

BIOLOGICAL RESOURCES ASSESSMENT

Huasna Townsite Road Cannabis Project San Luis Obispo County, California

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"As a County-approved biologist, I hereby certify that this Biological Resources Assessment 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; and I further certify that I was present throughout the site visit(s) associated with this report."

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<u>11 December 2018</u> Date



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EXECUTIVE SUMMARY

This Biological Resources Assessment report was prepared by Terra Verde Environmental Consulting, LLC (Terra Verde) at the request of Anna Gabriel (owner) for proposed cannabis cultivation operations (project) located at 6135 Huasna Townsite Road within the community of Huasna, San Luis Obispo County, California (APN: 085-012-019) (property). The proposed project includes an approximate 0.7 acre (29,232 square feet) of outdoor cannabis cultivation, as well as two new harvest storage buildings to be placed within disturbed annual grassland. The operation is planned to be organic and will not utilize herbicides, pesticides, or rodenticides. The project has been designed to avoid impacts to areas of intact native habitat and sensitive resources to the greatest extent feasible.

Terra Verde staff completed a biological survey within the proposed project area on November 30, 2018. The survey area included the proposed project footprint and an approximate 50- to 100-foot buffer where access was feasible, including a visual scan of the surrounding areas. The survey included an inventory of botanical and wildlife species observed, and an assessment of habitat, focusing on the potential for special-status species to occur.

Marginally suitable habitat for a total of three special-status botanical species and four specialstatus wildlife species, as well as migratory nesting birds, is present within the survey area. One California Department of Fish and Wildlife Fully Protected species, golden eagle (*Aquila chrysaetos*), was observed flying over the site. No other special-status species were observed during the survey. No U.S. Geological Survey blue line streams are present on site. A remnant water impoundment is present within the southern portion of the project area. Individual oak trees (*Quercus* spp.) and oak woodland are present immediately adjacent to and beyond existing anthropogenic/disturbed areas.

As currently designed, the potential for impacts to biological resources for the project is considered low. Direct and indirect impacts to special-status wildlife could result from project-related disturbances, such as trampling or crushing from vehicles and/or noise that may deter wildlife from the area. No direct impacts to sensitive plants or habitats, including oak trees/woodlands, are expected; however, indirect impacts have the potential to occur. A series of avoidance and minimization measures have been recommended to reduce potential impacts to a less than significant level.



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Figure 2: Project Survey Area Map

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1.0 INTRODUCTION

This Biological Resources Assessment report was prepared by Terra Verde Environmental Consulting, LLC (Terra Verde) at the request of Anna Gabriel (owner) for proposed improvements to existing cannabis cultivation operations (project) located at 6135 Huasna Townsite Road (APN: 085-012-019) within the unincorporated community of Huasna, San Luis Obispo County, California (see Appendix A – Figure 1: Project Vicinity Map). Specifically, the proposed project area includes an existing 29,232 square feet (sf) cannabis cultivation area within the western portion of the 10-acre parcel (see Appendix A – Figure 2: Project Survey Area Map and Appendix B – Preliminary Site Plans). The scope of the project includes the following components:

- Cannabis cultivation area (29,232 sf) (existing);
- Two harvest storage trailers (960 sf each) (proposed);

The cultivation operations will not expand beyond existing areas and are planned to be reduced on the north and south sides of the project area in order to comply with the required setback from the property lines. No tree trimming and/or removal of existing vegetation is expected to occur as a result of the project and no building improvements are proposed. Further, no grading is expected to be necessary and all plant material will be restricted to pots placed on the ground or on wooden pallets. The current project design has been modified to avoid and/or minimize impacts to areas of intact native habitat and sensitive resources, to the extent feasible.

1.1 Purpose of the Biological Resources Assessment

The purpose of this report is to identify sensitive resources that occur, or have potential to occur, within the proposed project site and surrounding areas. A sensitive resource is defined here as one that is of management concern to local, county, state, and/or federal resource agencies. Recommended avoidance and minimization measures have been provided in Section 4.2 and are intended to reduce potential impacts to sensitive resources to the extent feasible. As necessary, this report may be used to support the environmental review process and future project permitting.

1.2 Existing Conditions

The project area is located within the Nipomo U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle. It is located approximately 12 miles east of the City of Arroyo Grande within the Huasna Valley. Elevations within the survey area range from approximately 226 to 274 meters (740 to 900 feet). The majority of the project area is developed with two residential home sites, various sheds, and an existing outdoor cannabis cultivation area. The project area is located immediately adjacent to the residential structures within a historically grassland habitat



(see Appendix A – Figure 2). A review of historical aerial imagery from Google Earth (1994-2018) indicates that the residential structures have been present since at least 1994; though it appears that the cannabis cultivation was established no earlier than 2017. Historical uses for the property include agriculture and various crop production.

