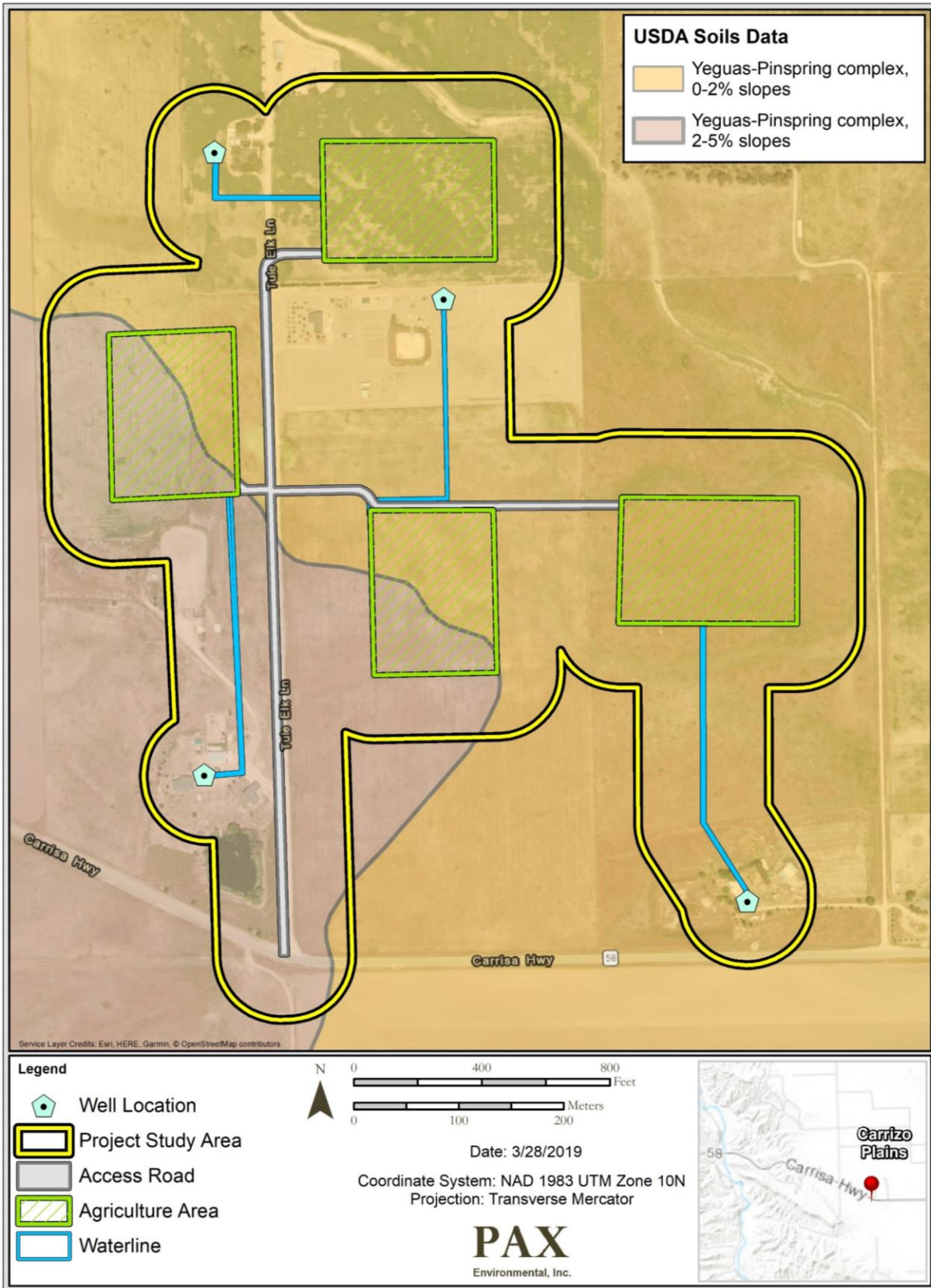


Figure 6: Study Area Soils Map

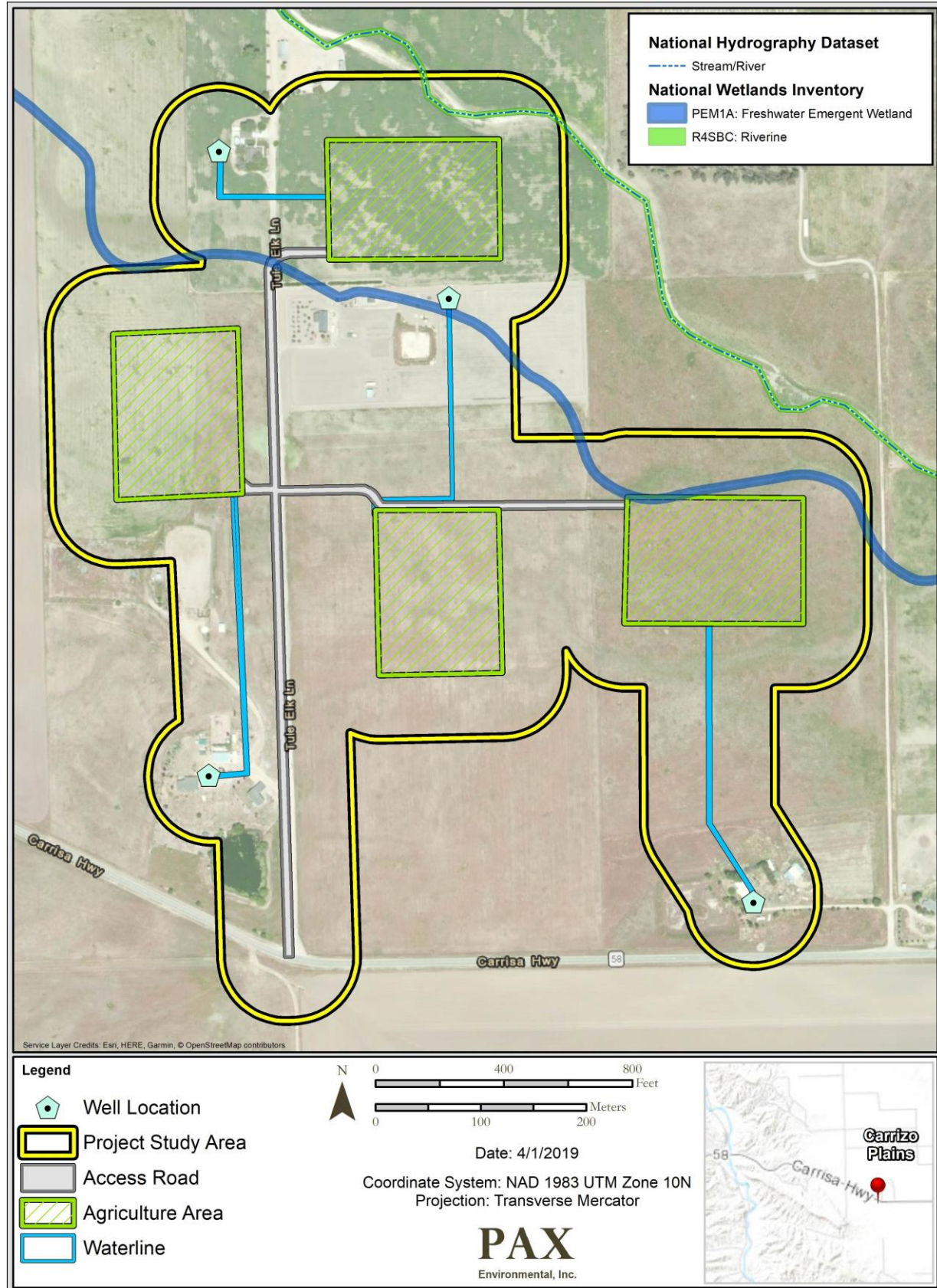


Figure 7: Study Area Hydrology Map

Figure 8: Site Photographs



Photo 1: Santa Margarita western Project site (11520 Tule Elk Lane) photographed from western boundary facing east.



Photo 2: Santa Margarita northern Project site (11330 Tule Elk Lane) photographed from eastern boundary facing west.



Photo 3: Santa Margarita central Project site (11525 Tule Elk Lane) photographed from southern boundary facing north.



Photo 4: Santa Margarita eastern Project site (8710 Carissa Hwy) photographed from southwest facing northeast.



Photo 5: SJKF-1 photographed from east facing west.



Photo 6: Ferruginous hawk between 8710 Carissa Hwy and 11525 Tule Elk Way.



Photo 7: Close-up of burrow at SJKF-3.



