



H. T. HARVEY & ASSOCIATES

Ecological Consultants



**Pankey, Pankey, Anderson & Flannery Cannabis Grow
Biotic Report**

HTH #4310-02

Prepared for:

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Section 1. Introduction

1.1 Purpose of This Report

The proposed Pankey, Pankey, Anderson & Flannery Cannabis Grow project (project) site in San Luis Obispo County, California is being developed on an approximately 3.75 acre area within a 76.5-acre parcel zoned for agriculture just north of the unincorporated town of San Miguel (Figure 1). The purpose of this biological resources impact analysis report is to assist the County of San Luis Obispo in the decision-making process regarding potential impacts on biological resources associated with implementing the project.

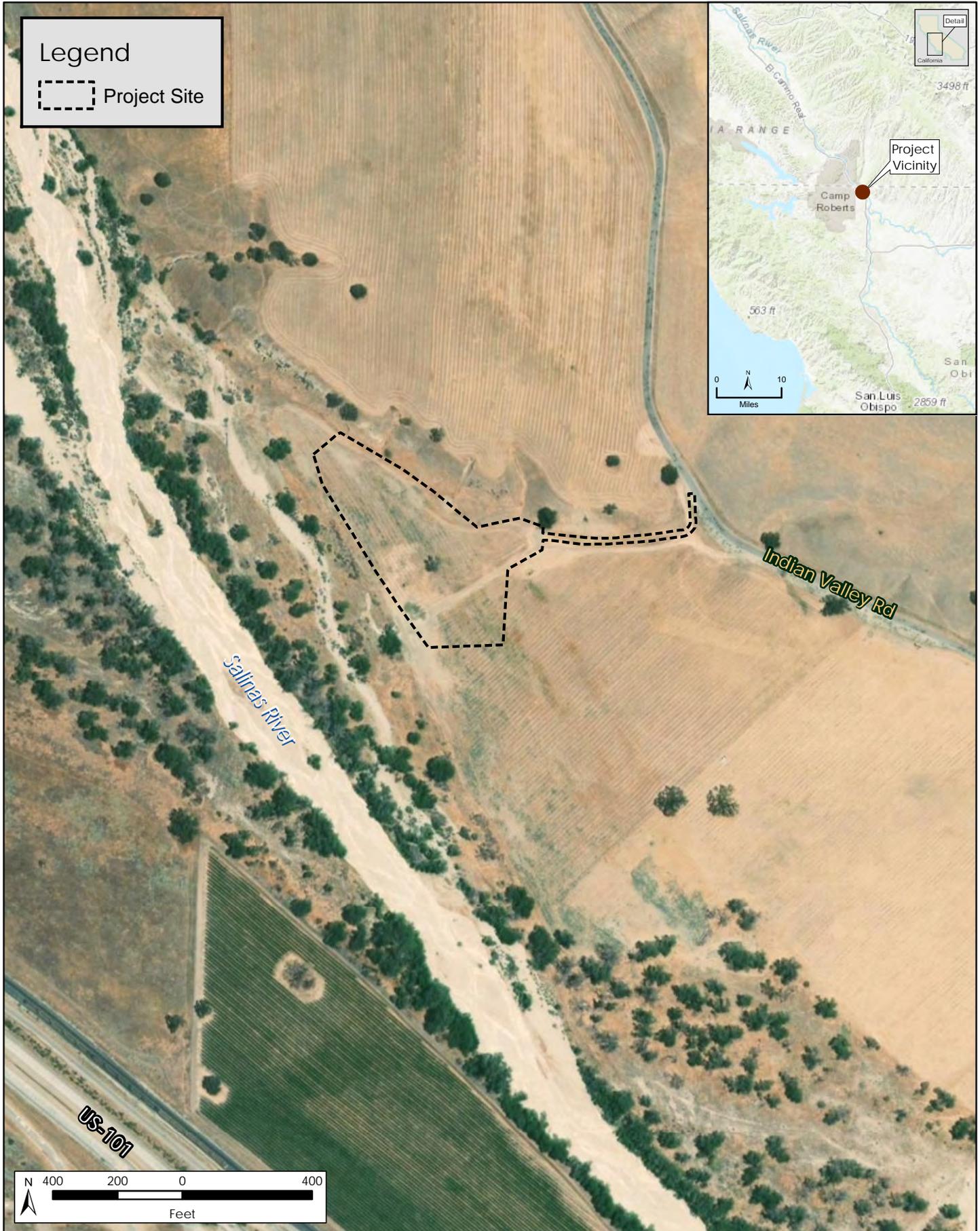
This report:

- Summarizes the environmental laws and regulations that apply to the project;
- Outlines the methods by which habitats and other biological resources in the project site were identified;
- Describes the project site's habitats, including those that may fall under the jurisdiction of resource agencies, as well as the project site's potential to support special-status species;
- Identifies impacts on biological resources that would result from constructing and operating the project; and
- Identifies mitigation measures to reduce potentially significant impacts to a less-than-significant level.

1.2 Project Description

1.2.1 Project Location/Minimum Site Area

This Minor Use Permit application is being submitted for the proposed outdoor cultivation of cannabis within a 3.75-acre area within a 76.5-acre± agriculture zoned property (APN 027-420-001) located in the unincorporated area of San Miguel. The proposed operation, located east of and adjacent to the Salinas River, is on property that has historically been irrigated for the cultivation of alfalfa. The site is accessed via Indian Valley Road. The proposed outdoor cultivation operation is remotely located, and there are no schools, libraries, parks, playgrounds, recreation or youth centers, licensed drug, alcohol or sober living facilities within 1,000 feet (ft) of the proposed operation. The closest residence is located approximately 3,500 ft from the proposed site.



N:\Projects\4300\4310-01\Reports\Memo\Fig 1 Project Site.mxd



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Figure 1. Project Site
 Pankey, Pankey, Anderson, and Flannery Cannabis Grow Project
 Biological Due Diligence Memorandum (4310-02)
 August 2019

Located on a 76.5-acre parcel, the project exceeds the minimum 10-acre site required within the AG zone. The proposed cannabis operation will consist of three (3) acres of outdoor cultivation under hoop structures¹ and an ancillary area of three-quarters (0.75) of an acre for propagation of stock for on-site cultivation within the secured use area. The balance of the site will include operation-related components (e.g., parking, water well/water storage, incidental storage). Underground electrical and water utility connections will require trenching. Installation of an agricultural access road is also proposed. A site plan is provided in Appendix A.

1.2.2 Harvesting Operations for Off-Site Processing

The applicants will utilize the services of a contract processing company who will bring their equipment on-site for harvesting the crop. Harvesting operations in the field will be conducted by hand. The harvesting operation is anticipated to occur approximately 2 – 3 times per month during the late spring, summer, and fall seasons. The harvesting truck/equipment will be staged outside of the fenced cultivation area within the parking area. Equipment includes up to two (2) trucks with trailers, and a destemming trailer. Harvested cannabis will be transported to an off-site processing facility. No processing or storage of dried/cured cannabis will occur on site. The applicant is requesting ancillary transportation as part of the project description. While, the transport of cannabis to processing facilities is expected to be primarily conducted by a third-party licensed transporter, ancillary transportation will provide the applicant with operational flexibility.

1.2.3 Hours of Operation/Numbers of Employees/Parking

The proposed project's hours of operation, as with most agricultural operations, will vary by time of year and harvest schedule, although typical operating hours are anticipated to be from 7:00 a.m. to 4:00 p.m. seven (7) days per week. During peak harvest periods, employee hours could be extended to 7:00 a.m. to 7:00 p.m. The applicant anticipates employing four (4) employees on a day-to-day basis with an additional six (6)± employees during the harvest period. All employees will be involved in cultivation activities, including ancillary propagation activities, as needed. An Employee Safety & Training Manual has been prepared and will be provided to each employee, accordingly.

¹ Currently, the definition of Cannabis Hoop Structure was re-defined by the Planning Commission with the following recommendations to the Board of Supervisors (Board). On December 11, 2018, the Board approved the following description.

“Cannabis Hoop Structure. A plastic or fabric covered hoop structure that is temporary in nature, not more than 12 ft in height and do not have vertical sides exceeding five ft six inches (5'-6”) in height. They shall not have permanent anchors or foundation, so they can be readily removable. In addition, cannabis hoop structures shall not include any of the following:

- Trusses
- Wood construction, or
- Plumbing (does not include irrigation of the cannabis crop), mechanical, or electrical systems.
- Cannabis hoop in residential land use categories shall not exceed 120 cumulative square ft of floor area. Cannabis hoop structures in all other land use categories shall not exceed 300 linear ft per structure. For the purposes of this Chapter, cannabis cultivation or cannabis nurseries within a hoop structures are considered outdoor cultivation or outdoor nurseries. For the purposes of obtaining licenses, cannabis cultivation or cannabis nurseries within a hoop house can be considered indoor or mixed-light cannabis cultivation or cannabis nurseries.”

Parking for the noted employees is located between the existing agricultural access road from Indian Valley Road and at the entrance to the 3.75-acre facility. See attached site plans. While LUO §22.18.050.C.1 specifies parking requirements for agricultural uses, the number of full-time and full-time equivalent employees would require substantially less parking. The proposed parking area can accommodate approximately 25 spaces on site.

1.2.4 Neighborhood Compatibility and Setbacks

Surrounding Zoning

North – Agriculture

South – Agriculture

East – Agriculture

West – Agriculture

The subject property is surrounded by existing agricultural property, currently and primarily in irrigated alfalfa cultivation. The proposed project location is compatible with the surrounding agricultural and open space. It is a truly rural location; with no sensitive receptor uses within 1,000 ft of the property. While the project site is accessible from Indian Valley Road, there is no significant public view of the site. Additionally, the properties adjacent to the north, south, and east of project site (approximately 570 acres) is under the same ownership as the project site, thus further reducing any potential for compatibility issues.

LUO §22.40.050 D.3 requires minimum setbacks from property lines (at 300-ft) and from riparian vegetation of any watercourse (at 50- ft) for outdoor cannabis cultivation. Table 1 outlines the project setbacks.

Table 1. Project Setbacks

Required Setbacks	Project Setback (N)	Project Setback (S)	Project Setback (E)	Project Setback (W)
From Property Line 300-ft	➤ 1000-feet	25-ft*	420-ft	325-ft
From Riparian 50-ft	N/A	N/A	N/A	50-ft

* Since the property to the south (APN 027-420-002) is owned by the same entity as the subject parcel, the applicant would be requesting a modification to the prescribed setback, as allowed under LUO §22.040.50.D.3.e.

1.2.5 Air Quality

The project site will be accessed off of Indian Valley Road, a County maintained road, via an existing unpaved agricultural road that will continue to serve as an agricultural road for the existing alfalfa fields. Previous dust control measures have included the application of biologically appropriate soil stabilizers and the application of water via water truck. The applicant is familiar with the typical SLO County Air Pollution Control District air quality mitigation measures for dust control and shall employ these measures, as required.

1.2.6 Water Management Plan

The project site is located within the Salinas Valley Groundwater Basin Paso Robles Area Sub-basin (PRGB). In 2015, the State legislature approved a new groundwater management law known as the Sustainable Groundwater Management Act (SGMA). SGMA requires that high and medium priority basins comply with the new law. The Department of Water Resources designated the PRGB as a high priority basin and designated the basin to be in a “condition of critical overdraft.” The last Biennial Resource Management System report provided an overview of the Templeton/San Miguel/Shandon Water Supply and Systems and recommended a Level of Severity III. With this designation, all water demand is required to offset at a minimum of a 1:1 ratio. The subject property, including the proposed site, have been under continuous agricultural production of irrigated alfalfa via existing on-site wells. The proposed outdoor cultivation will “retire” 3.75+ acres of irrigated alfalfa and replace it with 3.75-acres of irrigated cannabis. Alfalfa is considered the single largest water user in California. Crops can, on average, use 3.8-acre ft/year (AFY) of water. In the cannabis industry, as with most agricultural crops, water use is dependent upon geographic location, macro/micro climates, precipitation rates, soils, and type of irrigation. Cannabis water use has been estimated to be in the range of 0.90 – 1.1 AFY². The proposed transition from alfalfa to cannabis complies with the offset minimum ratio required for a Level of Severity III resource.

The applicant is committed to use measures to minimize water use to the greatest extent possible. Water use for cannabis cultivation will be metered and documented. These meter readings will be provided to the County on a quarterly basis.

Water for fire suppression purposes will consist of a 5,000-gallon water tank and CalFire-approved hydrant. The applicant will comply with a CalFire project specific Fire Safety Plan.

1.2.7 Screening, Fencing, Security, and Power

The project site is set back approximately 630-ft± from the public right-of-way on Indian Valley Road, which is not a designated scenic roadway. There are no neighboring residents to the site, as the closest residence is located approximately 3,500-ft to the south east. There is existing PG&E electrical service to the property, which will be utilized for the on-site energy source for lighting, security cameras, water infrastructure, and miscellaneous equipment. Estimated annual electrical use is 9,700 kilowatt hours.

LUO §22.40.050.D.6 mandates that cannabis facilities shall not be visible from offsite and that activities shall occur within a secure fence of at least six ft in height that is both solid and durable. The applicant proposes to erect a 6-foot high chain link fence with slats and locked man and equipment gates, as depicted on the site plan (Appendix A, exhibit L-4).

² Source: Cannabis Cultivator’s Report on Water Usage, Swami Chaitanya, September 2015
<https://www.marijuanaventure.com/report-on-water-usage/>

The applicant will prepare a formal Security Plan (Plan) to be reviewed/approved by the Sheriff's Department. The plan will necessarily include, but not be limited to, the following:

- Emergency contact information;
- Location of NO Trespassing signage;
- Location of gates and security locking devices;
- Proposed security lighting – timed and motion sensor;
- Proposed security cameras.

