

Biological Report

for

Rich Properties Camatta Creek Road

APN 037-371-001, -002, & 037-351-002
San Luis Obispo County



Prepared for

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I certify that this Biological Report was prepared according to the Guidelines established by the County of San Luis Obispo Department of Planning and Building and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge and belief.



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February 12, 2020

Date



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February 12, 2020

Date

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Cover Page: Photo of fallow cropland habitat in southeast portion of the Study Area. January 4, 2020.

SYNOPSIS

- This report describes biological resources on 130-acres located on Shell Creek Road, San Luis Obispo County, California (Study Area). The Study Area includes portions of Assessor's Parcel Numbers (APN) 037-371-001, 037-371-002, and 037-351-002. Each parcel pertains to its own Project number.
- The proposed project (Project 1) entails installation of approximately 5.0 acres of related Project components for cannabis cultivation and will include hoop house structures, parking and road access, storage facilities, waterline infrastructure, and perimeter fencing.
- The proposed project (Project 2) entails installation of approximately 5.0 acres of related Project components for cannabis cultivation and will include hoop house structures, road access apron improvements at entrance, vehicle turn around, storage facilities, waterline infrastructure, and perimeter fencing.
- The proposed project (Project 3) entails installation of approximately 6.3 acres of related Project components for cannabis cultivation and will include hoop house structures, one 0.5-acre greenhouse, parking, road access and turn around, storage facilities, waterline infrastructure, and perimeter fencing.
- Habitat types identified and mapped within the Study Area consist of fallow cropland (in Projects 1 and 2), annual grassland (in Project 3 and in APN 037-371-002 along access road), and disturbed habitat (access road in APN 037-371-002).
- Surveys conducted on November 7, 2019 and January 4, 2020 identified 43 species, subspecies, and varieties of vascular plants in the Study Area. A spring botanical survey will be conducted in 2020 for Project 3 and an addendum to this report will be prepared. There are 10 special status plants with potential to occur in the Study Area. No special status plants were observed in the Study Area during the winter surveys in November 2019 and January 2020.
- Survey conducted on November 7, 2019 and January 4, 2020 identified 12 animal species: two invertebrate, eight birds, and two mammals. There are 12 special status animals with potential to occur in the Study Area. Two special status bird species, northern harrier and loggerhead shrike, were detected in the Study Area during the January 4, 2020 site survey.
- Biological resources that could be impacted by Project 1 include fallow cropland habitat. There is no potential for special status plant species to occur and mitigation is not required. Special status animal species with potential to occur could be impacted. Mitigation recommendations are provided to reduce potential impacts to sensitive biological resources.
- Biological resources that could be impacted by Project 2 include fallow cropland and disturbed habitat. There is no potential for special status plant species to occur and mitigation is not required. Special status animal species with potential to occur could be impacted. Mitigation recommendations are provided to reduce potential impacts to sensitive biological resources.
- Biological resources that could be impacted by Project 3 include annual grassland habitat. A spring botanical survey is recommended to determine potential impacts for species status plant species and an addendum to this report will be submitted. Special status animal species with

potential to occur could be impacted. Mitigation recommendations are provided to reduce potential impacts to sensitive biological resources.

1 INTRODUCTION

1.1 Purpose

The purpose of this report is to provide results from the study of biological resources on a 130-acre area (Study Area) located within portions of three parcels equivalent to 1,477.8-acres. This report provides analysis of potential impacts to biological resources from three proposed cannabis cultivation projects (Projects) on three separate parcels totaling approximately 16 acres of use area. Results include habitat assessment, preliminary botanical and wildlife inventory, special status species database search, and literature review. Discussion of special status species that have potential to occur within the Study Area, or be affected by the proposed Projects, is also included. The effects of each proposed Project on biological resources are evaluated and mitigation recommendations are outlined per Project.

1.2 Location

The Study Area is situated east of and adjacent to Shell Creek Road, north of Highway 58 and south of Highway 46, in San Luis Obispo County, California. The Study Area parcels (APNs 037-371-001, -002, and 037-351-002) and surrounding land uses are zoned Agricultural. Approximate coordinates for the center of the Study Area are 35.49318 N, 120.32300°W (WGS84) in the Camatta Ranch United States Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 1).

1.3 Local and Regional Context

The project is situated in the Shandon-Carrizo Sub-Area of the North County Planning Area, approximately 11.5 miles south of the community of Shandon, and 20 miles east of the City of Atascadero (Figure 2). The Shandon-Carrizo Sub-Area is a largely undeveloped, agriculture-based region located in northeastern San Luis Obispo County.

The Study Area and surrounding land is located on an undeveloped mesa used primarily for agriculture. A regional north/south corridor, Camatta Canyon, aligns the Study Area to the west. The Temblor Range is located distantly north-northeast while the La Panza Range is to the southwest. Onsite elevations range from approximately 1,300 feet along the western property line to 1,455 feet in the southeast portion. Shell Creek is a seasonal waterway that is located west of the Study Area and flows to the north where it meets with San Juan Creek and to Estrella River further northwest.

1.4 Project Description

Table 1 defines each Project with affiliated parcel numbers (APNs) and approximate work area in acres per Project. Installation of a 6-foot high security gate is proposed at the entrance to the site at Shell Creek Road. A proposed rural driveway will replace the existing dirt apron at the entrance. A brief project description per Project is provided in Sections 1.4.1-1.4.3 below.

TABLE 1. PROPOSED PROJECTS

Proposed Project	Parcel Number (APN)	Approximate Area (acres)
Project 1	037-371-001	5.0
Project 2	037-371-002	5.0
Project 3	037-351-001	6.0

1.4.1 Project 1 – APN 037-371-001

Proposed Project 1 includes installation of three sets of 10 hoop houses and supporting infrastructure, encompassing approximately 3.75 acres of grow space for cannabis cultivation (Appendix A). Six-foot-high metal deer fencing with privacy shade cloth is proposed to surround the hoop houses. The cultivation area will also include two 20 -foot by 20-foot compost areas. A 16-foot wide decomposed granite base road is proposed to access the cultivation area from the existing dirt ranch road. The access road and 10-space parking area will be shared with Project 2. Existing waterlines will be used for irrigation.

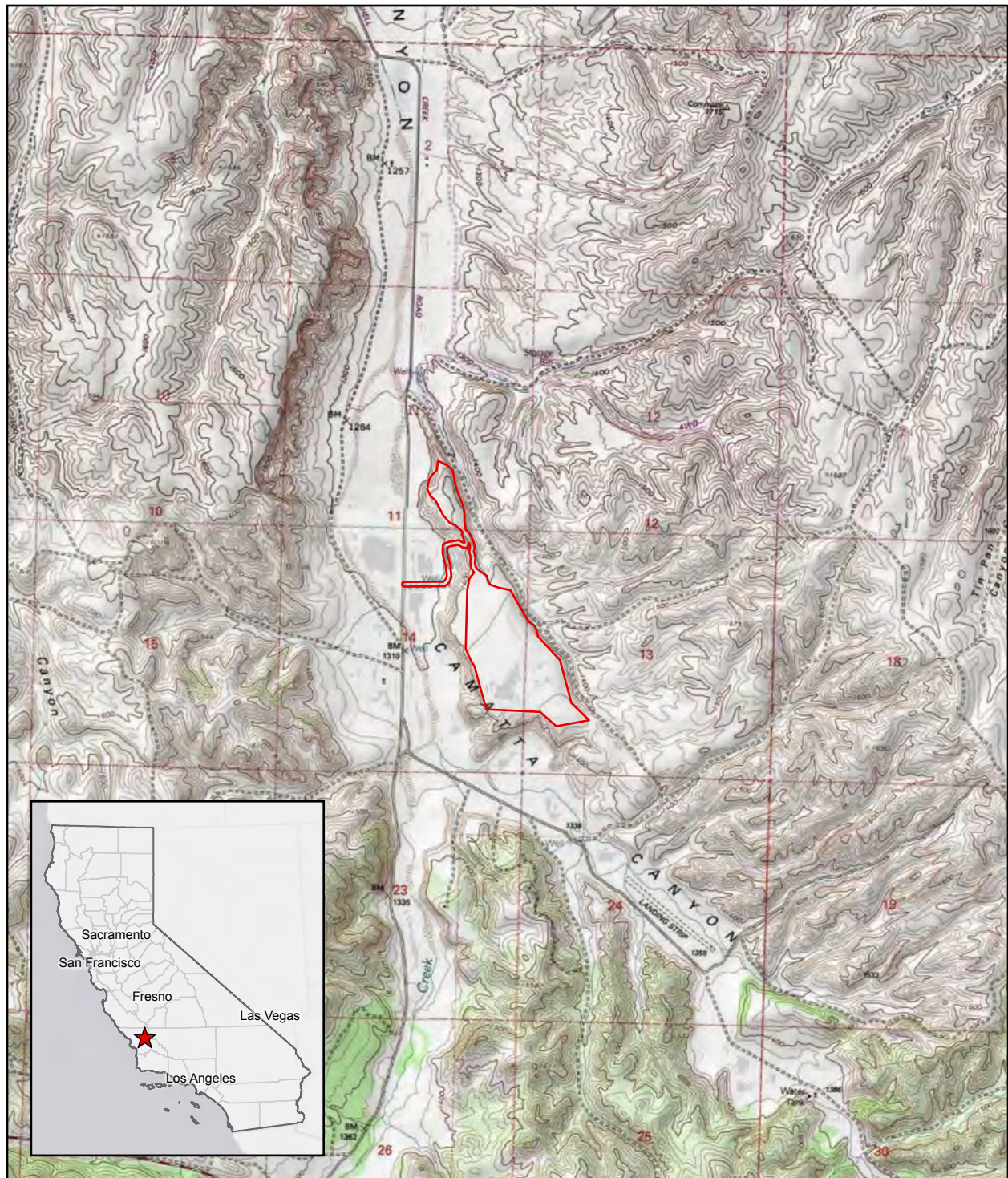
1.4.2 Project 2 – APN 037-371-002

Proposed Project 2 includes installation of three sets of 10 hoop houses and supporting infrastructure, encompassing approximately 3.75 acres of grow space for cannabis cultivation (Appendix A). Six-foot-high metal deer fencing with privacy shade cloth is proposed to surround the hoop houses. The cultivation area will also include two 20 -foot by 20-foot covered storage areas. A 16-foot wide decomposed granite base road is proposed to access the cultivation area from the existing dirt ranch road. The access road and 10-space parking area will be shared with Project 1. A new 10,000-gallon metal water tank is proposed to replace the existing smaller tank along the ranch road to the north, where existing waterlines would be utilized for irrigation.


1.4.3 Project 3 – 037-351-002

Proposed Project 3 includes installation of three sets of 10 hoop houses, and supporting infrastructure, encompassing approximately 3.75 acres of grow space for cannabis cultivation. (Appendix A). Additionally, a 0.5-acre nursery would be constructed at the site. A Six-foot-high metal deer fencing with privacy shade cloth is proposed to surround the site. The cultivation area will also include two 20 -foot by 20-foot covered storage areas and two 20 -foot by 20-foot compost areas. A 16-foot wide decomposed granite base road is proposed to access the cultivation area from the existing dirt ranch road. The access road will terminate at a turnaround and parking area consisting of ten spaces. Installation of a new waterline would extend along the existing dirt access road from a 10,000-gallon tank located on an adjacent parcel and will be used to irrigate the site.

Figure 1. United States Geological Survey Topographic Map



Legend

 Study Area (130.0 acres)



0 0.5 1 Mile

**APNs: 037-351-002,
037-371-001 and 037-371-002**
Map Center: 120.32143°W 35.495°N
San Luis Obispo County

USGS Quadrangles: Camatta Ranch and Camatta Canyon

1.5 Regulatory Framework

Standards for environmental protection and restoration, in the form of laws and regulations, are created within three different organizational levels of government: Federal, State, and Local. Entities exist within each level to create and enforce regulations that help ensure protection of specific and pertinent regional issues threatening ecosystems and environments. The following regulations are applicable to the proposed Project.

1.5.1 Federal Law and Regulations

Bald and Golden Eagle Protection Act. The Bald and Golden Eagle Protection Act (BGEPA) prohibits anyone, without a permit issued by the Secretary of the Interior, from taking (pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb) bald or golden eagles, including their parts, nests, or eggs. This includes substantially interfering with normal breeding, feeding, or sheltering behavior. Activities that may result in the take of a bald or golden eagle require permits; the three activities eligible for permits include to remove or relocate an eagle nest; to transport, exhibit, collect, or control eagles or eagle parts, and for incidental take of eagles.

Clean Water Act. The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting is required for filling waters of the U.S. (including wetlands). Permits may be issued on an individual basis or may be covered under approved nationwide permits.

Endangered Species Act. The federal Endangered Species Act (FESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. “Critical Habitat” is a term within the FESA designed to guide actions by federal agencies and is defined as “an area occupied by a species listed as threatened or endangered within which are found physical or geographical features essential to the conservation of the species, or an area not currently occupied by the species which is itself essential to the conservation of the species.” Actions that jeopardize endangered or threatened species and/or critical habitat are considered a ‘take’ under the FESA. “Take” under federal definition means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.

Projects that would result in “take” of any federally listed threatened or endangered species, or critical habitats, are required to obtain permits from the USFWS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of FESA, depending on the involvement by the federal government in permitting and/or funding of the project. Through Section 10, it is required to prepare a Habitat Conservation Plan (HCP) to be approved by the United States Fish and Wildlife Service (USFWS), which results in the issuance of an Incidental Take Permit (ITP). Through Section 7, which can only occur when a separate federal nexus in a project exists (prompting interagency consultation), a consultation by the various federal agencies involved can take place to determine appropriate actions to mitigate negative effects on endangered and threatened species and their habitat.

Migratory Bird Treaty Act. All migratory, non-game bird species that are native to the U.S. or its territories are protected under the federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13), as amended under the Migratory Bird Treaty Reform Act of 2004. The

MBTA makes it illegal to purposefully take (pursue, hunt, shoot, wound, kill, trap, capture, or collect) any migratory bird, or the parts, nests, or eggs of such a bird, except under the terms of a valid Federal permit. Migratory non-game native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA).

1.5.2 State Law and Regulations

California Endangered Species Act. The California Endangered Species Act (CESA), similar to FESA, contains a process for listing of species and regulating potential impacts to listed species. State threatened and endangered species include both plants and wildlife, but do not include invertebrates. The designation “rare species” applies only to California native plants. State threatened and endangered plant species are regulated largely under the Native Plant Preservation Act in conjunction with the CESA. State threatened and endangered animal species are legally protected against “take.” The CESA authorizes the California Department of Fish and Wildlife (CDFW) to enter into a memorandum of agreement for take of listed species to issue an incidental take permit for a state-listed threatened and endangered species only if specific criteria are met. Section 2080 of the CESA prohibits the take of species listed as threatened or endangered pursuant to the Act. Section 2081 allows CDFW to authorize take prohibited under Section 2080 provided that: 1) the taking is incidental to an otherwise lawful activity; 2) the taking will be minimized and fully mitigated; 3) the applicant ensures adequate funding for minimization and mitigation; and 4) the authorization will not jeopardize the continued existence of the listed species.

California Environmental Quality Act (CEQA). CEQA defines a “project” as any action undertaken from public or private entity that requires discretionary governmental review (a non-ministerial permittable action). All “projects” are required to undergo some level of environmental review pursuant to CEQA, unless an exemption applies. CEQA’s environmental review process includes an assessment of existing resources, broken up by categories (i.e., air quality, aesthetics, etc.), a catalog of potential impacts to those resources caused by the proposed project, and a quantifiable result determining the level of significance an impact would generate. The goal of environmental review under CEQA is to avoid or mitigate impacts that would lead to a “significant effect” on a given resource; section 15382 of the CEQA Guidelines defines a “significant effect” as

a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant.

Public agencies are required to implement CEQA and exercise jurisdiction to determine when applicable activities are or are not subject to CEQA. A public agency with the most prominent nexus and jurisdiction to a project is called the lead agency. The lead agencies determine the scope of what is considered an impact and what constitutes a “significant effect”. “Biological resources” is one of the varying categories considered during environmental review through CEQA. A lead agency can require a biological assessment to be prepared to report on existing biological resources and recommended mitigation measures that will reduce or lessen potential negative impacts to those biological resources. The questions listed in CEQA’s Appendix G: Biological Resources section, which are used to guide assessment of impacts to biological resources are as follows:

- *Does the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*
- *Does the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*
- *Does the project 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?*
- *Does the project 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?*
- *Does the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
- *Does the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The lead agency has the final determination over whether a project is or is not permissible, based upon the environmental review, completed requirements and environmental documentation, and their judgement that the project will not have a significant effect on the environment, or that all significant effects have been mitigated for.

California Fish and Game Code (CFGC). The California Fish and Game Code (CFGC) is one of the 29 legal codes that form the general statutory law of California. A myriad of statutes regarding fish and game are specified in the CFGC; the following codes are specifically relevant to the proposed Project:

California Native Plant Protection Act. Sections 1900-1913 of the California Fish and Game Code contain the regulations of the Native Plant Protection Act of 1977. The intent of this act is to help conserve and protect rare and endangered plants in the state. The act allowed the CFGC to designate plants as rare or endangered.

Lake and Streambed Alteration. Section 1602 of the CFGC requires any person, state, or local governmental agency to provide advance written notification to CDFW prior to initiating any activity that would: 1) divert or obstruct the natural flow of, or substantially change or remove material from the bed, channel, or bank of any river, stream, or lake; or 2) result in the disposal or deposition of debris, waste, or other material into any river, stream, or lake. The state definition of “lakes, rivers, and streams” includes all rivers or streams that flow at least periodically or permanently through a well-defined bed or channel with banks that support fish or other aquatic life, and watercourses with surface or subsurface flows that support or have supported riparian vegetation.

Nesting Birds. Sections 3503, 3503.5 and 3513 of CFGC states that it is “unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto,” and “unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird” unless authorized.

Regional Water Quality Control Board. The Regional Water Quality Control Board (RWQCB) not only regulates impacts to water quality in federal waters of the U.S. under Section

401 of the Clean Water Act, but they also regulate any isolated waters that are impacted under the state Porter Cologne Act utilizing a Waste Discharge Requirement. Discharge of fill material into waters of the State not subject to the jurisdiction of the USACE pursuant to Section 401 of the Clean Water Act may require authorization pursuant to the Porter Cologne Act through application for waste discharge requirements or through waiver of waste discharge requirements.

The State Water Board has initiated a Cannabis Cultivation Program to establish principles and guidelines (requirements) for cannabis cultivation activities to protect water quality and instream flows. To implement the program, the Cannabis Cultivation General Order was adopted and provides for a permitting pathway for cultivators. The General Order provides criteria to evaluate the threat to water quality based on site conditions and waterway classification. More information about the State Water Board Cannabis Cultivation can be found at http://www.waterboards.ca.gov/water_issues/programs/cannabis.

1.5.3 Local Policies and Regulations

San Luis Obispo County Land Use Ordinance. Through the adoption of Chapter 22.40 (Cannabis Activities) of the County Land Use Ordinance (LUO), certain commercial cannabis activities may have an impact on the environment, requiring discretionary approval of a County land use permit. The land use permit would establish conditions for the proposed cannabis operation that is consistent with strict State and Federal enforcement guidelines. Approval of a land use permit would entitle the use itself and would require separate associate permits such as grading and/or construction permits.

1.6 Special Status Species and Sensitive Habitat Regulations

For the purposes of this Biological Report, special status species are those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS under the FESA; those listed or proposed for listing as rare, threatened, or endangered by the CDFW under the CESA; animals designated as “Species of Special Concern,” “Fully Protected,” or “Watch List” by the CDFW; and plants with a California Rare Plant Rank (CRPR) of 1, 2, 3, or 4. In the following sections, further details are provided to highlight the different guidelines and qualifications that are used to help identify special status species in this report.

1.6.1 California Natural Diversity Database (CNDDDB)

"Special Plants" and "Special Animals" are broad terms used to refer to all the plant and animal taxa inventoried by the CNDDDB, regardless of their legal or protection status (CNDDDB 2020a and 2020b). The Special Plants list includes vascular plants, high priority bryophytes (mosses, liverworts, and hornworts), and lichens. The Special Animals list is also referred to by the California Department of Fish and Wildlife (CDFW) as the list of “species at risk” or “special status species.”

According to the CNDDDB (2020a, 2020b), Special Plants and Animals lists include: taxa that are officially listed or proposed for listing by California or the Federal Government as Endangered, Threatened, or Rare; taxa which meet the criteria for listing, as described in Section 15380 of CEQA Guidelines; taxa deemed biologically rare, restricted in range, declining in abundance, or otherwise vulnerable; population(s) in California that may be marginal to the taxon’s entire range

but are threatened with extirpation in California; and/or taxa closely associated with a habitat that is declining in California at a significant rate. Separately, the Special Plants List includes taxa listed in the California Native Plant Society's Inventory of Rare and Endangered Plants of California, as well as taxa determined to be Sensitive Species by the Bureau of Land Management, U.S. Fish and Wildlife Service, or U.S. Forest Service. The Special Animals List distinctively includes taxa considered by the CDFW to be a Species of Special Concern (SSC) and taxa designated as a special status, sensitive, or declining species by other state or federal agencies.

1.6.2 Federal and State Endangered Species Listings

The Federal and California Endangered Species Acts are the regulatory documents that govern the listing and protection of species, and their habitats, identified as being endangered or threatened with extinction (see Sections 1.5.1 and 1.5.2). Possible listing status under both Federal and California ESA includes Endangered and Threatened (FE, FT, CE, or CT). Species in the process of being listed are given the status of either Proposed Federally Endangered/Threatened, Candidate for California Endangered/Threatened (PE, PT, CCE, or CCT). The CESA has one additional status: Rare (CR).

1.6.3 Global and State Ranks

Global and State Ranks reflect an assessment of the condition of the species (or habitats, see 1.6.6 below) across its entire range. Basic ranks assign a numerical value from 1 to 5, respectively for species with highest risk to most secure. Other ranking variations include rank ranges, rank qualifiers, and infraspecific taxon ranks. All Heritage Programs, such as the CNDDDB use the same ranking methodology, originally developed by The Nature Conservancy and now maintained and recently revised by NatureServe. Procedurally, state programs such as the CNDDDB develop the State ranks. The Global ranks are determined collaboratively among the Heritage Programs for the states/provinces containing the species. Rank definitions, where G represents Global and S represents State, are as follows:

- **G1/S1:** Critically imperiled globally/in state because of extreme rarity (5 or fewer populations).
- **G2/S2:** Imperiled globally/in state because of rarity (6 to 20 populations).
- **G3/S3:** Vulnerable; rare and local throughout range or in a special habitat or narrowly endemic (on the order of 21 to 100 populations).
- **G4/S4:** Apparently secure globally/in state; uncommon but not rare (of no immediate conservation concern).
- **G5/S5:** Secure; common, widespread, and abundant.
- **G#G#/S#S#:** Rank range - numerical range indicating uncertainty in the status of a species, (e.g., G2G3 more certain than G3, but less certain than G2).
- **G/S#?:** Inexact numeric rank
- **Q:** Questionable taxonomy - Taxonomic distinctiveness of this entity is questionable.
- **T#:** Infraspecific taxa (subspecies or varieties) – indicating an infraspecific taxon that has a lower numerical ranking (rarer) than the given global rank of species.

1.6.4 California Rare Plant Ranks

Plant species are considered rare when their distribution is confined to localized areas, their habitat is threatened, they are declining in abundance, or they are threatened in a portion of their range. The California Rare Plant Rank (CRPR) categories range from species with a low threat (4) to species that are presumed extinct (1A). All but a few species are endemic to California. All of them are judged to be vulnerable under present circumstances, or to have a high potential for becoming vulnerable. Threat ranks are assigned as decimal values to a CRPR to further define the level of threat to a given species. The rare plant ranks and threat levels are defined below.

- **1A:** Plants presumed extirpated in California and either rare or extinct elsewhere.
- **1B:** Plants rare, threatened, or endangered in California and elsewhere.
- **2A:** Plants presumed extirpated in California, but common elsewhere
- **2B:** Plants rare, threatened, or endangered in California, but more common elsewhere
- **4:** Plants of limited distribution - a watch list
- **0.1:** Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- **0.2:** Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
- **0.3:** Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

1.6.5 California Department of Fish and Wildlife Animal Rank

The California Department of Fish and Wildlife (CDFW) assigns one of three ranks to Special Animals: Watch List (WL), Species of Special Concern (SSC), or Fully Protected (FP). Unranked species are referred to by the term Special Animal (SA).

Animals listed as Watch List (WL) are taxa that were previously designated as SSC, but no longer merit that status, or taxa that which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Animals listed as California Species of Special Concern (SSC) may or may not be listed under California or federal Endangered Species Acts. They are considered rare or declining in abundance in California. The Special Concern designation is intended to provide the CDFW biologists, land planners, and managers with lists of species that require special consideration during the planning process to avert continued population declines and potential costly listing under federal and state endangered species laws. For many species of birds, the primary emphasis is on the breeding population in California. For some species that do not breed in California but winter here, emphasis is on wintering range. The SSC designation thus may include a comment regarding the specific protection provided such as nesting or wintering.