The larger surrounding area consists of a mix of land uses including rural residential development and agriculture set amongst relatively undeveloped areas dominated by oak woodland and grasslands. No jurisdictional drainage features intersect the project area; however, two flat swales drain the surrounding hills. A remnant impoundment that captured the run off from one of the swales was observed on site within the southern portion of the project area. No surface water was observed at the time of the survey and it is unclear whether or not the impoundment holds water. The primary site access is located off of Huasna Townsite Road via a dirt/gravel driveway.

2.0 METHODOLOGY

Prior to conducting the field survey, Terra Verde staff reviewed the following resources:

- Aerial photographs (Google Earth, 1994-2018) and project site plans
- USGS Nipomo 7.5-minute topographic quadrangle map
- Online Soil Survey of San Luis Obispo County, California (Natural Resources Conservation Service [NRCS], 2018)
- Consortium of California Herbaria (CCH) online database of plant collections (CCH, 2018)
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) list of state and federally listed special-status species documented within the Nipomo 7.5-minute quadrangle and the surrounding eight quadrangles (Arroyo Grande NE, Tar Spring Ridge, Caldwell Mesa, Oceano, Huasna Peak, Guadalupe, Santa Maria, Twitchell Dam,) (CDFW, 2018)
- CNDDB map of special-status species that have been documented within a 5-mile radius of the project site (CDFW, 2018) (see Appendix A Figure 3: 5-mile CNDDB Map)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants for the Nipomo 7.5-minute quadrangle and the surrounding eight quadrangles (CNPS, 2018a)
- U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS, 2018a)
- USFWS National Wetland Inventory map (USFWS, 2018b)

A list of regionally-occurring, special-status species was compiled based on records reported in the scientific database queries (see Appendix C – Regionally-occurring Special-status Species Table). This species list was utilized to focus the field survey on potentially occurring species.

Following the literature review and desktop analysis, Terra Verde biologists completed a survey on November 30, 2018, which focused on the identification of sensitive habitats and special-status plant and wildlife species. The survey included the existing cultivation site, limited to



existing roads and pads and an approximate 50 to 100-foot buffer including a visual scan of the surrounding habitat features (see Appendix A – Figure 2).

The survey was pedestrian in nature and lasted approximately one hour. During the survey, all detected botanical and wildlife species and their sign were documented (see Appendix D – Botanical and Wildlife Species Observed) and photographs were taken at representative locations (see Appendix E – Representative Site Photographs). In addition, an appropriate field survey form was completed for the golden eagle observed flying over the site (see Appendix F – CNDDB California Native Species Field Survey Form). Visibility was suitable to detect potentially occurring wildlife species during the survey. Botanical species identifications and taxonomic nomenclature followed *The Jepson Manual: Vascular Plants of California*, 2nd edition (Baldwin et al., 2012), as well as taxonomic updates provided in the Jepson eFlora (Jepson eFlora, 2018). In addition, vegetation communities and land cover types were characterized, and natural communities were classified using the second edition of *A Manual of California Vegetation* (MCV) classification system (Sawyer et al., 2009).

The habitat requirements for each regionally-occurring, special-status species listed in Appendix C were analyzed and compared to the type and quality of habitats observed during the field survey. The potential for many species to occur within the project site was eliminated due to lack of suitable habitat, elevation, appropriate soils/substrate, and/or known distribution of the species. Special-status species for which suitable habitat was identified on site are discussed indepth in the following section, and those determined to have no potential to occur based upon a lack of suitable habitat are not discussed any further in this Biological Resources Assessment.

2.1 Sufficiency of Biological Data

The field survey that Terra Verde conducted is of sufficient detail and biological expertise to identify potentially occurring special-status wildlife species and assess habitats and site conditions for the presence of sensitive resources and/or for the potential to support special-status species. However, the survey did not take place during the typical blooming period (i.e., April – June) for a majority of the special-status plants with potential to occur.

Migratory and transient wildlife species such as many avian species and large mammals may only be seasonally present within the project area. Further, some species are nocturnal, and/or highly transient and may have not been detected during the survey effort. As such, recommendations have been made for the avoidance of sensitive species and resources deemed to have potential to occur, based on an assessment of habitat present at the site.

3.0 RESULTS

This section provides a summary and analysis of the background research and field survey results. The discussion includes a description of soils, terrestrial and aquatic habitat types, direct and indirect observations of botanical and wildlife species, and a discussion of the



potential for special-status species to occur. Any anticipated impacts to migration corridors and habitat connectivity are also considered.

3.1 Habitats and Resources Observed

Overall, the survey area exhibited little variation in habitat types. In total, two soil units and one natural vegetation community were documented within the survey area. The majority of the survey area consists of anthropogenic/disturbed areas immediately abutting natural vegetation communities.

3.1.1 Soils

The NRCS online soil report revealed two soil units within the survey area (see Appendix A – Figure 4: Soils Map). The primary characteristics of these soil units are described below.