The applicant is well informed that all land use permits and permitted cannabis activity sites are subject to review and inspection from law enforcement or any agents of the State or County charged with enforcing Chapter 22.40 – Cannabis Activities of the Land Use Ordinance.

Other security measures will include the installation of security cameras and security/safety lighting. See site plan for preliminary locations. Cameras will be conceptually located along the perimeter of the enclosed cultivation area, including at the entry gate access. The cameras will include a continuous recording feature and will be accessible from a cell phone or internet connection, while the information will be saved on-site and via cloud technology.

Motion-sensor lighting will be utilized for security and safety purposes. While no sensitive receptors are in close proximity to the proposed cultivation site, lights will be shielded and installed to focus downward to prevent light spill and glare. LUO §22.10.060 Exterior Lighting provides additional standards regarding illumination, intensity, shielding, etc. that would be useful in this application.

1.2.8 Nuisance Odors

LUO §22.40.050.D.8 mandates that all cannabis cultivation be sited and/or operated in a manner that prevents cannabis nuisance odors from being detected off site. As noted in the project description, the location of the proposed cultivation site is remote and surrounded by existing agricultural operations. It is noteworthy that the closest sensitive receptor is located at a distance of 3,500 ft (direction) from the proposed site. Wind rose information (i.e., how many hours per year the wind blows from any specific direction) can be obtained from the following web sites: https://www.meteoblue.com/en/weather/forecast/modelclimate/pasobles_united-states-of-america_5381438 and https://www.meteoblue.com/en/weather/forecast/week/sanmiguel_united-states-of-america_5392448.

1.2.9 Storage and Hazard Response Plan - (See LUO §22.40.040.K)

Sans County-specific cannabis pesticide use guidelines, the applicant will utilize the California Environmental Protection Agency Department of Pesticide Regulation (DPR) guidelines for cannabis cultivation (Appendix B). The project will be restricted in the use of pesticides and vertebrate repellents to materials that have active ingredients exempt from tolerance requirements and either exempt from registration requirements or have labels broad enough to include use on cannabis. The allowed materials to discourage rodents, castor oil and

geraniol, are listed as repellants rather than rodenticides and thus do not pose a risk of poisoning kit foxes. Pesticide application must be performed by a licensed party. The DPR provides the specific requirements and issues licenses and certificates for qualified pest control advisers and applicators for agricultural and other applications. Employees will wear eye protection and protective clothing while handling pesticides and other chemicals. Any accidental spillage will be immediately cleaned with chemical spill rags, recorded in a daily incident log, and the supervisor notified. Protocols will be posted at the site. Any injuries will also be reported and logs, and emergency services contacted, as warranted.

All pesticides and fertilizers will be properly labeled, stored, and applied to prevent contamination through erosion, leakage, or inadvertent damage from rodents, pest, or wildlife. Secure and designated storage is provided on-site in the proposed storage shed (Appendix A, exhibit L-4).

1.2.10 Waste Management Plan

Solid waste, including recyclables, will be serviced by San Miguel Garbage, the local waste hauler. The woody stems of the processed cannabis plants will either be composted on site or chipped/shredded and used for mulch. A three-bin compost area is located within the secured site. Portable restroom facilities will be provided for on-site employees. The project will not generate any other sources of waste water.

1.2.11 Records and Monitoring

LUO §22.40.040.F requires that the applicant maintain documentation verifying that all cannabis and/or cannabis products have been obtained from and are provided to other permitted and licensed cannabis operations. The applicant is informed that the County has the right to examine, monitor, and audit such records and documentation, which shall be made available upon County request.

The applicant is informed that they will be required to participate in a County-run Cannabis Monitoring Program and enter the program within ninety (90) days of adoption of said program. Any fees associated with the monitoring program will be paid by the applicant to the County, as required.

1.2.12 Other Permits/Licenses/Registrations

The applicants will be required to obtain the following permit(s), license, or related registrations.

1. A County of San Luis Obispo Business License.
2. A valid license from the State issued pursuant to California Business and Professions Code Section 19300.7 or 26050(a).
3. Enrollment in the Cannabis Cultivation General Order from the State Water Resources Control Board.
4. A Small Irrigation Use Registration (SIUR) from the Water Board – N/A as this program is for water users that intend to divert surface flows.

Section 2. Methods

2.1 Background Research

Before conducting surveys, H. T. Harvey & Associates biologists reviewed published information about threatened, endangered, and other special-status species and habitats in the vicinity of the project site. Information was obtained from the *Pankey Ranch Mining and Restoration Project Biological Assessment* (H. T. Harvey & Associates 2013), *Biological Opinion* (USFWS 2016), and *Pankey Property, Salinas River Mining and Restoration Project Preliminary Identification of Wetlands and Other Waters of the U.S.* (H. T. Harvey & Associates 2012).

A query of special-status plant and wildlife occurrences documented by the CDFW's California Natural Diversity Database (CNDDDB) was performed for a five-mile radius surrounding the project site's proposed footprint. In addition, updated information was obtained from Calflora (2019) and the CNPS's online *Inventory of Rare, Threatened, and Endangered Plants of California* (CNPS 2019) to determine which special-status plant species have been reported for the San Miguel quadrangle and eight surrounding quadrangles. For purposes of this assessment, "special-status species" are plant and wildlife species listed or proposed for listing as threatened or endangered under the federal ESA or CESA, candidates for listing under the ESA or CESA, wildlife listed as fully protected under the California Fish and Game Code (Section 3511), wildlife designated as species of special concern by CDFW, and plants that have been assigned a California Rare Plant Rank (CRPR) by CDFW.

The California Consortium of Herbaria (CCH) (CCH 2019) and *The Jepson Manual* (Baldwin et al. 2012) also provided information about the distribution and habitats of vascular plants. In addition, the National Wetlands Inventory, and applicable technical publications were reviewed.

2.2 Field Surveys

2.2.1 Reconnaissance-Level Survey

Reconnaissance-level field surveys of the project site were conducted on April 2, 2019 to identify biotic habitats, evaluate botanical and wildlife resources, and assess habitat suitability for special-status plant and wildlife species that may occur on the project site. Additionally the project footprint and an additional 300 ft surrounding the project site was surveyed for nesting raptors including signs of prior nesting. The surveys were conducted with consideration of soil types; topography; habitat conditions and special habitat features, such as sensitive plant communities or wetland indicator species; and jurisdictional waters. Direct and indirect evidence of wildlife were also identified during the field surveys.

This survey was conducted by an H. T. Harvey & Associates qualified ecologist. The ecologist walked approximately 100 foot meandering transects that provided full visual coverage of the site. No special-status plant or wildlife species or their sign was observed during the survey (Appendix B). The irrigated agricultural

habitat within the site provides habitat for common, rural wildlife species, such as ground-foraging and -nesting birds, pocket gophers (*Thomomys bottae*), and California ground squirrels (*Otospermophilus beecheyi*) (Appendix C). No evidence of current or prior nesting by raptors were observed. No burrows with entrances greater than 4 inches in diameter were observed, and California ground squirrel burrows were uncommon throughout the project site, reflecting the agricultural use of the site.

2.2.2 Wetland and Potential Jurisdictional Waters survey

On April 2, 2019, H. T. Harvey & Associates' plant ecologist, Ethan Barnes, M.S., conducted a field survey to evaluate and identify potential jurisdictional habitats on the project site, such as waters of the United States and/or State and riparian and vernal pool habitat in accordance with the *U.S. Army Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), and *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual* (USACE 2008b). No potential jurisdictional habitats were observed during the survey.

Section 3. Results of Biological Resource Assessment

3.1 Habitats

The site was disced prior to the April 2, 2019 field survey and the limited vegetation on the site was comprised of a mix of ruderal species (Appendix C). The site had recently supported cultivated alfalfa and oat hay. Ruderal habitat along the margins of the disced areas contained a mix of nonnative and native annual species such as wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), common cheeseweed (*Malva parviflora*), fiddleneck (*Amsinckia* sp.), and hare barley (*Hordueum murinum*).

No potential jurisdictional habitats, such as waters of the United States and/or State and riparian and vernal pool habitat, were observed on the project site. The conditions on the Cannabis Grow Project site had remained unchanged since the prior survey efforts and analyses for this portion of the 76.5-acre parcel contained in the Preliminary Identification of Wetlands and Other Waters of the U.S. (H. T. Harvey & Associates 2012), Biological Assessment (BA; H. T. Harvey & Associates 2012), and Biological Opinion (BO; [USFWS] United States Fish and Wildlife Service 2016).

3.2 Soils

Three primary soil types underlie the project site: Metz-Tujungua complex; Nacimiento-Los Osos complex; and Mocho clay loam. The Metz-Tujungua complex is found on flood plains and consists of somewhat excessively-drained soils formed from alluvium derived from mixed rock sources. Depth to a root restrictive layer is greater than 80 inches, and water availability to the restrictive layer is high to very high. This soil series occasionally floods and does not pond (NRCS 2019). Nacimiento-Los Osos complex consists of well-drained soils formed from residuum weathered from calcareous shale and/or sandstone parent material. Depth to a root restrictive layer is 20-40 inches, and water availability to the restrictive layer is moderately high (NRCS 2019). The Mocho clay loam soils are found on alluvial fans and consist of well-drained soil formed of alluvium derived of sedimentary rock. Depth to the restrictive root layer is greater than 80 inches, and water availability to the restrictive layer is moderately high (NRCS 2019).

3.3 Special-Status Species Overview

Seven special-status plant species and 14 special-status wildlife species have been documented in the vicinity of the project site (CNDDDB 2019; CNPS 2019). The following 7 plant species and 10 wildlife species have been removed from further consideration based on specific habitat requirements that are absent from the project site and the immediate surroundings: Indian Valley spineflower (*Aristocapsa insignis*), Hardham's evening-primrose (*Camissoniopsis hardhamiae*), Lemmon's jewelflower (*Caulanthus lemmonii*), straight-awned spineflower (*Chorizanthe rectispina*), Kellogg's horkelia (*Horkelia cuneata* ssp. *sericea*), shining navarretia (*Navarretia nigelliformis* ssp. *radians*), and Santa Cruz microseris (*Stebbinsoseris dicipiens*), vernal pool fairy shrimp (*Branchinecta lynchi*),

Western pond turtle (*Actinemys marmorata*), California legless lizard (*Anniella pulchra*), San Joaquin coachwhip (*Coluber flagellum ruddocki*), Coast horned lizard (*Phrynosoma blainvillii*), foothill yellow-legged frog (*Rana boylei*), Western spadefoot (*Spea hammondi*), tricolored blackbird (*Agelaius tricolor*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and Salinas pocket mouse (*Perognathus inornatus psammophilus*). Descriptions of these special-status plant and wildlife species, along with their legal status and habitat requirements, are provided in Tables 2 and 3, respectively. Figures 2 and 3 depict the distribution of CNDDB (2019) records of special-status plant and wildlife species and critical habitat in the vicinity of the project site. Four special-status wildlife species (i.e., burrowing owl, least Bell's vireo, American badger, and San Joaquin kit fox) that warrant additional analysis regarding their potential to occur on the project site and are discussed below.

Table 2. Special-status Plant Species That Could Occur on the Project Site

Common Name/ Scientific Name	Listing Status* (Fed/State/CRPR)	Habitat	Comments
Indian Valley spineflower <i>Aristocapsa insignis</i>	-/-/Rank 1B.2	Sandy soils in cismontane woodlands	Active agriculture and soil conditions on site do not provide appropriate habitat. Recorded 0.5 miles north of the site. Typical associate species not observed on site.
Hardham's evening-primrose <i>Camissoniopsis hardhamiae</i>	-/-/Rank 1B.2	Found in sandy or decomposed carbonate soils in chaparral and cismontane woodland, often after fires or similar disturbance.	Soil conditions within the project footprint do not provide appropriate habitat. Recorded 2.5 miles north of the site. Typical associate species not observed on site.
Lemmon's jewelflower <i>Caulanthus lemmonii</i>	-/-/Rank 1B.2	Found in pinyon and juniper woodland and valley and foothill grassland, often on exposed hillsides or road-cuts.	Active agriculture and soil conditions within the project footprint do not provide appropriate habitat. Recorded 1 mile south of the site. Typical associate species not observed on site.
Straight-awned spineflower <i>Chorizanthe rectispina</i>	-/-/Rank 1B.3	Found in chaparral, cismontane woodland, and coastal scrub on sand or gravel soils.	Active agriculture and soil conditions within the project footprint do not provide appropriate habitat. Recorded 2.5 miles north of the site. Typical associate species not observed on site.
Kellogg's horkelia <i>Horkelia cuneata ssp. sericea</i>	-/-/Rank 1B.1	Found in sandy or gravelly openings in closed-coned coniferous forest, maritime chaparral, coastal dunes, and coastal scrub.	Active agriculture and soil conditions within the project footprint do not provide appropriate habitat. Recorded 2.5 miles north of the site. Typical associate species not observed on site.

Common Name/ Scientific Name	Listing Status* (Fed/State/CRPR)	Habitat	Comments
Shining navarretia <i>Navarretia nigelliformis</i> ssp. <i>Radians</i>	-/-/Rank 1B.2	Sometimes in clay soils in Cismontane woodland, valley and foothill grassland, and vernal pools.	Active agriculture and soil conditions within the project footprint do not provide appropriate habitat. Recorded 2.5 miles north of the site. Typical associate species not observed on site.
Santa Cruz microseris <i>Stebbinsoseris dicipiens</i>	-/-/Rank 1B.2	Found in open areas on sandy or shaly soils and sometimes on serpentinite. Occurs in broadleaved upland forest, closed-coned coniferous forest, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland.	Active agriculture and soil conditions within the project footprint do not provide appropriate habitat. Recorded 2.5 miles north of the site. Typical associate species not observed on site.