Animals listed as Fully Protected (FP) are those species considered by CDFW as rare or faced with possible extinction. Most, but not all, have subsequently been listed under the CESA or FESA. Fully Protected species may not be taken or possessed at any time and no provision of the California Fish and Game code authorizes the issuance of permits or licenses to take any Fully Protected species.

1.6.6 Sensitive Habitats

Sensitive Natural Community is a state-wide designation given by CDFW to specific vegetation associations of ecological importance. Sensitive Natural Communities rarity and ranking involves the knowledge of range and distribution of a given type of vegetation, and the proportion of occurrences that are of good ecological integrity (CDFW 2018a). Evaluation is conducted at both the Global (G) and State (S) levels, resulting in a rank ranging from 1 for very rare and threatened to 5 for demonstrably secure. Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities in California and may need to be addressed in the environmental review processes of CEQA and its equivalents.

2 METHODS

2.1 Literature and Data Review

Relevant literature and data were reviewed to determine what biological resources may occur near or in the Study Area per related Project. Information reviewed included species recovery plans, published research articles, species accounts, and queries of special status species occurrence records. Research also included review of topographic maps, the National Hydrography Dataset (NHD), and National Wetland Inventory data.

Althouse and Meade reviewed data searches from the California Natural Diversity Database (CNDDDB; January 2020 data), the California Native Plant Society (CNPS) On-line Inventory of Rare and Endangered Plants of California, and U.S. Fish and Wildlife Service (USFWS) Critical Habitat prior to conducting site visits. The data search area included the Camatta Ranch USGS 7.5-minute quadrangle and the 8 surrounding quadrangles (Camatta Canyon, Shedd Canyon, Holland Canyon, Wilson Corner, La Panza Ranch, Santa Margarita Lake, Pozo Summit, and La Panza). Data was compiled for sensitive plant and wildlife species according to each species potential to occur at the Study Area. The compiled list of CNDDDB and CNPS records are provided in Appendix B and Appendix C, respectively. Additional special status species research consisted of searching online herbarium specimen records maintained by the Consortium of California Herbaria (CCH). Websites such as californiaherps.com, iNaturalist.org, eBird.org, and IUCNredlist.org were also reviewed as secondary sources of information on special-status species occurrence records. Each special status species that could occur in or near the Study Area is individually discussed per Project in Sections 3.5.2 and 3.6.2.

After review of the literature, and completing site visits, the following criteria were used to determine the potential for special-status species to occur within the Study Area:

- **Present:** The species was observed in the Study Area during field surveys.
- **High Potential:** Highly suitable habitat and CNDDDB or CNPS occurrence records indicate the species is likely to occur in the Study Area. Individuals may not have been observed during field surveys; however, the species likely occurs in the project vicinity and could move onto the project site in the future.
- **Moderate Potential:** Moderately suitable habitat is present in the Study Area and CNDDDB occurrences or surveys have recorded the species in the vicinity of the Study Area. Individuals were not observed during field surveys, but the species could be present, at least seasonally or as a transient.
- **Low Potential:** Marginally suitable habitat is present in the Study Area, and there are no occurrence records or other historical (i.e., 50 years or older) records in the vicinity of the Study Area. Individuals were not observed during surveys and are not expected to be present.
- **No Potential:** Suitable habitat for the species is not present in the Study Area, and/or the species is not known to occur in the region.

2.2 Maps

Biological resource data was collected in the field by staff biologists operating a Samsung Galaxy tablet equipped with Garmin GPS receivers and use of a third-party mapping application. Biological resource constraints were mapped in the field while conducting biological surveys. Hand notation of habitats on high resolution aerials were digitized into polygon layers. Maps were created using aerial photo interpretation, field notation, and spatial data imported to Esri ArcGIS, a Geographic Information System (GIS) software program. Data were overlaid on a 2018 National Agriculture Imagery Program (NAIP) aerial of San Luis Obispo County.

2.3 Soils

A custom soil report was created by importing the Study Area as an Area of Interest (AOI) into the Natural Resources Conservation Service (NRCS) Soil Survey Geographic Database (SSURGO) via their online portal. The resulting custom soils report was reviewed, and a map was created using the U.S. Department of Agriculture NRCS Soil Survey GIS data (USDA 2018).

2.4 Surveys

The Study Area was surveyed for biological resources on November 7, 2019 and January 4, 2020. Surveys were conducted by Principal Biologist Jason Dart and Biologist Kristen Andersen (Table 2). Surveys were conducted on foot to inventory existing species, special status plants and animals, and habitat types, and to collect photographic documentation of the Study Area. Each habitat type was field inspected and described by species composition, as interpreted in Section 3.3. All plant and animal species observed in the Study Area were identified and documented in Sections 3.5.3 and 3.6.3.

TABLE 2. BIOLOGICAL SURVEYS

Survey Date	Biologist(s)	Weather Observations	Activities
11/7/2019	Jason Dart	60° F, sunny, calm	Preliminary Site Assessment
1/4/2020	Kristen Andersen	50° – 60° F, partly cloudy, no wind	Winter Biological Survey Habitat Mapping

2.4.1 Botanical

Identification of botanical resources included field observations and laboratory analysis of collected material (refer to Table 5). Transects were utilized to map approximate boundaries of different vegetation types, describe general conditions and dominant species, compile species lists, and evaluate potential habitat for special status species. All vascular plant species observed in the Study Area were identified and recorded. Botanical nomenclature used in this document follows the Jepson Manual, Second Edition (Baldwin et al. 2012).

2.4.2 Wildlife

Wildlife documentation included observations of animal presence including burrows/dens/mounds and vocalization, and wildlife sign such as nests, tracks, and scat. Observations of wildlife were recorded during field surveys throughout the Study Area (Table 7). Birds were identified by sight, using 10-power binoculars, or by vocalizations. Reptiles and amphibians were identified by sight, often using binoculars, and by hand-captures; traps were not used. Mammals recorded in the Study Area were identified by sight, burrow/dens, scat, and tracks.

3 RESULTS

3.1 Existing Conditions

The Study Area is composed of two mesas which are accessed by a dirt road from the entrance to the property at Shell Creek Road. The access road borders a lower elevational agricultural field directly north and winds up toward the mesas at a mild 100-foot elevational increase. Annual grassland habitat is present along the shoulders of the access road, with intermittent patches of more exposed, gravelly substrate and a mosaic of annual forbs. The northern mesa, or plateau, shows no recent sign of disturbance and is comprised of annual grassland habitat. An overgrown access road disintegrates into grassland along the western border of the mesa. The southeastern mesa shows sign of recent farming through tillage lines. Historical aeriels date farming of this portion of the Study Area as having commenced in 2017, where small shrubs and open grassland dominated this portion of the property prior. Topography on both mesas is relatively flat with an ephemeral drainage to the east of the Study Area which seasonally conveys water to the northeast. An existing water tank is located in fallow cropland habitat, along the northeast portion of perimeter road. Two existing waterline outlets were observed in the field of the cropland mesa at the northern corners of the proposed greenhouse structures. Mesic conditions were observed near these waterlines during the winter 2020 survey. An inactive and dry stock pond is located near the lower agricultural field and is outside of the Study Area boundary by approximately 100 feet to the east.

3.2 Soils

Four soil map units area represented within the Study Area: Arbuckle sandy loam, 2 to 9 percent slopes, Arbuckle sandy loam, 30 to 50 percent slopes, eroded, San Emigdio sandy loam, 0 to -2 percent slopes, and Balcom-Nacimiento complex, 30 to 50 percent slopes (USDA 2019) (Figure 5).

Arbuckle sandy loam, 2-9 percent slope (301) is described within approximately 43 percent of the Study Area. The typical soil profile is sandy loam (0 to 34 inches) over sandy clay loam (34 to 55 inches). This soil class has a well-drained, medium runoff class that has a general depth to water table of more than 80 inches. This soil class formed from alluvium derived from sandstone and shale and is classified as farmland of statewide importance.

Arbuckle sandy loam, 30 to 50 percent slopes, eroded (307) is described within approximately 30 percent of the Study Area. The typical soil profile is sandy loam (0 to 34 inches) over sandy clay loam (34 to 55 inches). This soil class has a well-drained, high runoff class that has a general depth to water table of more than 80 inches. This soil class formed from alluvium derived from sandstone and shale and is not considered prime farmland.

San Emigdio sandy loam, 0 to 2 percent slopes (149) is described within approximately 14 percent of the Study Area. The typical soil profile is loam (0 to 23 inches) over stratified coarse sandy loam to loam (9 to 60 inches). This soil class has a well-drained, very low runoff class that has a general depth to water table of more than 80 inches. This soil class formed from alluvium derived from calcareous sedimentary rocks and is considered prime farmland if irrigated.



Balcom-Nacimiento complex, 30 to 50 percent slopes (102) is described within approximately 7 percent of the Study Area. The typical soil profile is sandy loam (0 to 9 inches) over weathered

bedrock (23 to 54 inches). This soil class has a well-drained, high runoff class that has a general depth to water table of more than 80 inches. This soil class formed from residuum weathered from soft calcareous sandstone or shale and is not considered prime farmland.

Figure 2. Aerial Photograph



Legend

 Study Area (130.0 acres)  Parcels



0 500 1,000 Feet

**APNs: 037-351-002,
037-371-001 and 037-371-002**
Map Center: 120.32143°W 35.495°N
San Luis Obispo County

Imagery Source: USDA NAIP, 07/14/2018

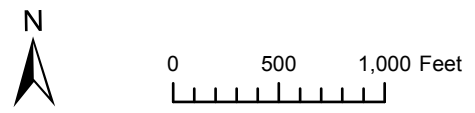
Figure 3. USDA Soil Survey



Soil Type	Study Area
102 - Balcom-Nacimiento complex, 30 to 50 percent slopes	10%
149 - San Emigdio sandy loam, 0 to 2 percent slopes	2%
301 - Arbuckle sandy loam, 2 to 9 percent slopes	80%
304 - Arbuckle sandy loam, 30 to 50 percent slopes	1%
307 - Arbuckle sandy loam, 30 to 50 percent slopes, eroded	7%

Legend

- Study Area (130.0 acres)
- USDA NRCS Soil Type



**APNs: 037-351-002,
037-371-001 and 037-371-002**
Map Center: 120.32138°W 35.49493°N
San Luis Obispo County

Data Source: USDA NRCS Soil Survey
Imagery Source: USDA NAIP, 07/14/2018

3.3 Habitat Types

Table 3 lists three habitat types described and mapped within the Study Area. The table tabulates habitat types per APN (Figure 4). Most of the Study Area, approximately 104 acres, is mapped as fallow cropland habitat. Annual grassland habitat comprises approximately 18.9 acres in the northwest portion of the Study Area and along the shoulders of the access road. The remaining area consists of approximately 7.0 acres of disturbed habitat which consists of the existing dirt access road.

TABLE 3. HABITAT TYPES

APN (Project)	Habitat Type	Approximate Area (Acres)
037-371-001 (Project 1)	Fallow Cropland	34.6
	Disturbed	0.6
	Total	35.2
037-371-002 (Project 2)	Fallow Cropland	69.5
	Disturbed	5.9
	Annual Grassland	4.2
	Total	79.6
037-351-002 (Project 3)	Annual Grassland	14.7
Total		14.7

3.3.1 Project 1

3.3.1.1 Fallow Cropland

Fallow cropland habitat occupies approximately 34.6 acres of APN 037-371-001, in the southeast portion of the Study Area, along a topographically flat plateau roughly 100 feet in elevation above the entrance driveway at Shell Creek Road. The access road enters this portion of cropland habitat from the north and runs along the perimeter to the northeast of the plateau, and eventually diminishes, becoming overgrown with filaree (*Erodium botrys*, *E. cicutarium*), annual grasses (*Bromus hordeaceus*, *B. rubens*), and abundant naked buckwheat (*Eriogonum nudum*) along the perimeter fence. Tillage lines are prevalent throughout the fallow cropland habitat, defined by introduced and native species, including perennial wall rocket (*Diploaxis tenuifolia*) and vinegarweed (*Trichostema lanceolatum*), respectively, as well as new annual grass and filaree shoots (Photo 1). Remnant crops observed include cabbage (*Brassica oleracea*) and carrot (*Daucus carota*).



Photo 1. Fallow cropland habitat observed in southwest portion of Study Area (Project 1), view west. January 4, 2020.

3.3.1.2 Disturbed

Disturbed habitat comprises the remaining 0.6 acres of APN 037-371-001 where the access road connects to the existing dirt perimeter road and partially circumferences fallow cropland habitat. Historical aerials date continued road use as of 1994, if not earlier. Increased soil compaction and continued road use has contributed to the lack of vegetation in this disturbed habitat.

3.3.2 Project 2

3.3.2.1 Fallow Cropland

Fallow cropland habitat occupies approximately 69.5 acres of APN 037-371-002, in the southwest portion of the Study Area, along a topographically flat plateau roughly 100 feet in elevation above the entrance driveway at Shell Creek Road. The access road enters this portion of cropland habitat from the north and runs along the perimeter to the northeast of the plateau, and eventually diminishes, becoming overgrown with filaree (*Erodium botrys*, *E. cicutarium*), annual grasses (*Bromus hordeaceus*, *B. rubens*), and abundant naked buckwheat (*Eriogonum nudum*) along the perimeter fence. Tillage lines are prevalent throughout the fallow cropland habitat, defined by introduced and native species, including perennial wall rocket (*Diplotaxis tenuifolia*) and vinegarweed (*Trichostema lanceolatum*), respectively, as well as new annual grass and filaree shoots (Photo 2). Remnant crops observed include cabbage (*Brassica oleracea*) and carrot (*Daucus carota*).



Photo 2. Fallow cropland habitat observed in southern portion of Study Area (Project 2), view west. January 4, 2020.

3.3.2.2 Disturbed

Disturbed habitat comprises approximately 5.9 acres of APN 037-371-002 in the southwest portion of the Study Area where the existing dirt access road leads from the entrance to the proposed grow site areas on the upper mesas (Photo 3 and Photo 4). Historical aeriels date continued road use as of 1994, if not earlier. Increased soil compaction and continued road use has contributed to the lack of vegetation in this disturbed habitat.



Photo 3. Existing access road heading up to proposed grow area, view north. January 4, 2020.



Photo 4. Existing access road with surrounding annual grassland habitat along shoulders, view northwest. January 4, 2020.

3.3.2.3 Annual Grassland

Annual grassland habitat occupies the remaining 4.2 acres of APN 037-371-002, where it occurs along the shoulder of the access road. This portion of the Study Area is dominated by annual grasses such as red brome, with associate annual forbs, including naked buckwheat and bristly goldenaster (*Heterotheca sessiliflora* subsp. *echioides*) (Photo 5).



Photo 5. Annual grassland habitat to the north and south of the access road within the Study Area (Project 2), dominated by red brome and native forbs, view north. January 4, 2020.

3.3.3 Project 3

3.3.3.1 Annual Grassland

Annual grassland habitat occupies approximately 14.7 acres of APN 037-351-002 and occurs in the northwest portion of the Study Area. Topography remains relatively flat across the mesa, at an approximately 100-foot elevational increase from the entrance. This portion of the Study Area is dominated by annual grasses such as red brome and rattail sixweeks grass (*Festuca myuros*), with associate annual forbs, including naked buckwheat, vinegarweed, and fiddleneck (*Amsinckia* sp.) (Photo 6). The access road enters this grassland habitat from the south and tapers off along the southwest perimeter of the mesa. A dense thatch layer constitutes the substrate throughout and defines this portion of Study Area compared with the tilled habitat of fallow cropland on the adjacent mesa.

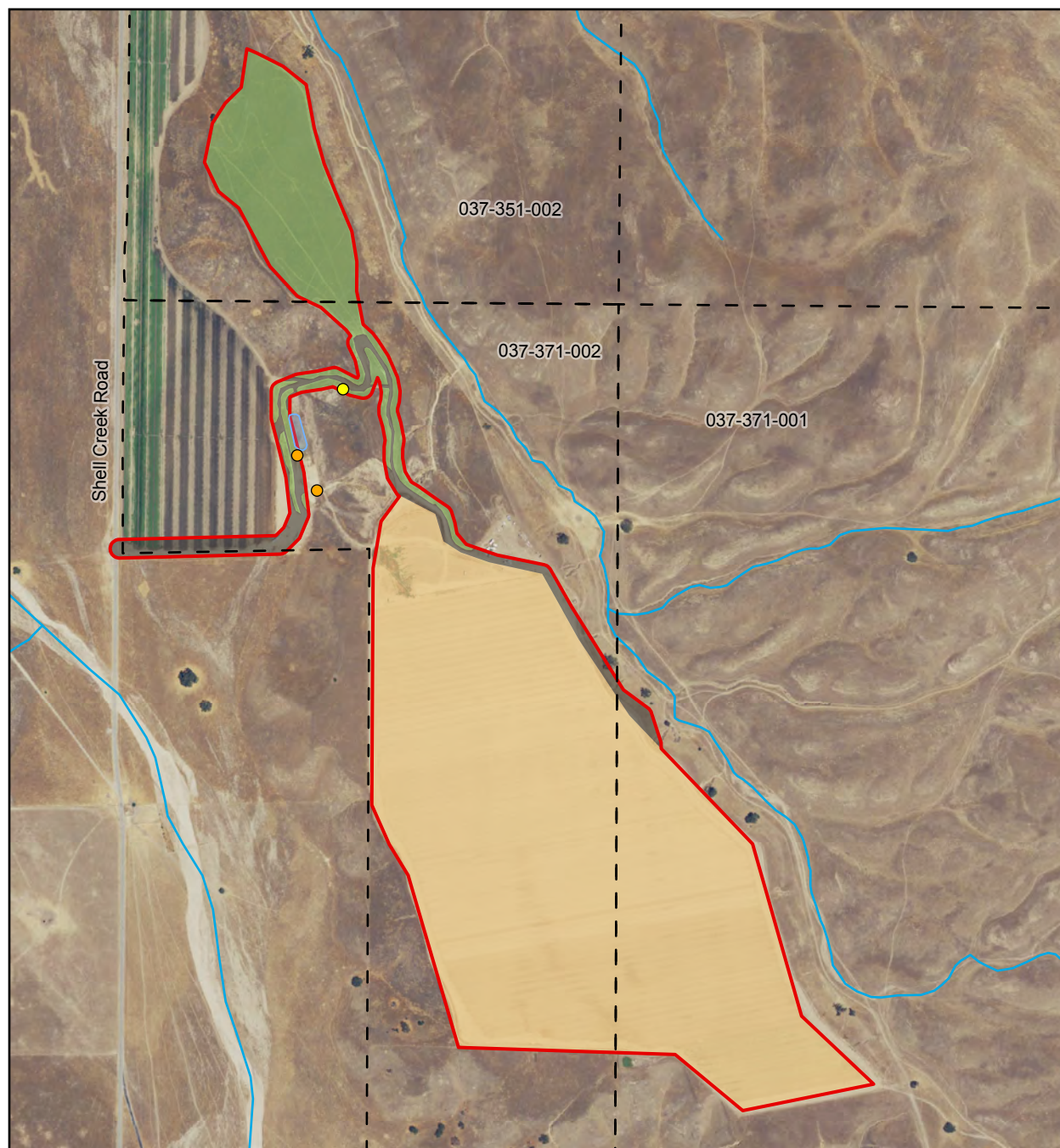


Photo 6. Annual grassland habitat in the northwest portion of the Study Area, dominated by red brome, rattail sixweeks grass, and native forbs, view northwest. January 4, 2020.

3.4 Potential Wetlands and Jurisdictional Waters

Potentially jurisdictional wetlands and waters are not present in the Study Area.

Figure 4. Biological Resources



Legend

Study Area (130.0 acres)

Parcels

Old stock pond (inactive/dry)

● Red willow (*Salix laevigata*)

● Valley oak (*Quercus lobata*; potentially dead)

— Drainages

Habitat Type

Access Road (7.0 acres)

Annual Grassland (18.9 acres)

Fallow Cropland (104.0 acres)



0 500 1,000 Feet

**APNs: 037-351-002,
037-371-001 and 037-371-002**
Map Center: 120.32138°W 35.49493°N
San Luis Obispo County

Imagery Source: USDA NAIP, 07/14/2018



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BIOLOGICAL AND ENVIRONMENTAL SERVICES

Map Updated:
January 28, 2020 03:08 PM by SAF

3.5 Botanical Resources

Research on special status plant occurrences within the designated search area (see Methods) determined 51 special status plant species are known to occur in the region (Appendix B). Figure 5 depicts the current GIS data for special status plants mapped near the Study Area by the CNDDB.

3.5.1 Potential Special Status Plant Species

Table 4 lists 10 special status plant species for which appropriate soil and habitat conditions exist, and therefore could potentially occur in the Study Area. Federal and California State status, Global and State rank, CRPR, typical blooming periods, and habitat preference for each species are provided (CNPS 2020; CNDDB 2020b). Potential for occurrence on site is assessed and provided. Species are listed alphabetically by scientific name.

TABLE 4. SPECIAL STATUS PLANT LIST

	Common Name	Scientific Name	Federal/State Status	Global/State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
1.	La Panza mariposa lily	<i>Calochortus simulans</i>	-/-	G2/S2	1B.3	Apr-Jun	Sand (often granitic), grassland to yellow-pine forest	Low. Suitable sandy soils are present in the Study Area.
2.	Hardham's evening-primrose	<i>Camissoniopsis hardhamiae</i>	-/-	G2/S2	1B.2	Mar-May	Sandy soil, limestone, disturbed oak woodland	Low. Suitable sandy soils are present in the Study Area.
3.	Douglas' spineflower	<i>Chorizanthe douglasii</i>	-/-	G4/S4	4.3	Apr-Jul	Sand or gravel	High. Sandy, gravelly soil is present in the Study Area and is known to occur in the vicinity.
4.	Straight-awned spineflower	<i>Chorizanthe rectispina</i>	-/-	G2/S2	1B.3	Apr-Jul	Sand or gravel	Low. Appropriate soil substrate is present, however optimal openings in chaparral or woodland habitat is not present in the Study Area.
5.	Paniculate tarplant	<i>Deinandra paniculata</i>	-/-	G4/S4	4.2	Mar-Dec	Grassland, open chaparral and woodland, disturbed areas, often in sandy soils	Moderate. Appropriate sandy soils in grassland habitat is present in the Study Area.

	Common Name	Scientific Name	Federal/State Status	Global/State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
6.	Kern mallow	<i>Eremalche parryi</i> subsp. <i>kernensis</i>	FE/-	G3G4T3/S3	1B.2	Jan-May	Eroded hillsides, alkali flats	Low. Suitable sandy soils in grassland habitat is present in the Study Area and eroding hillsides occur along the access road.
7.	Pale-yellow layia	<i>Layia heterotricha</i>	-/-	G2/S2	1B.1	Mar-Jun	Open clayey or sandy soil, sometimes +- alkaline	Low. Suitable sandy and sandy clay loam soils are present in the Study Area.
8.	California spineflower	<i>Mucronea californica</i>	-/-	-/-	4.2	Mar-Aug	Sand	High. Appropriate sandy soil and bare open patches are present in the Study Area.
9.	Large-flowered nemacladus	<i>Nemacladus secundiflorus</i> var. <i>secundiflorus</i>	-/-	G3T3?/S3?	4.3	Apr-Jun	Dry, gravelly slopes	Moderate. Suitable gravelly slopes are present in the Study Area.
10.	Mason's neststraw	<i>Stylocline masonii</i>	-/-	G1/S1	1B.1	Mar-May	Open loose sand of washes and flats	Low. Suitable sandy soil on terraces are present in the Study Area.

Refer to section 1.6 for status and rank definitions

3.5.2 Special Status Plants Discussion

Based on an analysis of known ecological requirements for the special status plant species reported from the region (Appendix B), and the habitat conditions that were observed in the Study Area, it was determined that 10 special status plant species have some potential to occur within the Study Area. Two special status plant species have a high potential to occur (Douglas' spineflower and California spineflower), two species have a moderate potential to occur (paniculate tarplant and large-flowered nemacladus), and six species have a low potential to occur (La Panza mariposa lily, Hardham's evening-primrose, straight-awned spineflower, Kern mallow, pale-yellow layia, and Mason's neststraw).

A total of 10 species are discussed below, including descriptions of habitat, range restrictions, known occurrences, and survey results for the Study Area and Projects.