Photo 8: SJKF-1 photographed from east facing west.



Photo 9: SJKF-2 photographed from north facing south.



Photo 10: Kit fox scat photographed near SJKF-3.



Photo 11: SJKF-6 photographed from north facing south.



Photo 12: SJKF-7 photographed from west facing east.

Appendix A:
Kit Fox Evaluation Forms

Kit Fox Habitat Evaluation Form

Cover Sheet

Project Name Carrizo North Cannabis Farm

Date 12/15/2018

Project Location* 1 mile east of Bitterwater Road. Just north of Hwy 58

*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

California Valley Quadrangle

Lat/Long or UTM coordinates (if available)

35.372655 -120.076176

Project Description:

Project Size 5.39 Acres **Amount of Kit Fox Habitat Affected** 5.39 Acres

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

WHR type Dryland Grain Crop Acres 5.39

WHR type _____ Acres _____

WHR type _____ Acres _____

WHR type _____ Acres _____

Comments: Dryland grain crops surrounded by similar agriculture

Form Completed By: Sam C. Stewart IV

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)
 - 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)** No (0)

Scoring

1. Recovery importance	<u>15</u>
2. Habitat condition	<u>0</u>
3. Isolation	<u>5</u>
4. Mortality	<u>5</u>
5. Quantity of habitat impacted	<u>1</u>
6. Project results	<u>2</u>
7. Project shape	<u>10</u>
8. Recent observations	<u>10</u>

TOTAL	<u>48</u>
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Kit Fox Habitat Evaluation Form

Cover Sheet

Project Name Carrizo East Cannabis Farm

Date 12/15/2018

Project Location* 1 mile east of Bitterwater Road. Just north of Hwy 58

*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

California Valley Quadrangle

Lat/Long or UTM coordinates (if available)

35.369431 -120.072659

Project Description:

Project Size 5.85 Acres **Amount of Kit Fox Habitat Affected** 5.85 Acres

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

WHR type Dryland Grain Crop Acres 5.85

WHR type _____ Acres _____

WHR type _____ Acres _____

WHR type _____ Acres _____

Comments: Dryland grain crops surrounded by similar agriculture

Form Completed By: Sam C. Stewart IV

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)
- 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)** No (0)

Scoring

9. Recovery importance	<u>15</u>
10. Habitat condition	<u>0</u>
11. Isolation	<u>5</u>
12. Mortality	<u>5</u>
13. Quantity of habitat impacted	<u>1</u>
14. Project results	<u>2</u>
15. Project shape	<u>10</u>
16. Recent observations	<u>10</u>

TOTAL	<u>48</u>
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Revised 03/02-lpd

Kit Fox Habitat Evaluation Form

Cover Sheet

Project Name Carrizo South Cannabis Farm

Date 12/15/2018

Project Location* 1 mile east of Bitterwater Road. Just north of Hwy 58

*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

California Valley Quadrangle

Lat/Long or UTM coordinates (if available)

35.369899 -120.075819

Project Description:

Project Size 6.32 Acres **Amount of Kit Fox Habitat Affected** 6.32 Acres

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

WHR type Dryland Grain Crop Acres 6.32

WHR type _____ Acres _____

WHR type _____ Acres _____

WHR type _____ Acres _____

Comments: Dryland grain crops surrounded by similar agriculture

Form Completed By: Sam C. Stewart IV

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)
 - 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)** No (0)

Scoring

17. Recovery importance	<u>15</u>
18. Habitat condition	<u>0</u>
19. Isolation	<u>5</u>
20. Mortality	<u>5</u>
21. Quantity of habitat impacted	<u>1</u>
22. Project results	<u>2</u>
23. Project shape	<u>10</u>
24. Recent observations	<u>10</u>

TOTAL	<u>48</u>
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Kit Fox Habitat Evaluation Form

Cover Sheet

Project Name Carrizo West Cannabis Farm

Date 12/15/2018

Project Location* 1 mile east of Bitterwater Road. Just north of Hwy 58

*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

California Valley Quadrangle

Lat/Long or UTM coordinates (if available)

35.370775 -120.078543

Project Description:

Project Size 5.25 Acres **Amount of Kit Fox Habitat Affected** 5.25 Acres

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

WHR type Dryland Grain Crop Acres 2.95

WHR type Annual Grassland Acres 2.3

WHR type _____ Acres _____

WHR type _____ Acres _____

Comments: Dryland grain crops and annual grasslands surrounded by similar agriculture