* Key to Listing Status Abbreviations:

- = not listed.

California Rare Plant Rank (CRPR) Definitions:

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

California Native Plant Society Threat Code Extensions:

.1 = seriously endangered in California.

.2 = fairly endangered in California.

Table 3. Special-status Wildlife Species That Could Occur on the Project Site

Common Name/ Scientific Name	Listing Status* (Fed/State)	Habitat	Comments
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT/-	Primarily inhabits vernal pools, ephemeral swales, basalt flow depression pools, and depressions in sandstone rock outcrops. It can occur in roadside ditches and puddles, when in association with vernal pools. Pools of clear or tea-colored water with mud or grass bottoms are where they are typically found. The water needs to have low total dissolved solids, conductivity, alkalinity, and chloride and water temperatures of 43-68°F.	Although the project site occurs within vernal pool fairy shrimp critical habitat, no vernal pools or other wetland habitats were observed within the project site or vicinity during surveys.

Common Name/ Scientific Name	Listing Status* (Fed/State)	Habitat	Comments
Western pond turtle <i>Actinemys marmorata</i>	-/CSC	Primarily inhabits slow-moving streams and rivers but can occur in almost any permanent or ephemeral aquatic habitat and nearby upland habitats.	The Project site contains upland habitat adjacent to the Salinas River where turtles may cross. However, the existing agricultural land use is not conducive to nesting and the proposed future agricultural land use will not change significantly. No impacts to western pond turtle or their habitats will occur from project implementation.
California legless lizard <i>Anniella pulchra</i>	-/CSC	Requires sandy or loose loamy soils covered by sparse vegetation.	The existing agricultural land use provides suboptimal habitat for California legless lizard. No impacts to California legless lizard or their habitats will occur from project implementation.
San Joaquin coachwhip <i>Coluber flagellum ruddocki</i>	-/CSC	Found in valley grasslands and saltbush scrub. Prefers open, dry areas with few or no trees.	The existing agricultural land use provides suboptimal habitat for San Joaquin coachwhip. No impacts to San Joaquin coachwhip or their habitats will occur from project implementation.
Coast horned lizard <i>Phrynosoma blainvillii</i>	-/CSC	Found in a variety of habitats, most common in lowlands along sandy washes with scattered low shrubs. Requires open areas, bushes, patches of loose soil, and abundant supply of ants and other insects.	The existing agricultural land use provides suboptimal habitat for coast horned lizard. No impacts to coast horned lizard or their habitats will occur from project implementation.
Foothill yellow-legged frog <i>Rana boylei</i>	-/CSC, CT	Found within a few meters of rocky perennial streams in various habitats below elevations of 6370 ft.	The project site is adjacent to suitable habitat. No habitat or individuals will be affected by project implementation.
Western spadefoot <i>Spea hammondi</i>	-/CSC	Primarily inhabits grasslands and occasionally valley-foothill hardwood woodlands; vernal pools or similar ephemeral ponded wetlands required for breeding.	The Project site contains upland habitat adjacent to the Salinas River where toads may cross or seek refuge. However, the existing agricultural land use is not conducive to estivating. No impacts to western spadefoot toad or their habitats will occur from project implementation.

Common Name/ Scientific Name	Listing Status* (Fed/State)	Habitat	Comments
Least Bell's Vireo <i>Vireo bellii pusillus</i>	FE/CE	A riparian-obligate breeder, using dense thickets of early-successional willow shrubs and other low bushes along perennial or ephemeral streams.	Riparian habitat is absent from the Project site; marginally suitable riparian habitat is associated with the Salinas River within 100 ft of the project.
Burrowing owl <i>Athene cunicularia</i>	-/CSC	Found in open, dry grasslands, agricultural lands and rangelands, often associated with burrowing animals, such as ground squirrels.	Neither burrowing owls nor signs of their presence were observed during surveys of the site. The project site contains suitable habitat near the project site in scattered areas in grasslands where California ground squirrel burrows are present. No burrows suitable for burrowing owls are present within the project footprint.
Tricolored blackbird <i>Agelaius tricolor</i>	-/CT	Prefers to nest in large colonies in tall, dense vegetation near fresh water. Will also nest in agricultural fields. Foraging habitat outside the breeding season may include open grasslands and agricultural land.	Nesting habitat is absent from the site although the site provides potential foraging habitat.
Pallid bat <i>Antrozous pallidus</i>	-/CSC	Primarily roosts in rock crevices, trees, bridges, and buildings but also uses crevices and cavities in caves and mines. Found in many habitat types with open areas.	Roosting habitat is absent; suitable foraging habitat is present on the project site.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	-/CSC	Roosts in caves, tunnels, mines, and buildings. Sensitive to disturbance of roost sites. Found in many habitats, prefers mesic conditions.	Roosting habitat is absent; suitable foraging habitat is present on the project site.
Salinas pocket mouse <i>Perognathus inornatus psammophilus</i>	-/CSC	Occurs in dry open grasslands or in scrub on ridgetops and hillsides on fine textured soils between 200 and 1100 ft in elevation.	The existing agricultural land use provides suboptimal habitat for Salinas pocket mouse. The proposed future agricultural land use will not change significantly. No impacts to Salinas pocket mouse or their habitats will occur from project implementation.

Common Name/ Scientific Name	Listing Status* (Fed/State)	Habitat	Comments
American badger <i>Taxidea taxus</i>	-/CSC	Inhabits a wide variety of habitats, including open woodland, grassland, and agricultural land. Prefers areas with friable soils and abundant small-mammal burrows.	Agricultural activities reduce the quality of denning habitat on the project site. The site supports suitable foraging habitat.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE/CT	Inhabits open, arid habitats, primarily grassland and open scrubland.	Agricultural activities reduce the quality of denning habitat on the project site. The site supports suitable foraging habitat. Species has not been detected near the project site since 2007 despite intensive ongoing monitoring.

* **Key to Listing Status Abbreviations:**
 - = not listed.
 FE = federally listed as endangered.
 FT = federally listed as threatened
 CE = State listed as endangered
 CT = State listed as threatened.
 CSC = California species of special concern.

3.3.1 Burrowing Owl

Federal listing status: None

State listing status: Species of Special Concern

In California, the burrowing owl occupies lower-elevation, open, dry grasslands, deserts, and shrub-steppe habitats. Typical habitats are treeless with short vegetation and few to no shrubs (Plumpton and Lutz 1993). Burrowing owls are completely dependent on fossorial (adapted for burrowing or digging) mammals for nesting and roosting burrows. Common mammalian commensals include black-tailed prairie dog (*Cynomys* spp.), badger (*Taxidea taxus*), and colonial California ground squirrel. In northern California, burrowing owls are chiefly associated with California ground squirrel colonies that provide nesting, roosting, and escape burrows for the species. Burrowing owls are known to favor areas with short, sparse vegetation (Coulombe 1971; Haug and Oliphant 1990; Plumpton and Lutz 1993), which is the condition typically found in active squirrel colonies. In addition, burrowing owls may select areas that have a high density of available burrows (Plumpton and Lutz 1993).

Burrowing owls are broadly distributed in treeless, well-drained grasslands, steppes, deserts, prairies, and agricultural lands (Haug et al. 1993). In the northern and southern coastal zones (excluding most of Monterey County), Central Valley, and southeastern portion of California, they can be present year-round. Only small, scattered populations occur in the Great Basin and the desert regions of the southwestern part of the state (DeSante et al. 1997). Excluding migrants and occasional residents, burrowing owls are now mostly absent from the coast north of Sonoma County. In the northeastern corner of the state, they may largely reside during summer only (Polite 1990a). Except as occasional transients, they do not occur in high mountain areas, such as the Sierra Nevada and the ranges extending east from Santa Barbara County to San Bernardino County. The remaining major population densities of burrowing owls in California are in the Central and Imperial Valleys (DeSante et al. 1997).

Multiple historic CNDDDB (2019) records of burrowing owl occur within 5 miles of the project site, the nearest is from 1997, approximately 1.7 miles southwest of the project site. Scattered patches of suitable habitat with California ground squirrel burrows occur near the project site where grassland habitat occurs. However, no individuals, sign of burrowing owl, or burrows suitable for burrowing owls were observed during the April 2, 2019 survey of the project site.

3.3.2 Least Bell's Vireo

Federal listing status: Endangered

State listing status: Endangered

The least Bell's vireo is characterized as a riparian-obligate breeder (Kus 1998), using dense thickets of early-successional willow shrubs and other low bushes along perennial or ephemeral streams (Franzreb et al. 1994, Kus et al. 2010). Ideal least Bell's vireo nesting habitat includes a wide (greater than 800 ft) riparian corridor with dense shrub growth extending vertically from 2 to 10 ft, few trees greater than 3 inch diameter at breast height (dbh) in the canopy, and an open canopy (Kus 2002, Kus et al. 2010, Sharp and Kus 2006). These structural characteristics of the habitat are more important than vegetation composition. Least Bell's vireos build their nests near the edge of vegetation patches in the forks of low branches in dense shrubs or small trees. The majority of nests in California are built in willows, but a wide variety of other vegetation including coast live oak (*Quercus agrifolia*), California blackberry (*Rubus ursinus*), Mexican elderberry (*Sambucus mexicana*), poison oak (*Toxicodendron diversilobum*), and non-native trees are used by a minority of individuals. Upland vegetation adjacent to riparian habitats is frequently used for foraging, and sometimes nesting, by least Bell's vireos (USFWS 1998a). Bell's vireo nests are pendulous cup nests, typically located approximately 3 ft above the ground (Kus et al. 2010). Bell's vireos arrive on their breeding grounds in mid-March and typically leave their breeding range in August and September (Kus et al. 2010). Least Bell's vireos exhibit high breeding site fidelity, returning to the same territory, and even nesting in the same shrub, over multiple years (Kus 2002).

Least Bell's vireos historically nested in the upper Salinas River Valley in the Project vicinity. The last documented nesting effort in the vicinity was located along the Salinas River near Bradley, California, in 1983, approximately 8 mi north of the Project area. Since that time, singing males have been sporadically detected along the Upper Salinas River (CANG 2009, Roberson and Tenney 1993, H. T. Harvey & Associates 2012). One long-term study in the Project vicinity failed to detect any least Bell's vireos using intensive point count surveys along the Salinas and Nacimiento Rivers between 1992 and 2007 (Thorngate 2007). However, in 2005, a breeding male was observed several times in late spring 7 miles upstream of the Project area along the Salinas River before being observed with a presumed mate on 2 July, but this pair was not observed again on subsequent visits (FBC 2007). These individuals were observed in habitat described as willow riparian supporting cottonwoods, mule fat, and poison hemlock (*Conium maculatum*).

Protocol-level surveys for least Bell's vireos were conducted along the Salinas River adjacent to the Project site in 2006 and 2007, with negative results (Hancock and Woodbury 2006b). The species was also not detected during surveys conducted for willow flycatchers in 2007 (*Empidonax traillii*, FBC 2007). A single singing male detected on a single survey during protocol least Bell's vireo surveys conducted in 2012 was likely a dispersing individual rather than a paired bird defending a territory based on only being observed once during eight surveys. Nevertheless, the presence of this singing male, and other recent detections along the Salinas River suggests that the riparian habitat west of the site possesses at least potentially suitable breeding habitat for the species.

3.3.3 American Badger

Federal listing status: None

State listing status: Species of Special Concern

American badgers are highly specialized fossorial mammals that are found in a range of habitats, such as annual grasslands, oak woodland savannas, and semiarid shrub/scrublands that contain friable soils and relatively open ground. They are primarily nocturnal, although they are often active during the day. Badgers dig both to pursue prey (e.g., gophers, kangaroo rats [*Dipodomys* sp.], and chipmunks) and to create dens for cover and the raising of young. They breed during late summer, and females give birth to a litter of young the following spring. Badgers are solitary animals, and the home range of individuals varies by sex, season, and resource availability. A study conducted in northern Monterey County documented an average home range size of 479 acres for females and 2,948 acres for males (Quinn 2008). Their distribution varies depending on prey availability, burrowing sites, and mates; males typically range farther than females during the breeding season and summer months (Minta 1993).

Multiple historic CNDDB (2019) records of badger occur within 5 miles of the project site, the nearest and also the most recent is from 1999, approximately 1.0 miles northwest of the project site. Ongoing alfalfa cultivation reduces denning and foraging habitat value of the project site for badgers, and no evidence of this species was detected on the April 2, 2019 survey.

3.3.4 San Joaquin Kit Fox

Federal listing status: Endangered

State listing status: Threatened

The San Joaquin kit fox typically is found in annual grassland or mixed shrub/grassland habitats throughout low, rolling hills, and in valleys (Morrell 1972). These foxes will use grazed grassland habitat, as well as grasslands with scattered shrubs or structures such as power lines, wind turbines, and solar arrays. They also live adjacent to, and forage in, tilled and fallow fields and irrigated row crops (Warrick et al. 2007). They are primarily nocturnal, and their diet varies geographically, seasonally, and annually, but in most of the species' range, diet consists primarily of rodents, rabbits, ground-nesting birds, and insects (Scrivner et al. 1987; Spiegel et al. 1996). Giant kangaroo rats (*Dipodomys ingens*) are a favored prey item (Cypher et al. 2000). San Joaquin kit foxes require underground dens for temperature regulation, shelter, reproduction, and predator avoidance (Morrell 1972). They commonly modify and use dens constructed by other animals, such as California ground squirrels, American badgers, and coyotes (*Canis latrans*), and also will use human-made structures (USFWS 1998). Dens usually are constructed in loose-textured soils in areas with low slopes (USFWS 1998b).