- A. La Panza Mariposa Lily** (*Calochortus simulans*) is a CRPR 1B.3 species endemic to San Luis Obispo and Santa Barbara Counties. It is known to occur in grassland, chaparral, cismontane woodland and lower montane coniferous forest habitats, often on sandy, granitic or serpentinite substrates between 325- and 1,150-meters elevation. It is a bulbiferous perennial herb that typically blooms between April and June. The closest known record is approximately 1.0 mile southwest of the Study Area (CNDDDB #15). Areas of sandy soil and surrounding grassland habitat in the Study Area (within proposed Project 3 (APN 037-351-002) and along access road shoulder in APN 037-371-002) is suitable for this species; however, optimal granitic soil is not known to be present, and this species has low potential to occur in the Study Area. Appropriately timed seasonal botanical surveys are required to determine whether La Panza mariposa lily occurs within APN 037-351-002 (area of Project 3).
- B. Hardham's Evening-Primrose** (*Camissoniopsis hardhamiae*) is a CRPR 1B.2 species that is endemic to Monterey and San Luis Obispo Counties. It is known to occur on sandy, decomposed carbonate soils in chaparral and cismontane woodland habitats between 140- and 945-meters elevation. It is an annual herb that typically blooms between March and May and is associated with disturbance and burned areas. The closest known record is approximately 3.0 miles southwest of the Study Area (CNDDDB #5). The sandy soil and gravelly patches alongside the existing access road shoulders in the Study Area is suitable but of poor quality for this species. Hardham's evening-primrose has low potential to occur in the Study Area but would not be impacted by project-related activities and no further surveys are recommended.
- C. Douglas' Spineflower** (*Chorizanthe douglasii*) is a CRPR 4.3 species endemic to San Benito, Monterey and San Luis Obispo Counties. It is known to occur on sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and lower montane coniferous forests habitats between 55- and 1600-meters elevation. It is an annual herb that typically blooms between April and July. The closest known record is approximately 0.4 miles southwest of the Study Area (CCH OBI118923), observed along Shell Creek Road in desert scrub habitat. The sandy and gravelly soil along the access road in the Study Area is suitable for this species and Douglas' spineflower has high potential to occur. The common species two-lobe spineflower (*Chorizanthe biloba* var. *biloba*) was observed on site in similarly suitable habitat on a southeast facing slope, within 20 feet of the access road. Douglas' spineflower has high potential to occur in the Study Area but would not be impacted by project-related activities and no further surveys are recommended.

Appropriately timed seasonal botanical surveys are required to determine whether Douglas' spineflower occurs in the Study Area.

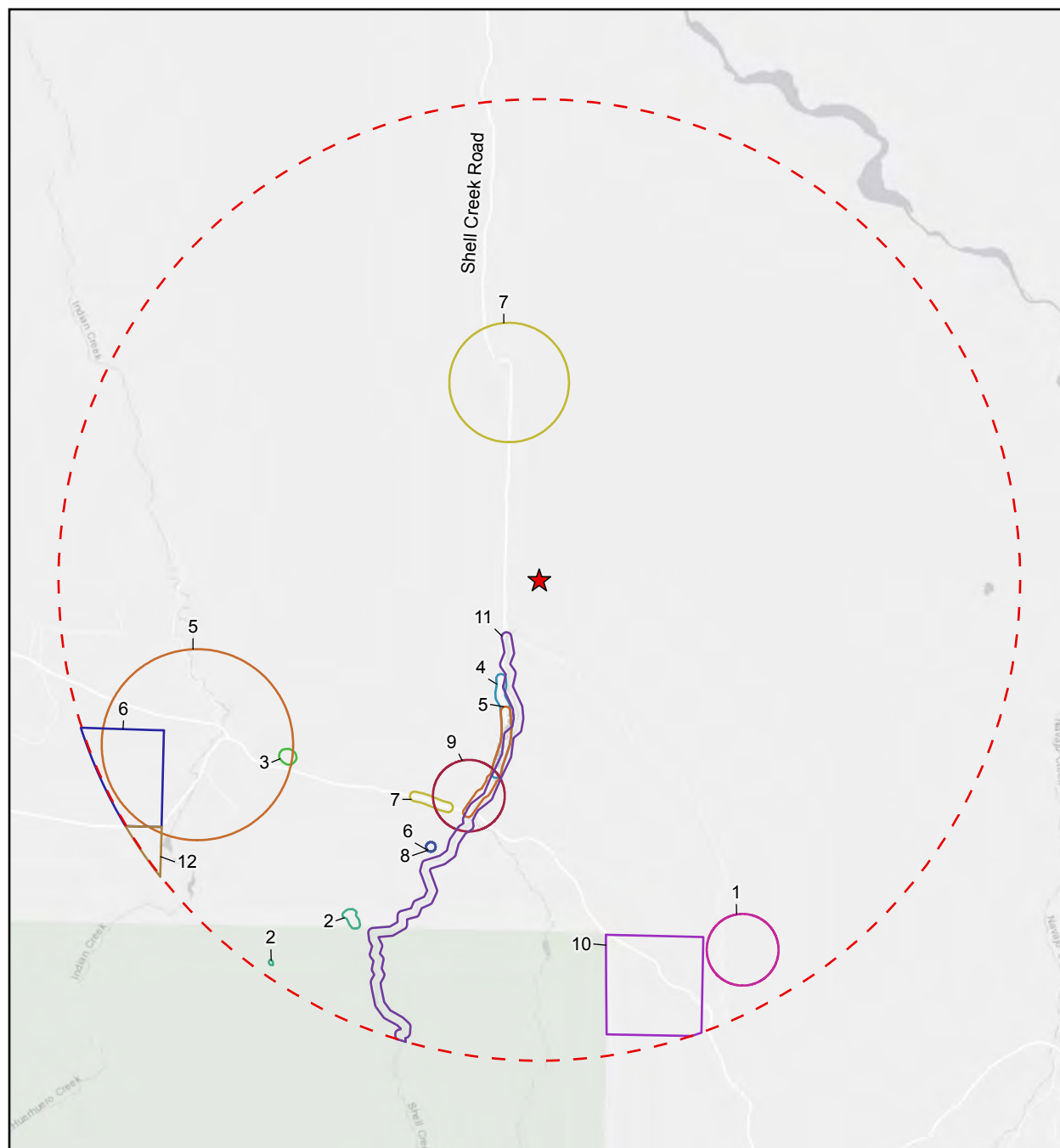
- D. Straight-awned Spineflower** (*Chorizanthe rectispina*) is a CRPR 1B.3 species endemic to Monterey, San Luis Obispo, and Santa Barbara Counties. It is known to occur on sand or gravel in open areas of chaparral, cismontane woodland, and coastal scrub habitats between 85- and 1,035-meters elevation, often on granite. It is an annual herb that typically blooms between April and July. The closest known record is approximately 6.8 miles southwest of the Study Area (CNDDDB #1). The sandy and gravelly soil along the existing access road in the Study Area is suitable for this species; however, the preferred open patches in chaparral understory are not present and straight-awned spineflower has low potential to occur. The common species, two lobed spineflower (*Chorizanthe biloba* var. *biloba*), was identified during winter surveys on a sloping shoulder of the access road, in similar habitat suitable for straight-awned spineflower. Straight-awned spineflower has low potential to occur in the Study Area but would not be impacted by project-related activities and no further surveys are recommended.
- E. Paniculate Tarplant** (*Deinandra paniculata*) is a CRPR 4.2 species known from the San Francisco Bay area south to northern Baja California. It is known to occur on sandy soils in grassland, coastal scrub, vernal pool and wetland habitats between 25- and 940-meters elevation. It is an annual herb that typically blooms between June and September. The closest known record is approximately 4.0 miles southeast of the Study Area (CCH DAV150333). Sandy soils in grassland and cropland habitats in the Study Area are suitable for this species and paniculate tarplant has moderate potential to occur. Paniculate tarplant was not detected during the November 2019 site visit, which was within the tail-end of the bloom period for this species. Paniculate tarplant has moderate potential to occur in the Study Area but was confirmed absent during a late season botanical survey and no further surveys are recommended.
- F. Kern Mallow** (*Eremalche parryi* subsp. *kernensis*) is listed as Endangered under the Federal Endangered Species Act (FESA) and is a CRPR 1B.2 species endemic to California and known to occur in San Luis Obispo and Kern counties. It is an annual herb with a habitat preference for shadscale scrub or valley grassland with eroded hills or alkali flats components between 100- and 1,000-meters elevation. Kern mallow has a typical bloom period from March to May. The closest known record is approximately 1.2 miles southwest of the Study Area (CNDDDB #105) in roadside grassland habitat along Shell Creek Road. The disturbed grassland habitat in the Study Area is not optimal for this species; however, there is low potential for Kern mallow to occur due to occurrences in the vicinity and similar roadside grassland habitat in the Study Area. Appropriately timed seasonal botanical surveys are required to determine whether Kern mallow occurs within APN 037-351-002 (Project 3).
- G. Pale-yellow Layia** (*Layia heterotricha*) is a CRPR 1B.1 species endemic to central California. It is known to occur on alkaline or clay soils in cismontane woodland, chaparral, and grassland habitat between 200- and 1,800-meters elevation. It is an annual herb that typically blooms between April and June. The closest known record is approximately 2.6 miles southwest of the Study Area (UCJEPS UC2027567), observed on grassy slopes within scattered juniper woodland. The sandy soil and grassland habitat in the Study Area is suitable for this species and pale-yellow layia has low potential to occur. Appropriately timed seasonal botanical

surveys are required to determine whether pale-yellow layia occurs within APN 037-351-002 (Project 3).

- H. California Spineflower** (*Mucronea californica*) is a CRPR 4.2 species endemic to Monterey to San Diego Counties. It is an annual herb that grows in sandy soils in grassland, coastal scrub, dune, woodland, and chaparral habitats between 0- and 1,400-meters elevation. It typically blooms between March and July (August). The closest known record is approximately 0.3 miles southwest of the Study Area (CCH OBI150471) in sandy, gravelly soil west of Shell Creek Road. Patches of gravelly soil occur along edges of the access road in the Study Area and California spineflower has high potential to occur. California spineflower has high potential to occur in the Study Area but would not be impacted by project-related activities and no further surveys are recommended.
- I. Large-Flowered Nemacladus** (*Nemacladus secundiflorus* var. *secundiflorus*) is a CRPR 4.3 variety endemic to central California. It is known to occur on dry, gravelly slopes at elevations between 200- and 2,000-meters elevation. It is an annual herb that typically blooms between April and June. The closest known record is approximately 1.7 miles southwest of the Study Area (CCH OBI102770), observed in an open, sandy soil patch of grass within foothill woodland and riparian habitat. The dry, gravelly slopes occurring intermittently along on the shoulder of the access road in the Study Area is suitable habitat for this species and large-flowered nemacladus has moderate potential to occur. Large-flowered nemacladus has moderate potential to occur in the Study Area but would not be impacted by project-related activities and no further surveys are recommended. .
- J. Mason's Neststraw** (*Stylocline masonii*) is a 1B.1 species endemic to Monterey, San Luis Obispo, Kern, and Los Angeles Counties. It is known to occur on sandy sites in chenopod scrub and pinyon-juniper woodland habitats between 100- and 1,200-meters elevation. It is an annual herb that typically blooms between March and May. The closest known record is approximately 0.9 miles north of the Study Area (CNDDDB #5), found in sandy soil on Camatta Canyon in 1956. Preferred habitat of shadscale scrub or pinyon-juniper woodland is not present; however, the open sandy patches in the Study Area could support this species and Mason's neststraw has low potential to occur. Mason's neststraw has low potential to occur in the Study Area but would not be impacted by project-related activities and no further surveys are recommended.

The remaining 41 special status plant species that were evaluated were determined to have no potential to occur in the Study Area due to lack of suitable habitat and/or the Study Area being outside of the species range. Three State or Federal listed plant species with records of occurrence within 10 miles of the Study Area were listed but have no potential to occur and include California jewelflower (*Caulanthus californicus*; FE/CE), Camatta Canyon amole (*Chlorogalum purpureum* var. *reductum*; FT/CR) and spreading navarretia (*Navarretia fossalis*; FT). The disturbed quality of farm and grassland habitat is not appropriate for California jewelflower and it is not likely to occur on the site. Serpentine or red clay substrate is not present in the Study Area to support Camatta Canyon amole. Lastly, wetland or vernal pool habitat is not present in the Study Area to support spreading navarretia and this species has no potential to occur.

Figure 5. California Natural Diversity Database Plant Records



Label Common Name

- 1 Camatta Canyon amole
- 2 Dwarf calycadenia
- 3 Hardham's evening-primrose
- 4 Kern mallow
- 5 La Panza mariposa-lily
- 6 Lemmon's jewelflower
- 7 Mason's neststraw
- 8 Pale-yellow layia
- 9 Santa Lucia dwarf rush
- 10 Showy golden madia
- 11 Spiny-sepaed button-celery
- 12 Yellow-flowered eriastrum

Legend

- ★ Project Location
- 5-Mile Radius



0 1 2 Miles

**APNs: 037-351-002,
037-371-001 and 037-371-002**
Map Center: 120.32264°W 35.49368°N
San Luis Obispo County

CNDDB GIS Data Last Updated: January 2020
No USFWS or NMFS Critical Habitat present within 5-mile radius.

3.5.3 Botanical Survey Results

Botanical surveys conducted on November 7, 2019 and January 4, 2020 identified 43 species, subspecies, and varieties of vascular plant taxa in the Study Area (Table 5). The list includes 24 species native to California and 19 introduced (naturalized or planted) species. Native plant species account for approximately 56 percent of the Study Area preliminary flora; introduced species account for approximately 44 percent.

TABLE 5. VASCULAR PLANT LIST

Common Name	Scientific Name	Special Status	Origin
Trees - 2 Species			
Valley oak	<i>Quercus lobata</i>	None	Native
Red willow	<i>Salix laevigata</i>	None	Native
Shrubs – 1 Species			
Naked buckwheat	<i>Eriogonum nudum</i>	None	Native
Forbs - 31 Species			
Fiddleneck	<i>Amsinckia</i> sp.	None	Native
Narrow leaf milkweed	<i>Asclepias fascicularis</i>	None	Native
Glandular big tarweed	<i>Blepharizonia laxa</i>	None	Native
Golden stars	<i>Bloomeria crocea</i>	None	Native
Cabbage	<i>Brassica oleracea</i>	None	Introduced
Tocalote	<i>Centaurea melitensis</i>	None	Introduced
Skeleton weed	<i>Chondrilla juncea</i>	None	Introduced
Two lobed spineflower	<i>Chorizanthe biloba</i> var. <i>biloba</i>	None	Native
Clarkia	<i>Clarkia</i> sp.	None	Native
Turkey-mullein	<i>Croton setiger</i>	None	Native
Jimsonweed	<i>Datura wrightii</i>	None	Native
Carrot	<i>Daucus carota</i>	None	Introduced
Yellow tansy mustard	<i>Descurainia pinnata</i>	None	Native
Herb sophia	<i>Descurainia sophia</i>	None	Introduced
Perennial wall rocket	<i>Diplotaxis tenuifolia</i>	None	Introduced
Epilobium	<i>Epilobium</i> sp.	None	Native
Buckwheat	<i>Eriogonum</i> sp.	None	Native
Longbeak stork's bill	<i>Erodium botrys</i>	None	Introduced
Coastal heron's bill	<i>Erodium cicutarium</i>	None	Introduced

Common Name	Scientific Name	Special Status	Origin
Heliotrope	<i>Heliotropium curassavicum</i>	None	Native
Bristly goldenaster	<i>Heterotheca sessiliflora</i> subsp. <i>echioides</i>	None	Native
Mustard	<i>Hirschfeldia incana</i>	None	Introduced
Common toad rush	<i>Juncus bufonius</i>	None	Native
Prickly lettuce	<i>Lactuca serriola</i>	None	Introduced
Lupine	<i>Lupinus bicolor</i>	None	Native
Bull mallow	<i>Malva nicaeensis</i>	None	Introduced
Prostrate knotweed	<i>Polygonum aviculare</i>	None	Introduced
Curly dock	<i>Rumex crispus</i>	None	Introduced
Purple sand spurry	<i>Spergularia rubra</i>	None	Introduced
Vinegarweed	<i>Trichostema lanceolatum</i>	None	Native
Clover	<i>Trifolium</i> sp.	None	Native
Graminoids - 9 Species			
Wildoats	<i>Avena</i> sp.	None	Introduced
Soft chess brome	<i>Bromus hordeaceus</i>	None	Introduced
Red brome	<i>Bromus rubens</i>	None	Introduced
Annual fescue	<i>Festuca [=Vulpia] microstachys</i>	None	Native
Rattail sixweeks grass	<i>Festuca [=Vulpia] myuros</i>	None	Introduced
Mediterranean barley	<i>Hordeum marinum</i> subsp. <i>gussoneanum</i>	None	Introduced
Foxtail barley	<i>Hordeum murinum</i>	None	Introduced
One-sided bluegrass	<i>Poa secunda</i>	None	Native
Needlegrass	<i>Stipa [=Nassella] sp.</i>	None	Native

3.6 Wildlife Resources

Research on special status animal occurrences conducted within the designated search area (see Methods) determined 28 special status animal species are known to occur in the region (Appendix C). Figure 6 depicts the current GIS data for special status species mapped near the Study Area by the CNDDB.

3.6.1 Potential Special Status Animal Species

Table 6 lists 12 special status animal species with potential to occur in the Study Area. Federal and California State status, Global and State rank, and CDFW listing status for each species are given. Typical nesting or breeding period, habitat (from CNDDB) preference, potential for occurrence on site, detection of the species within the Study Area, and effect of proposed activity are also provided. Species are listed alphabetically by scientific name.

TABLE 6. SPECIAL STATUS ANIMAL LIST

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CDFW Status	Nesting / Breeding Period	Habitat Preference	Potential to Occur
1.	California glossy snake	<i>Arizona elegans occidentalis</i>	-/-	G5T2/S2	SSC	June and July	Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Low. Appropriate grassland habitat and sandy soils are present in the Study Area.
2.	Burrowing owl	<i>Athene cunicularia</i>	-/-	G4/S3	SSC	March 15 - August 15	Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low. Burrowing mammal presence is very low with no ground squirrel activity observed in the Study Area.
3.	Crotch bumble bee	<i>Bombus crotchii</i>	-/CCE	G3G4/ S1S2	SA	Overwinter underground; spring (nesting)	Shrubland, grassland habitat. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Low. Potential <i>Eriogonum</i> and <i>Clarkia</i> host species were observed in the Study Area during winter surveys; nearest occurrence is 7 mi northwest of the Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CDFW Status	Nesting / Breeding Period	Habitat Preference	Potential to Occur
4.	Swainson's hawk	<i>Buteo swainsoni</i>	-/CT	G5/S3	SA	March 15 - August 15	Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	No (nesting). Suitable nesting/breeding habitat is not present in the Study Area. Low (foraging). Foraging grassland habitat is present, but prey base is minimal with very few small mammal burrows observed in the Study Area.
5.	Northern harrier*	<i>Circus cyaneus</i>	-/-	G5/S3	SSC (Nesting)	March 15 - August 15	Nests on ground in shrubby areas, usually near water. Forages in open areas.	No (nesting). Suitable nesting habitat is not present in the Study Area. Present. One adult male observed in flight, circling above fallow cropland habitat.
6.	Prairie falcon	<i>Falco mexicanus</i>	-/-	G5/S4	WL	March 15 - August 15	Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	No (nesting). Suitable nesting/breeding habitat is not present in the Study Area. Moderate (foraging). Foraging habitat is present in the Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CDFW Status	Nesting / Breeding Period	Habitat Preference	Potential to Occur
7.	Loggerhead shrike*	<i>Lanius ludovicianus</i>	-/-	G4/S4	SSC (Nesting)	March 15 - August 15	Open areas with appropriate perches, near shrubby vegetation for nesting.	No (nesting). Suitable nesting habitat is not present in the Study Area. Present. One adult observed in flight and perched intermittently along barbed wire fencing along northeast Study Area boundary.
8.	San Joaquin Pocket Mouse	<i>Perognathus inornatus</i>	-/-	G2G3/ S2S3	SA	March - July	Associated with fine-textured, sandy, friable soils.	Low. Sandy, loam soils suitable for burrows are present in the Study Area, though very few burrows were observed and were restricted to the north end access road.
9.	Blainville's (Coast) Horned Lizard*	<i>Phrynosoma blainvillii</i>	-/-	G3G4/ S3S4	SSC	May - September	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	Low. Sandy soils near sandy washes are present in the Study Area and horned lizards could pass through the site.

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CDFW Status	Nesting / Breeding Period	Habitat Preference	Potential to Occur
10.	Western spadefoot toad	<i>Spea hammondi</i>	-/-	G3/S3	SSC	December - March	Vernal pools are essential for breeding and egg- laying.	No (breeding). Suitable breeding habitat is not present in the Study Area. Low (estivation). Upland estivation habitat is present, and spadefoot is known to occur in the vicinity.
11.	American badger	<i>Taxidea taxus</i>	-/-	G5/S3	SSC	February – May	Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Moderate. Occurrences are known in the vicinity, however denning in the Study Area is unlikely due to low prey base and few starter burrows.
12.	San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE/CT	G4T2/S2	SA	December - March	Need loose- textured sandy soils for burrowing, and suitable prey base.	Low. Suitable soils are present and there is one recent kit fox record in the vicinity of the Study Area. Quality denning habitat is limited.

*Not listed in the CNDDDB for the search area, but species is a possibility for the location.
See section 1.6.5 for status and rank definitions.

3.6.2 Special Status Animals Discussion

Based on an analysis of known ecological requirements for the special-status wildlife species reported or known from the region (Appendix C), and the habitat conditions that were observed in the Study Area, it was determined that 12 special status animal species have some potential to occur within the Study Area. Two species have a moderate potential to occur (prairie falcon and American badger) and eight species have a low potential to occur in the Study Area (California glossy snake, burrowing owl, Crotch bumble bee, Swainson's hawk, San Joaquin pocket mouse, and Blainville's (Coast) horned lizard, western spadefoot toad, and San Joaquin kit fox). Six species (tricolored blackbird, California tiger salamander, giant kangaroo rat, blunt-nosed leopard lizard, California condor, and California red-legged frog), which are listed under the FESA and/or CESA and are typically found near the Study Area, have no potential to occur within the Study Area. A total of 12 species are discussed below, including description of habitat, range restrictions, known occurrences, and survey results for the Study Area.

- A. California Glossy Snake** (*Arizona elegans occidentalis*) is a subspecies of the glossy snake and is considered a California Species of Special Concern. The subspecies' range extends from Baja California, Mexico, north to the central San Joaquin Valley. The California glossy snake is found in a variety of habitats, including grasslands, shrublands, chaparral, and woodlands where it feeds on lizards and small mammals. The species is nocturnal and primarily spends daylight hours in mammal burrows or under rocks. The nearest reported occurrence of California glossy snake is approximately 2.0 miles southwest of the Study Area (CNDDDB #181) in 1980. Moderately appropriate grassland habitat with sandy soils is present in the Study Area; however, the prey base may be limited to support California glossy snake and this species has low potential to occur.
- B. Burrowing Owl** (*Athene cunicularia*) is a California Species of Special Concern. It is a small, rare owl that occupies abandoned mammal holes in the ground, most notably those of the California ground squirrel (*Otospermophilus beecheyi*), but the owl is also known to inhabit badger and fox dens and man-made holes, such as pipes and culverts. Rarely, it has been known to dig its own burrow in softer soil types (Coulombe 1971; Gervais et al. 2008). In California, the burrowing owl is a year-round resident in the Carrizo Plain, Central Valley, Imperial Valley and the San Francisco Bay region. In the winter months, burrowing owl individuals from other western populations will augment the year-round Californian populations (Shuford and Gardali 2008). The breeding season is generally from March through August. Suitable habitat types for the burrowing owl are dry, open annual or perennial grasslands and deserts with an abundance of burrows (CDFW 2014; CDFW 2018a). Burrows with high horizontal visibility and low vegetation coverage are preferred but burrows with dense vegetation with high perch sites will be used (Green and Anthony 1989). *Orthoptera* are the main food source for the owl but it will also consume other insects, as well as amphibians, carrion, small mammals, reptiles and birds (York et al. 2002; Gervais et al. 2008; CDFW 2014). The closest reported occurrence of the burrowing owl is approximately 10 miles northeast from project (CNDDDB #617). Due to a limited prey base and lack of ground squirrel dens observed within the Study Area, burrowing owls have a low potential to occur. Burrowing owls or their sign were not detected during winter surveys.