Form Completed By: Sam C. Stewart IV

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)
- 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)
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- 6. Results of project implementation.
 - a. Project site will be permanently converted and will no longer support foxes (10)
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 - 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)** No (0)

Scoring

25. Recovery importance	<u>15</u>
26. Habitat condition	<u>10</u>
27. Isolation	<u>5</u>
28. Mortality	<u>5</u>
29. Quantity of habitat impacted	<u>1</u>
30. Project results	<u>2</u>
31. Project shape	<u>10</u>
32. Recent observations	<u>10</u>

TOTAL	<u>53</u>
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Appendix B:
Declaration of Biologist Qualifications

6.1 General Biological Report

PROJECT NAME/NUMBER: Four Sites in Santa Margarita

NAME OF BIOLOGIST: Sam Stewart FIRM: Pax Environmental

I am the primary field biologist for the above referenced project. I have the following minimum qualifications to comply with the County of San Luis Obispo's biological reporting requirements for this type of biological report (General):

- I have a bachelor's degree in Social Ecology from University of California Irvine, 1998
- I have previously conducted independent field work and reporting, and demonstrated the following:
 - ✓ Knowledge and experience in identification of habitats and vegetation associations found in San Luis Obispo County;
 - ✓ General knowledge of local plant and wildlife species;
 - ✓ General knowledge of sensitive habitats and plant and wildlife species;
 - ✓ Ability and experience in identifying potential impacts to plants, animals, and habitats;
 - ✓ Ability and experience in recommending mitigation measures to minimize impacts to plants, animals, and habitats;
 - ✓ Experience in monitoring for compliance with biological mitigation measures; and
 - ✓ Ability and experience in writing complete, well-written technical reports as per the County Guidelines for Preparation of Technical Reports.

Check one:



Attached is a representative copy (electronic) of a recent report I authored.



I previously submitted a representative copy of a report I authored.

With my signature I confirm that I meet all of the above qualifications and that I was a primary author of this report and provided field oversight and/or conducted a substantial portion of the field survey work.



March 29, 2019

Signature of Biologist

Date

Sam C. Stewart IV

Senior Biologist/Ecologist



Academic Background

Bachelors, Social Ecology, University of California, Irvine, 1998

Professional Experience

Sam Stewart is a Senior Biologist with 20 years of field experience in biological services. His experience includes biological constraints and technical impact analyses; focused surveys for special status plant and wildlife species; fish and aquatic macroinvertebrate sampling; complex analysis of food web relationships; aquatic toxicology; design and establishment of compensatory mitigation sites; wildlife relocation and long-term monitoring; long-term population studies; and invasive species control programs. He has extensive focused survey experience with fish and herpetofauna, including Threatened and Endangered species such as Santa Ana sucker, unarmored three-spine stickleback, arroyo toad, California red-legged frog, mountain yellow-legged frog, blunt-nosed leopard lizard, desert tortoise, and Coachella Valley fringe-toed lizard. Mr. Stewart has performed long-term population monitoring for Santa Ana sucker, arroyo toad, and red-legged frog, utilizing multi-metric bioassessment methodologies to track habitat changes and population health trends. He has also performed focused surveys and long-term monitoring of burrowing owl and desert kit fox utilizing motion-activated and endoscopic cameras to determine den occupancy and reproductive status. Mr. Stewart is a CDFW-trained practitioner of the Surface Water Ambient Monitoring Program (SWAMP) and can conduct rapid bioassessment of streams and wetlands per State Water Resources Control Board (SWRCB) standard operating procedures. He has conducted investigations in varied geographic areas including; deserts and watersheds of Los Angeles, Orange, San Diego, San Bernardino, Riverside, Imperial, Ventura, Santa Barbara, San Luis Obispo, Monterey, Kern, Fresno, and Tuolumne Counties in California as well as the deserts of Arizona. A brief list of key projects is presented below. A more detailed list is available upon request.