Before 1930, the range of the San Joaquin kit fox included most of the San Joaquin Valley and adjacent foothills. The species' range extended from southern Kern County north to the city of Tracy in San Joaquin County on

the west side of the valley, and on the east side of the valley, its range extended north to La Grange in Stanislaus County (Grinnell et al. 1937). Additional kit fox localities include the Hollister area of San Benito County; areas of the Salinas River Valley of San Luis Obispo and Monterey counties; the Carrizo Plain; and a narrow band of suitable habitat in Contra Costa, San Joaquin, and northeastern Alameda counties (Jensen 1972; Swick 1973). Populations of the San Joaquin kit fox appear to be increasingly isolated from one another as a result of developments such as cities, aqueducts, irrigation canals, surface mining, road networks, petroleum fields, and other industrial projects (USFWS 1998b).

San Joaquin kit fox have been previously documented on Camp Roberts west of the project site; however, no kit fox sightings in the vicinity of the Cannabis Grow Project occur in the CNDDDB after 2007 (CNDDDB 2019), even though Camp Roberts was surveyed for kit fox annually from 2007 to 2017. Additionally, the available data indicate that there have not been verified sightings of San Joaquin kit fox in the Salinas River Valley at previously existing populations in Monterey County such as at Fort Hunter Liggett since 2002. The USFWS concluded in the most recent 5-Year Review of the San Joaquin Kit Fox (USFWS 2010) that both the Camp Roberts and Fort Hunter Liggett Military Reservation populations have been extirpated.

*Since documented, the Camp Roberts and Panoche populations have apparently been relatively small and isolated. The kit fox was first detected in 1960 at the California National Guard Training Site at Camp Roberts in the Salinas River Valley foothills west of the San Joaquin Valley (Balestreri 1981, as cited in White et al. 2000), increased in population numbers over the next 20 years, and then began a catastrophic decline in the late 1980s (White et al. 2000; Schwartz et al. 2005). Since 2002 only two observations of single kit fox, likely migrants, have occurred in the Camp Roberts area (M. Moore in litt. 2008), and **the most recent data indicate that the resident group has been extirpated** (J. Eliason, pers. comm., as cited in Schwartz et al. 2005; M. Moore in litt. 2008). **Likewise, kit fox have disappeared from the Fort Hunter Liggett Military Reservation further north in the Salinas-Pajaro area** (Service 2007a; Clark pers. comm. 2008)...*

There are no extant populations currently known north of the project site within the Salinas River Valley. The California Essential Habitat Connectivity Project (Spencer et al. 2010) conducted around the same time of the USFWS 5-Year Review appears to reflect this state of the knowledge stating that “Other documented connectivity issues in the region include (1) maintaining **potential** [emphasis added] for Endangered San Joaquin kit fox (*Vulpes macrotis mutica*) movement corridors from Camp Roberts Military Reservation in the central part of this ecoregion southeast into the Carrizo...”.

The “corridor between the Carrizo and the Salinas Valley” is at least 40 miles long and tens of thousands of acres in size. Penrod et al. (2010) modeled much of the corridor to be several miles wide. The project site is approximately 625 ft long (<0.3% of 40 miles) and approximately 4 acres so even at a mile wide the project would represent less than 0.02% of a 40 square mile corridor area. Furthermore, the majority of the proposed project is actively farmed and adjacent to riparian habitat associated with the Salinas River. Riparian habitat has

been documented through telemetry studies to be a poor movement corridor for kit fox because it provides habitat for predators such as coyotes and bobcats that prey on kit fox (Brian Cypher pers comm.).

Section 4. Environmental Impacts

4.1 Significance Criteria

The following significance criteria, based on Appendix G of the State CEQA Guidelines, were used to evaluate the project's impacts on biological resources.

Would the project:

- 1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS;
- 2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- 3) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- 5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- 6) Conflict with the provisions of an adopted habitat conservation plan, NCCP, or other approved local, regional, or State habitat conservation plan;

These criteria were applied to the analysis of potential impacts to biological resources using the measurements and significance thresholds described in Table 4, below.

Table 4. Application of Significance Criteria

Criterion	As Measured by...	Significance Threshold	Source
Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS?	The potential for the project to disrupt essential behaviors for survival or reproduction or result in the loss of species or their habitat.	Direct, indirect, and/or cumulative impacts result in a substantial adverse effect at a population level.	State CEQA Guidelines Appendix G checklist item (a)

Criterion	As Measured by...	Significance Threshold	Source
Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS?	<p>Acreage of temporary and permanent losses of vegetation, including riparian habitat or other sensitive natural community.</p> <p>Potential for facilitating the establishment and spread of noxious weeds and invasive and nonnative plants.</p> <p>Acreage of lost foraging and/ or breeding habitat for wildlife.</p>	Temporary and/or permanent losses of or disturbance to habitat occur, resulting in substantial adverse effects at a scale relevant to the resource.	State CEQA Guidelines Appendix G checklist item (b)
Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Acreage of affected jurisdictional wetland habitats.	Jurisdictional wetland habitats are substantially degraded or removed.	State CEQA Guidelines Appendix G checklist item (c)
Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Loss of corridor or nursery habitat or disruption in the use of these habitats.	Ecological services are reduced sufficient to substantially interfere with the target species use, survival, and/or reproduction in corridors and/or nursery habitats.	State CEQA Guidelines Appendix G checklist item (d)
Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Goals and objectives of relevant local policies or ordinances.	Direct conflict with goals or objectives of local policies or ordinances occurs.	State CEQA Guidelines Appendix G checklist item (e)
Conflict with the provisions of an adopted habitat conservation plan, natural Community conservation plan, or other approved local, regional, or State habitat conservation plan?	Goals and objectives of relevant conservation plans.	Direct conflict with goals or objectives of relevant conservation plan occurs.	State CEQA Guidelines Appendix G checklist item (f)

Notes: CDFW = California Department of Fish and Wildlife; CEQA = California Environmental Quality Act; USFWS = U.S. Fish and Wildlife Service.

4.2 General Biological Measures

The general biological measures (GBMs) listed below apply to almost all the impacts on biological resources identified in this report and therefore are not repeated for each separate effect. It is recommended that these measures be incorporated into the project and the conditions of approval.

GBM BIO-1: Prepare and Present Worker Environmental Awareness Program. A qualified biologist will prepare a worker environmental awareness program that will be presented to all construction personnel and employees before any ground-disturbing activities commence at the project site and will be continued as needed through the construction phase for all construction personnel. This presentation will explain to construction personnel how best to avoid impacts to special-status species during construction and operations. The program will consist of a brief presentation to all personnel constructing the project that explains concerns regarding impacts to sensitive resources, including special-status species. The program will include a description of sensitive resources known to exist or having the potential to occur on the project site; an explanation of the status of the species and their protection under applicable state and federal regulations; specific mitigation measures applicable to sensitive resources; and the penalties for violating state and federal regulations. The program will be recorded electronically, and all future facility employees shall be required to review the recording before initiating work on the project site.

GBM BIO-2: Implement Construction-specific Best Management Practices. Before ground-disturbing activities begin, the disturbance areas shall be clearly delineated using stakes, flags, or some other means.

- a. All construction pipes, culverts, and similar structures greater than 4 inches in diameter stored and/or stacked on the project site for one or more overnight periods will be either securely capped before storage or thoroughly inspected for wildlife before the pipe is subsequently moved, buried, capped, or otherwise used. Materials such as wooden pallets provide nesting and shelter habitat for birds during the nesting season, and artificial refugia for other special-status species shall be thoroughly inspected before they are used. Any wildlife encountered shall be allowed to escape unimpeded; removed by a qualified biologist and placed in a designated safe area away from construction activities; or left in place when required by regulations, policies, permits, and/or conditions of approval.
- b. To prevent entrapment of wildlife, all excavations, steep-walled holes, and trenches greater than 2 ft deep shall be covered with plywood or similar materials when not in use or provided with at least one escape ramp, not to exceed a 45-degree angle, constructed of earth dirt fill or wooden planks or other material that wildlife could ascend. Trenches will be inspected daily for entrapped wildlife before construction activities begin and immediately before the excavation is covered with plywood. Before such holes or trenches are filled, they will be thoroughly inspected for entrapped wildlife. Any wildlife discovered will be allowed to escape unimpeded before field activities resume or will be removed from the trench or hole by a qualified biologist and released at a safe nearby location.
- c. Avoidance and minimization of impacts on sensitive biological resources in active construction areas shall be aided by flagging, roping, or fencing.

- d. Dust shall be suppressed during construction activities when necessary to meet air quality standards and protect biological resources.
- e. To the extent practicable, vacant burrows will be preserved in place.
- f. To minimize disturbance of areas outside of the project site, all construction and operational vehicle traffic shall be restricted to established roads, construction areas, and other designated areas.
- g. Construction and operational vehicles shall observe a 25-mile-per-hour (MPH) speed limit in construction areas, except on county roads.
- h. All general trash, food-related trash items (e.g., wrappers, cans, bottles, food scraps), and other human-generated debris (e.g., cigarettes) scheduled to be removed shall be stored in animal-proof containers and/or removed from the site on a regular basis. No deliberate feeding of wildlife shall be allowed.
- i. Use of chemicals, fuels, lubricants, or biocides shall be in compliance with all local, State, and federal regulations. All uses of such compounds shall be in accordance with label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and federal legislation.
- j. No firearms shall be allowed on the project site.
- k. To prevent harassment or mortality of special-status species and common wildlife or destruction of their habitats, no domesticated animals of any kind shall be permitted on the project site, with the exception of grazing animals prescribed for vegetation management and trained working animals used specifically for livestock management or species surveys (e.g., horses, livestock working dogs, scent detection dogs).

4.3 Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS

4.3.1 Impact BIO-1: Impacts on Special-Status Species

Species for which the project may have an effect on are discussed below.

4.3.1.1 The project could result in the mortality of, and alteration of habitat for Burrowing Owl

Only a few appropriate burrows were observed during reconnaissance surveys and no individuals or sign (i.e., white wash, pellets) were observed, suggesting that the likelihood that this species would occur on the project site is remote. If burrowing owls are present on the project site, implementing the project would result in permanent and temporary impacts on suitable burrowing owl habitat and may result in injury or mortality of individual burrowing owls during construction. The deposition of top soil within the soil deposition area may increase habitat quality for California ground squirrels and therefore burrowing owls once vegetation is re-established. Disturbance of habitat during the breeding season (1 February through 31 August) could result in displacement of breeding birds and the abandonment of active nests. Specifically, ground disturbance during construction could contribute to the incidental loss of fertile eggs or nestlings or otherwise lead to nest

abandonment. Reductions in the numbers of this rare species, directly or indirectly (through nest abandonment or reproductive suppression), would constitute a significant impact. Furthermore, raptors, including owls, and their nests are protected under both federal and State laws and regulations, including the California Fish and Game Code (CFGC) Section 3503.5.

The following mitigation measures would reduce potential impacts to less than significant.

Mitigation Measure BIO-1.1: Conduct Focused Preconstruction Surveys for Burrowing Owl and Implement GBMs and Species-specific Avoidance Measures. As applicable prior to and during construction, the project applicant shall implement GBM BIO-1 and 2. Furthermore, no more than 15 days before the start of initial ground-disturbing activities for the project, a qualified biologist(s) knowledgeable of the species shall conduct focused preconstruction surveys for burrowing owls in conformance with the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). Surveys shall be completed in all areas of suitable habitat proposed for ground disturbance and shall include the following avoidance measures:

- Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist verifies through noninvasive methods either that the birds have not begun egg laying and incubation or that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Owls present on site after February 1 shall be assumed to be nesting unless evidence indicates otherwise. The protected exclusion zone established for the breeding season (see below) shall remain in effect until August 31 or, as determined based on monitoring evidence, until the young owls are foraging independently or the nest is no longer active.
- Site-specific exclusion zones shall be established and maintained between project activities and occupied burrowing owl burrows according to the recommended distances in the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012).
- If there is any danger that owls will be injured or killed as a result of construction activity during the nonbreeding season, the birds may be passively relocated. Relocation of owls during the nonbreeding season shall be performed by a qualified biologist using one-way doors, which shall be installed in all burrows in the impact area and left in place for at least two nights. The doors shall be removed and the burrows backfilled immediately before the initiation of grading or, if no grading would occur, left in place until the end of construction. To avoid the potential for owls evicted from a burrow to occupy other burrows in the impact area, one-way doors shall be placed in all potentially suitable burrows in the impact area when eviction occurs. 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 (CDFG 2012). The Burrowing Owl Exclusion Plan shall be submitted to the CDFW for review prior to implementation. If passive relocation is required, the Exclusion Plan should consider the installation of artificial burrows to facilitate use of the site by owls post-construction.

Level of Significance: Less than significant with mitigation

4.3.1.2 The project could result in the Disturbance of Nesting Least Bell's Vireo

The Cannabis Grow Project will avoid removal of riparian habitat. Furthermore, the limited amount of riparian habitat within 500 ft of the Cannabis Grow Project is of marginal value to least Bell's vireos because much of it lacks the dense understory vegetation preferred for nesting. A low risk remains that least Bell's vireos nesting in riparian habitat associated with the Salinas River west of the Project site could be disturbed during project construction. Implementation of avoidance and minimization measures that reflect construction activities associated with the Cannabis Grow Project and state and federal regulations would reduce potential impacts to less than significant.

Mitigation Measure BIO-1.2: Conduct Focused Preconstruction Surveys for Least Bell's Vireo and Implement GBMs and Species-specific Avoidance Measures. As applicable prior to and during construction, the project applicant shall implement GBM BIO-1 and 2. Furthermore, prior to undertaking construction activities during the period 15 March to 15 September, surveys for least Bell's vireos will be conducted by a CDFW and USFWS-approved biologist in all suitable habitat within 500 ft of the project site. Survey methods will conform to USFWS guidelines for the least Bell's vireo (USFWS 2001), with the exception that only two pre-construction surveys will be conducted. The second pre-construction survey will be conducted no more than 48 hours prior to the commencement of construction activities.