- C. Crotch Bumble Bee** (*Bombus crotchii*) bee is designated by CDFW as a Special Animal and is tracked by the CNDDDB. Crotch bumble bee is known from California and western Nevada and inhabits open grassland and scrub habitats. In general, bumble bees forage from a diversity of plants, although individual species can vary greatly in their plant preferences, largely due to differences in tongue length (Hatfield et al. 2015). Crotch bumble bees are classified as a short-tongued species, whose food plants include *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Williams et al. 2014). Other host plants may include *Antirrhinum*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum* (Hatfield et al 2015). The species is primarily active in the spring and summer. Nesting occurs underground, often in abandoned rodent burrows. The closest reported occurrence of Crotch bumble bee is approximately 7.0 miles northwest of the Study Area (CNDDDB #78) in 1961. *Clarkia* and *Eriogonum* species were observed in abundance during our winter 2020 survey and several unidentified bumble bees were detected across the site. Suitable grassland habitat with available pollen and nectar sources is available in the Study Area, and Crotch bumble bee has low potential to occur.
- D. Swainson's Hawk** (*Buteo swainsoni*) is a state-listed threatened species that breeds in California and winters in Mexico and South America. It typically nests in solitary trees near pastures or agricultural fields. In the Central Valley, trees most commonly used for nesting include Fremont's cottonwood (*Populus fremonti*), willows (*Salix* sp.), sycamores (*Platanus* sp.), valley oaks (*Quercus lobata*), and walnut (*Juglans* sp.), with introduced species such as eucalyptus, pines, and redwoods being used occasionally (Woodbridge 1998). The closest reported occurrence of nesting Swainson's hawk is located approximately 6.0 miles northeast of the Study Area (CNDDDB #2579) in 1960. Swainson's hawks nest very rarely in San Luis Obispo County, but are regular winter migrants through the eastern part of the county. Suitable grassland and disturbed cropland habitat could provide an open foraging space with a limited prey base for Swainson's hawk, however nesting habitat is not present, and this species has low potential to occur as a foraging winter migrant. Swainson's hawk was not observed in or near the Study Area during 2019 and 2020 winter surveys.
- E. Northern Harrier** (*Circus cyaneus*) is a California Species of Special Concern found year-round throughout California (CDFW 2014). They occur in greater numbers during migration and less during the breeding season. Northern harriers are typically found in open habitats such as marshes, fields, and prairies. The species nests on the ground in grasses or wetland vegetation. (Loughman & McLandress, 1994). The closest reported occurrence of the Northern harrier is located approximately 14 miles southeast from the Study Area where it is frequently observed foraging around Topaz Solar Farm during winter months. One adult male was observed circling above fallow cropland habitat in the Study Area on January 4, 2020. Suitable foraging habitat is present however appropriate nesting habitat is not present in the Study Area.
- F. Prairie Falcon** (*Falco mexicanus*) is a CDFW Watch List species with a Global Rank of G5 and a State Rank of S4. The species range extends throughout most of the western United States, into southern Canada and portions of Mexico. They are year-round residents in most of California, including San Luis Obispo County. Prairie falcons utilize a variety of habitats but are primarily associated with perennial grasslands, savannahs, rangeland, some agricultural fields, and desert scrub areas (CDFW 2014). Nesting sites are usually in a scrape on a sheltered ledge of a cliff overlooking a large, open area. Occasionally the species will use old raven or raptor nests on a cliff. Prairie falcon nest sites are reported from the region and foraging falcons

are expected to be present in the vicinity (CNDDDB #299). There is no nesting habitat in the Study Area; however, foraging grassland or cropland habitat with a limited prey base is present and prairie falcons have moderate potential to fly through or occasionally forage in the Study Area.

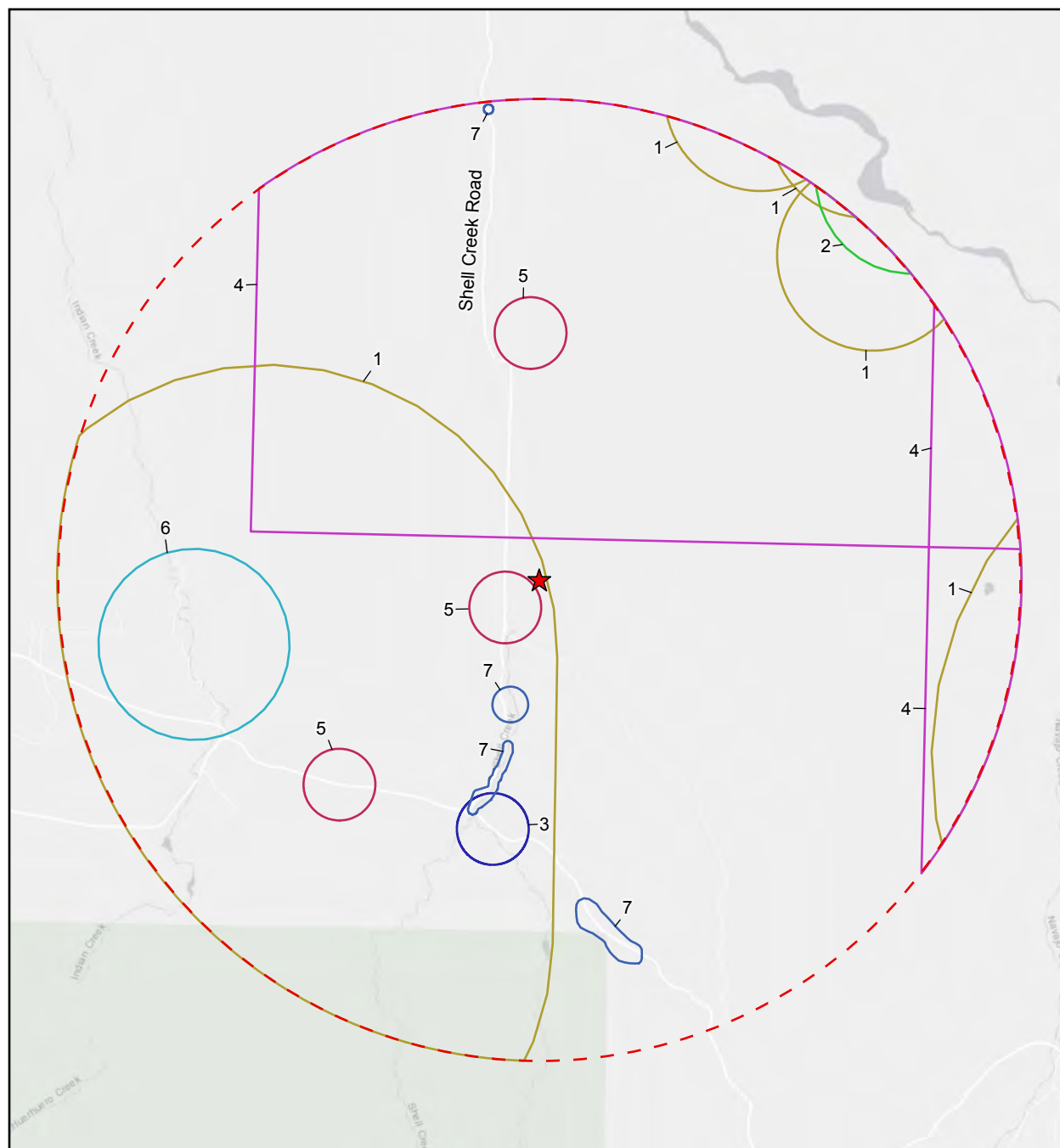
- G. Loggerhead Shrike** (*Lanius ludovicianus*) is a California Species of Special Concern and resident in arid regions of San Luis Obispo County and elsewhere in California. It requires open areas with appropriate perches for hunting, and shrubby trees or bushes for nesting. They feed on arthropods, reptiles and amphibians, small rodents, and birds, and often store prey for later consumption by impaling it on thorns, plant stems, or barbed wire for storage (Shuford and Gardali 2008). The closest reported occurrence of the loggerhead shrike is located approximately 0.25 miles from the Study Area along Shell Creek Road in March 2017 (Klayton 2017). During winter surveys on January 4, 2020, one adult loggerhead shrike was observed in flight within the Study Area and landed periodically on the barbed wire fencing along the northeastern Study Area boundary. Appropriate nesting habitat of shrubby vegetation is not present in the Study Area for loggerhead shrikes.
- H. San Joaquin Pocket Mouse** (*Perognathus inornatus inornatus*) is a California Special Concern subspecies that occurs primarily in the Central Valley of California, ranging west into the eastern portion of San Luis Obispo County. It typically occurs in grasslands and blue oak savannas in areas with friable soils. Moderately appropriate habitat is present in grassland habitat on the SCPUA properties. The nearest recorded occurrence is from 1943, located along Indian Creek, approximately 2.5 miles west of the Study Area (CNDDDB #35). More recent occurrences have not been reported; however, this occurrence is relatively close to the Study Area and this species has low potential to occur. The San Joaquin pocket mouse could occur in the Study Area due to appropriate sandy, friable soils though a limited number of small mammal burrows were observed. Small mammal trapping was not conducted as part of this study.
- I. Blainville's (Coast) Horned Lizard** (*Phrynosoma blainvillii*) is a California Species of Special Concern. Blainville's horned lizard is distributed from northern Baja California through Northern California occurring in open areas of valley foothill hardwood, conifer, riparian, pine-cypress, juniper and annual grassland habitats (Laudenslayer 2007). The horned lizard needs friable sandy soil with rocks and logs essential for burrows and reproduction (Laudenslayer 2007, Gerson 2011). Appropriate habitat for the horned lizard must include an abundance of the native harvester ant (*Pogonomyrmex* and *Messor*). The non-native Argentine ant (*Linepithema humile*) is detrimental to horned lizard food resources as it is out competing the native harvester ant, and the lizard will not eat the Argentine ant (CNDDDB 2017, Gerson 2011). Very little data exists on the habitat requirement for reproduction of Blainville's horned lizard; however, it has been reported that in southern California the egg laying season is from late May through June (CDFW 2014). Blainville's horned lizards have been sited throughout the region but have low potential to occur in the Study Area. Horned lizards were not found in the Study Area during 2019 and 2020 wildlife surveys.
- J. Western Spadefoot Toad** (*Spea hammondi*) has a Global Rank of G3 (Vulnerable) and a State Rank of S3 (Vulnerable). It is a Species of Special Concern (CDFW 2018) that is known to occur in grassland habitats throughout the Central Valley and adjacent foothills. It is also found along the Coast Ranges from Point Conception in Santa Barbara County south to the Mexican border (CDFW 2014, CNDDDB 2017). Western spadefoot toad is primarily an inland

species, occurring in grassland habitats with friable soils and seasonal rain pools (CNDDDB 2017). Spadefoot toads remain underground for most of the year, emerging to breed in seasonal wetland pools during the rainy season and if enough rain occurs, they can be found above ground from October through April. Typical breeding season is from December to March. Development of the larvae from egg to metamorphosis can be very quick (3-11 weeks), depending upon water temperature and food resources. Recruitment will most often fail if breeding ponds are habited by predators such as bullfrogs (*Lithobates catesbeiana*) and crayfishes (CDFW 2014, Jennings and Hayes 1994). The closest reported occurrence of the western spadefoot toad is located approximately 0.8 miles southwest of the Study Area (CNDDDB #9) in 1991 along the east side of Shell Creek Road, where tadpoles were observed inhabiting vernal pools within foothill pine/grassland habitat. Breeding habitat is not present in the Study Area; however, due to the proximity of spadefoot toad breeding habitats, there is low potential for spadefoots to occupy upland habitat within the site during the non-breeding season. Western spadefoot toads were not observed during 2019 and 2020 surveys and are not expected to be present.

- K. American Badger** (*Taxidea taxus*) is a California Species of Special Concern with a widespread range across the state (Brehme et. al. 2015, CDFW 2014). It is a permanent but uncommon resident in all parts of California, except for forested regions of the far northwestern corner, and is more abundant in dry, open areas of most shrub and forest habitats (CNDDDB 2020a). The American badger requires friable soil in order to dig burrows for cover and breeding. The main food source for the species is fossorial rodents, mainly ground squirrels and pocket gophers (CDFW 2014). The breeding season for badgers is in summer and early fall, and females give birth to litters usually in March and April (CDFW 2014). The closest reported occurrence of the American badger is from 1947 (CNDDDB #222); however, badgers are known to occur consistently throughout the region. Suitable soils and grassland habitat are present in the Study Area and American badger has moderate potential to occur on site. No American badgers or sign of badger, such as dens or dig-outs, was observed on during site surveys.
- L. San Joaquin Kit Fox** (*Vulpes macrotis mutica*; SJKF) is federally listed as endangered and state listed as threatened. The SJKF is one of two subspecies of the kit fox, *Vulpes macrotis*, which is the smallest canid species in North America. It is endemic to the San Joaquin Valley and a few adjacent valleys in the central region of California (Cypher et al. 2013). The SJKF is primarily nocturnal and typically occurs in annual grassland or mixed shrub/grassland habitats throughout low, rolling hills and in valleys. They need loose sandy soils in order to dig their burrows and a prey population of black-tailed jackrabbits, rodents, desert cottontails, insects, some birds, reptiles and vegetation (CDFW 2014, CNDDDB 2017). The most suitable habitat for SJKF has low precipitation, sparse vegetation coverage with high densities of kangaroo rats (*Dipodomys* spp.). For the SJKF to succeed in an area it needs large expanses of non-fragmented suitable habitat. This type of habitat is decreasing rapidly by conversion into agricultural land or degraded by urban development (Cypher et al. 2013). Female SJKF begin preparing natal dens in September and October and then breeding occurs from December through February. Pups are born from January to March and family groups typically split up the following October (Meaney et al. 2006). The closest reported occurrence of SJKF is a 2013 confirmed report of a denning fox immediately southwest of the Study Area along Shell Creek Road (CNDDDB #1133). There are no updated reports of this occurrence since 2013. Due to a limited prey base and few small mammal burrows on site, the Study Area is unlikely

to support denning SJKF, though kit fox could move through the site on occasion. No sign of kit fox was observed in the Study Area during 2019 and 2020 site surveys.

Figure 6. California Natural Diversity Database Animal Records

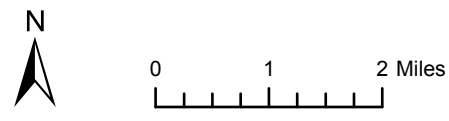


Label	Common Name
1	American badger
2	Blunt-nosed leopard lizard
3	California glossy snake
4	Prairie falcon
5	San Joaquin kit fox
6	San Joaquin pocket mouse
7	Western spadefoot

Legend

★ Project Location

--- 5-Mile Radius



**APNs: 037-351-002,
037-371-001 and 037-371-002**
Map Center: 120.32264°W 35.49368°N
San Luis Obispo County

CNDDB GIS Data Last Updated: January 2020
No USFWS or NMFS Critical Habitat present within 5-mile radius.

3.6.3 Wildlife Survey Results

Table 7 provides a list of wildlife observed in the Study Area. Small mammal trapping studies were beyond the scope of this report, and several common species are likely to be present. Many transient bird species are likely to occur. Wildlife species detected in the Study Area during the January 4, 2020 included two invertebrate, eight birds, and two mammals. Few gopher mounds were observed near the northeast perimeter fence, along with a limited number of small mammal burrows. Sign from coyote was observed on the site and this species likely frequents the area as transient. Two special status bird species were observed. One male northern harrier was observed in flight, circling fallow cropland habitat on January 4, 2020. One loggerhead shrike was observed in flight and intermittently perched along the barbed wire fence delineating the Study Area from the drainage to the northeast.

TABLE 7. WILDLIFE LIST

Common Name	Scientific Name	Special Status	Habitat Type
Invertebrates - 2 Species			
Honeybee	<i>Apis mellifera</i> .	None	Variety of habitat types
Bumble bee	<i>Bombus</i> sp.	None	Variety of habitat types
Birds - 8 Species			
Red-tailed Hawk	<i>Buteo jamaicensis</i>	None	Open, semi-open country
Northern Harrier	<i>Circus cyaneus</i>	SSC (nesting only)	Nest on ground in tall reeds or grasses
American Kestrel	<i>Falco sparverius</i>	None	Open, semi-open country
Loggerhead Shrike	<i>Lanius ludovicianus</i>	SSC (nesting only)	Nests in shrubs, trees near open areas
Savannah Sparrow	<i>Passerculus sandwichensis</i>	None	Open habitats, marshes, grasslands
Say's Phoebe	<i>Sayornis saya</i>	None	Open country, grassland
Western Meadowlark	<i>Sturnella neglecta</i>	None	Open habitats, grasslands
Mourning Dove	<i>Zenaida macroura</i>	None	Open and semi-open habitats
Mammals - 2 Species			
Coyote	<i>Canis latrans</i>	None	Open woodlands, brushy areas, wide ranging.
Valley Pocket Gopher	<i>Thomomys bottae</i>	None	Variety of habitats

3.6.4 Habitat Connectivity and Wildlife Movement

Wildlife corridors and habitat connectivity are important for the movement of wildlife between different populations and habitats. Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Wildlife movement corridors are

important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Wildlife movement corridors are considered sensitive by resource and conservation agencies. Shell Creek runs north-south, just west of the Study Area, and provides connectivity between the La Panza and Temblor Ranges. The drainage along the northeast boundary of the Study Area is an ephemeral tributary that could connect wildlife from the northeast Temblor Range with Shell Creek. Although it is reasonable to assume that wildlife movement may occur locally within the Study Area, the Study Area does not provide a throughway for wildlife species to off-site areas of habitat and therefore does not function as a significant regional corridor.

4 ENVIRONMENTAL IMPACT ANALYSIS AND MITIGATION

The proposed Projects could affect various biological resources, including fallow cropland, annual grassland habitat, special status plants, nesting birds, Crotch bumble bee, burrowing owl, Swainson's hawk, northern harrier, prairie falcon, loggerhead shrike, amphibians and reptiles, American badger, and San Joaquin kit fox. Mitigation measures are recommended to reduce potential impacts to sensitive biological resources. Table 8 summarizes the potential or present biological resources within the Study Area (per Project), each proposed Project's level of effect on biological resources, and the mitigation measure recommended to reduce or offset negative effects from the Project.

TABLE 8. IMPACTS AND MITIGATIONS SUMMARY

Biological Resource	Affiliated Project	Effect of Proposed Project	Mitigation Measures	Mitigation Type
Fallow Cropland	Projects 1 & 2	Mitigable	See kit fox, below	--
Annual Grassland	Projects 2 & 3	Mitigable	See kit fox, below	--
Disturbed	Projects 1 & 2	Negligible	--	--
Special Status Plants	Project 3	To Be Determined	Recommendation A	TBD
Nesting Birds	Projects 1-3	Mitigable	BIO-1	Preconstruction survey
Crotch Bumble Bee	Projects 1-3	Negligible	--	--
Amphibians & Reptiles	Projects 1-3	Mitigable	BIO-2 BIO-3	Monitoring Preconstruction survey
Burrowing Owls	Projects 1-3	Mitigable	BIO-4 BIO-5	Preconstruction survey Avoidance and Protection
Swainson's Hawk	Projects 1-3	Negligible	--	--
Northern Harrier	Projects 1-3	Negligible	--	--
Prairie Falcon	Projects 1-3	Negligible	--	--
Loggerhead Shrike	Projects 1-3	Negligible	--	--
San Joaquin Pocket Mouse	Projects 1-3	Mitigable	BIO-2	Monitoring
American Badger	Projects 1-3	Mitigable	BIO-6	Preconstruction survey

Biological Resource	Affiliated Project	Effect of Proposed Project	Mitigation Measures	Mitigation Type
San Joaquin Kit Fox	Projects 1-3	Mitigable	BIO-7through BIO-17	Monitoring, Preconstruction survey, Avoidance and Protection, compensatory mitigation

4.1 Project 1 (APN 037-371-001)

4.1.1 Habitats

There are two types of habitat present within the Study Area of APN 037-371-001: fallow cropland and disturbed habitat. Approximately 5.0 acres of fallow cropland would be permanently impacted by installation of proposed hoop structures, infrastructure, perimeter deer fencing, and access road improvements to connect to the cultivation area (Figure 7). Disturbed habitat would not be impacted by Project 1. Fallow cropland habitat within the Study Area is not a sensitive habitat type, however loss of cropland habitat does require compensatory mitigation for kit fox (refer to Section 4.1.4.5). Table 9 lists the habitat types and estimated area of habitat to be impacted.

TABLE 9. POTENTIAL HABITAT IMPACTS – PROJECT 1

Habitat Type	Total Acreage in Parcel	Potential Impacts (Acres)
Fallow cropland	34.6	5.0
Disturbed	0.6	0

4.1.2 Potential Wetlands and Jurisdictional Waters

Potentially jurisdictional wetlands and waters are not present in the Study Area of APN 037-371-001. The proposed Project would not impact wetlands and/or waters.

4.1.3 Botanical Resources

Special status plant species are not expected to occur in this portion of the Study Area due to continuous ground disturbance and agricultural use over the past few years. There is no potential for special status plant species in the fallow cropland habitat within the footprint of proposed Project 1 and no further surveys are recommended.

4.1.4 Wildlife Resources

The following section discusses potential impacts and mitigation recommended for common and special status wildlife resources with potential to occur within APN 037-371-001.

4.1.4.1 Nesting Birds

Impacts to or take of nesting birds could occur if construction of the proposed Project is conducted during nesting season (March 15 through August 15). No bird nests were detected during November 2019 and January 2020 site surveys but could occur. To reduce potential adverse effects of the proposed Project on nesting birds, the following mitigation measure is recommended.

BIO-1. Within one week of ground disturbance activities, if work occurs between March 15 and August 15, nesting bird surveys shall be conducted. If surveys do not locate nesting birds, construction activities may be conducted. If nesting birds are located, no construction activities shall occur within 100 feet of nests until chicks are fledged. A pre-construction survey report shall be submitted to the lead agency immediately upon completion of the survey. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements. A map of the Project site and nest locations shall be included with the report. The Project biologist conducting the nesting survey shall have the authority to reduce or increase the recommended buffer depending upon site conditions.

4.1.4.2 Crotch Bumble Bee

Bumble bees (*Bombus* sp.) were observed foraging in the fallow cropland habitat during the January 2020 site survey and Crotch bumble bee has potential to forage in the Study Area. Although there could be foraging habitat for Crotch bumble bees, nesting habitat is unlikely due to farming activities and overall disturbance to the site. Loss of approximately 5 acres of potential habitat would constitute a negligible overall effect to crotch bumblebee and no further surveys are recommended.

4.1.4.3 Amphibians and Reptiles

Western spadefoot toad could potentially occur in the Study Area. Potential suitable pool habitat is not present in the Study Area however spadefoot toads could utilize the site during winter estivation in upland habitats. The following mitigation measure is provided to ensure impacts spadefoot toads are minimized during ground disturbing activities.

BIO-2. Biological Monitoring. A biological monitor with appropriate permits to relocate special status species shall be present during all earth disturbing construction activities associated with developing the project, including but not limited to grading, excavations, and tilling. The biologist shall conduct a morning clearance survey of the Project area each day that ground disturbing activities are proposed and monitor earth disturbing activities. Special status species captured during surveys or during construction monitoring shall be relocated to the nearest suitable habitat outside of the Project area. A final monitoring report shall be submitted to the County upon project completion.

Potentially suitable habitat was identified in the Study Area for California glossy snake and Blainville's (Coast) horned lizard. The most likely areas to be inhabited are dry grassland areas (glossy snake), or in sandy soil areas with exposed ground or scattered bushes (horned lizard). To reduce potential adverse effects to sensitive reptile species, we recommend implementation of BIO-2 and BIO-3.

BIO-3. A focused pre-activity clearance survey for California glossy snake and coast horned lizard shall be conducted in proposed work areas immediately prior to ground-breaking activities (ie: the morning of start of work). The survey should be conducted on foot by a qualified biologist with appropriate permits to relocate glossy snakes and/or horned lizards out of harm's way. If the focused survey results are negative, a letter report shall be submitted to the County, and no further action shall be required. If any of these special status reptiles are found to be present in the work areas, California glossy snakes and/or coast horned lizards shall be captured by hand by the project biologist and relocated to an appropriate location well outside the project areas.

4.1.4.4 Special Status Birds

Burrowing owls have low potential to occur in the grassland and/or fallow cropland in the Study Area. In order to reduce the potential for impacts to burrowing owls, the applicant shall implement the following within two weeks prior to ground disturbance activities.

BIO-4. Pre-construction surveys for burrowing owls shall be conducted not more than 14 days prior to any work that affects habitat containing burrows. The pre-construction surveys shall be conducted in a manner sufficient to determine no burrowing owls are present in the work areas. Pre-construction surveys shall be conducted throughout the year, when work is proposed, to account for breeding, wintering, and transient owls.

BIO-5. If burrowing owls are present in the work areas during the breeding season (February 1 through August 31), the burrows must be monitored to determine if a breeding pair is present. If a breeding pair is confirmed, the burrow must be avoided and protected from impacts via a 250-foot setback from the burrow. If a breeding pair is not present, passive relocation may be used. If burrowing owls are present during the non-breeding season, a passive relocation effort, such as a one-way door, may be implemented. Monitoring and mitigation must be conducted under guidance from a qualified wildlife biologist.

Swainson's hawk, northern harrier, loggerhead shrike, and prairie falcon have potential to forage in the grassland and resurging fallow cropland habitat in the Study Area. No nesting habitat is present in or near the Study Area for these species. No further surveys for these species are recommended.

4.1.4.5 Special Status Mammals

San Joaquin pocket mouse could occur in the proposed Project areas. Very few small rodent burrows were observed and were limited to the northeast portion of fallow cropland habitat within resurging grasses and filaree along the old perimeter road. To reduce the potential impact to San Joaquin pocket mouse, implementation of BIO-2 is recommended.

American badger could occur within the Project areas. Wildlife surveys in November 2019 and January 2020 did not identify any sign of badgers, however, potential habitat does occur within the Study Area. Potential impacts to American badger shall be mitigated by implementing the following measure:

BIO-6. Preconstruction Surveys. Within thirty days of starting any earth work, a preconstruction survey shall be conducted in the Study Area to locate occupied American

badger dens within 100 feet of project areas. If the pre-construction survey finds potential badger dens, they shall be inspected to determine whether they are occupied. The survey shall cover the entire property and shall examine both old and new dens. If potential badger dens are too long to completely inspect from the entrance, a fiber optic scope shall be used to examine the den to the end. If a fiber optic scope is not available, occupation of the den can be determined by partially obscuring the den entrance with sticks and leaves to indicate animal passage into and out of the den and dusting the den entrance with a fine layer of dust or tracking material for three consecutive nights and examining the following mornings for footprints. Inactive dens may be excavated by hand with a shovel to prevent re-use of dens during construction. If badgers are found in dens on the property between February and July, nursing young may be present. To avoid disturbance and the possibility of direct take of adults and nursing young, and to prevent badgers from becoming trapped in burrows during construction activity, no grading shall occur within 100 feet of active badger dens between February and July. Results of the preconstruction survey shall be submitted to the lead agency for review within one week after completion of the survey.