- **Biological Studies, Monterey Bay Regional Water Project (2015 to present).** Mr. Stewart performed field surveys, authored the vegetation community assessment, and performed peer-review of technical documents for the Castroville-Salinas and Santa Cruz County distribution segment of the Monterey Bay Regional Water Project, a desalinization plant and water distribution network extending through the cities of Salinas, Castroville, and Moss Landing.
- **On-call Services, Department of Water and Power (2016 to 2018).** Mr. Stewart assisted the Department of Water and Power with CEQA and CDFW Section 1600 compliance, and Biological Assessments/Biological Evaluation (BA/BE) for projects in the Angeles National Forest (ANF), including floristic surveys, tree inventories, nesting bird surveys, and protocol-level surveys for special status wildlife.
- **CEQA Compliance Surveys and Monitoring, Sustainable Power Group (2016 to 2018).** Mr. Stewart assisted SPower with environmental compliance on multiple project sites in the Antelope and San Joaquin valleys, performing focused surveys and monitoring for burrowing owl, San Joaquin antelope squirrel, and kit fox. Mr. Stewart also performed translocation of legless lizard, and long-term monitoring of occupied burrowing owl and kit fox burrows.
- **Focused Surveys and Monitoring, Tehachapi Renewable Transmission Project (TRTP) Southern California Edison (2010-2016).** Mr. Stewart served as the Lead Biologist for fish,

amphibian and reptile focused surveys on Segments 5, 6, 7, 8, and 11, and served as Lead Biological Monitor for construction on Segment 6 of Southern California Edison's (SCE) Tehachapi Renewable Transmission Project (TRTP) extending approximately 175 miles of native habitats and developed/disturbed areas from the Tehachapi Mountains in Kern County to the City of Ontario in San Bernardino County.

- **On-call Biological Services, Los Angeles County Department of Public Works (2001-2016).** Mr. Stewart was a Senior Biologist for on-call services with the LACDPW Flood Maintenance and Water Resources Divisions for 15 years. He conducted focused surveys for special status fish, amphibian and reptile species in reservoirs, storm water basins, and natural and/or modified creeks throughout Los Angeles County. Mr. Stewart prepared many technical analyses, including biological constraints, biological technical reports, population monitoring studies, and CEQA document sections. In addition, Mr. Stewart investigated episodic fish die-off in LACDPW facilities in the Los Angeles and San Gabriel rivers watersheds, collecting specimens and water samples for laboratory toxicological testing and completing causative analysis based on detected constituent concentrations and acute toxicity levels established by the Environmental Protection Agency (EPA).
- **On-call Biological Services, Caltrans Districts 7, 8, and 12 (2005-2010).** Mr. Stewart assisted Caltrans with environmental compliance on multiple project sites throughout coastal and desert areas in Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. He performed general biological surveys and protocol level surveys for special status plants and wildlife, including arroyo toad, California red-legged frog, desert tortoise, and burrowing owl. He was principal author of Natural Environment Studies (NES) for multiple interchange projects and served as the Lead Biologist for the Ortega Highway Safety Improvements project in the Cleveland National Forest, involving long-term population monitoring of the endangered arroyo toad in San Juan Creek. Mr. Stewart coordinated with Caltrans, the U.S. Forest Service (USFS), the USFWS, the County of Orange, and the Construction Contractor to ensure that monitors were present during construction activities and mitigation measures were enforced, including maintenance of exclusionary fencing. As part of the mitigation program required by the USFWS Biological Opinion, Mr. Stewart conducted annual focused surveys and a long-term population study of the arroyo toad. He also instituted an invasive aquatic species control program to remove American bullfrog, red-swamp crayfish, and African clawed frog. Given the success of the program, the USFWS requested continued funding as mitigation for other Caltrans 2010 emergency projects on SR-74.
- **Sections 404 and 1600 Compliance, Level III Communications, (1998-2000).** Mr. Stewart performed wetlands delineations and prepared permit applications for impacts to wetland resources in Burlington Northern Santa Fe (BNSF) railroad right-of-way throughout San Luis Obispo and Santa Barbara counties for a portion of a 2,000-mile long fiber optic cable installation in California.

Certifications

- California Department of Fish and Wildlife Scientific Collecting Permit (**No. SC-4421**) for Special Concern Species, arroyo toad, and red-legged frog.
- U.S. Fish and Wildlife Service-approved Biologist qualified to handle arroyo toad and California red-legged frog (**Biological Opinions 1-6-05-F-1688.6 and FWS-10B0117-10F0215, respectively**)
- Surface Water Ambient Monitoring Program (SWAMP) Practitioner – California Department of Fish and Wildlife, (Trained in 2013 and 2015).