- If any least Bell's vireo nests or individuals are detected during the pre-construction survey, CDFW and the USFWS will be notified. A 500-foot buffer around each territory or nest will be established, all portions of the buffer(s) abutting construction activity areas will be marked, and no construction activities will be performed within the buffer(s) until all young have fledged and are foraging independently. No exceptions to this buffer distance will be allowed without prior approval from CDFW and the USFWS.
- If an active least Bell's vireo territory or nest is identified, a CDFW and USFWS-approved biologist will be present during all construction activities while the nest is active and until all young have fledged and are foraging independently to ensure that construction activities avoid the 500-ft buffer around the territory or nest. If construction activities occur immediately adjacent to the 500-ft buffer, the biologist will monitor the territory or nest to assess potential effects of construction activities on least Bell's vireos.
- A CDFW and USFWS-approved biologist will provide mandatory worker awareness training for all construction personnel, including any personnel added after construction commences, which includes, at a minimum, the biology and habitat needs of the least Bell's vireo and the project avoidance measures being taken to protect them.
- Qualifications of biologist(s) will be presented to CDFW and the USFWS for approval at least 30 days prior to the start of construction. The biologist(s) will have the authority to stop work if there is threat of harm to least Bell's vireos or if any conservation measures are not being fulfilled, and will notify CDFW and the USFWS within one working day of any work stoppage.

- A representative will be appointed during the employee education program to be the contact for any employee or contractor who inadvertently kills or injures a listed species or who finds a dead, injured, or entrapped individual. The representative will report the incident to CDFW and the USFWS via electronic mail and telephone within one working day.
- Nighttime construction work will be minimized to the extent feasible.

4.3.1.3 The project could result in the mortality of American Badger

American badger could potentially den adjacent to the cultivated field or within the limited amount of nonnative annual grassland on the site. Development of the project could result in injury or mortality of individuals if they are present during construction activities. This impact would be significant. Implementation of the following mitigation measures would reduce potential impacts to less than significant.

Mitigation Measure BIO-1.3a: Conduct Focused Surveys for American Badger. No more than 30 days before the start of construction activities, a qualified biologist shall conduct preconstruction surveys for American badgers. If a potentially active den is found in a construction area, the den openings may be monitored with a tracking medium or an infrared-beam camera for three consecutive nights to determine current use. Potential (inactive) dens within the limits of disturbance shall be blocked with a one-way door or excavated to prevent use during construction. Blocking with one-way doors is preferable to excavation where feasible; potential dens blocked with doors will be made available to American badgers after construction. If American badgers or active dens are detected during these surveys, Mitigation Measure 1.3b will be implemented.

Mitigation Measure BIO-1.3b: Implement GBMs and Avoid or Minimize Impacts on American Badger Dens. As applicable prior to and during construction, the project applicant shall implement GBM BIO-1 and 2. Furthermore, disturbance of any active American badger dens shall be avoided to the extent practicable. If present, occupied dens shall be flagged, and ground-disturbing activities avoided, within 50 ft of the occupied den during the nonbreeding season (July 1 through February 14). Flagging that is highly visible by construction crews shall encircle the occupied den at the appropriate buffer distance and shall not prevent access to the den by badgers. Dens determined to be occupied during the breeding season (February 15 through June 30) shall be flagged, and ground-disturbing activities avoided, within 200 ft to protect adults and young. The size of the exclusion zones may be modified by the qualified biologist, provided the badgers are protected, and shall not be removed until the qualified biologist has determined that the den is no longer in use.

If avoidance of an active non-maternity den is not feasible, badgers shall be relocated by first incrementally blocking the den over a 3-day period, followed by slowly excavating the den (either by hand or with mechanized equipment under the direct supervision of a qualified biologist, removing no more than 4 inches at a time) before or after the rearing season (February 15 through June 30). Any passive relocation of American badgers shall occur only under the direction of a qualified biologist.

Level of Significance: Less than significant with mitigation.

4.3.1.4 The project could result in the mortality of San Joaquin Kit Fox

Data and analyses, including the USFWS 5-Year Review, spanning more than a decade indicate that San Joaquin kit fox are absent from the vicinity. Furthermore, ongoing alfalfa cultivation and proximity to the riparian habitat reduce the suitability of the site for kit fox should transients occur. In the unlikely event that a transient San Joaquin kit fox uses the site, it could potentially den adjacent to the cultivated field or within the limited amount of nonnative annual grassland on the site. The project will be restricted in the use of pesticides and vertebrate repellents to materials that have active ingredients exempt from tolerance requirements and either exempt from registration requirements or have labels broad enough to include use on cannabis. The allowed materials to discourage rodents are listed as repellants rather than rodenticides and thus do not pose a risk of poisoning kit foxes. Other actions (e.g., trash, pets, vehicle traffic) associated with the project could pose a hazard to a transient kit fox should one occur; however, implementation of the following mitigation measures would reduce potential impacts to less than significant.

Mitigation Measure BIO-1.4. Implement GBMs, USFWS Standard Take Avoidance Measures, and Species-specific San Joaquin Kit Fox Avoidance Measures. As applicable prior to and during construction, the project applicant shall implement GBM BIO-1 and 2. Furthermore, the U. S. Fish and Wildlife Service Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance (Appendix E) shall be implemented. The aforementioned measures meet or exceed the majority of the standard kit fox CEQA mitigation measures recommended by San Luis Obispo County. However, the protective measures described in GBM BIO-1 and 2, and in Appendix E shall be referenced on project plans.

Level of Significance: Less than significant with mitigation.

4.3.2 Impact BIO-2: The project could result in the destruction of nests, eggs, or young of nesting raptors and birds

If any migratory bird (common species, raptors, or other special-status birds) nests in areas where direct construction disturbance would occur, work during the breeding season (typically, February 1 through September 15) could result in the destruction of nests, eggs, or young. Active nests could be removed, trampled, or crushed by construction. In addition, the noise, vibration, and movement of construction equipment and personnel close to the active nests of these species could cause adults to abandon eggs or young, resulting in their mortality. This impact would be significant; however, the following mitigation measures would reduce the potential impacts to less than significant.

Measure BIO-2a: Conduct Preconstruction Surveys for Nesting Birds. Before any disturbance of the project site (e.g., mobilization, staging, grading, or construction) occurs during the breeding season (generally February 1 through September 15), a qualified biologist shall conduct preconstruction surveys for raptors and other nesting birds covered by State and/ or federal regulations. The survey dates may be modified based on

local conditions, in coordination with the qualified biologist. The survey for the presence of raptors shall cover all areas within 500 ft of project construction for all other raptors except burrowing owls, which are addressed separately above. Surveys for other nesting birds shall cover areas within 300 ft of project construction.

Measure BIO-2b: Avoid or Minimize Impacts on Nesting Birds. If breeding birds with active nests (nests with eggs or chicks) are found before or during construction, the qualified biologist shall establish an appropriate restricted exclusion zone based on the species biology and the current and anticipated disturbance levels occurring in the vicinity of the nest. The objective of establishing the exclusion zone shall be to reduce the disturbance of nesting birds. All exclusion zones shall be marked using high-visibility flagging or fencing, and, unless approved by the qualified biologist, no construction activities shall be allowed within the exclusion zones until the young have fledged from the nest or the nest naturally fails.

Level of Significance: Less than significant with mitigation

4.4 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS

4.4.1 Impact Bio 3: Substantially adversely affect riparian habitat or communities identified in local or regional plans, policies, or regulations or by CDFW or USFWS

No riparian habitats or communities identified in local or regional plans, policies, or regulations or by CDFW or USFWS are present on the project site or near enough to the site to be substantially adversely affected by the project.

Level of Significance: Less than significant

4.5 Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means

4.5.1 Impact Bio 4: Substantially adversely affect state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means

No state or federally protected wetlands are present on the project site. The project site is setback 50 ft from the assumed top of bank for the Salinas River (Appendix A).

Level of Significance: Less than significant

4.6 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native

resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

4.6.1 Impact Bio 5: Interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

The California Essential Habitat Connectivity Project (Spencer et al. 2010) conducted around the same time of the USFWS 5-Year Review (2010), which concluded that the resident group in the Camp Roberts area had been extirpated, states that “maintaining **potential** [emphasis added] for Endangered San Joaquin kit fox (*Vulpes macrotis mutica*) movement corridors from Camp Roberts Military Reservation in the central part of this ecoregion southeast into the Carrizo...” is a concern. The “corridor between the Carrizo and the Salinas Valley” is at least 40 miles long and tens of thousands of acres in size. Penrod et al. (2010) modeled much of the corridor to be several miles wide. The project site is approximately 625 ft long (<0.3% of 40 miles) and approximately 4 acres so even at a mile wide the project would represent less than 0.02% of a 40 square mile corridor area. Furthermore, the majority of the proposed project is actively farmed and adjacent to riparian habitat associated with the Salinas River. Riparian habitat has been documented through telemetry studies to be a poor movement corridor for kit fox because it provides habitat for predators such as coyotes and bobcats that prey on kit fox (Brian Cypher pers comm.). Consequently, the proposed project will not reduce the ecological services of the corridor between the Carrizo and the Salinas Valley to a level that will substantially interfere with San Joaquin kit fox use, survival, and/or reproduction in the corridor, nor will the project impede the use of native wildlife nursery sites.

Level of Significance: Less than significant

4.7 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;

4.7.1 Impact Bio 6: Conflicts with local policies and ordinances related to resource protection

The Conservation and Open Space Element of the County of San Luis Obispo General Plan goals for biological resources include the following two goals that pertain to the project:

- **Goal BR 1 - Native habitat and biodiversity will be protected, restored, and enhanced, and**
- **Goal BR 2 - Threatened, rare, endangered, and sensitive species will be protected**

The County has also developed a San Joaquin Kit Fox Program (Program) together with CDFW to further these goals. The program describes standard measures and recommended requirements, and states that the

requirements for individual permits may vary depending on the type of project, extent of disturbance, and other project specifics.

The project site is located east of and adjacent to the Salinas River on property that has historically been irrigated for the cultivation of alfalfa. No riparian habitats or communities identified in local or regional plans, policies, or regulations or by CDFW or USFWS are present on the project site or near enough to the site to be substantially adversely affected by the project. Furthermore, the project would implement the following mitigation measures previously described:

- GBM BIO-1: Prepare and Present Worker Environmental Awareness Program.
- GBM BIO-2: Implement Construction-specific Best Management Practices.
- Mitigation Measure BIO-1.1: Conduct Focused Preconstruction Surveys for Burrowing Owl and Implement GBMs and Species-specific Avoidance Measures.
- Mitigation Measure BIO-1.2: Conduct Focused Preconstruction Surveys for Least Bell's Vireo and Implement GBMs and Species-specific Avoidance Measures.
- Mitigation Measure BIO-1.3a: Conduct Focused Surveys for American Badger.
- Mitigation Measure BIO-1.3b: Implement GBMs and Avoid or Minimize Impacts on American Badger Dens.
- Mitigation Measure BIO-1.4: Implement GBMs, USFWS Standard Take Avoidance Measures, and Species-specific San Joaquin Kit Fox Avoidance Measures.
- Measure BIO-2a: Conduct Preconstruction Surveys for Nesting Birds.
- Measure BIO-2b: Avoid or Minimize Impacts on Nesting Birds.

Implementation of these measures contribute to the achievement of Goal BR 1. Furthermore, a San Joaquin kit fox evaluation form was completed for the project (Appendix F) and mitigation measures (GBM BIO-1, GBM BIO-2, BIO-1.1, BIO-1.2, BIO-1.3a, BIO-1.3b, and BIO-1.4) are proposed to reduce impacts to threatened, rare, endangered, and sensitive species to less than significant levels consistent with Goal BR 2.

Level of Significance: Less than significant with mitigation.