San Joaquin kit fox was not present in the Study Area during our November 2019 and January 2020 surveys. The Study Area is within the known range of San Joaquin kit fox and is considered suitable habitat by California Department of Fish and Wildlife (CDFW).

The agricultural lands and annual grassland comprising most of the Study Area are considered potential habitat for San Joaquin kit fox. A San Joaquin Kit Fox Habitat Evaluation Form was completed on January 27, 2020 that concluded that the Study Area is within a 3:1 mitigation area (provided in Appendix D). Impacts to San Joaquin kit fox by loss of habitat would be offset by implementation of BIO-7 (mitigation acreage per parcel at a 3:1 mitigation ratio), and mitigation of construction activities would be accomplished by applying BIO-8 through BIO-17.

BIO-7. Prior to issuance of grading and/or construction permits, the applicant shall submit evidence to the County of San Luis Obispo, Department of Community Development, Planning Division that states that one or a combination of the following three San Joaquin kit fox mitigation measures has been implemented:

- a. Provide for the protection in perpetuity, through acquisition of fee or a conservation easement of **[5.0 acres in APN 037-371-001 = 15 mitigation acres required]** acres of suitable habitat in the kit fox corridor area (e.g. within the San Luis Obispo County kit fox habitat area), either on-site or off-site, and provide for a non-wasting endowment to provide for management and monitoring of the property in perpetuity. Lands to be conserved shall be subject to the review and approval of the California Department of Fish and Wildlife (Department) and the County.

This mitigation alternative (a.) requires that all aspects of this program must be in place before County permit issuance or initiation of any ground disturbing activities.

- b. Deposit funds into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the kit fox corridor area within San Luis Obispo County, and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (b) above, can be completed by providing funds to The Nature Conservancy (TNC) pursuant to the Voluntary Fee-Based Compensatory Mitigation Program (Program). The Program was established in agreement between the Department and TNC to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The fee, payable to “The Nature Conservancy”, would total **\$[Amount of fee based on \$2500 per acre]**. This fee is calculated based on the current cost-per-unit of \$2500 per acre of mitigation, which is scheduled to be adjusted to address the increasing cost of property in San Luis Obispo County; your actual cost may increase depending on the timing of payment. This fee must be paid after the Department provides written notification about your mitigation options but prior to County permit issuance and initiation of any ground disturbing activities.

- c. Purchase **[Total number of mitigation acres required]** credits in a Department-approved conservation bank, which would provide for the protection in perpetuity of suitable habitat within the kit fox corridor area and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (c) above, can be completed by purchasing credits from the Palo Prieto Conservation Bank (see contact information below). The Palo Prieto Conservation Bank was established to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The cost for purchasing credits is payable to the owners of The Palo Prieto Conservation Bank and would total **\$[Amount of mitigation acres required (i.e. credits), currently priced at \$2500 per credit]**. This fee is calculated based on the current cost-per-credit of \$2500 per acre of mitigation. The fee is established by the conservation bank owner and may change at any time. Your actual cost may increase depending on the timing of payment. Purchase of credits must be completed prior to County permit issuance and initiation of any ground disturbing activities.

BIO-8. Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the County. The retained biologist shall perform the following monitoring activities:

- a. **Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction**, the biologist shall conduct a pre-activity (i.e. preconstruction) survey for known or potential kit fox dens and submit a letter to the County reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed), as applicable, to address any kit fox activity within the project limits.
- b. **The qualified biologist shall conduct weekly site visits during site-disturbance activities** (i.e. grading, disking, excavation, stock piling of dirt or gravel, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BR-18 through BR-28. Site disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit

fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason (see BR-19iii). When weekly monitoring is required, the biologist shall submit weekly monitoring reports to the County.

- c. Prior to or during project activities, if any observations are made of San Joaquin Kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. harm or death) to kit fox. At the time a den is discovered, the qualified biologist shall contact USFWS and the CDFW for guidance on possible additional kit fox protection measures to implement and whether or not a Federal and/or State incidental take permit is needed. If a potential den is encountered during construction, work shall stop until such time the USFWS determines it is appropriate to resume work.

If incidental take of kit fox during project activities is possible, **before project activities commence**, the applicant must consult with the USFWS. The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.

- d. In addition, the qualified biologist shall implement the following measures:
 - 1. Within 30 days prior to initiation of site disturbance and/or construction, fenced exclusion zones shall be established around all known and potential kit fox dens. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of distance measured outward from the den or burrow entrances, dependent on the use and activity of the den (i.e. potential, known, active, or natal den), to be determined by the kit fox biologist.
 - 2. All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.
 - 3. If kit foxes or known or potential kit fox dens are found on site, daily monitoring by a qualified biologist shall be required during ground disturbing activities.

BIO-9. Prior to issuance of grading and/or construction permits, the applicant shall clearly delineate the following as a note on the project plans: *“Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox”*. Speed limit signs shall be installed on the project site within 30 days prior to initiation of site disturbance and/or construction.

- BIO-10.** During the site disturbance and/or construction phase, grading and construction activities after dusk shall be prohibited unless coordinated through the County, during which additional kit fox mitigation measures may be required.
- BIO-11.** Prior to issuance of grading and/or construction permit and within 30 days prior to initiation of site disturbance and/or construction, all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox's life history, all mitigation measures specified by the County, as well as any related biological report(s) prepared for the project. The applicant shall notify the County shortly prior to this meeting. A kit fox fact sheet shall also be developed prior to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.
- BIO-12.** During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavations, steep-walled holes and trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped kit fox. Any kit fox so discovered shall be allowed to escape before field activities resume or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.
- BIO-13.** During the site-disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved. If necessary, the pipe may be moved only once to remove it from the path of activity, until the kit fox has escaped.
- BIO-14.** During the site-disturbance and/or construction phase, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of only in closed containers. These containers shall be regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
- BIO-15.** Prior to, during and after the site-disturbance and/or construction phase, use of pesticides or herbicides shall be in compliance with all local, State and Federal regulations. This is necessary to minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.

- BIO-16.** During the site-disturbance and/or construction phase, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and County. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the USFWS and CDFW by telephone. In addition, formal notification shall be provided in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to CDFW for care, analysis, or disposition.
- BIO-17.** Prior to final inspection, or occupancy, whichever comes first, should any long internal or perimeter fencing be proposed or installed, the applicant shall do the following to provide for kit fox passage:
- a. If a wire strand/pole design is used, the lowest strand shall be no closer to the ground than 12 inches.
 - b. If a more solid wire mesh fence is used, 8" x 12" openings near the ground shall be provided every 100 yards
 - c. Upon fence installation, the applicant shall notify the County to verify proper installation. Any fencing constructed after issuance of a final permit shall follow the above guidelines.

4.1.5 Habitat Connectivity and Wildlife Movement

Impacts to wildlife movement corridors are not anticipated from the proposed project because the project will not create a barrier to regional or local wildlife movement corridors (i.e. ridgelines or drainages); therefore, no mitigation is required.

4.2 Project 2 (APN 037-371-002)

4.2.1 Habitats

There are three types of habitat present within the Study Area of APN 037-371-002: fallow cropland, disturbed, and annual grassland habitat. Approximately 5.0 acres of fallow cropland would be permanently impacted by installation of proposed hoop structures, infrastructure, perimeter deer fencing, and access road improvements to connect to the cultivation area (Figure 7). Disturbed and annual grassland habitat would not be impacted by Project 2. Fallow cropland habitat within the Study Area is not a sensitive habitat type, however loss of cropland habitat does require compensatory mitigation for kit fox (refer to Section 4.2.4.5). Table 10 lists the habitat types and estimated area of habitat to be impacted.

TABLE 10. POTENTIAL HABITAT IMPACTS – PROJECT 2

Habitat Type	Total Acreage in Parcel	Potential Impacts (Acres)
Fallow cropland	69.5	5.0
Disturbed	5.9	0
Annual grassland	4.2	0

4.2.2 Potential Wetlands and Jurisdictional Waters

Potentially jurisdictional wetlands and waters are not present in the Study Area of APN 037-371-002. The proposed Project would not impact wetlands and/or waters.

4.2.3 Botanical Resources

Special status plant species are not expected to occur in this portion of the Study Area due to continuous ground disturbance and agricultural use over the past few years. There is no potential for special status plant species in the fallow cropland habitat within the footprint of proposed Project 2 and no further surveys are recommended.

4.2.4 Wildlife Resources

The following section discusses potential impacts and mitigation recommended for common and special status wildlife resources with potential to occur within APN 037-371-002.

4.2.4.1 Nesting Birds

Impacts to or take of nesting birds could occur if construction of the proposed Project is conducted during nesting season (March 15 through August 15). No bird nests were detected during November 2019 and January 2020 site surveys but could occur. To reduce potential adverse effects of the proposed Project on nesting birds, the following mitigation measure is recommended.

- BIO-1.** Within one week of ground disturbance activities, if work occurs between March 15 and August 15, nesting bird surveys shall be conducted. If surveys do not locate nesting

birds, construction activities may be conducted. If nesting birds are located, no construction activities shall occur within 100 feet of nests until chicks are fledged. A pre-construction survey report shall be submitted to the lead agency immediately upon completion of the survey. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements. A map of the Project site and nest locations shall be included with the report. The Project biologist conducting the nesting survey shall have the authority to reduce or increase the recommended buffer depending upon site conditions.

4.2.4.2 Crotch Bumble Bee

Bumble bees (*Bombus* sp.) were observed foraging in the fallow cropland habitat during the January 2020 site survey and Crotch bumble bee has potential to forage in the Study Area. Although there could be foraging habitat for Crotch bumble bees, nesting habitat is unlikely due to farming activities and overall disturbance to the site. Loss of approximately 5 acres of potential habitat would constitute a negligible overall effect to crotch bumblebee and no further surveys are recommended.

4.2.4.3 Amphibians and Reptiles

Western spadefoot toad could potentially occur in the Study Area. Potential suitable pool habitat is not present in the Study Area however spadefoot toads could utilize the site during winter estivation in upland habitats. The following mitigation measure is provided to ensure impacts spadefoot toads are minimized during ground disturbing activities.

BIO-2. Biological Monitoring. A biological monitor with appropriate permits to relocate special status species shall be present during all earth disturbing construction activities associated with developing the project, including but not limited to grading, excavations, and tilling. The biologist shall conduct a morning clearance survey of the Project area each day that ground disturbing activities are proposed and monitor earth disturbing activities. Special status species captured during surveys or during construction monitoring shall be relocated to the nearest suitable habitat outside of the Project area. A final monitoring report shall be submitted to the County upon project completion.

Potentially suitable habitat was identified in the Study Area for California glossy snake and Blainville's (Coast) horned lizard. The most likely areas to be inhabited are dry grassland areas (glossy snake), or in sandy soil areas with exposed ground or scattered bushes (horned lizard). To reduce potential adverse effects to sensitive reptile species, we recommend implementation of BIO-2 and BIO-3

BIO-3. A focused pre-activity clearance survey for California glossy snake and coast horned lizard shall be conducted in proposed work areas immediately prior to ground-breaking activities (ie: the morning of start of work). The survey should be conducted on foot by a qualified biologist with appropriate permits to relocate glossy snakes and/or horned lizards out of harm's way. If the focused survey results are negative, a letter report shall be submitted to the County, and no further action shall be required. If any of these special status reptiles are found to be present in the work areas, California glossy snakes and/or coast horned lizards shall be captured by hand by the project biologist and relocated to an appropriate location well outside the project areas.

4.2.4.4 Special Status Birds

Burrowing owls have low potential to occur in the grassland and/or fallow cropland in the Study Area. In order to reduce the potential for impacts to burrowing owls, the applicant shall implement the following within two weeks prior to ground disturbance activities.

BIO-4. Pre-construction surveys for burrowing owls shall be conducted not more than 14 days prior to any work that affects habitat containing burrows. The pre-construction surveys shall be conducted in a manner sufficient to determine no burrowing owls are present in the work areas. Pre-construction surveys shall be conducted throughout the year, when work is proposed, to account for breeding, wintering, and transient owls.

BIO-5. If burrowing owls are present in the work areas during the breeding season (February 1 through August 31), the burrows must be monitored to determine if a breeding pair is present. If a breeding pair is confirmed, the burrow must be avoided and protected from impacts via a 250-foot setback from the burrow. If a breeding pair is not present, passive relocation may be used. If burrowing owls are present during the non-breeding season, a passive relocation effort, such as a one-way door, may be implemented. Monitoring and mitigation must be conducted under guidance from a qualified wildlife biologist.

Swainson's hawk, northern harrier, loggerhead shrike, and prairie falcon have potential to forage in the grassland and resurging fallow cropland habitat in the Study Area. No nesting habitat is present in or near the Study Area for these species. No further surveys for these species are recommended.

4.2.4.5 Special Status Mammals

San Joaquin pocket mouse could occur in the proposed Project areas. Very few small rodent burrows were observed and were limited to the northeast portion of fallow cropland habitat within resurging grasses and filaree along the old perimeter road. To reduce the potential impact to San Joaquin pocket mouse, implementation of BIO-2 is recommended.

American badger could occur within the Project areas. Wildlife surveys in November 2019 and January 2020 did not identify any sign of badgers, however, potential habitat does occur within the Study Area. Potential impacts to American badger shall be mitigated by implementing the following measure:

BIO-6. Preconstruction Surveys. Within thirty days of starting any earth work, a preconstruction survey shall be conducted in the Study Area to locate occupied American badger dens within 100 feet of project areas. If the pre-construction survey finds potential badger dens, they shall be inspected to determine whether they are occupied. The survey shall cover the entire property and shall examine both old and new dens. If potential badger dens are too long to completely inspect from the entrance, a fiber optic scope shall be used to examine the den to the end. If a fiber optic scope is not available, occupation of the den can be determined by partially obscuring the den entrance with sticks and leaves to indicate animal passage into and out of the den and dusting the den entrance with a fine layer of dust or tracking material for three consecutive nights and examining the following mornings for footprints. Inactive dens may be excavated by hand with a shovel to prevent re-use of dens during construction. If badgers are found in dens on the

property between February and July, nursing young may be present. To avoid disturbance and the possibility of direct take of adults and nursing young, and to prevent badgers from becoming trapped in burrows during construction activity, no grading shall occur within 100 feet of active badger dens between February and July. Results of the preconstruction survey shall be submitted to the lead agency for review within one week after completion of the survey.

San Joaquin kit fox was not present in the Study Area during our November 2019 and January 2020 surveys. The Study Area is within the known range of San Joaquin kit fox and is considered suitable habitat by California Department of Fish and Wildlife (CDFW).

The agricultural lands and annual grassland comprising most of the Study Area are considered potential habitat for San Joaquin kit fox. A San Joaquin Kit Fox Habitat Evaluation Form was completed on January 27, 2020 that concluded that the Study Area is within a 3:1 mitigation area (provided in Appendix E). Impacts to San Joaquin kit fox by loss of habitat would be offset by implementation of BIO-7 (mitigation acreage per parcel at a 3:1 mitigation ratio), and mitigation of construction activities would be accomplished by applying BIO-7 through BIO-17.

BIO-7. Prior to issuance of grading and/or construction permits, the applicant shall submit evidence to the County of San Luis Obispo, Department of Community Development, Planning Division that states that one or a combination of the following three San Joaquin kit fox mitigation measures has been implemented:

- a. Provide for the protection in perpetuity, through acquisition of fee or a conservation easement of **[5.0 acres in APN 037-371-002 = 15 mitigation acres required]** acres of suitable habitat in the kit fox corridor area (e.g. within the San Luis Obispo County kit fox habitat area), either on-site or off-site, and provide for a non-wasting endowment to provide for management and monitoring of the property in perpetuity. Lands to be conserved shall be subject to the review and approval of the California Department of Fish and Wildlife (Department) and the County.

This mitigation alternative (a.) requires that all aspects of this program must be in place before County permit issuance or initiation of any ground disturbing activities.

- c. Deposit funds into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the kit fox corridor area within San Luis Obispo County, and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (b) above, can be completed by providing funds to The Nature Conservancy (TNC) pursuant to the Voluntary Fee-Based Compensatory Mitigation Program (Program). The Program was established in agreement between the Department and TNC to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The fee, payable to “The Nature Conservancy”, would total **[\$Amount of fee based on \$2500 per acre]**. This fee is calculated based on the current cost-per-unit of \$2500 per acre of mitigation, which is scheduled to be adjusted to address the increasing cost of property in San Luis Obispo County; your actual cost may increase depending

on the timing of payment. This fee must be paid after the Department provides written notification about your mitigation options but prior to County permit issuance and initiation of any ground disturbing activities.

- c. Purchase **[Total number of mitigation acres required]** credits in a Department-approved conservation bank, which would provide for the protection in perpetuity of suitable habitat within the kit fox corridor area and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (c) above, can be completed by purchasing credits from the Palo Prieto Conservation Bank (see contact information below). The Palo Prieto Conservation Bank was established to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The cost for purchasing credits is payable to the owners of The Palo Prieto Conservation Bank and would total **\$[Amount of mitigation acres required (i.e. credits), currently priced at \$2500 per credit]**. This fee is calculated based on the current cost-per-credit of \$2500 per acre of mitigation. The fee is established by the conservation bank owner and may change at any time. Your actual cost may increase depending on the timing of payment. Purchase of credits must be completed prior to County permit issuance and initiation of any ground disturbing activities.

BIO-8. Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the County. The retained biologist shall perform the following monitoring activities:

- e. **Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction**, the biologist shall conduct a pre-activity (i.e. preconstruction) survey for known or potential kit fox dens and submit a letter to the County reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed), as applicable, to address any kit fox activity within the project limits.
- f. **The qualified biologist shall conduct weekly site visits during site-disturbance activities** (i.e. grading, disking, excavation, stock piling of dirt or gravel, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BR-18 through BR-28. Site disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason (see BR-19iii). When weekly monitoring is required, the biologist shall submit weekly monitoring reports to the County.
- g. Prior to or during project activities, if any observations are made of San Joaquin Kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. harm or death) to kit fox. At the time a den is discovered, the qualified biologist shall contact USFWS and the CDFW for guidance on possible additional kit fox protection measures to implement and whether or not a Federal and/or State incidental take permit is needed. If a potential den is encountered during construction,

work shall stop until such time the USFWS determines it is appropriate to resume work.

If incidental take of kit fox during project activities is possible, **before project activities commence**, the applicant must consult with the USFWS. The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.

h. In addition, the qualified biologist shall implement the following measures:

4. Within 30 days prior to initiation of site disturbance and/or construction, fenced exclusion zones shall be established around all known and potential kit fox dens. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of distance measured outward from the den or burrow entrances, dependent on the use and activity of the den (i.e. potential, known, active, or natal den), to be determined by the kit fox biologist.
5. All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.
6. If kit foxes or known or potential kit fox dens are found on site, daily monitoring by a qualified biologist shall be required during ground disturbing activities.

BIO-9. Prior to issuance of grading and/or construction permits, the applicant shall clearly delineate the following as a note on the project plans: *“Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox”*. Speed limit signs shall be installed on the project site within 30 days prior to initiation of site disturbance and/or construction.

BIO-10. During the site disturbance and/or construction phase, grading and construction activities after dusk shall be prohibited unless coordinated through the County, during which additional kit fox mitigation measures may be required.

BIO-11. Prior to issuance of grading and/or construction permit and within 30 days prior to initiation of site disturbance and/or construction, all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox’s life history, all mitigation measures specified by the County, as well as any related biological report(s) prepared for the project. The applicant shall notify the County shortly prior to this meeting. A kit fox fact sheet shall also be developed prior to the training program,

and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.

- BIO-12.** During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavations, steep-walled holes and trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped kit fox. Any kit fox so discovered shall be allowed to escape before field activities resume or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.
- BIO-13.** During the site-disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved. If necessary, the pipe may be moved only once to remove it from the path of activity, until the kit fox has escaped.
- BIO-14.** During the site-disturbance and/or construction phase, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of only in closed containers. These containers shall be regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
- BIO-15.** Prior to, during and after the site-disturbance and/or construction phase, use of pesticides or herbicides shall be in compliance with all local, State and Federal regulations. This is necessary to minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.
- BIO-16.** During the site-disturbance and/or construction phase, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and County. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the USFWS and CDFW by telephone. In addition, formal notification shall be provided in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to CDFW for care, analysis, or disposition.
- BIO-17.** Prior to final inspection, or occupancy, whichever comes first, should any long internal or perimeter fencing be proposed or installed, the applicant shall do the following to provide for kit fox passage:

- d. If a wire strand/pole design is used, the lowest strand shall be no closer to the ground than 12 inches.
- e. If a more solid wire mesh fence is used, 8" x 12" openings near the ground shall be provided every 100 yards
- f. Upon fence installation, the applicant shall notify the County to verify proper installation. Any fencing constructed after issuance of a final permit shall follow the above guidelines.

4.2.5 Habitat Connectivity and Wildlife Movement

Impacts to wildlife movement corridors are not anticipated from the proposed project because the project will not create a barrier to regional or local wildlife movement corridors (i.e. ridgelines or drainages); therefore, no mitigation is required.

4.3 Project 3 (APN 037-351-002)

4.3.1 Habitats

Annual grassland habitat is present within the Study Area of APN 037-351-002. Approximately 6.3 acres of annual grassland would be permanently impacted by installation of proposed hoop structures, one greenhouse, infrastructure, perimeter deer fencing, and access road improvements to connect to the cultivation area (Figure 7). Annual grassland habitat within the Study Area is not a sensitive habitat type, however loss of grassland habitat does require compensatory mitigation for kit fox (refer to Section 4.3.4.4). Spring 2020 surveys will document presence or absence of sensitive resources in grassland habitat and will make recommendations for avoidance and mitigation as appropriate (refer to Recommendation A, below)

4.3.2 Potential Wetlands and Jurisdictional Waters

Potentially jurisdictional wetlands and waters are not present in the Study Area of APN 037-351-002. The proposed Project would not impact wetlands and/or waters.

4.3.3 Botanical Resources

An appropriately timed (spring) botanical survey should be conducted to search for special-status plant species within annual grassland habitat that were not detected during November 2019 and January 2020 surveys, including those with potential to occur (but not limited to) listed in Table 4 (see Recommendation A below). The survey report shall include mitigation measures to avoid or reduce impacts to any special status plant species, should they be present. A copy of the survey report (Addendum) shall be provided to the County.

Recommendation:

- A. Spring Botanical Survey. A seasonally appropriate botanical survey should be conducted in 2020 within the annual grassland habitat of the Study Area or any additional Project features that are outside the Study Area defined in this report. Annual grassland habitat along the access road will also be surveyed during spring. A survey buffer of 100 feet should be included to ensure all potential impacts are adequately addressed.

4.3.4 Wildlife Resources

The following section discusses potential impacts and mitigation recommended for common and special status wildlife resources with potential to occur within APN 037-371-002.

4.3.4.1 Nesting Birds

Impacts to or take of nesting birds could occur if construction of the proposed Project is conducted during nesting season (March 15 through August 15). No bird nests were detected during November 2019 and January 2020 site surveys but could occur. To reduce potential adverse effects of the proposed Project on nesting birds, the following mitigation measure is recommended.

- BIO-1.** Within one week of ground disturbance activities, if work occurs between March 15 and August 15, nesting bird surveys shall be conducted. If surveys do not locate nesting

birds, construction activities may be conducted. If nesting birds are located, no construction activities shall occur within 100 feet of nests until chicks are fledged. A pre-construction survey report shall be submitted to the lead agency immediately upon completion of the survey. The report shall detail appropriate fencing or flagging of the buffer zone and make recommendations on additional monitoring requirements. A map of the Project site and nest locations shall be included with the report. The Project biologist conducting the nesting survey shall have the authority to reduce or increase the recommended buffer depending upon site conditions.

4.3.4.2 Amphibians and Reptiles

Western spadefoot toad could potentially occur in the Study Area. Potential suitable pool habitat is not present in the Study Area however spadefoot toads could utilize the site during winter estivation in upland habitats. The following mitigation measure is provided to ensure impacts spadefoot toads are minimized during ground disturbing activities.

BIO-2. Biological Monitoring. A biological monitor with appropriate permits to relocate special status species shall be present during all earth disturbing construction activities associated with developing the project, including but not limited to grading, excavations, and tilling. The biologist shall conduct a morning clearance survey of the Project area each day that ground disturbing activities are proposed and monitor earth disturbing activities. Special status species captured during surveys or during construction monitoring shall be relocated to the nearest suitable habitat outside of the Project area. A final monitoring report shall be submitted to the County upon project completion.

Potentially suitable habitat was identified in the Study Area for California glossy snake and Blainville's (Coast) horned lizard. The most likely areas to be inhabited are dry grassland areas (glossy snake), or in sandy soil areas with exposed ground or scattered bushes (horned lizard). To reduce potential adverse effects to sensitive reptile species, we recommend implementation of BIO-2 and BIO-3.