Soil Unit 110: Briones-Tierra complex, 15 to 50 percent slopes

This soil type consists of Briones and Tierra soils at 50 and 25 percent, respectively. The drainage class of this unit is well drained and it is primarily composed of loamy sand, sandy clay, and weathered bedrock. This soil type occurs on mountains, hills, and terraces at elevations of 300 to 2,000 feet. This soil type is not considered prime farmland.

Soil Unit 191: Pismo-Tierra complex, 9 to 15 percent slopes

This soil type consists of Pismo and Tierra soils at 40 and 30 percent, respectively. The drainage class of this unit is well drained and it is composed mostly of weathered bedrock, clay and sandy clay loam. This soil type tends to occur on hills, mountains, and terraces at elevations of 20 to 700 feet. This soil unit is not considered prime farmland.

3.1.2 Hydrologic Features

As mentioned above, a remnant impoundment feature was observed on site. This feature was visited after a significant rain event and no surface water was observed. The impoundment appears to be isolated in the landscape and does not converge with any USGS blue line drainages. Vegetation surrounding the feature included a single willow tree (*Salix lasiolepis*) and valley oak tree (*Q. lobata*).

3.1.3 Vegetation Community

Vegetation communities and land cover types were assessed and classified based on vegetation composition, structure, and density. A majority of the survey area consists of anthropogenic/disturbed areas including the area under cultivation, existing roads, and residential home sites. The survey area was primarily disturbed/developed but has portions of annual brome grassland with a few scattered trees on the margins of the cultivation area (see Appendix A – Figure 5: Vegetation Community Map).

A total of 15 vascular plant species have been identified within the survey area. A majority of the survey area consisted of maintained, anthropogenic areas.



Annual Brome Grassland (0.76 acre)

The annual brome grassland was observed along the borders of the growing area and outside of the fenced area. At the time of the survey, dominant grasses included ripgut grass (*Bromus diandrus*) and slender wild oat (*Avena barbata*). Shrub and herbaceous layers included black mustard (*Brassica nigra*), redstem filaree (*Erodium cicutarium*), telegraph weed (*Heterotheca grandiflora*), and yellow star-thistle (*Centaurea solstitialis*) scattered throughout. A native needlegrass (*Stipa* sp.) was also observed, but in very low quantity and not over 10 percent cover of the grasses within the project area.

This species composition was used in determining the vegetation community classification, which most closely corresponds with the *Bromus (diandrus, hordeaceus) – Brachypodium distachyon* Semi-natural Herbaceous Stands (annual brome grasslands) in the MCV classification system. Annual brome grassland occurs throughout California in foothills, waste places, rangelands, and openings in woodlands below 2,200 meters. This community provides habitat for ground-nesting birds, small mammals, reptiles, and other wildlife.

Anthropogenic/Disturbed (0.77 acre)

This land cover type occurs in the survey area and in association with the existing residential home sites and access roads. Herbaceous and weedy species were observed in sparse cover in roads and adjacent to ancillary structures including ripgut brome, red brome, and yellow starthistle.

Anthropogenic areas observed on site do not correspond to a natural vegetation community but provide marginally suitable habitat for wildlife foraging and cover.

3.1.4 Wildlife

The terrestrial habitat observed within and adjacent to the survey area provide suitable habitat for a variety of common and special-status wildlife species. In particular, oak woodland habitat adjacent to the survey area provides highly suitable nesting opportunity for a variety of avian species. Non-native grassland observed upslope of the survey area may provide suitable habitat for ground nesting birds and transient species foraging in the area. Furthermore, surrounding upland areas provide suitable conditions for reptiles such as snakes and lizards, as well as small mammals.

During the field survey, all invertebrate and vertebrate species observed, including those detected by indirect sign (i.e., tracks, scat, skeletal remains, dens, burrows, or vocalizations) were documented. Numerous avian species were observed, including red-tailed hawk (*Buteo jamaicensis*) and house finch (*Haemorhous mexicanus*). California ground squirrel (*Otospermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*) were observed throughout the survey area. A golden eagle (*Aquila chrysaetos*), a CDFW Fully Protected



species, was also observed flying over the site. A comprehensive list of all the wildlife species observed within the survey area is included in Appendix C.

3.2 Sensitive Resources

The results of the desktop research of the area surrounding the proposed project site indicated that 4 sensitive natural communities, 60 special-status plant species, and 36 special-status wildlife species occur regionally. A review of the habitat requirements for each of these species in comparison with site conditions narrowed the list to 3 sensitive plants and 4 sensitive wildlife species that have potential to occur within the overall survey area. Though a species of needlegrass was documented on site, densities were observed at less than 10 percent cover and as such did not classify as a CNDDB sensitive natural community. Further, based on a lack of diagnostic species and/or substrate, no other sensitive natural communities are expected to occur. Those sensitive species determined to have a potential to occur on site are discussed further below.