4.8 Conflict with the provisions of an adopted habitat conservation plan, NCCP, or other approved local, regional, or State habitat conservation plan;

4.8.1 Impact Bio 7: Conflict with conservation plans

The project site is not located within an area containing a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Level of Significance: Less than significant

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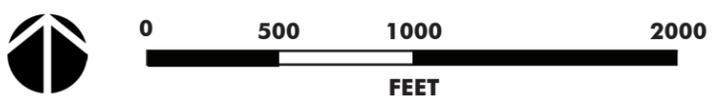
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Appendix A. Site Plan

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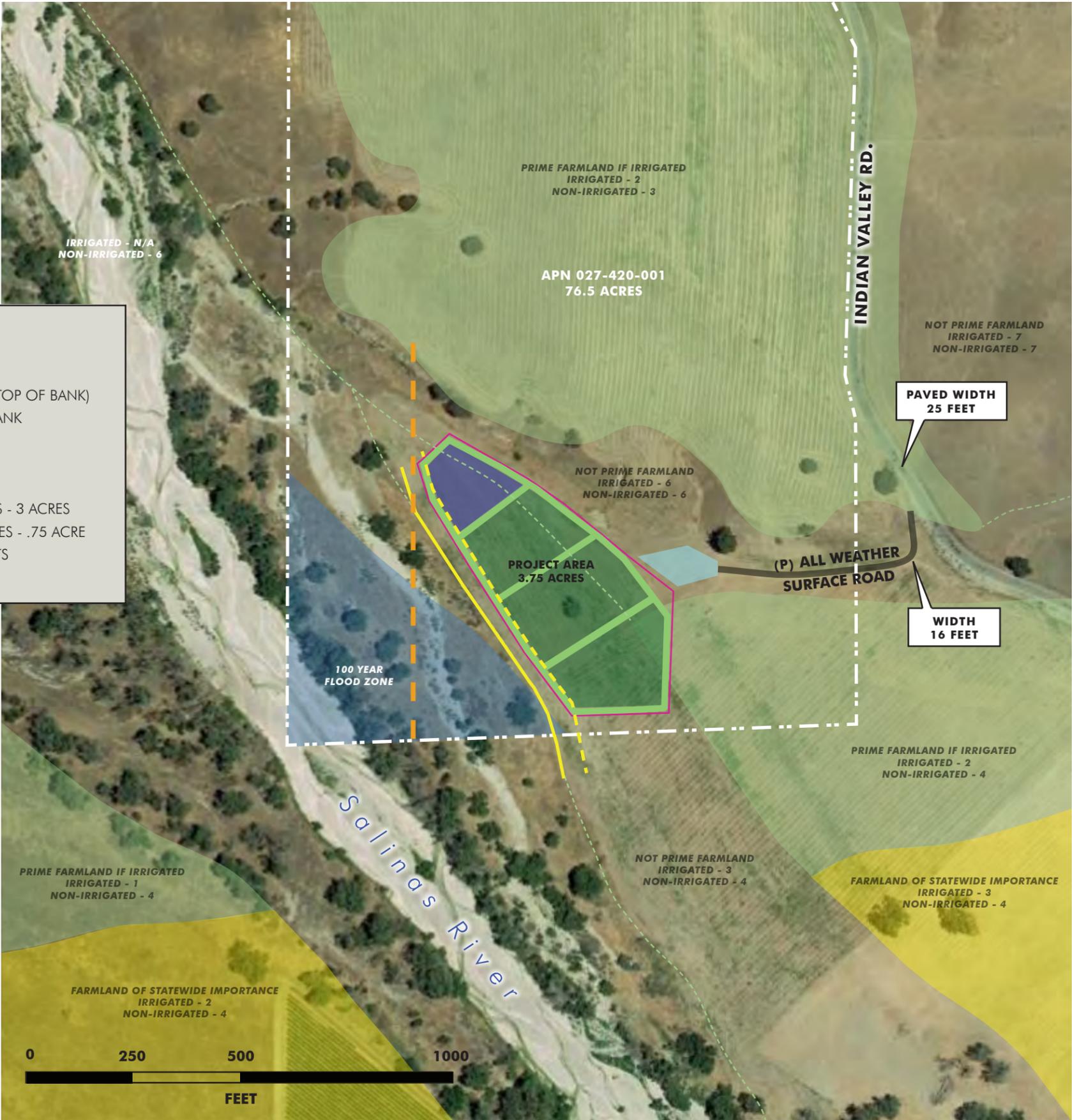


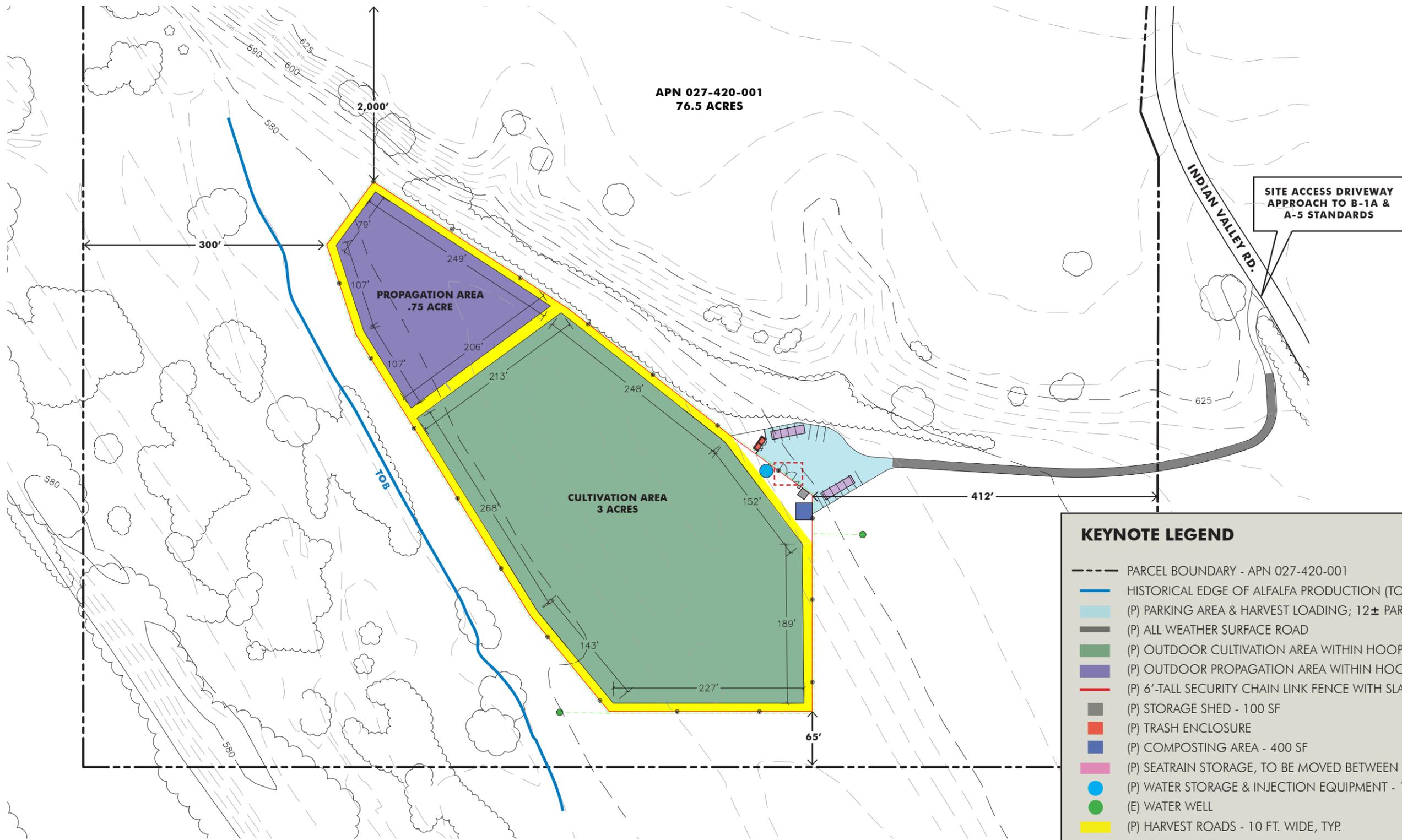
KEYNOTE LEGEND

- PARCEL BOUNDARIES
- PROPOSED PROJECT AREA
- PROPOSED PARKING AREA
- (E) D.G. ACCESS ROAD
- CLOSEST RESIDENCE TO PROPOSED SITE
- 1,000-FOOT BUFFER AROUND PROJECT AREA PROPERTY LINE
- APN UNDER COMMON OWNERSHIP - TANNEHILL RANCH LI, LLC

KEYNOTE LEGEND

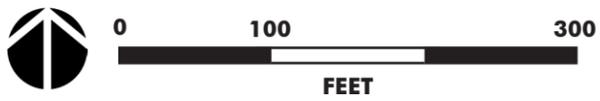
- PARCEL BOUNDARY - APN 027-420-001
- HISTORICAL EDGE OF ALFALFA PRODUCTION (TOP OF BANK)
- 50-FOOT SETBACK FROM ASSUMED TOP OF BANK
- 300-FOOT SETBACK FROM PROPERTY LINE
- PARKING AREA; 25± PARKING SPACES
- (P) ALL WEATHER SURFACE ROAD
- CULTIVATION AREA WITHIN HOOP STRUCTURES - 3 ACRES
- PROPAGATION AREA WITHIN HOOP STRUCTURES - .75 ACRE
- 6'-TALL SECURITY CHAIN LINK FENCE WITH SLATS
- HARVEST ROADS - 10 FT. WIDE, TYP.



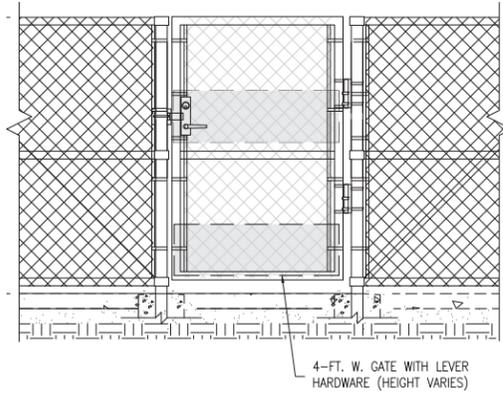


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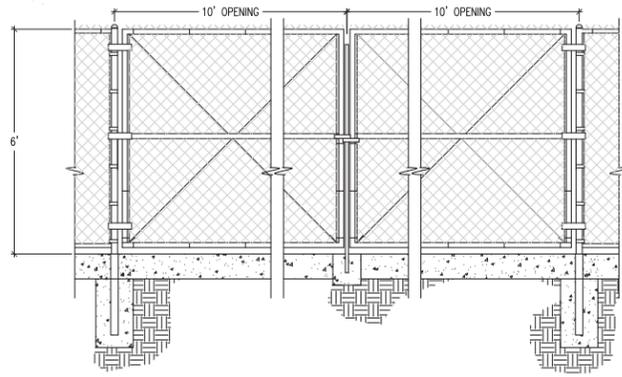
- PARCEL BOUNDARY - APN 027-420-001
- HISTORICAL EDGE OF ALFALFA PRODUCTION (TOP OF BANK)
- (P) PARKING AREA & HARVEST LOADING; 12± PARKING SPACES - APPROX. 10,000 SF
- (P) ALL WEATHER SURFACE ROAD
- (P) OUTDOOR CULTIVATION AREA WITHIN HOOP STRUCTURES - 3 ACRES
- (P) OUTDOOR PROPAGATION AREA WITHIN HOOP STRUCTURES - .75 ACRE
- (P) 6'-TALL SECURITY CHAIN LINK FENCE WITH SLATS
- (P) STORAGE SHED - 100 SF
- (P) TRASH ENCLOSURE
- (P) COMPOSTING AREA - 400 SF
- (P) SEATRIN STORAGE, TO BE MOVED BETWEEN LOCATIONS AS NEEDED
- (P) WATER STORAGE & INJECTION EQUIPMENT - 16' DIA.
- (E) WATER WELL
- (P) HARVEST ROADS - 10 FT. WIDE, TYP.
- (P) 6'-TALL FENCE WITH 4'-WIDE MAN GATE
- (P) 6'-TALL FENCE WITH (2) 10'-WIDE VEHICULAR GATES
- ⊙ (P) SECURITY CAMERAS & LIGHTS MOUNTED TO 10'-TALL POLES
- (P) RESTROOM
- - - (P) TRENCHING FOR UNDERGROUND UTILITIES (ELECTRIC & WATER)



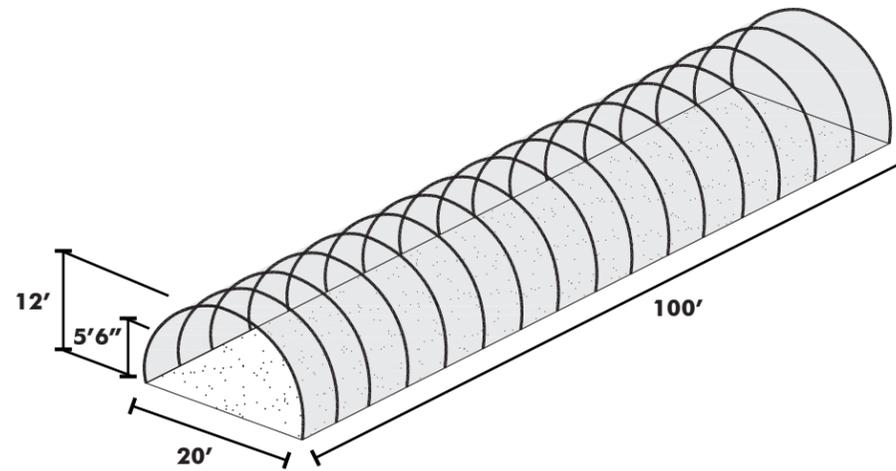
6'-TALL FENCE WITH 4'-WIDE MAN GATE



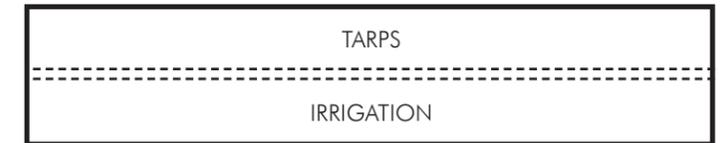
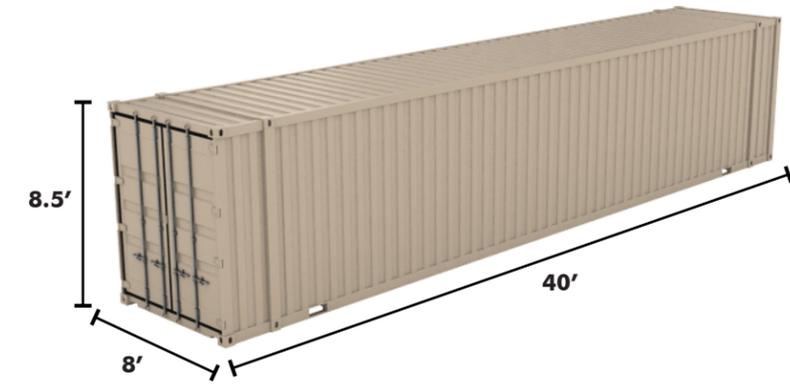
6'-TALL FENCE WITH (2) 10'-WIDE VEHICULAR GATES