BIO-3. A focused pre-activity clearance survey for California glossy snake and Coast horned lizard shall be conducted in proposed work areas immediately prior to ground-breaking activities (ie: the morning of start of work). The survey should be conducted on foot by a qualified biologist with appropriate permits to relocate glossy snakes and/or horned lizards out of harm's way. If the focused survey results are negative, a letter report shall be submitted to the County, and no further action shall be required. If any of these special status reptiles are found to be present in the work areas, California glossy snakes and/or coast horned lizards shall be captured by hand by the project biologist and relocated to an appropriate location well outside the project areas.

4.3.4.3 Special Status Birds

Burrowing owls have potential to occur in the grassland habitat in the Study Area. In order to reduce the potential for impacts to burrowing owls, the applicant shall implement the following within two weeks prior to ground disturbance activities.

BIO-4. Pre-construction surveys for burrowing owls shall be conducted not more than 14 days prior to any work that affects habitat containing burrows. The pre-construction surveys

shall be conducted in a manner sufficient to determine no burrowing owls are present in the work areas. Pre-construction surveys shall be conducted throughout the year, when work is proposed, to account for breeding, wintering, and transient owls.

BIO-5. If burrowing owls are present in the work areas during the breeding season (February 1 through August 31), the burrows must be monitored to determine if a breeding pair is present. If a breeding pair is confirmed, the burrow must be avoided and protected from impacts via a 250-foot setback from the burrow. If a breeding pair is not present, passive relocation may be used. If burrowing owls are present during the non-breeding season, a passive relocation effort, such as a one-way door, may be implemented. Monitoring and mitigation must be conducted under guidance from a qualified wildlife biologist.

Swainson's hawk, northern harrier, loggerhead shrike, and prairie falcon have potential to forage in the grassland and resurging fallow cropland habitat in the Study Area. No nesting habitat is present in or near the Study Area for these species. No further surveys for these species are recommended.

4.3.4.4 Special Status Mammals

San Joaquin pocket mouse could occur in the proposed Project areas. Very few small rodent burrows were observed and were limited to the northeast portion of fallow cropland habitat within resurging grasses and filaree along the old perimeter road. To reduce the potential impact to San Joaquin pocket mouse, implementation of BIO-2 is recommended.

American badger could occur within the Project areas. Wildlife surveys in November 2019 and January 2020 did not identify any sign of badgers, however, potential habitat does occur within the Study Area. Potential impacts to American badger shall be mitigated by implementing the following measure:

BIO-6. Preconstruction Surveys. Within thirty days of starting any earth work, a preconstruction survey shall be conducted in the Study Area to locate occupied American badger dens within 100 feet of project areas. If the pre-construction survey finds potential badger dens, they shall be inspected to determine whether they are occupied. The survey shall cover the entire property and shall examine both old and new dens. If potential badger dens are too long to completely inspect from the entrance, a fiber optic scope shall be used to examine the den to the end. If a fiber optic scope is not available, occupation of the den can be determined by partially obscuring the den entrance with sticks and leaves to indicate animal passage into and out of the den and dusting the den entrance with a fine layer of dust or tracking material for three consecutive nights and examining the following mornings for footprints. Inactive dens may be excavated by hand with a shovel to prevent re-use of dens during construction. If badgers are found in dens on the property between February and July, nursing young may be present. To avoid disturbance and the possibility of direct take of adults and nursing young, and to prevent badgers from becoming trapped in burrows during construction activity, no grading shall occur within 100 feet of active badger dens between February and July. Results of the preconstruction survey shall be submitted to the lead agency for review within one week after completion of the survey.

San Joaquin kit fox was not present in the Study Area during our November 2019 and January 2020 surveys. The Study Area is within the known range of San Joaquin kit fox and is considered suitable habitat by California Department of Fish and Wildlife (CDFW).

The agricultural lands and annual grassland comprising most of the Study Area are considered potential habitat for San Joaquin kit fox. A San Joaquin Kit Fox Habitat Evaluation Form was completed on January 27, 2020 that concluded that the Study Area is within a 4:1 mitigation area (provided in Appendix F). Impacts to San Joaquin kit fox by loss of habitat would be offset by implementation of BIO-7 (mitigation acreage per parcel at a 4:1 mitigation ratio), and mitigation of construction activities would be accomplished by applying BIO-8 through BIO-17.

BIO-7. Prior to issuance of grading and/or construction permits, the applicant shall submit evidence to the County of San Luis Obispo, Department of Community Development, Planning Division that states that one or a combination of the following three San Joaquin kit fox mitigation measures has been implemented:

- a. Provide for the protection in perpetuity, through acquisition of fee or a conservation easement of **[6.3 acres in APN 037-351-001 = 25.2 mitigation acres required]** acres of suitable habitat in the kit fox corridor area (e.g. within the San Luis Obispo County kit fox habitat area), either on-site or off-site, and provide for a non-wasting endowment to provide for management and monitoring of the property in perpetuity. Lands to be conserved shall be subject to the review and approval of the California Department of Fish and Wildlife (Department) and the County.

This mitigation alternative (a.) requires that all aspects of this program must be in place before County permit issuance or initiation of any ground disturbing activities.

- d. Deposit funds into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the kit fox corridor area within San Luis Obispo County, and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (b) above, can be completed by providing funds to The Nature Conservancy (TNC) pursuant to the Voluntary Fee-Based Compensatory Mitigation Program (Program). The Program was established in agreement between the Department and TNC to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The fee, payable to “The Nature Conservancy”, would total **[\$Amount of fee based on \$2500 per acre]**. This fee is calculated based on the current cost-per-unit of \$2500 per acre of mitigation, which is scheduled to be adjusted to address the increasing cost of property in San Luis Obispo County; your actual cost may increase depending on the timing of payment. This fee must be paid after the Department provides written notification about your mitigation options but prior to County permit issuance and initiation of any ground disturbing activities.

- c. Purchase **[Total number of mitigation acres required]** credits in a Department-approved conservation bank, which would provide for the protection in perpetuity of suitable habitat within the kit fox corridor area and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.

Mitigation alternative (c) above, can be completed by purchasing credits from the Palo Prieto Conservation Bank (see contact information below). The Palo Prieto Conservation Bank was established to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). The cost for purchasing credits is payable to the owners of The Palo Prieto Conservation Bank and would total \$[Amount of mitigation acres required (i.e. credits), currently priced at \$2500 per credit]. This fee is calculated based on the current cost-per-credit of \$2500 per acre of mitigation. The fee is established by the conservation bank owner and may change at any time. Your actual cost may increase depending on the timing of payment. Purchase of credits must be completed prior to County permit issuance and initiation of any ground disturbing activities.

BIO-8. Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the County. The retained biologist shall perform the following monitoring activities:

- i. **Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction**, the biologist shall conduct a pre-activity (i.e. preconstruction) survey for known or potential kit fox dens and submit a letter to the County reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed), as applicable, to address any kit fox activity within the project limits.
- j. **The qualified biologist shall conduct weekly site visits during site-disturbance activities** (i.e. grading, disking, excavation, stock piling of dirt or gravel, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BR-18 through BR-28. Site disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason (see BR-19iii). When weekly monitoring is required, the biologist shall submit weekly monitoring reports to the County.
- k. Prior to or during project activities, if any observations are made of San Joaquin Kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. harm or death) to kit fox. At the time a den is discovered, the qualified biologist shall contact USFWS and the CDFW for guidance on possible additional kit fox protection measures to implement and whether or not a Federal and/or State incidental take permit is needed. If a potential den is encountered during construction, work shall stop until such time the USFWS determines it is appropriate to resume work.

If incidental take of kit fox during project activities is possible, **before project activities commence**, the applicant must consult with the USFWS. The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the

presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.

1. In addition, the qualified biologist shall implement the following measures:
 7. Within 30 days prior to initiation of site disturbance and/or construction, fenced exclusion zones shall be established around all known and potential kit fox dens. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of distance measured outward from the den or burrow entrances, dependent on the use and activity of the den (i.e. potential, known, active, or natal den), to be determined by the kit fox biologist.
 8. All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.
 9. If kit foxes or known or potential kit fox dens are found on site, daily monitoring by a qualified biologist shall be required during ground disturbing activities.

BIO-9. Prior to issuance of grading and/or construction permits, the applicant shall clearly delineate the following as a note on the project plans: “*Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox*”. Speed limit signs shall be installed on the project site within 30 days prior to initiation of site disturbance and/or construction.

BIO-10. During the site disturbance and/or construction phase, grading and construction activities after dusk shall be prohibited unless coordinated through the County, during which additional kit fox mitigation measures may be required.

BIO-11. Prior to issuance of grading and/or construction permit and within 30 days prior to initiation of site disturbance and/or construction, all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox’s life history, all mitigation measures specified by the County, as well as any related biological report(s) prepared for the project. The applicant shall notify the County shortly prior to this meeting. A kit fox fact sheet shall also be developed prior to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.

BIO-12. During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavations, steep-walled holes and trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks.

Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be thoroughly inspected for entrapped kit fox. Any kit fox so discovered shall be allowed to escape before field activities resume or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.

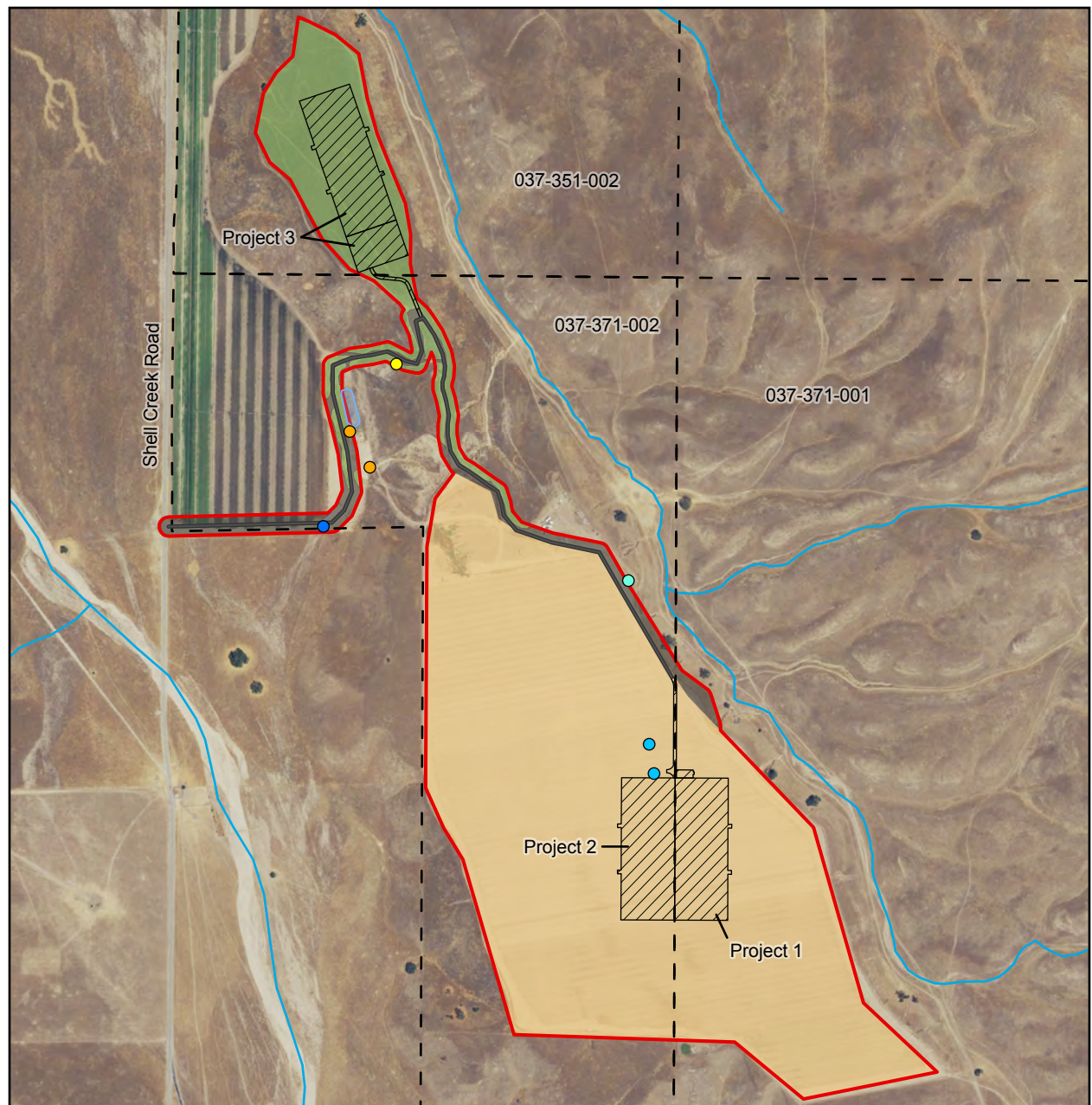
- BIO-13.** During the site-disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved. If necessary, the pipe may be moved only once to remove it from the path of activity, until the kit fox has escaped.
- BIO-14.** During the site-disturbance and/or construction phase, all food-related trash items such as wrappers, cans, bottles, and food scraps shall be disposed of only in closed containers. These containers shall be regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.
- BIO-15.** Prior to, during and after the site-disturbance and/or construction phase, use of pesticides or herbicides shall be in compliance with all local, State and Federal regulations. This is necessary to minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.
- BIO-16.** During the site-disturbance and/or construction phase, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and County. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the USFWS and CDFW by telephone. In addition, formal notification shall be provided in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to CDFW for care, analysis, or disposition.
- BIO-17.** Prior to final inspection, or occupancy, whichever comes first, should any long internal or perimeter fencing be proposed or installed, the applicant shall do the following to provide for kit fox passage:
- g. If a wire strand/pole design is used, the lowest strand shall be no closer to the ground than 12 inches.
 - h. If a more solid wire mesh fence is used, 8" x 12" openings near the ground shall be provided every 100 yards

- i. Upon fence installation, the applicant shall notify the County to verify proper installation. Any fencing constructed after issuance of a final permit shall follow the above guidelines.

4.3.5 Habitat Connectivity and Wildlife Movement

Impacts to wildlife movement corridors are not anticipated from the proposed project because the project will not create a barrier to regional or local wildlife movement corridors (i.e. ridgelines or drainages); therefore, no mitigation is required

Figure 7. Biological Resource Impacts



Legend

- | | |
|--|---|
| Study Area (130.0 acres) | ● Red willow (<i>Salix laevigata</i>) |
| Impact Area (16.3 acres) | ● Valley oak (<i>Quercus lobata</i> ; potentially dead) |
| Access Road (1.8 acres) | |
| Parcels | Habitat Type |
| Old stock pond (inactive) | Disturbed Habitat (7.0 acres; <0.1 acre potentially impacted) |
| — Drainages | Annual Grassland (18.9 acres; 6.3 acres potentially impacted) |
| ● Water Tank | Fallow Cropland (104.0 acres; 10.0 acres potentially impacted) |
| ● Waterline | |
| ● Well | |



0 500 1,000 Feet

**APNs: 037-351-002,
037-371-001 and 037-371-002**
Map Center: 120.32221°W 35.49493°N
San Luis Obispo County

Imagery Source: USDA NAIP, 07/14/2018

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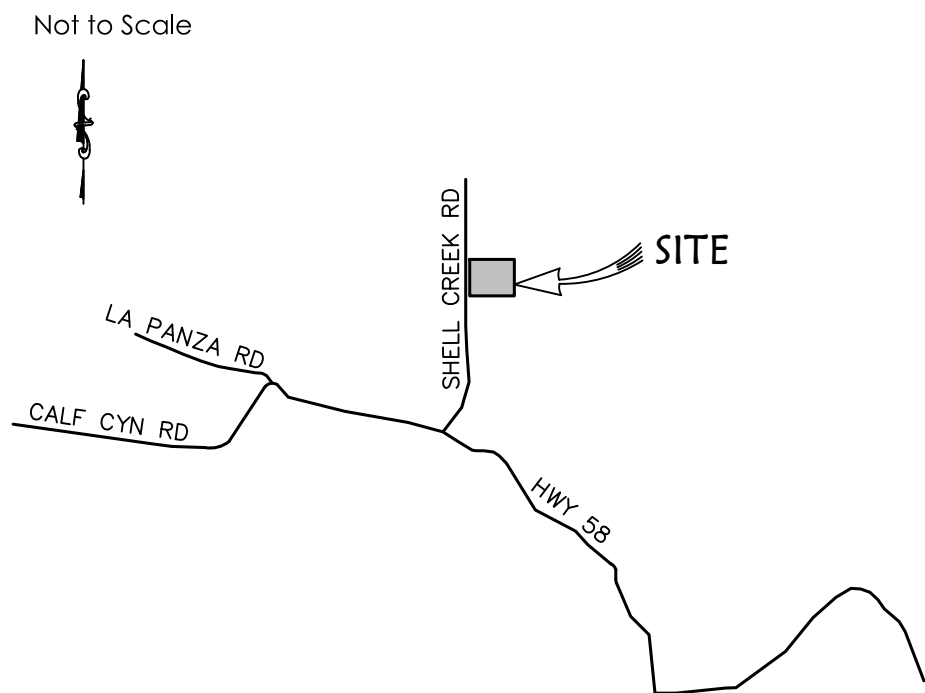
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6 APPENDICES

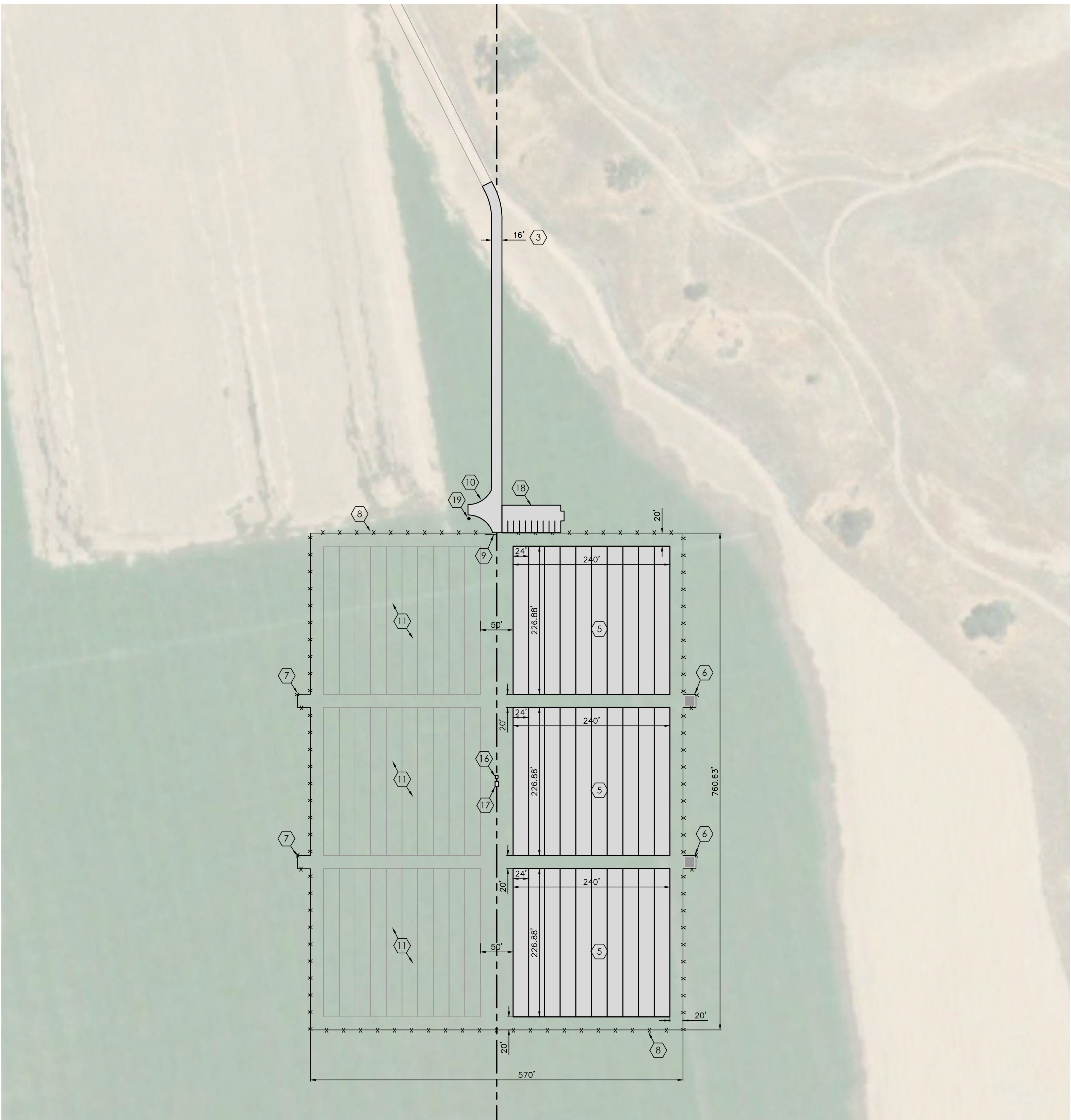
- **Appendix A. Site Plans for APNs 037-371-001, -002 & 037-351-002**
- **Appendix B. Special Status Plants Reported from the Region**
- **Appendix C. Special Status Animals Reported from the Region**
- **Appendix D. San Joaquin Kit Fox Habitat Evaluation Form for Project 1**
- **Appendix E. San Joaquin Kit Fox Habitat Evaluation Form for Project 2**
- **Appendix F. San Joaquin Kit Fox Habitat Evaluation Form for Project 3**

Morrison - 9330 Camatta Creek Road - Santa Margarita - Grow Site 1 Site Plan

VICINITY MAP



PROJECT DESCRIPTION: Outdoor Cannabis Cultivation (3.75 acres)



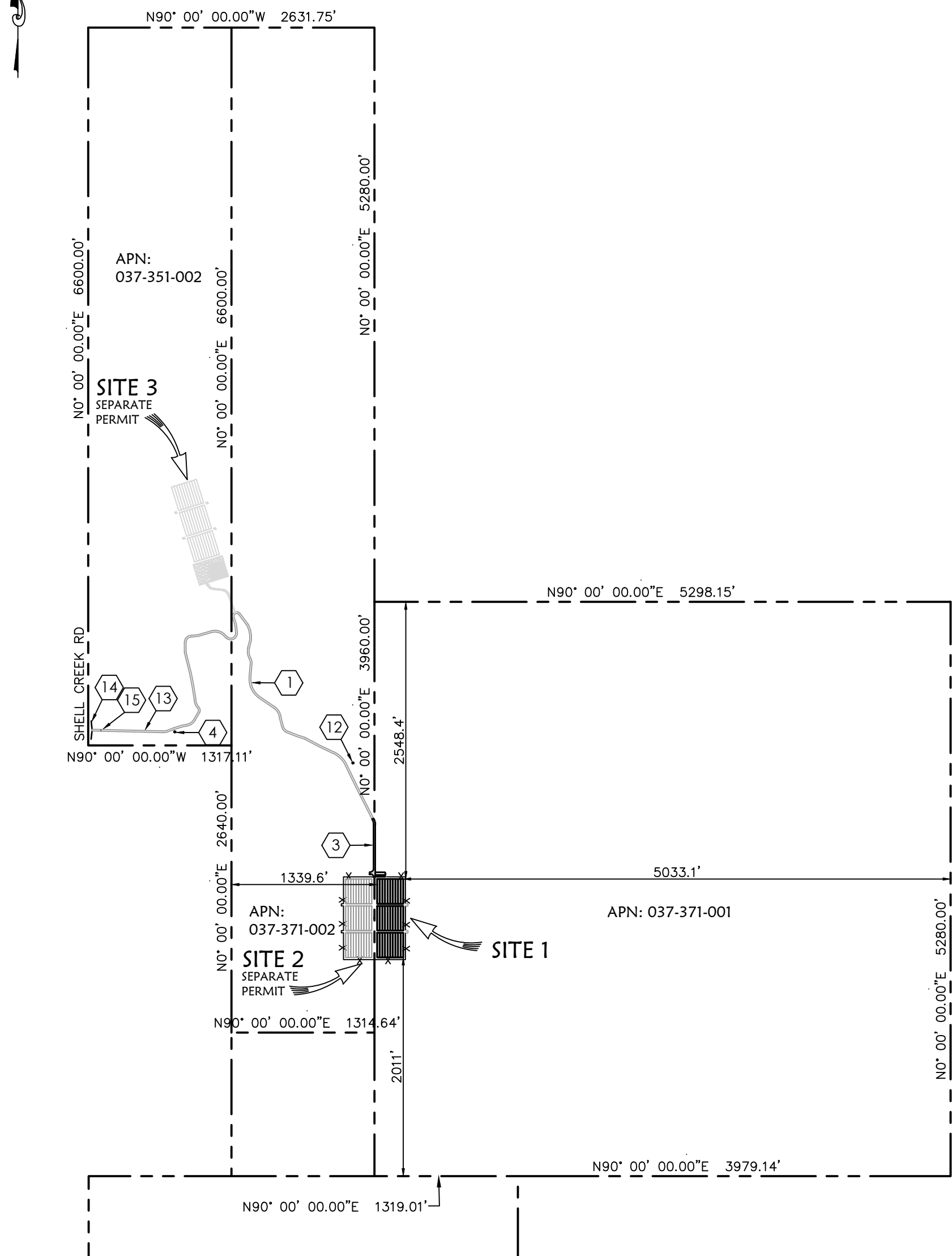
SITE PLAN AND INDEX MAP NOTES

- EXISTING 16' WIDE DG BASE ACCESS ROAD TO REMAIN.
- INSTALL 2" SCH. 40 PVC WATERLINE UNDER EXISTING ACCESS ROAD.
- PROPOSED 16' DG BASE ACCESS ROAD TO CULTIVATION SITE PER CAL FIRE STANDARDS.
- EXISTING WELL LOCATION = 35.4953093° 120.3264312°; SEE INDEX MAP FOR LOCATION. WELL OUTPUT = 1000 GPM WITH 175HP PUMP.
- NEW CULTIVATION SITE, 3 SETS OF 10 HOOP HOUSES AT 226.9' L X 240' W X 12' H.
- PROPOSED COMPOST AREA, 20'X20'
- PROPOSED COVERED STORAGE AREA, 20'X20'
- CONSTRUCT 6' HIGH METAL DEER FENCE WITH PRIVACY SHADE CLOTH. 10.0 ACRES OF FENCED AREA.
- CONSTRUCT 16' WIDE SLIDING GATE.
- CONSTRUCT CAL FIRE TURN AROUND PER CAL FIRE STANDARDS.
- ADJACENT GROW SITE #2 TO UTILIZE SHARED ACCESS AND FACILITIES.
- INSTALL NEW 10,000 GALLON METAL WATER TANK ON 8" OF CL II AB COMPACTED TO 90%, TO BE SHARED BY ALL THREE SITES.
- VENDOR MEETING LOCATION, SEE INDEX MAP.
- PROPOSED COUNTY STD. B-1a RURAL DRIVEWAY, SEE INDEX MAP.
- 6' HIGH SECURITY GATE WITH KNOX BOX.
- PORTABLE TOILET.
- SOLID WASTE BIN.
- CLASS II AG BASE PARKING AREA, 10 SPACES, 9'X18'.
- CAL FIRE APPROVED WHARF HEAD HYDRANT.