3.2.1 Special-status Plant Species

The surveys completed within the proposed project areas occurred outside the typical blooming period for a majority of regionally-occurring special-status plant species. As such, the potential for special-status plants to occur within the survey area is based on the presence of potentially suitable habitat, proximity to nearby CNDDB documented occurrences, and local biological knowledge. Based on this evaluation and a review of the relevant literature, it was determined that three special-status plant species have a potential to occur within the overall project and survey area, unless their absence can be confirmed through appropriately timed surveys. Additionally, oak trees and oak woodlands are considered a sensitive resource by the State of California and the County of San Luis Obispo (County), and impacts must be included in the California Environmental Quality Act (CEQA) project review process. Mixed oak woodland is present in the surround areas and individual oak trees are present within the survey area.

The following paragraphs provide a description of the special-status species that have potential to occur on site.

Cambria Morning-glory (Calystegia subacaulis subsp. episcopalis), CRPR 4.2

Cambria morning-glory is a perennial herb that is endemic to central California. Its known range is concentrated along the coastal ridges and foothills of the Outer South Coast Ranges of San Luis Obispo County. This species typically occurs in clay soils in association with various vegetation communities including grassland, chaparral, and woodland. It has been documented at elevations up to 500 meters and is known to tolerate disturbance. The typical blooming period is from April to June (Jepson eFlora, 2018). Documented threats to this species include development, alteration of fire regimes, and competition from non-native species (CNPS, 2018a). According to CNDDB records (2018), the nearest documented occurrence of this species is greater than eight miles from the site. Although marginally suitable habitat for this



species is present within the surrounding area and fringe of grassland on site, it is unlikely to be present based on the disturbed nature of the project site.

San Luis Obispo Owl's-clover (Castilleja densiflora subsp. obispoensis); CRPR 1B.2

San Luis Obispo owl's-clover is an annual herb that is endemic to San Luis Obispo County. Specifically, it is known to occur mostly in coastal areas along the Outer South Coast Ranges from just south of Ragged Point to Avila Beach, with several populations occurring in the Irish Hills. This species typically occurs in coastal grasslands at elevations up to 400 meters and may be somewhat tolerant of disturbance. The typical blooming period is from March to June (Jepson eFlora, 2018). Documented threats to this species include development and grazing (CNPS, 2018).

According to CNDDB records (2018), the nearest documented occurrence of this species is greater than eight miles from the site. Although marginally suitable habitat for this species is present within the surrounding area and fringe of grassland on site, it is unlikely to be present based on the disturbed nature of the project site.

Paniculate Tarplant (Deinandra paniculata), CRPR 4.2

Paniculate tarplant is an annual herb that is endemic to California and northern Baja California. Known populations are concentrated along the central and southern coastal ranges of California between San Luis Obispo and Baja, with an isolated occurrence along the eastern edge of the San Francisco Bay. This species typically occurs in sandy soils in grassland, open chaparral, and woodland communities at elevations up to 1,320 meters. It is known to tolerate some disturbance. The typical blooming period is from May to November (Jepson eFlora, 2018). Documented threats to this species include development, with some historical occurrences known to be extirpated by urbanization (CNPS, 2018a). The nearest documented occurrence of this species is approximately 10 miles north of the site. Although marginally suitable habitat for this species is present within woodlands and grasslands on site, it was not observed during an appropriately timed survey. As such, this species is not expected to occur on site.

Oak Trees and Woodland (Quercus agrifolia, Q. lobata), Protection under CEQA

Impacts to or removal of any mature oak species (i.e., greater than five inches in diameter at breast height) are regulated under California Public Resources Code 21083.4 and County Oak Woodland Ordinance Number 3346 (County, 2017). Mixed oak woodland is present adjacent to the survey area and individual valley oak trees are present within the survey area. No oak trees or oak woodland are expected to be trimmed or removed as part of the proposed project.

3.2.2 Special-status Wildlife Species

A list and description of the four sensitive wildlife species with potential to occur, including a description of their habitats, conservation status, and their likelihood for occurrence within the survey area, is provided below.



Sensitive Amphibian Species

California Red-legged Frog (CRLF, Rana draytonii), Federal Status – Threatened, State Status – CSC

This species is known to occur from Mendocino County to Northern Baja California, and from the coast eastward through the Northern Sacramento Valley and Sierra Nevada foothills at elevations below 1,525 meters (Zeiner, et al., 1988-1990a). This species requires permanent or semi-permanent bodies of water such as lakes, streams, and ponds with plant cover for breeding, and they use lowland and grassland areas to hunt and forage for food. Reproduction occurs in aquatic habitats and occurs from late November to early April. Egg masses are laid in the water, often on emergent vegetation. Adult frogs consume invertebrates, mice, fish, frogs, and larvae of other amphibians. Tadpoles are thought to consume algae off the water surface or off rocks and plants.