HOOP HOUSE DETAIL



SEATRIN STORAGE CONTAINER

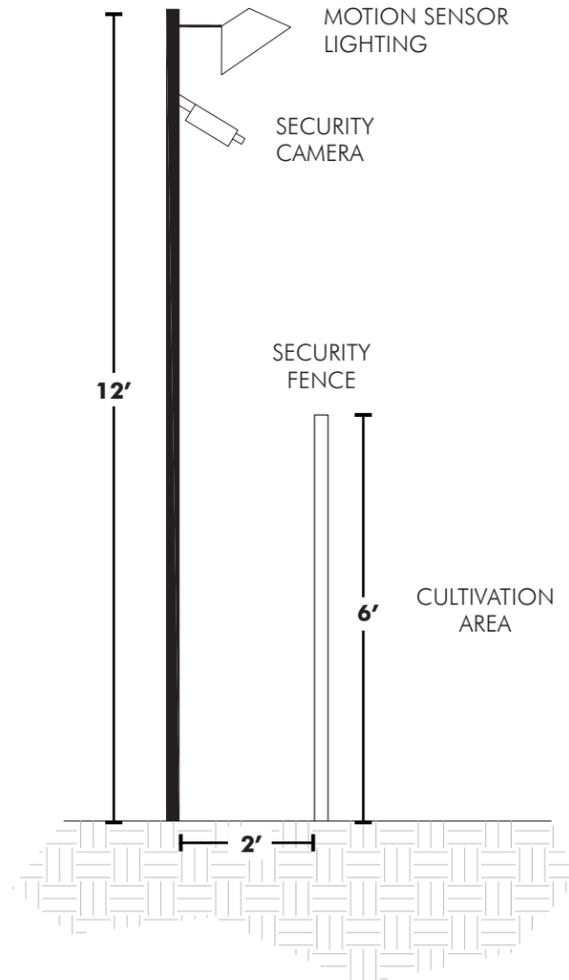


SEATRIN STORAGE CONTAINER FLOOR PLAN

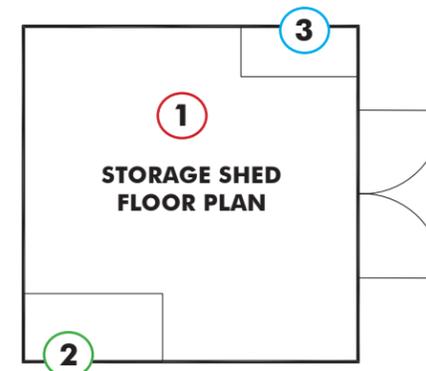
6'-TALL CHAIN LINK FENCE WITH SLATS



SECURITY FENCE & CAMERA SECTION



STORAGE SHED & CHEMICAL STORAGE CABINET



- 1 GENERAL STORAGE
- 2 FILE CABINET FOR STATE & COUNTY ON-SITE PAPER WORK; SECURITY RECORDING EQUIPMENT
- 3 CHEMICAL STORAGE CABINET

PROPOSED SECURITY CAMERAS & LIGHTS



AMCREST PRO-HD 4MP WIFI BULLET VIDEO CAMERA
MOUNTED ATOP 10' POLES SET 1-2' BEHIND THE SECURITY FENCE AND SPACED AT 98' ALONG THE ENTIRE PERIMETER OF THE FENCE



AMCREST PRO-HD 2 MEGAPIXEL WI-FI PTZ IR SPEED DOME
MOUNTED OVERLOOKING GATE ACCESS AND VARIOUS POINTS OF THE GARDEN CANOPY



AMCREST 32 CHANNEL NETWORK VIDEO RECORDER
ALLOWS FOR EXPANSION, CONTINUOUS RECORDING UP TO 24 TB STORAGE, MOTION DETECT ALARMS SENT TO PHONE AND OPTIONAL CLOUD STORAGE



240-DEGREE 500-WATT BRONZE HALOGEN SECURITY LIGHT
MOTION TRIGGERED PERIMETER SECURITY LIGHTING MOUNTED ON CAMERA POLES EVERY 98'

Appendix B. Pesticides that are Legal to Use on Cannabis

CANNABIS

PESTICIDES THAT ARE **LEGAL** TO USE



Protecting workers, the public, and the environment from adverse effects of pesticide use in cannabis cultivation is critical to the mission of the California Department of Pesticide Regulation (DPR). DPR and the County Agricultural Commissioners (CAC) enforce the use and sale of pesticides under Divisions 6 and 7 of the California Food and Agricultural Code (FAC), and Title 3 of the California Code of Regulations (CCR). These laws and regulations apply to all pesticide use; cannabis is no exception.

All pesticide product labels include a warning statement, precautionary statements for protecting human and environmental health, storage and disposal statements, and directions for use. By law, all pesticide users must follow these statements.

When using pesticide products in cannabis cultivation, applicators must not use a rate that is higher than the rates listed on the label and follow the agricultural use requirements including method of application, restricted entry interval, personal protective equipment, and pre-harvest interval.

Some pesticide products are never allowed in cannabis cultivation under any circumstances (see DPR's document: [Pesticides that Cannot be Used on Cannabis](#)).

Always read the label prior to using any pesticide.

PRODUCTS THAT CAN BE LEGALLY APPLIED TO CANNABIS IN CALIFORNIA

A pesticide product can legally be applied to cannabis under state law if the active ingredients found in the product are exempt from residue tolerance requirements and the product is either exempt from registration requirements or registered for a use that is broad enough to include use on cannabis.

Residue tolerance requirements are set by U.S. EPA for each pesticide on each food crop and are the amount of pesticide residue allowed to remain in or on each treated crop with "reasonable certainty of no harm." Some pesticides are exempt from the tolerance requirement when they are found to be minimal risk.

Active ingredients exempt from registration requirements are mostly food-grade essential oils such as peppermint oil or rosemary oil.

Cannabis cultivators who are licensed by the California Department of Food and Agriculture are required to comply with pesticide laws and regulations as enforced by DPR and the CAC's.

For more information:
www.cdpr.ca.gov/cannabis

PESTICIDES THAT ARE LEGAL TO USE ON CANNABIS

The following are examples of pesticide active ingredients that are exempt from tolerance requirements and either exempt from registration requirements or have labels broad enough to include use on cannabis. This is not an exhaustive list of active ingredients that may fit the legal use criteria. The active ingredients are organized by the intended target.

Insecticides and Miticides

- Azadirachtin
- *Bacillus thuringiensis* sub. *kurstaki*
- *Bacillus thuringiensis* sub. *israelensis*
- *Beauveria bassiana*
- *Burkholderia* spp. strain A396
- Capsaicin
- Cinnamon and cinnamon oil
- Citric acid
- Garlic and garlic oil
- Geraniol
- Horticultural oils (petroleum oil)
- Insecticidal soaps (potassium salts of fatty acids)
- Iron phosphate
- *Isaria fumosorosea*
- Neem oil
- Potassium bicarbonate
- Potassium sorbate
- Rosemary oil
- Sesame and sesame oil
- Sodium bicarbonate
- Soybean oil
- Sulfur
- Thyme oil

Fungicides and Antimicrobials

- *Bacillus amyloliquefaciens* strain D747
- Cloves and clove oil
- Corn oil
- Cottonseed oil
- *Gliocladium virens*
- Neem oil
- Peppermint and peppermint oil
- Potassium bicarbonate
- Potassium silicate
- Rosemary and rosemary oil
- Sodium bicarbonate
- *Reynoutria sachalinensis* extract
- *Trichoderma harzianum*

Vertebrate Repellants

- Castor oil
- Geraniol

Appendix C. List of Plant Species Observed on the Pankey, Pankey, Anderson & Flannery Cannabis Grow Project Site

Family Name	Scientific Name	Common Name	CRPR ¹	Native/ Nonnative	Cal-IPC Impact Rating ²
Amaranthaceae	<i>Amaranthus albus</i>	Tumbleweed	—	Nonnative	—
Asteraceae	<i>Ambrosia acanthicarpa</i>	Annual burweed	—	Native	—
	<i>Centaurea solstitialis</i>	Yellow starthistle	—	Nonnative	High
	<i>Matricaria discoidea</i>	Pineapple weed	—	Native	—
	<i>Senecio vulgaris</i>	Common groundsel	—	Nonnative	—
Boraginaceae	<i>Amsinckia</i> sp.	Fiddleneck	—	Native	—
	<i>Plagiobothrys canescens</i>	Valley popcorn flower	—	Native	—
Brassicaceae	<i>Brassica nigra</i>	Black mustard	—	Nonnative	Moderate
	<i>Capsella bursa-pastoris</i>	Shepherd's purse	—	Nonnative	—
Euphorbiaceae	<i>Croton setiger</i>	Dove weed	—	Native	—
Geraniaceae	<i>Erodium botrys</i>	Longbeak stork's bill	—	Nonnative	—
	<i>Erodium cicutarium</i>	Redstem filaree	—	Nonnative	—
	<i>Erodium moschatum</i>	Whitestem filaree	—	Nonnative	—
Malvaceae	<i>Malva parviflora</i>	Cheeseweed mallow	—	Nonnative	—
Poaceae	<i>Avena fatua</i>	Wild oat	—	Nonnative	Moderate
	<i>Bromus diandrus</i>	Ripgut brome	—	Nonnative	Moderate
	<i>Festuca perennis</i>	Italian rye grass	—	Nonnative	Moderate
	<i>Hordeum murinum</i> ssp. <i>leporinum</i>	Hare barley	—	Nonnative	Moderate
Solanaceae	<i>Datura wrightii</i>	Jimsonweed	—	Native	—

Notes: Cal-IPC Impact Rating = California Invasive Plant Council Invasive Plant Inventory rating; CRPR = California Rare Plant Rank.

¹ [California Rare Plant Rank](#)

— = not ranked.

² Cal-IPC Impact Rating categories:

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

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

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

= no Cal-IPC impact rating.

Source: California Invasive Plant Council. 2019. <www.cal-ipc.org>. Accessed February 11, 2019.

Appendix D. Animal Species Observed on the Pankey, Pankey, Anderson & Flannery Cannabis Grow Project Site

Common Name	Scientific Name
Birds	
House finch	<i>Haemorhous mexicanus</i>
House sparrow	<i>Passer domesticus</i>
Mourning dove	<i>Zenaida macroura</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Reptiles	
Side-blotched lizard	<i>Uta stansburiana</i>

Note: None of the species observed on the project site were special-status species.

Appendix E. U.S. Fish and Wildlife Service Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance

**U.S. FISH AND WILDLIFE SERVICE
STANDARDIZED RECOMMENDATIONS
FOR PROTECTION OF THE ENDANGERED SAN JOAQUIN KIT FOX
PRIOR TO OR DURING GROUND DISTURBANCE**

Prepared by the Sacramento Fish and Wildlife Office
January 2011

INTRODUCTION

The following document includes many of the San Joaquin kit fox (*Vulpes macrotis mutica*) protection measures typically recommended by the U. S. Fish and Wildlife Service (Service), prior to and during ground disturbance activities. **However, incorporating relevant sections of these guidelines into the proposed project is not the only action required under the Endangered Species Act of 1973, as amended (Act) and does not preclude the need for section 7 consultation or a section 10 incidental take permit for the proposed project.** Project applicants should contact the Service in Sacramento to determine the full range of requirements that apply to your project; the address and telephone number are given at the end of this document. Implementation of the measures presented in this document may be necessary to avoid violating the provisions of the Act, including the prohibition against "take" (defined as killing, harming, or harassing a listed species, including actions that damage or destroy its habitat). These protection measures may also be required under the terms of a biological opinion pursuant to section 7 of the Act resulting in incidental take authorization (authorization), or an incidental take permit (permit) pursuant to section 10 of the Act. The specific measures implemented to protect kit fox for any given project shall be determined by the Service based upon the applicant's consultation with the Service.

The purpose of this document is to make information on kit fox protection strategies readily available and to help standardize the methods and definitions currently employed to achieve kit fox protection. The measures outlined in this document are subject to modification or revision at the discretion of the Service.

IS A PERMIT NECESSARY?

Certain acts need a permit from the Service which includes destruction of any known (occupied or unoccupied) or natal/pupping kit fox dens. Determination of the presence or absence of kit foxes and /or their dens should be made during the environmental review process.

All surveys and monitoring described in this document must be conducted by a qualified biologist and these activities do not require a permit. A qualified biologist (biologist) means any person who has completed at least four years of university training in wildlife biology or a related science and/or has demonstrated field experience in the identification and life history of the San Joaquin kit fox. In addition, the biologist(s) must be able to identify coyote, red fox,

gray fox, and kit fox tracks, and to have seen a kit fox in the wild, at a zoo, or as a museum mount. Resumes of biologists should be submitted to the Service for review and approval prior to any survey or monitoring work occurring.

SMALL PROJECTS

Small projects are considered to be those projects with small foot prints, of approximately one acre or less, such as an individual in-fill oil well, communication tower, or bridge repairs. These projects must stand alone and not be part of, or in any way connected to larger projects (i.e., bridge repair or improvement to serve a future urban development). The Service recommends that on these small projects, the biologist survey the proposed project boundary and a 200-foot area outside of the project footprint to identify habitat features and utilize this information as guidance to situate the project to minimize or avoid impacts. If habitat features cannot be completely avoided, then surveys should be conducted and the Service should be contacted for technical assistance to determine the extent of possible take.

Preconstruction/preactivity surveys shall be conducted no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities or any project activity likely to impact the San Joaquin kit fox. Kit foxes change dens four or five times during the summer months, and change natal dens one or two times per month (Morrell 1972). Surveys should identify kit fox habitat features on the project site and evaluate use by kit fox and, if possible, assess the potential impacts to the kit fox by the proposed activity. The status of all dens should be determined and mapped (see Survey Protocol). Written results of preconstruction/preactivity surveys must be received by the Service within five days after survey completion and prior to the start of ground disturbance and/or construction activities.

If a natal/pupping den is discovered within the project area or within 200-feet of the project boundary, the Service shall be immediately notified and under no circumstances should the den be disturbed or destroyed without prior authorization. If the preconstruction/preactivity survey reveals an active natal pupping or new information, the project applicant should contact the Service immediately to obtain the necessary take authorization/permit.