INDEX MAP

SCALE: 1" = 1000'

FOR THE FOLLOWING: P-12 SCHOOL, LIBRARY, PARK, PLAYGROUND, RECREATION OR YOUTH CENTER, LICENSED DRUG OR ALCOHOL RECOVERY FACILITY, OR LICENSED SOBER LIVING FACILITY, ALL THESE FACILITIES ARE GREATER THAN 1,000 FEET FROM THE PROPOSED PROJECT.



OWNER

ROBERT AND GARRETT MORRISON
9110 CAMATTA CREEK ROAD
SANTA MARGARITA, CA 93465
(805) 235-0820

APN: 037-371-001



SCALE: 1"=100'

Roberts Engineering, Inc.

Morrison - 9330 Camatta Creek Road - Santa Margarita

Grow Site 1 Site Plan

Design/Drawn	County Plan Checker	Approved for County Requirements
TR / SEB	.	Development Services Engineer Date
Job #	County W.O. No.	01/20/2020
20-05	.	Timothy P. Roberts, RCE 35366 exp 09/30/21 Date
California Coordinates (CCS83, Zone 5)	County Road #	1
2373217 N 5870824 E	.	of 1



Roberts Engineering

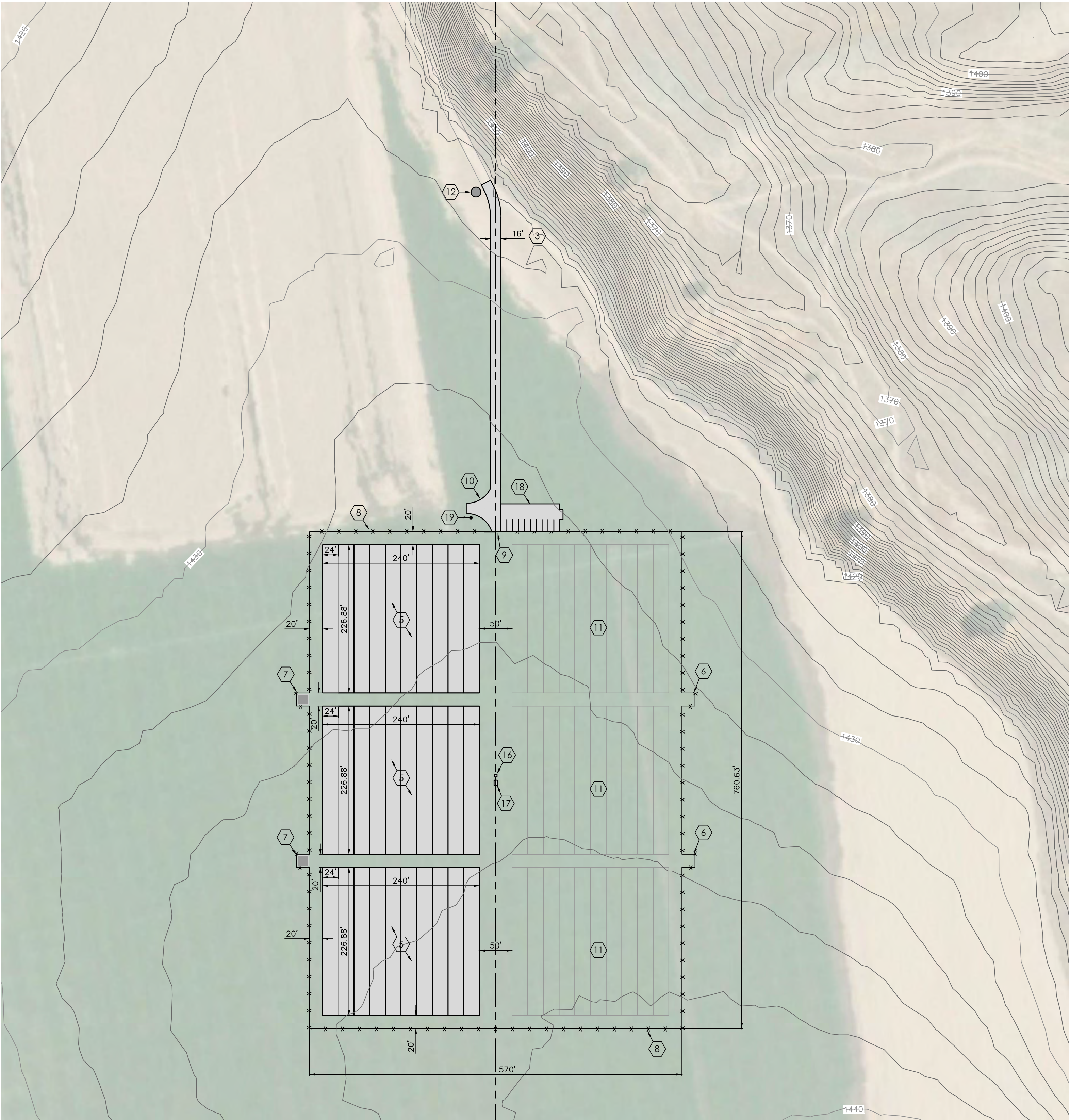
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Fax (805) 238-6148
Email tim@robertsenginc.com
Website robertsenginc.com

Record Drawings

Timothy P. Roberts, RCE 35366 exp 09/30/21	Date
Revisions This Sheet:	
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Morrison - 9330 Camatta Creek Road - Santa Margarita - Grow Site 2 Site Plan

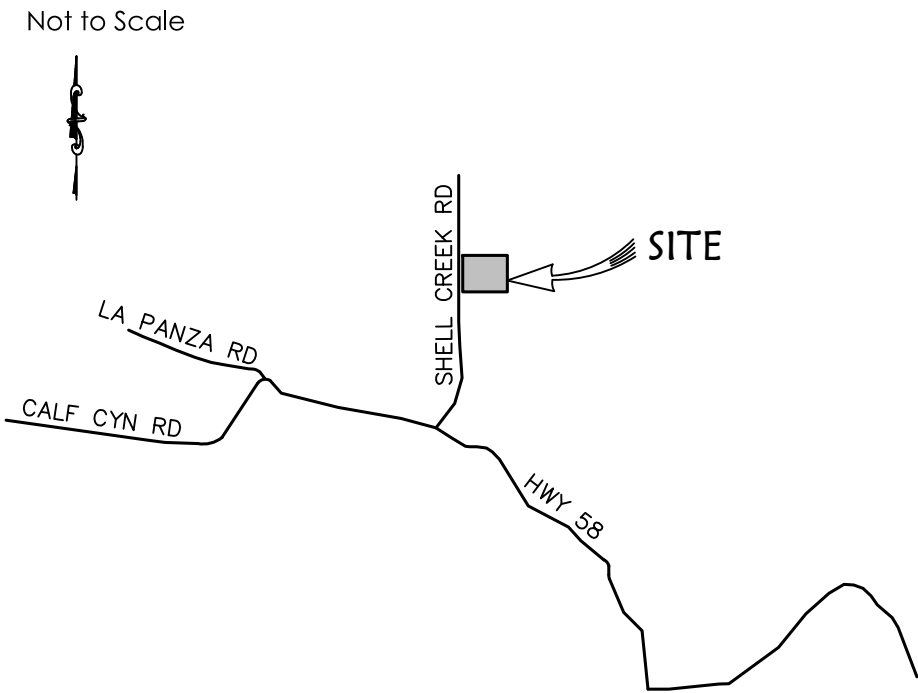
PROJECT DESCRIPTION: Outdoor Cannabis Cultivation [3.75 acres]



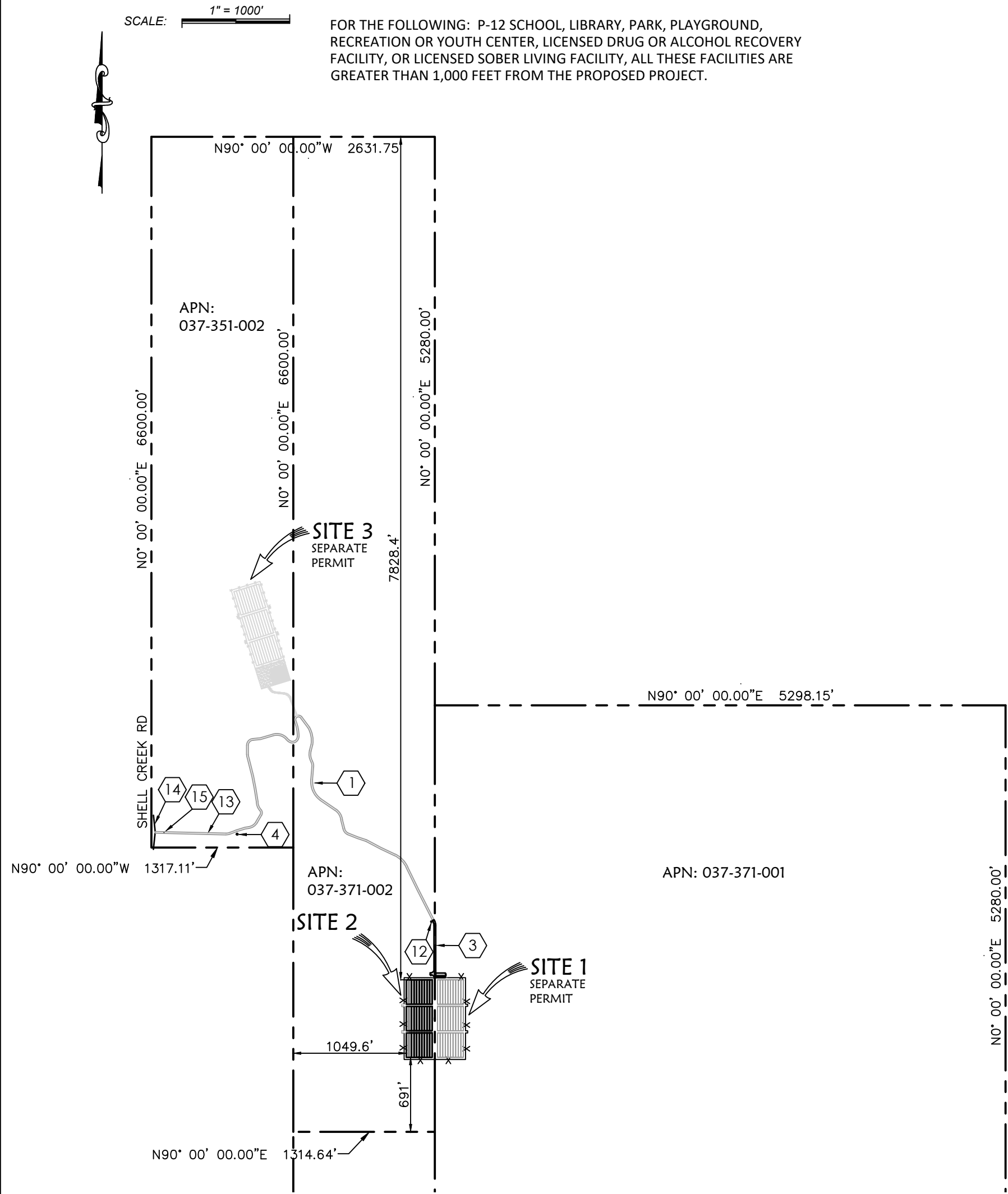
SITE PLAN AND INDEX MAP NOTES

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- 2 INSTALL 2" SCH. 40 PVC WATERLINE UNDER EXISTING ACCESS ROAD.
- 3 PROPOSED 16' DG BASE ACCESS ROAD TO CULTIVATION SITE PER CAL FIRE STANDARDS.
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- 9 CONSTRUCT 16' WIDE SLIDING GATE.
- 10 CONSTRUCT CAL FIRE TURN AROUND PER CAL FIRE STANDARDS.
- 11 ADJACENT GROW SITE #1 TO UTILIZE SHARED ACCESS AND FACILITIES.
- 12 INSTALL NEW 10,000 GALLON METAL WATER TANK ON 8" OF CL II AB COMPACTED TO 90%, TO BE SHARED BY ALL THREE SITES.
- 13 VENDOR MEETING LOCATION.
- 14 PROPOSED COUNTY STD. B-1a RURAL DRIVEWAY.
- 15 6' HIGH SECURITY GATE WITH KNOX BOX.
- 16 PORTABLE TOILET.
- 17 SOLID WASTE BIN.
- 18 CLASS II AG BASE PARKING AREA, 10 SPACES, 9'X18'.
- 19 CAL FIRE APPROVED WHARF HEAD HYDRANT.

VICINITY MAP



INDEX MAP



OWNER

ROBERT AND GARRETT MORRISON
9110 CAMATTA CREEK ROAD
SANTA MARGARITA, CA 93465
(805) 235-0820

APN: 037-371-002



SCALE: 1"=100'

Roberts Engineering, Inc.

Morrison - 9330 Camatta Creek Road - Santa Margarita

Grow Site 2 Site Plan

Design/Draw TR / SEB	County Plan Checker .	Approved for County Requirements Development Services Engineer Date 01/20/2020
Job # 20-05	County W.O. No. .	Timothy P. Roberts, RCE 35366 exp 09/30/21 Date
California Coordinates (CC383, Zone 5) 2373217 N 5870824 E	County Road #	1 of 1



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Record Drawings

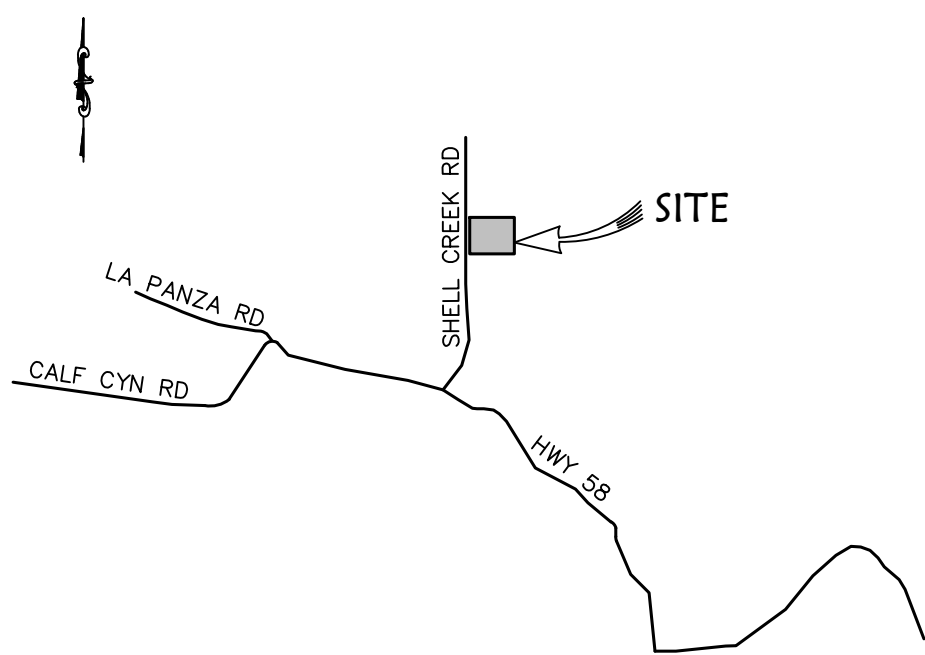
Timothy P. Roberts, RCE 35366 exp 09/30/21	Date
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Morrison - 9330 Camatta Creek Road - Santa Margarita - Grow Site 3 - Site Plan

PROJECT DESCRIPTION: Outdoor Cannabis Cultivation (3.75 acres) and Greenhouse Construction

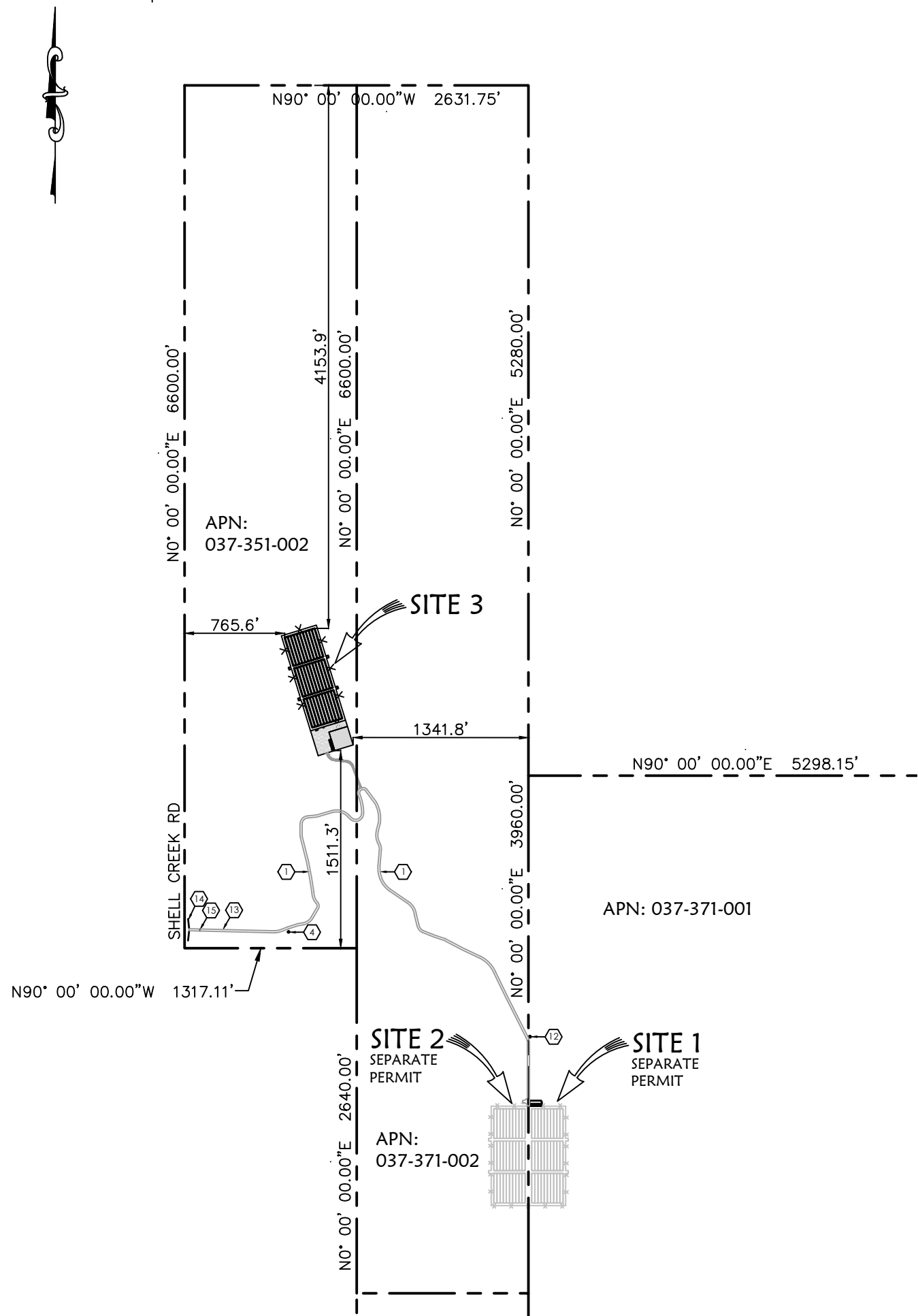
VICINITY MAP

Not to Scale



INDEX MAP

SCALE: 1" = 1000'



SITE PLAN AND INDEX MAP NOTES

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- INSTALL 2" SCH. 40 PVC WATERLINE UNDER EXISTING ACCESS ROAD.
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- CONSTRUCT CAL FIRE TURN AROUND PER CAL FIRE STANDARDS.
- PROPOSED GREENHOUSE.
- INSTALL NEW 10,000 GALLON METAL WATER TANK ON 8" OF CL II AB COMPACTED TO 90%, TO BE SHARED BY ALL THREE SITES.
- VENDOR MEETING LOCATION.
- PROPOSED COUNTY STD. B-1a RURAL DRIVEWAY.
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- SOLID WASTE BIN.
- CLASS II AG BASE PARKING AREA, 10 SPACES, 9'X18'.
- CAL FIRE APPROVED WHARF HEAD HYDRANT.

OWNER

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APN: 037-351-002



SCALE: 1" = 100'

Roberts Engineering, Inc.

Morrison - 9330 Camatta Creek Road - Santa Margarita

Grow Site 3 Site Plan

Design/Drawn TR / SEB	County Plan Checker .	Approved for County Requirements Development Services Engineer Date 01/20/2020
Job # 20-05	County W.O. No. .	Timothy P. Roberts, RCE 35366 exp 09/30/21 Date
California Coordinates (CC383, Zone 5) 2737217 N 5870824 E	County Road #	1 of 1



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Record Drawings

Timothy P. Roberts, RCE 35366 exp 09/30/21	Date
Revisions This Sheet:	
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APPENDIX B. SPECIAL STATUS PLANTS REPORTED FROM THE REGION

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
1.	Hoover's bent grass	<i>Agrostis hooveri</i>	-/-	G2/S2	1B.2	Apr-Jul	Dry sandy soils, open chaparral, oak woodland	No. Appropriate chaparral or woodland habitat is not present in the Study Area.
2.	Howell's onion	<i>Allium howellii</i> var. <i>howellii</i>	-/-	G3G4T3/S3	4.3	Mar-Apr	Common. Grassy slopes, including serpentine	No. Appropriate serpentine soil is not present in the Study Area.
3.	Douglas' fiddleneck	<i>Amsinckia douglasiana</i>	-/-	G4/S4	4.2	Mar-May	Unstable shaly sedimentary slopes	No. Appropriate shale substrate is not present in the Study Area.
4.	Oval-leaved snapdragon	<i>Antirrhinum ovatum</i>	-/-	G3/S3	4.2	May-Nov	Heavy, adobe-clay soils on gentle, open slopes, also disturbed areas	No. Heavy clay soil is not present in the Study Area.
5.	Santa Margarita manzanita	<i>Arctostaphylos pilosula</i>	-/-	G2?/S2?	1B.2	Dec-May	Shale outcrops, slopes, chaparral	No. Suitable outcrop or chaparral habitat is not present in the Study Area.
6.	Indian Valley spineflower	<i>Aristocapsa insignis</i>	-/-	G1/S1	1B.2	May-Sep	Sand	No. Appropriate exposed, sandy patches in juniper woodland habitat is not present in the Study Area.
7.	Salinas milk-vetch	<i>Astragalus macrodon</i>	-/-	G4/S4	4.3	Apr-Jul	Eroded pale shales or sandstone, serpentine alluvium	No. Appropriate shale, sandstone, or serpentine substrate is not present in the Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
8.	Crownscale	<i>Atriplex coronata</i> var. <i>coronata</i>	-/-	G4T3/S3	4.2	Mar-Oct	Fine, alkaline soils	No. Appropriate soils are not present in the Study Area.
9.	Palmer's mariposa lily	<i>Calochortus palmeri</i> var. <i>palmeri</i>	-/-	G3T2/S2	1B.2	Apr-Jul	Meadows, vernaly moist places in yellow-pine forest, chaparral	No. Appropriate mesic conditions in forest or chaparral habitat are not present in the Study Area.
10.	La Panza mariposa lily	<i>Calochortus simulans</i>	-/-	G2/S2	1B.3	Apr-Jun	Sand (often granitic), grassland to yellow-pine forest	Low. Suitable sandy soils are present in the Study Area.
11.	Dwarf calycadenia	<i>Calycadenia villosa</i>	-/-	G3/S3	1B.1	May-Oct	Dry, rocky hills, ridges, grassland, openings in foothill woodland	No. Appropriate dry, gravelly substrate is not present in the Study Area.
12.	Hardham's evening-primrose	<i>Camissoniopsis hardhamiae</i>	-/-	G2/S2	1B.2	Mar-May	Sandy soil, limestone, disturbed oak woodland	Low. Suitable sandy soils are present in the Study Area.
13.	San Luis Obispo sedge	<i>Carex obispoensis</i>	-/-	G3?/S3?	1B.2	Apr-Jun	Springs, streamsides in chaparral, generally on serpentine	No. Appropriate mesic conditions and/or serpentine soils are not present in the Study Area.
14.	California jewelflower	<i>Caulanthus californicus</i>	FE/CE	G1/S1	1B.1	Feb-May	Flats, slopes, generally in non-alkaline grassland	No. Appropriate alkaline grassland is not present in the Study Area.
15.	Lemmon's jewelflower	<i>Caulanthus lemmonii</i>	-/-	G3/S3	1B.2	Feb-May	Grassland, chaparral, scrub	No.