According to CNDDB records (CDFW 2018), CRLF was documented in 2006, approximately two miles southeast of the project area, within a tributary of the Huasna River. However, no potential breeding habitat (i.e., deep pools with emergent vegetation and overhanging cover) was identified within or near the survey area. Although this species is known to occur on land and can disperse up to two miles, this is typically during the dry season and occurs when young are searching for new aquatic habitat in the surrounding territory. Foraging can also occur in the upland, but the lack of nearby aquatic habitat makes it unlikely that they would occur on the project site. Therefore, due to the lack of water nearby, it is not likely that the project area contains suitable dispersal habitat. As such, CRLF is not expected to occur on site.

Sensitive Reptile Species

Northern California Legless Lizard (Anniella pulchra), State Status – CSC

Northern California legless lizard is known to occur from the northern end of the San Joaquin Valley, south through the Inner and Outer South Coast Ranges at elevations below 1,800 meters (Nafis, 2018). This species requires sandy or loose loamy soils within coastal dune scrub, coastal sage scrub, chaparral, woodland, riparian, or forest habitats. It requires cover such as logs, leaf litter, or rocks and will cover itself with loose soil. Relatively little is known about the specific behavior and ecology of this species, but it is thought to be a diurnal species that breeds between the months of March and July. It gives birth to live young in the early fall. Population declines have been attributed to agricultural development, sand mining, use of off-road recreational vehicles, and habitat loss through spread of invasive, non-native vegetation such as iceplant (*Carpobrotus* spp.) (Zeiner et al., 1988-1990b).

According to CNDDB records (CDFW 2018), the nearest documented occurrence of this species is approximately six miles southeast of the project area. Oak woodland habitat containing downed woody debris and leaf litter within the southern portion of the project area and surrounding areas may provide suitable habitat for this species. As such, recommended avoidance and minimization measures are provided in Section 4.2 below.



Migratory Nesting Birds and Sensitive Avian Species

Golden Eagle (Aquila chrysaetos); State Status – Fully Protected

Golden eagle is designated by CDFW as a Fully Protected species (i.e., no permitted take or possession at any time), and is also protected under the federal Bald and Golden Eagle Protection Act (USFWS, 2018c). Golden eagles typically occur in open and semi-open habitats, most commonly in mountainous areas where large trees for nesting and open hunting grounds with prey are abundant. Golden eagles typically feed on small mammals, and will nest in trees, on cliffs, or other steep escarpments (Cornell University, 2015). The typical nesting period for golden eagles is from January 1 through September 15. This species is threatened by loss of forage and nesting habitat, secondary pesticide poisoning, and collisions with man-made structures.

No CNDDB records of golden eagle were listed within the project area or within a 9-quadrant search; however, this species was observed flying over the project site by Terra Verde biologists on November 30, 2018. Suitable habitat is present within large oak trees surrounding the project area; however, no suitable nesting habitat is present within the survey area. As such, this species is not expected to occur on site except when foraging in the area.

Oak Titmouse (Baeolophus inornatus), State Status – Special Animal (Nesting)

Oak titmouse is known to occur most typically within oak woodlands, mixed oak and pine woodlands, as well and as shrub habitats immediately adjacent to wooded areas. Their range is restricted from southwest Oregon to northwest Baja California. Nesting occurs most often in natural tree cavities up to approximately 40 feet high; however, artificial cavities such as those found in eaves, fence posts, nest boxes, or buildings may additionally be utilized (Cornell University, 2017).

No CNDDB records of oak titmouse were listed within the project area or within a 9-quadrant search; however, only two records are listed statewide. As such, the CNDDB is not a quality indicator of this species' distribution. Oak titmouse is known to occur commonly and nest within San Luis Obispo County. Suitable nesting habitat is present within the project area and nesting may occur during the typical nesting bird season. Mitigation Measure 4 is provided for the protection of this species and other migratory birds.

Migratory Nesting Birds

In addition to those species protected by the state or federal government, all native avian species are protected by state and federal legislature, most notably the Migratory Bird Treaty Act and the CDFW Fish and Game Code. Collectively, these regulations make it unlawful to collect, sell, pursue, hunt, or kill native migratory birds, their eggs, nests, or any parts thereof.

Avian species can be expected to occur within the project area during all seasons and throughout construction and operations of the proposed project. The potential to encounter and disrupt these species is generally highest February 1 through September 15, when nests are likely to be active and eggs and young are present. Short-statured vegetation types provide



particularly suitable habitat for common passerines, while woodland habitat provides suitable nesting habitat for raptors. Raptors are particularly drawn to large trees and structures, and they are generally less tolerant of disturbances than other species. Recommended avoidance and mitigation measures for the protection of migratory nesting birds are provided in Section 4.2 below.