If the take authorization/permit has already been issued, then the biologist may proceed with den destruction within the project boundary, except natal/pupping den which may not be destroyed while occupied. A take authorization/permit is required to destroy these dens even after they are vacated. Protective exclusion zones can be placed around all known and potential dens which occur outside the project footprint (conversely, the project boundary can be demarcated, see den destruction section).

OTHER PROJECTS

It is likely that all other projects occurring within kit fox habitat will require a take authorization/permit from the Service. This determination would be made by the Service during the early evaluation process (see Survey Protocol). These other projects would include, but are not limited to: Linear projects; projects with large footprints such as urban development; and projects which in themselves may be small but have far reaching impacts (i.e., water storage or conveyance facilities that promote urban growth or agriculture, etc.).

The take authorization/permit issued by the Service may incorporate some or all of the protection measures presented in this document. The take authorization/permit may include measures specific to the needs of the project and those requirements supersede any requirements found in this document.

EXCLUSION ZONES

In order to avoid impacts, construction activities must avoid their dens. The configuration of exclusion zones around the kit fox dens should have a radius measured outward from the entrance or cluster of entrances due to the length of dens underground. The following distances are **minimums**, and if they cannot be followed the Service must be contacted. Adult and pup kit foxes are known to sometimes rest and play near the den entrance in the afternoon, but most above-ground activities begin near sunset and continue sporadically throughout the night. Den definitions are attached as Exhibit A.

Potential den**	50 feet
Atypical den**	50 feet
Known den*	100 feet
Natal/pupping den (occupied <u>and</u> unoccupied)	Service must be contacted

***Known den:** To ensure protection, the exclusion zone should be demarcated by fencing that encircles each den at the appropriate distance and does not prevent access to the den by kit foxes. Acceptable fencing includes untreated wood particle-board, silt fencing, orange construction fencing or other fencing as approved by the Service as long as it has openings for kit fox ingress/egress and keeps humans and equipment out. Exclusion zone fencing should be maintained until all construction related or operational disturbances have been terminated. At that time, all fencing shall be removed to avoid attracting subsequent attention to the dens.

****Potential and Atypical dens:** Placement of 4-5 flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location; fencing will not be required, but the exclusion zone must be observed.

Only essential vehicle operation on existing roads and foot traffic should be permitted. Otherwise, all construction, vehicle operation, material storage, or any other type of surface-disturbing activity should be prohibited or greatly restricted within the exclusion zones.

DESTRUCTION OF DENS

Limited destruction of kit fox dens may be allowed, if avoidance is not a reasonable alternative, provided the following procedures are observed. The value to kit foxes of potential, known, and natal/pupping dens differ and therefore, each den type needs a different level of protection.

Destruction of any known or natal/pupping kit fox den requires take authorization/permit from the Service.

Destruction of the den should be accomplished by careful excavation until it is certain that no kit foxes are inside. The den should be fully excavated, filled with dirt and compacted to ensure that kit foxes cannot reenter or use the den during the construction period. If at any point during excavation, a kit fox is discovered inside the den, the excavation activity shall cease immediately and monitoring of the den as described above should be resumed. Destruction of the den may be completed when in the judgment of the biologist, the animal has escaped, without further disturbance, from the partially destroyed den.

Natal/pupping dens: Natal or pupping dens which are occupied will not be destroyed until the pups and adults have vacated and then only after consultation with the Service. Therefore, project activities at some den sites may have to be postponed.

Known Dens: Known dens occurring within the footprint of the activity must be monitored for three days with tracking medium or an infra-red beam camera to determine the current use. If no kit fox activity is observed during this period, the den should be destroyed immediately to preclude subsequent use.

If kit fox activity is observed at the den during this period, the den should be monitored for at least five consecutive days from the time of the observation to allow any resident animal to move to another den during its normal activity. Use of the den can be discouraged during this period by partially plugging its entrances(s) with soil in such a manner that any resident animal can escape easily. Only when the den is determined to be unoccupied may the den be excavated under the direction of the biologist. If the animal is still present after five or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgment of a biologist, it is temporarily vacant, for example during the animal's normal foraging activities.

The Service encourages hand excavation, but realizes that soil conditions may necessitate the use of excavating equipment. However, extreme caution must be exercised.

Potential Dens: If a take authorization/permit has been obtained from the Service, den destruction may proceed without monitoring, unless other restrictions were issued with the take authorization/permit. If no take authorization/permit has been issued, then potential dens should be monitored as if they were known dens. If any den was considered to be a potential den, but is later determined during monitoring or destruction to be currently, or previously used by kit fox (e.g., if kit fox sign is found inside), then all construction activities shall cease and the Service shall be notified immediately.

CONSTRUCTION AND ON-GOING OPERATIONAL REQUIREMENTS

Habitat subject to permanent and temporary construction disturbances and other types of ongoing project-related disturbance activities should be minimized by adhering to the following activities. Project designs should limit or cluster permanent project features to the smallest area possible while still permitting achievement of project goals. To minimize temporary disturbances, all project-related vehicle traffic should be restricted to established roads, construction areas, and other designated areas. These areas should also be included in preconstruction surveys and, to the extent possible, should be established in locations disturbed by previous activities to prevent further impacts.

1. Project-related vehicles should observe a daytime speed limit of 20-mph throughout the site in all project areas, except on county roads and State and Federal highways; this is particularly important at night when kit foxes are most active. Night-time construction should be minimized to the extent possible. However if it does occur, then the speed limit should be reduced to 10-mph. Off-road traffic outside of designated project areas should be prohibited.
2. To prevent inadvertent entrapment of kit foxes or other animals during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2-feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals. If at any time a trapped or injured kit fox is discovered, the Service and the California Department of Fish and Game (CDFG) shall be contacted as noted under measure 13 referenced below.
3. Kit foxes are attracted to den-like structures such as pipes and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is

- discovered inside a pipe, that section of pipe should not be moved until the Service has been consulted. If necessary, and under the direct supervision of the biologist, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.
4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site.
 5. No firearms shall be allowed on the project site.
 6. No pets, such as dogs or cats, should be permitted on the project site to prevent harassment, mortality of kit foxes, or destruction of dens.
 7. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of kit foxes and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, as well as additional project-related restrictions deemed necessary by the Service. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to kit fox.
 8. A representative shall be appointed by the project proponent who will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox. The representative will be identified during the employee education program and their name and telephone number shall be provided to the Service.
 9. An employee education program should be conducted for any project that has anticipated impacts to kit fox or other endangered species. The program should consist of a brief presentation by persons knowledgeable in kit fox biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program should include the following: A description of the San Joaquin kit fox and its habitat needs; a report of the occurrence of kit fox in the project area; an explanation of the status of the species and its protection under the Endangered Species Act; and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the project site.
 10. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc. should be

re-contoured if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to "temporary" disturbance means any area that is disturbed during the project, but after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the Service, California Department of Fish and Game (CDFG), and revegetation experts.

11. In the case of trapped animals, escape ramps or structures should be installed immediately to allow the animal(s) to escape, or the Service should be contacted for guidance.
12. Any contractor, employee, or military or agency personnel who are responsible for inadvertently killing or injuring a San Joaquin kit fox shall immediately report the incident to their representative. This representative shall contact the CDFG immediately in the case of a dead, injured or entrapped kit fox. The CDFG contact for immediate assistance is State Dispatch at (916)445-0045. They will contact the local warden or Mr. Paul Hoffman, the wildlife biologist, at (530)934-9309. The Service should be contacted at the numbers below.
13. The Sacramento Fish and Wildlife Office and CDFG shall be notified in writing within three working days of the accidental death or injury to a San Joaquin kit fox during project related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The Service contact is the Chief of the Division of Endangered Species, at the addresses and telephone numbers below. The CDFG contact is Mr. Paul Hoffman at 1701 Nimbus Road, Suite A, Rancho Cordova, California 95670, (530) 934-9309.
14. New sightings of kit fox shall be reported to the California Natural Diversity Database (CNDDDB). A copy of the reporting form and a topographic map clearly marked with the location of where the kit fox was observed should also be provided to the Service at the address below.

Any project-related information required by the Service or questions concerning the above conditions or their implementation may be directed in writing to the U.S. Fish and Wildlife Service at:

Endangered Species Division
2800 Cottage Way, Suite W2605
Sacramento, California 95825-1846
(916) 414-6620 or (916) 414-6600

EXHIBIT "A" - DEFINITIONS

"Take" - Section 9 of the Endangered Species Act of 1973, as amended (Act) prohibits the "take" of any federally listed endangered species by any person (an individual, corporation, partnership, trust, association, etc.) subject to the jurisdiction of the United States. As defined in the Act, take means " . . . to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct". Thus, not only is a listed animal protected from activities such as hunting, but also from actions that damage or destroy its habitat.

"Dens" - San Joaquin kit fox dens may be located in areas of low, moderate, or steep topography. Den characteristics are listed below, however, the specific characteristics of individual dens may vary and occupied dens may lack some or all of these features. Therefore, caution must be exercised in determining the status of any den. Typical dens may include the following: (1) one or more entrances that are approximately 5 to 8 inches in diameter; (2) dirt berms adjacent to the entrances; (3) kit fox tracks, scat, or prey remains in the vicinity of the den; (4) matted vegetation adjacent to the den entrances; and (5) manmade features such as culverts, pipes, and canal banks.

"Known den" - Any existing natural den or manmade structure that is used or has been used at any time in the past by a San Joaquin kit fox. Evidence of use may include historical records, past or current radiotelemetry or spotlighting data, kit fox sign such as tracks, scat, and/or prey remains, or other reasonable proof that a given den is being or has been used by a kit fox. The Service discourages use of the terms "active" and "inactive" when referring to any kit fox den because a great percentage of occupied dens show no evidence of use, and because kit foxes change dens often, with the result that the status of a given den may change frequently and abruptly.

"Potential Den" - Any subterranean hole within the species' range that has entrances of appropriate dimensions for which available evidence is insufficient to conclude that it is being used or has been used by a kit fox. Potential dens shall include the following: (1) any suitable subterranean hole; or (2) any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that otherwise has appropriate characteristics for kit fox use.

"Natal or Popping Den" - Any den used by kit foxes to whelp and/or rear their pups. Natal/pupping dens may be larger with more numerous entrances than dens occupied exclusively by adults. These dens typically have more kit fox tracks, scat, and prey remains in the vicinity of the den, and may have a broader apron of matted dirt and/or vegetation at one or more entrances. A natal den, defined as a den in which kit fox pups are actually whelped but not necessarily reared, is a more restrictive version of the pupping den. In practice, however, it is difficult to distinguish between the two, therefore, for purposes of this definition either term applies.

"Atypical Den" - Any manmade structure which has been or is being occupied by a San Joaquin kit fox. Atypical dens may include pipes, culverts, and diggings beneath concrete slabs and buildings.

Appendix F. San Luis Obispo County San Joaquin Kit Fox Habitat Evaluation Form for the Pankey, Pankey, Anderson & Flannery Cannabis Grow Project Site

Kit Fox Habitat Evaluation Form

[\(guidelines\)](#)

Cover Sheet

Project Name Pankey, Pankey, Anderson & Flannery Cannabis Grow

Date 7/23/2019

Project Approximately two miles northwest of San Miguel, California and lies between the Salinas

Location* River and Indian Valley Road

*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

San Miguel

Lat/Long or UTM coordinates (if available)

10 S 707002 E 3962034 N

Project Description:

Project Size 3.75 Acres **Amount of Kit Fox Habitat Affected** 0 Acres

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

WHR type Fallow or alfalfa field 3.75 Acres

WHR type _____ Acres

WHR type _____ Acres

WHR type _____ Acres

Comments: _____

Form Completed By:

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

San Joaquin Kit Fox Habitat Evaluation form

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

Yes - Continue with evaluation form

No - Evaluation form/surveys are not necessary

1. Importance of the project area relative to Recovery Plan for Upland Species of the San Joaquin Valley, California (Williams et al., 1998)
 - A. Project would block or degrade an existing corridor linking core populations or isolate a subpopulation (20)
 - B. Project is within core population (15)
 - C. Project area is identified within satellite populations (12)
 - D. Project area is within a corridor linking satellite populations (10)
 - E. Project area is not within any of the previously described areas but is within known kit fox range (5)

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

3. Isolation of project area.
 - A. Project area surrounded by contiguous kit fox habitat as described in Question 2a-e (15)
 - B. Project area adjacent to at least 40 acres of contiguous habitat or part of an existing corridor (10)
 - C. Project area adjacent to <40 acres of habitat but linked by existing corridor (i.e., river, canal, aqueduct) (7)
 - D. Project area surrounded by ag but less than 200 yards from habitat (5)

E. Project area completely isolated by row crops or development and is greater than 200 yards from potential habitat (0)

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

A. Increased mortality likely (10)

B. Unknown mortality effects (5)

C. No long term effect on mortality (0)

Revised 03-02

5. Amount of potential kit fox habitat affected.

A. >320 acres (10)

B. 160 - 319 acres (7)

C. 80 - 159 acres (5)

D. 40 - 79 acres (3)

E. < 40 acres (1)

6. Results of project implementation.

A. Project site will be permanently converted and will no longer support foxes (10)

B. Project area will be temporarily impacted but will require periodic disturbance for ongoing maintenance (7)

C. Project area will be temporarily impacted and no maintenance necessary (5)

D. Project will result in changes to agricultural crops (2)

E. No habitat impacts (0)

7. Project Shape

A. Large Block (10)

B. Linear with > 40 foot right-of-way (5)

C. Linear with < 40 foot right-of-way (3)

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

A. Yes (10)

B. No (0)

Scoring

1. Recovery importance 5

2. Habitat condition 7

3.	Isolation	<u>7</u>
4.	Mortality	<u>0</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>0</u>

TOTAL 28

Revised 03/02-lpd