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
16.	Dwarf soaproot	<i>Chlorogalum pomeridianum</i> var. <i>minus</i>	-/-	G5T3/S3	1B.2	May-Aug	Serpentine outcrops in chaparral	No. Serpentine outcrops are not present in the Study Area.
17.	Camatta Canyon amole	<i>Chlorogalum purpureum</i> var. <i>reductum</i>	FT/CR	G2T1/S1	1B.1	Apr-May	Serpentine woodland	No. Appropriate serpentine soil is not present in the Study Area.
18.	Brewer's spineflower	<i>Chorizanthe breweri</i>	-/-	G3/S3	1B.3	Apr-Aug	Gravel or rocks	No. Appropriate rocky, serpentine substrate is not present in the Study Area.
19.	Douglas' spineflower	<i>Chorizanthe douglasii</i>	-/-	G4/S4	4.3	Apr-Jul	Sand or gravel	High. Sandy, gravelly soil is present in the Study Area and is known to occur in the vicinity.
20.	Palmer's spineflower	<i>Chorizanthe palmeri</i>	-/-	G4/S4	4.2	Apr-Aug	Serpentine	No. Serpentine soil is not present in the Study Area.
21.	Straight-awned spineflower	<i>Chorizanthe rectispina</i>	-/-	G2/S2	1B.3	Apr-Jul	Sand or gravel	Low. Appropriate soil substrate is present, however optimal openings in chaparral or woodland habitat is not present in the Study Area.
22.	Potbellied spineflower	<i>Chorizanthe ventricosa</i>	-/-	G3/S3	4.3	May-Sep	Serpentine	No. Serpentine soil is not present in the Study Area.
23.	Cuesta Ridge thistle	<i>Cirsium occidentale</i> var. <i>lucianum</i>	-/-	G3G4T2/S2	1B.2	Apr-Jun	Chaparral, woodland or forest openings, often on serpentine	No. Appropriate habitat is not present in the Study Area and is outside to known range for this species.

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
24.	Paniculate tarplant	<i>Deinandra paniculata</i>	-/-	G4/S4	4.2	Mar-Dec	Grassland, open chaparral and woodland, disturbed areas, often in sandy soils	Moderate. Appropriate sandy soils in grassland habitat is present in the Study Area.
25.	Eastwood's larkspur	<i>Delphinium parryi</i> ssp. <i>eastwoodiae</i>	-/-	G4T2/S2	1B.2	Feb-Mar	Uncommon. Coastal chaparral, grassland, on serpentine	No. Appropriate habitat with serpentine soils are not present in the Study Area.
26.	Umbrella larkspur	<i>Delphinium umbraculorum</i>	-/-	G3/S3	1B.3	Apr-Jun	Moist oak forest	No. Appropriate oak forest habitat is not present in the Study Area.
27.	Mouse-gray dudleya	<i>Dudleya abramsii</i> ssp. <i>murina</i>	-/-	G4T2/S2	1B.3	May-Jun	Serpentine outcrops	No. Serpentine outcrop habitat is not present in the Study Area.
28.	Kern mallow	<i>Eremalche parryi</i> ssp. <i>kernensis</i>	FE/-	G3G4T3/S3	1B.2	Jan-May	Eroded hillsides, alkali flats	Low. Suitable sandy soils in grassland habitat is present in the Study Area and eroding hillsides occur along the access road.
29.	Yellow-flowered eriastrum	<i>Eriastrum luteum</i>	-/-	G2/S2	1B.2	May-Jun	Drying slopes	No. Appropriate forest, chaparral, or woodland habitat is not present in the Study Area and nearest occurrence within 10 miles is from 1937.
30.	Spiny-sepaled button-celery	<i>Eryngium spinosepalum</i>	-/-	G2/S2	1B.2	Apr-Jun	Vernal pools, swales, roadside ditches	No. Appropriate aquatic features are not present along in the Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
31.	Diamond- petaled California poppy	<i>Eschscholzia rhombipetala</i>	-/-	G1/S1	1B.1	Mar-Apr	Fallow fields, open places	No. Appropriate fallow field habitat is present, but soils are not be suitable.
32.	Stinkbells	<i>Fritillaria agrestis</i>	-/-	G3/S3	4.2	Mar-Jun	Clay, often vertic, occasionally serpentine	No. Appropriate clay or serpentine soils are not present in the Study Area.
33.	Ojai fritillary	<i>Fritillaria ojaiensis</i>	-/-	G3/S3	1B.2	Feb-May	Rocky slopes, river basins	No. Appropriate habitat is not present in the study Area.
34.	Santa Lucia horkelia	<i>Horkelia yadonii</i>	-/-	G3/S3	4.2	Apr-Jul	Sandy meadow edges, seasonal streambeds in chaparral or foothill-pine woodland	No. Appropriate mesic conditions in chaparral or woodland habitat are not present in the Study Area. .
35.	Santa Lucia dwarf rush	<i>Juncus luciensis</i>	-/-	G3/S3	1B.2	Apr-Jul	Wet, sandy soils of seeps, meadows, vernal pools, streams, roadsides	No. Appropriate wetland habitat is not present in the Study Area.
36.	Pale-yellow layia	<i>Layia heterotricha</i>	-/-	G2/S2	1B.1	Mar-Jun	Open clayey or sandy soil, sometimes +- alkaline	Low. Suitable sandy and sandy clay loam soils are present in the Study Area.
37.	San Luis Obispo County lupine	<i>Lupinus ludovicianus</i>	-/-	G1/S1	1B.2	Apr-Jul	Open, grassy areas, on limestone, in oak woodland	No. Appropriate limestone substrate is not present in the Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
38.	Showy golden madia	<i>Madia radiata</i>	-/-	G3/S3	1B.1	Mar-May	Grassy or open slopes, vertic clay, rarely serpentine	No. Appropriate clay or serpentine substrate is not present in the Study Area.
39.	Slender bush- mallow	<i>Malacothamnus gracilis</i>	-/-	G1Q/S1	1B.1	May-Oct	Usually rocky	No. Appropriate rocky habitat is not present in the Study Area.
40.	Jones' bush- mallow	<i>Malacothamnus jonesii</i>	-/-	G4/S4	4.3	Mar-Oct	Open chaparral in foothill woodland	No. Appropriate chaparral habitat is not present in the Study Area.
41.	Palmer's monardella	<i>Monardella palmeri</i>	-/-	G2/S2	1B.2	Jun-Aug	Chaparral, forest, on serpentine	No. Serpentine soils is not present in the Study Area.
42.	California spineflower	<i>Mucronea californica</i>	-/-	-/-	4.2	Mar-Aug	Sand	High. Appropriate sandy soil and bare open patches are present in the Study Area.
43.	Spreading navarretia	<i>Navarretia fossalis</i>	FT/-	G2/S2	1B.1	Apr-Jun	Vernal pools, ditches	No. Appropriate wetland habitat is not present in the Study Area.
44.	Shining navarretia	<i>Navarretia nigelliformis ssp. radians</i>	-/-	G4T2/S2	1B.2	Mar-Jul	Vernal pools, clay depressions	No. Appropriate wetland or grassland habitat is not present in the Study Area.
45.	Large- flowered nemacladus	<i>Nemacladus secundiflorus var. secundiflorus</i>	-/-	G3T3?/S3?	4.3	Apr-Jun	Dry, gravelly slopes	Moderate. Suitable gravelly slopes are present in the Study Area.

	Common Name	Scientific Name	Federal/ State Status	Global/ State Rank	CA Rare Plant Rank	Blooming Period	Habitat Preference	Potential to Occur
46.	Hooked popcornflower	<i>Plagiobothrys uncinatus</i>	-/-	G2/S2	1B.2	Apr-May	Chaparral, canyon sides, rocky outcrops, +- fire follower	No. Appropriate chaparral or rock outcrop habitat is not present in the Study Area.
47.	Hoffmann's sanicle	<i>Sanicula hoffmannii</i>	-/-	G3/S3	4.3	Mar-May	Shrubby coastal hills, pine woodland	No. Appropriate shrub or woodland habitat is not present in the Study Area.
48.	Chaparral ragwort	<i>Senecio aphanactis</i>	-/-	G3/S2	2B.2	Jan-May	Alkaline flats, dry open rocky areas	No. Appropriate alkaline or rocky habitat is not present in the Study Area.
49.	Parish's checkerbloom	<i>Sidalcea hickmanii</i> ssp. <i>parishii</i>	-/CR	G3T1/S1	1B.2	May-Aug	Chaparral, woodland, open conifer forest	No. Appropriate chaparral, woodland or forest habitat is not present in the Study Area.
50.	Most beautiful jewelflower	<i>Streptanthus albidus</i> ssp. <i>peramoenus</i>	-/-	G2T2/S2	1B.2	Mar-Oct	serpentinite	No. Appropriate serpentinite substrate is not present in the Study Area.
51.	Mason's neststraw	<i>Stylocline masonii</i>	-/-	G1/S1	1B.1	Mar-May	Open loose sand of washes and flats	Low. Suitable sandy soil on terraces are present in the Study Area.

California Geographic Subregion Abbreviations:

CCo: Central Coast	SnFrB: San Francisco Bay	SLO: San Luis Obispo	CW: Central West
SCo: South Coast	TR: Transverse Ranges	SN: Sierra Nevada	SW: South West
SCoR: South Coast Ranges	WTR: Western Transverse Ranges	SnJt: San Jacinto Mtns	DMoj: Mojave Desert
SCoRO: Outer South Coast Ranges	SnJV: San Joaquin Valley	SnBr: San Bernardino	PR: Peninsular Range
SCoRI: Inner South Coast Ranges	ScV: Sacramento Valley	Teh: Tehachapi Mtn Area	

State/Rank Abbreviations:

FE: Federally Endangered	PT: Proposed Federally Threatened	CT: California Threatened
FT: Federally Threatened	CE: California Endangered	Cand. CE: Candidate for California Endangered
PE: Proposed Federally Endangered	CR: California Rare	Cand. CT: Candidate for California Threatened

California Rare Plant Ranks:

- CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
- CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
- CRPR 2A: Plants presumed extirpated in California, but common elsewhere
- CRPR 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
- CRPR 4: Plants of limited distribution - a watch list

CRPR Threat Ranks:

- 0.1 - Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- 0.2 - Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- 0.3 - Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Global/State Ranks

- | | |
|------------------------------|--|
| G1/S1 – Critically Imperiled | Q – Element is very rare but there are taxonomic questions associated with it. |
| G2/S2 – Imperiled | |
| G3/S3 – Vulnerable | Range rank – (e.g., S2S3 means rank is somewhere between S2 and S3) |
| G4/S4 – Apparently Secure | |
| G5/S5 – Secure | ? – (e.g., S2? Means rank is more certain than S2S3 but less certain than S2) |

APPENDIX C. SPECIAL STATUS ANIMALS REPORTED FROM THE REGION

Common Name	Scientific Name	Federal /State Status	Global/ State Rank	CDFW Status	Habitat Preference	Potential to Occur
1. Tricolored blackbird	<i>Agelaius tricolor</i>	-/CT	G2G3/S1S2	SSC	Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	No. Water sources with appropriate nesting habitat are not present in the Study Area.
2. California tiger salamander	<i>Ambystoma californiense</i>	FT/CT	G2G3/S2S3	WL	Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	No. Appropriate breeding habitat with ground squirrel burrows is not present in the Study Area.
3. Northern California legless lizard	<i>Anniella pulchra</i>	-/-	G3/S3	SSC	Soil moisture is essential. They prefer soils with a high moisture content.	No. Appropriate soil moisture content with friable soils is not present in the Study Area.
4. Pallid bat	<i>Antrozous pallidus</i>	-/-	G5/S3	SSC	Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	No. Appropriate roosting habitat is not present in the Study Area.
5. California glossy snake	<i>Arizona elegans occidentalis</i>	-/-	G5T2/S2	SSC	Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Low. Appropriate grassland habitat and sandy soils are present in the Study Area.

Common Name	Scientific Name	Federal /State Status	Global/ State Rank	CDFW Status	Habitat Preference	Potential to Occur
6. Burrowing owl	<i>Athene cunicularia</i>	-/-	G4/S3	SSC	Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low. Burrowing mammal presence is very low with no ground squirrel activity observed in the Study Area.
7. Golden Eagle	<i>Aquila chrysaetos</i>	-/-	G5/S3	FP/ WL	Nests in large, prominent trees in valley and foothill woodland. Requires adjacent food source.	No. Nesting habitat is not present and prey base is less than minimal in the Study Area.
8. Crotch bumble bee	<i>Bombus crotchii</i>	-/CCE	G3G4/S1S2	SA	Shrubland, grassland habitat. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Low. Potential <i>Eriogonum</i> and <i>Clarkia</i> host species were observed in the Study Area during winter surveys; nearest occurrence is 7 mi northwest of the Study Area.
9. Swainson's hawk	<i>Buteo swainsoni</i>	-/CT	G5/S3	SA	Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	No (nesting). Suitable nesting/breeding habitat is not present in the Study Area. Low (foraging). Foraging grassland habitat is present, but prey base is minimal with very few small mammal burrows observed in the Study Area.

Common Name	Scientific Name	Federal /State Status	Global/ State Rank	CDFW Status	Habitat Preference	Potential to Occur
10. Northern harrier*	<i>Circus cyaneus</i>	-/-	G5/S3	SSC (Nesting)	Nests on ground in shrubby areas, usually near water. Forages in open areas.	No (nesting). Suitable nesting habitat is not present in the Study Area. Present. One adult male observed in flight, circling above fallow cropland habitat.
11. Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	-/-	G3G4/S2	SSC	Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	No. Roosting habitat is not present in the Study Area.
12. Giant kangaroo rat	<i>Dipodomys ingens</i>	FE/CE	G1G2/S1S2	SA	Need level terrain and sandy loam soils for burrowing.	No. The Study Area is outside the range for this species.
13. Western pond turtle	<i>Emys marmorata</i>	-/-	G3G4/S3	SSC	Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	No. Aquatic habitat with upland, basking sites is not present in the Study Area.
14. North American porcupine	<i>Erethizon dorsatum</i>	-/-	G5/S3	SA	Wide variety of coniferous and mixed woodland habitat.	No. Coniferous or woodland habitat is not present in the Study Area.

Common Name	Scientific Name	Federal /State Status	Global/ State Rank	CDFW Status	Habitat Preference	Potential to Occur
15. Prairie falcon	<i>Falco mexicanus</i>	-/-	G5/S4	WL	Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	No (nesting/breeding). Appropriate beeding habitat is not present in the Study Area. Moderate (foraging). Suitable foraging habitat is present and prairie falcons are known to occur in the vicinity; however, rodent population is low based on very few burrows observed.
16. Blunt-nosed leopard lizard	<i>Gambelia sila</i>	FE/CE	G1/S1	FP	Seeks cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.	No. Most recent occurrence in the vicinity is over 70 years to date and very few small mammal burrows were observed in the Study Area.
17. California condor	<i>Gymnogyps californianus</i>	FE/CE	G1/S1	FP	Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	No. Nesting habitat is not present and there is no livestock or other carcass attractants likely to be present in the Study Area.
18. Loggerhead shrike*	<i>Lanius ludovicianus</i>	-/-	G4/S4	SSC (Nesting)	Open areas with appropriate perches, near shrubby vegetation for nesting.	No (nesting). Suitable nesting habitat is not present in the Study Area. Present. One adult observed in flight and perched intermittently along barbed wire fencing along northeast Study Area boundary.

Common Name	Scientific Name	Federal /State Status	Global/ State Rank	CDFW Status	Habitat Preference	Potential to Occur
19. Western red bat	<i>Lasiurus blossevillii</i>	-/-	G5/S3	SSC	Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	No. Appropriate edge habitat is not present in the Study Area.
20. Yuma myotis	<i>Myotis yumanensis</i>	-/-	G5/S4	SA	Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	No. Aquatic and/or roosting habitat is not present in the Study Area.
21. Tulare grasshopper mouse	<i>Onychomys torridus tularensis</i>	-/-	G5T1T2/S1 S2	SSC	Diet almost exclusively composed of arthropods, therefore needs abundant supply of insects.	No. Nearest occurrences were in 1947 (6.7 mi north) and in 1930 (>10 miles southeast). Few burrows observed in the Study Area.
22. San Joaquin Pocket Mouse	<i>Perognathus inornatus</i>	-/-	G2G3/S2S3	SA	Associated with fine-textured, sandy, friable soils.	Low. Sandy, loam soils suitable for burrows are present in the Study Area, though very few burrows were observed and were restricted to the north end access road.
23. Blainville's (Coast) Horned Lizard*	<i>Phrynosoma blainvillii</i>	-/-	G3G4/S3S4	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	Low. Sandy soils near sandy washes are present in the Study Area and horned lizards could pass through the site.

Common Name	Scientific Name	Federal /State Status	Global/ State Rank	CDFW Status	Habitat Preference	Potential to Occur
24. California red-legged frog	<i>Rana draytonii</i>	FT/-	G2G3/S2S3	SSC	Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	No. Appropriate aquatic habitat is not present and the Study Area is not within critical habitat for red-legged frog.
25. Western spadefoot	<i>Spea hammondi</i>	-/-	G3/S3	SSC	Vernal pools are essential for breeding and egg-laying.	No (breeding). Suitable breeding habitat is not present in the Study Area. Low (estivation). Upland estivation habitat is present, and spadefoot is known to occur in the vicinity.
26. California spotted owl	<i>Strix occidentalis occidentalis</i>	-/-	G3G4T2T3/S3	SSC	Most often found in deep-shaded canyons, on north-facing slopes, and within 300 meters of water.	No. Appropriate canyon topography and aquatic sources are not present in the Study Area.
27. American badger	<i>Taxidea taxus</i>	-/-	G5/S3	SSC	Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Moderate. Occurrences are known in the vicinity, however denning in the Study Area is unlikely due to low prey base and few starter burrows.
28. San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	FE/CT	G4T2/S2	SA	Need loose-textured sandy soils for burrowing, and suitable prey base.	Low. Suitable soils are present and there is one recent kit fox record in the vicinity of the Study Area. Quality denning habitat is limited

*Not listed in the CNDDB for the search area, but species is a possibility for the location.

Federal and State Status Abbreviations:

FE: Federally Endangered	CE: California Endangered
FT: Federally Threatened	CT: California Threatened
PE: Proposed Federally Endangered	CCE: Candidate for California Endangered
PT: Proposed Federally Threatened	CCT: Candidate for California Threatened

Global/State Ranks:

G1/S1 – Critically Imperiled	Q – Element is very rare but there are taxonomic questions associated with it.
G2/S2 – Imperiled	
G3/S3 – Vulnerable	Range rank – (e.g., S2S3 means rank is somewhere between S2 and S3)
G4/S4 – Apparently Secure	
G5/S5 – Secure	? – (e.g., S2? Means rank is more certain than S2S3 but less certain than S2)

California Department of Fish and Wildlife Rank:

WL:	Watch List
SSC:	Species of Special Concern
FP:	Fully Protected
SA:	Special Animal

Kit Fox Habitat Evaluation Form

Cover Sheet

Project Name: Rich Properties Management, Inc. (Project 1)

Date: January 29, 2020

Project Location* **APN 037-371-001**
Shandon, CA

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

U.S.G.S. Quad Map Name: Camatta Ranch

Lat/Long or UTM coordinates (if available): 120.3194825°W 35.4907138°N (WGS84)

Project Description:

Project Size	5.0 Acres	Amount of Kit Fox Habitat Affected	5.0 Acres
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Quantity of WHR Habitat Types Impacted (i.e. - 2 acres annual grassland, 3 acres blue oak woodland)

WHR type	Fallow cropland	5.0 Acres
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Comments: None

Form Completed By:

Daniel E. Meade

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)

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	20
2.	Habitat condition	7
3.	Isolation	15
4.	Mortality	5
5.	Quantity of habitat impacted	1
6.	Project results	10
7.	Project shape	10
8.	Recent observations	10

TOTAL 78

Kit Fox Habitat Evaluation Form

Cover Sheet

Project Name: Rich Properties Management, Inc. (Project 2)

Date: January 29, 2020

Project Location* **APN 037-371-002**
Shandon, CA

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

U.S.G.S. Quad Map Name: Camatta Ranch

Lat/Long or UTM coordinates (if available): 120.3204450°W 35.4907396°N (WGS84)

Project Description:

Project Size	5.1 Acres	Amount of Kit Fox Habitat Affected	5.1 Acres
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Quantity of WHR Habitat Types Impacted (i.e. - 2 acres annual grassland, 3 acres blue oak woodland)

WHR type	Fallow cropland	5.0 Acres
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WHR type	Disturbed (dirt roads)	0.1 Acres
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Comments: None

Form Completed By:

Daniel E. Meade

San Joaquin Kit Fox Habitat Evaluation form

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

Yes - Continue with evaluation form

No - Evaluation form/surveys are not necessary

1. Importance of the project area relative to Recovery Plan for Upland Species of the San Joaquin Valley, California (Williams et al., 1998)
 - A. Project would block or degrade an existing corridor linking core populations or isolate a subpopulation (20)**
 - B. Project is within core population (15)
 - C. Project area is identified within satellite populations (12)
 - D. Project area is within a corridor linking satellite populations (10)
 - E. Project area is not within any of the previously described areas but is within known kit fox range (5)
2. Habitat characteristics of project area.
 - A. Annual grassland or saltbush scrub present >50% of site (15)
 - B. Grassland or saltbush scrub present but comprises <50% of project area (10)
 - C. Oak savannah present on >50% of site (8)
 - D. Fallow ag fields or grain/alfalfa crops (7)**
 - E. Orchards/vineyards (5)
 - F. Intensively maintained row crops or suitable vegetation absent (0)
3. Isolation of project area.
 - A. Project area surrounded by contiguous kit fox habitat as described in Question 2a-e (15)**
 - B. Project area adjacent to at least 40 acres of contiguous habitat or part of an existing corridor (10)
 - C. Project area adjacent to <40 acres of habitat but linked by existing corridor (i.e., river, canal, aqueduct) (7)
 - D. Project area surrounded by ag but less than 200 yards from habitat (5)
 - E. Project area completely isolated by row crops or development and is greater than 200 yards from potential habitat (0)

4. Potential for increased mortality as a result of project implementation. Mortality may come from direct (e.g., - construction related) or indirect (e.g., - vehicle strikes due to increases in post development traffic) sources.
 - A. Increased mortality likely (10)
 - B. Unknown mortality effects (5)**
 - C. No long term effect on mortality (0)

5. Amount of potential kit fox habitat affected.
 - A. >320 acres (10)
 - B. 160 - 319 acres (7)
 - C. 80 - 159 acres (5)
 - D. 40 - 79 acres (3)
 - E. < 40 acres (1)**

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

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

8. Have San Joaquin kit foxes been observed within 3 miles of the project area within the last 10 years?
 - A. Yes (10)**
 - B. No (0)

Scoring

1.	Recovery importance	20
2.	Habitat condition	7
3.	Isolation	15
4.	Mortality	5
5.	Quantity of habitat impacted	1
6.	Project results	10
7.	Project shape	10
8.	Recent observations	10

TOTAL 78

Kit Fox Habitat Evaluation Form

Cover Sheet

Project Name: Rich Properties Management, Inc. (Project 3)

Date: January 29, 2020

Project Location* **APN 037-351-002**
Shandon, CA

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

U.S.G.S. Quad Map Name: Camatta Ranch

Lat/Long or UTM coordinates (if available): 120.3257156°W 35.5005209°N (WGS84)

Project Description:

Project Size	6.3 Acres	Amount of Kit Fox Habitat Affected	6.3 Acres
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Quantity of WHR Habitat Types Impacted (i.e. - 2 acres annual grassland, 3 acres blue oak woodland)

WHR type	Annual grassland	6.3 Acres
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Comments: None

Form Completed By:

Daniel E. Meade

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)

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	20
2.	Habitat condition	10
3.	Isolation	15
4.	Mortality	5
5.	Quantity of habitat impacted	1
6.	Project results	10
7.	Project shape	10
8.	Recent observations	10

TOTAL 81