3.2.3 Sensitive Habitats

Hydrological Feature

As mentioned above, an impoundment feature is present on site within the southern portion of the survey area. Based on the lack of definition of the feature (i.e., no bed, bank, or channel) and the lack of connectivity to a blue line stream or any definition of a drainage conveying water to the feature, it is unlikely that the impoundment would be considered jurisdictional under U.S. Army Corp of Engineers, CDFW, or Regional Water Quality Control Board.

USFWS-designated Critical Habitats

No USFWS-designated critical habitat for federally threatened or endangered species occurs within the project area.

3.3 Habitat Connectivity

Maintaining connectivity between areas of suitable habitat is critical for dispersal, migration, foraging, and genetic health of plant and wildlife species. The project site is located in a rural area of San Luis Obispo County, between Arroyo Grande and the Los Padres National Forest. The project site is surrounded by dispersed residences with areas of relatively undisturbed native habitat immediately surrounding the site in all directions. As such, existing habitat and movement corridors in the vicinity of the project are relatively intact.

No new localized or large-scale passage barriers are proposed as a part of this project. As such, the proposed project is not expected to increase the overall level of fragmentation in the region.

4.0 IMPACT ASSESSMENT AND MITIGATION

4.1 Summary of Potential Impacts

The proposed project has the potential to directly and/or indirectly impact sensitive biological resources including special-status wildlife species, special-status plants, sensitive habitats, and nesting birds. Direct impacts to sensitive biological resources could result from injury or death via project-related disturbances such as trampling or crushing from vehicles or other project activities. However, these impacts are unlikely due to the current status of the property and the small scale of the planned operation. Short-term indirect impacts to sensitive biological resources could result from project-related noise, harassment, dust emissions, silt and sedimentation, or other disruption during project activities. Potential long-term direct and



indirect impacts to wildlife may occur as a result of pesticide and rodenticide use to control unwanted pests, agricultural chemical use, loss of habitat, and increased long-term anthropogenic activities. However, as long as current management practices are maintained on site (i.e., organic cultivation) then long-term impacts are considered low. No vegetation removal or trimming is proposed as a part of the project.

The total area of proposed disturbance is expected to be 29,232 sf (approximately 0.70 acre), which is planned to occur within the existing cultivation area and for the harvest storage sheds. As noted above, no further expansion is planned for the project area.

4.1.1 Impacts to Special-status Plants

Special-status Plants

Based on the disturbed nature of the site and no expansion plans for the site, special-status plants are not anticipated to be present nor impacted with the project area.

Oak Trees/Woodland

Individual valley oak trees are present within the survey area including adjacent to existing anthropogenic/disturbed areas and the proposed project area. No oak tree removals and/or trimming are expected during project implementation. No direct or indirect impacts are expected within existing anthropogenic/disturbed areas or the proposed new expansion area.

4.1.2 Impacts to Special-status Wildlife

Northern California Legless Lizard

As designed, no direct impacts to this species are expected to occur as a result of project related activities. If project designs change and impacts occur to the understory of oak trees, direct and indirect impacts may occur as a result of project-related disturbances or removal of habitat.

Sensitive and Nesting Birds

Direct impacts to bird species are most likely to occur if project activities take place during the typical avian nesting season, generally February 1 through September 15. No tree trimming/removals are proposed as a part of the project. However, indirect impacts may occur due to project-related disturbances that may deter nesting or cause nests to fail.

4.2 Recommended Avoidance and Minimization Measures

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

4.2.1 Mitigation for Impacts to Special-status Plants

Measure 1: Oak Tree Protection

If any new project activities are expected to occur immediately adjacent to oak trees or oak woodland, they will be flagged for avoidance and high visibility fencing or flagging (e.g., yellow



rope and t-posts) shall be installed at the boundary of work areas and/or the dripline of oak trees/woodland. At no time shall any removal or trimming of oak trees equal to or greater than five inches in DBH be allowed. All protective fencing shall be in place throughout the duration of project activities.

4.2.2 Mitigation for Impacts to Special-status Wildlife

Measure 2: Pre-activity Survey for Sensitive and Nesting Birds

If new construction is planned to occur between February 1 and September 15, a qualified biologist shall survey the project area for nesting birds within one week prior to activity beginning on site. If nesting birds are located on site, they shall be avoided until they have successfully fledged, or the nest is no longer deemed active. A non-disturbance buffer of 50 feet will be placed around non-listed, passerine species, and a 250-foot buffer will be implemented for raptor species. All activity will remain outside of that buffer until a qualified biologist has determined that the young have fledged or that proposed construction activities would not cause adverse impacts to the nest, adults, eggs, or young. If special-status avian species are identified, no work will begin until an appropriate buffer is determined in consultation with the CDFW, and/or the USFWS.

5.0 CONCLUSION

In total, it was determined that suitable habitat exists on site for 3 special-status plant species and 4 special-status wildlife species, including 1 amphibian, 1 reptile, and 2 avian species. One impoundment feature is present on site adjacent to the existing cultivation area. The project has been designed to avoid impacts to sensitive resources and habitats to the extent feasible. Specifically, no expansion or improvements beyond existing anthropogenic/disturbed areas is proposed on site. All proposed project activities are expected to maintain a minimum 50-foot setback from the impoundment. Based on the current project designs, it is expected that implementation of the recommended mitigation measures will avoid and/or minimize impacts to potentially occurring sensitive resources to a less than significant level.



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Huasna Townsite Road Cannabis Project Biological Resources Assessment San Luis Obispo County, California



APPENDIX A – PROJECT MAPS

Figure 1: Project Vicinity Map Figure 2: Project Survey Area Map Figure 3: 5-mile CNDDB Map Figure 4: Soils Map Figure 5: Vegetation Community Map









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*Soils data: U.S. Dept. of Agriculture, Natural Resources	Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS,
Conservation Service, updated 2010	USDA, USGS, AeroGRID, IGN, and the GIS User Community
	6135 Huasna Townsite Road Project
Survey Area	Elder sandy loam, occasionally flooded, 0-2% slopes
Briones-Tierra complex, 15-50% slopes	Elder sandy loam, occasionally flooded, 2-9% slopes
Corralitos sand, 0-2% slopes	Field complex, 5 1070 slopes







APPENDIX B – Preliminary Site Plans









SITE 1,000 FT. PERIMETER



PROJECT DATA

- 1. PROJECT ADDRESS:
- 2. LOT SIZE:
- 3. ASSESSOR'S PARCEL NO.:
- 4. ZONING:
- 5. PROPOSED USE: 6. WATER SUPPLY:
- 7. SEWAGE DISPOSAL:
- 8. GAS:
- 9. ELECTRICITY:
- 10. TELEPHONE:
- 11. CABLE
- 12. FEMA FLOOD ZONE:

435,095.8 SQ. FT. (10 AC) 085-012-019 AG CANNABIS CULTIVATION PRIVATE WELL XXXXX SOUTHERN CALIFORNIA GAS CO. PACIFIC GAS & ELECTRIC AT&T CHARTER CABLE X ZONE (XX YEAR FLOOD)

6135 HUASANA TOWNSITE RD. ARROYO GRANDE, CA 93420

PROJECT NOTES

- 1. XXXX.
- 2. XXXX.
- 3. XXXX.
- 4. TOPOGRAPHIC INFORMATION SHOWN ON THIS MAP IS BASED ON A SURVEY PERFORMED BY GARING TAYLOR & ASSOCIATES IN XX 2018.

AYLOR & ASSOCIATES, INC. ERS SURVEYORS PLANNERS NDE, CA 93420 (805) 489-1321		DATE
GARING, T, CIVIL ENGINEE 141 SOUTH ELM STREET · ARROYO GRA		RONALD G. REILLY
Heet Title: SITE PLAN	ROJECT: RANCHO HUASNA 6135 HUASNA TOWNSITE ROAD	AKKUTU GRANUE CA, 33420
CLIENT: ANNA GABRIEL 6131 HUASNA TOWNSITE ROAD	ARROYO GRANDE CA, 93420	
DRAWN BY: 1 CHECKED BY DATE: 2018- JOB NO. 17- FILE NAME: SITE PLAN SCALE: 1" = PLOT DATE: SHEET:	<j : -11–08 -654 - OVER, 20'</j 	ALL





APPENDIX C – Regionally-occurring Special-status Species Table



Regionally occurring special-status species list for the Nipomo and surrounding 7.5-minute quadrangles: Arroyo Grande NE, Tar Spring Ridge, Caldwell Mesa, Oceano, Huasna Peak, Guadalupe, Santa Maria, Twitchell Dam.

SENSITIVE VEGETATION COMMUNITIES AND HABITATS									
Community/ Habitat ¹	Description ²	Observed on Site? ³	Comments / Potential for Occurrence						
California Natural	California Natural Diversity Database (CNDDB)-designated Sensitive Natural Communities								
Central Dune Scrub	Restricted to coastal areas with stabilized back dunes, slopes, ridges, and flats. Vegetation consists of shrubs, subshrubs, and herbs less than a meter tall. Indicator species include <i>Ericameria ericoides, Lupinus chamissonis</i> , and <i>Artemisia</i> sp.	No	Diagnostic species and substrate are not present on site; this community is not present within the survey area.						
Central Foredunes	Adjacent to shoreline with harsh environmental conditions such as strong, salt-laden breezes and salt water inundation. Characterized by plants that are prostrate; with deep taproots; fleshy roots, stems, and leaves, and leaves covered with thick mats of gray hairs. Often referred to as pioneer dune community or coastal strand.	No	Diagnostic species and substrate are not present on site; this community is not present within the survey area.						
Coastal and Valley Freshwater Marsh	Dominated by perennial, emergent, and tall monocots that often form closed canopies. Tend to be <i>Typha</i> -dominated and permanently flooded with fresh water, which results in deep peaty soils.	No	Diagnostic species and substrate are not present on site; this community is not present within the survey area.						
Southern Vernal Pool	Floristically transitional between northern and southern California pool. Includes habitats similar to seasonal wetlands such as seeps and venal marshes to coastal marine terrace deposits. Comprised of sandy/permeable basins or relatively impervious clay-rich soils.	No	Diagnostic species and substrate are not present on site; this community is not present within the survey area.						

¹List of sensitive vegetation communities and habitats obtained from CNDDB and USFWS Critical Habitat Portal (CNDDB, 2018; USFWS, 2018a). ²Community and habitat descriptions acquired from CNDDB (2018) and CDFW California Vernal Pool Assessment Preliminary Report (1998). ³Communities/habitats observed during field survey indicated with **bold** font and gray highlight, and are discussed further in the report.

SPECIAL-STATUS BOTANICAL SPECIES							
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/ Habitat Present? ⁴	Comments / Potential for Occurrence		
<i>Abronia maritima</i> Red sand-verbena	CRPR 4.2	February – October	Coastal dunes. Elevation: < 100 meters.	No / No	No suitable elevation range or habitat on site.		
Agrostis hooveri Hoover's bent grass	CRPR 1B.2	April – August	Dry, sandy soils, open chaparral, oak woodland. Elevation: < 600 meters.	No / No	No suitable habitat on site.		
Amsinckia douglasiana Douglas' fiddleneck	CRPR 4.2	March – June	Unstable, shaly, sedimentary slopes. Elevation: 150 – 1,600 meters.	No / No	No suitable habitat on site.		
<i>Aphyllon parishii</i> subsp. <i>brachylobum</i> Short-lobed broomrape	CRPR 4.2	May – August	Sandy soil near ocean, generally on <i>Isocoma menziesii</i> . Elevation: < 300 meters.	No / No	No suitable elevation range or habitat on site.		
<i>Arctostaphylos luciana</i> Santa Lucia manzanita	CRPR 1B.2	January – March	Shale outcrops, slopes, upland chaparral near coast. Elevation: 100 – 800 meters.	No / No	No suitable habitat on site. No manzanitas observed.		
Arctostaphylos obispoensis Bishop manzanita	CRPR 1B.2	February – March	Rocky, generally serpentine soils, chaparral, open closed- cone forest near coast. Elevation: 60 – 950 meters.	No / No	No suitable habitat on site. No manzanitas observed.		
Arctostaphylos pilosula Santa Margarita manzanita	CRPR 1B.2	December – March	Shale outcrops, slopes, chaparral. Elevation: 30 – 1,250 meters.	No / No	No suitable habitat on site. No manzanitas observed.		
Arctostaphylos purissima La Purisima manzanita	CRPR 1B.1	January – March	Sandstone outcrops, sandy soils, chaparral. Elevation: < 300 meters.	No / No	No suitable habitat on site. No manzanitas observed.		
Arctostaphylos rudis Sand mesa manzanita	CRPR 1B.2	November – February	Sandy soils, chaparral. Elevation: < 380 meters.	No / No	No suitable habitat on site. No manzanitas observed.		

SPECIAL-STATUS BOTANICAL SPECIES							
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/ Habitat Present? ⁴	Comments / Potential for Occurrence		
<i>Arenaria paludicola</i> Marsh sandwort	Fed: Endangered State: Endangered CRPR: 1B.1	May – August	Wet meadows, marshes. Elevation: < 300 meters.	No / No	No suitable habitat on site.		
Astragalus didymocarpus var. milesianus Miles' milk-vetch	CRPR 1B.2	March – May	Grassy areas near the coast, clay soils in coastal scrub. Elevation: < 400 meters.	No / No	No suitable habitat on site.		
<i>Astragalus nuttallii</i> var. <i>nuttallii</i> Ocean bluff milk-vetch	CRPR 4.2	All year	Rock, sandy areas, bluffs, coastal scrub. Elevation: < 250 meters.	No / No	No suitable habitat on site.		
Atriplex serenana var. davidsonii Davidson's saltscale	CRPR 1B.2	April – October	Coastal bluff scrub and coastal scrub, alkaline soils. Elevation: < 200 meters.	No / No	No suitable habitat on site.		
<i>Calochortus obispoensis</i> San Luis mariposa lily	CRPR 1B.2	May – June	Dry serpentine, generally open chaparral. Elevation: 100 – 500 meters.	No / No	No suitable habitat on site.		
<i>Calochortus palmeri</i> var. <i>palmeri</i> Palmer's mariposa lily	CRPR 1B.2	May – July	Meadows, vernally moist places in yellow-pine forest, chaparral. Elevation: 1,200 – 2,200 meters.	No / No	No suitable habitat on site.		
<i>Calochortus simulans</i> La Panza mariposa lily	CRPR 1B.3	May – July	Sand (often granitic), grassland, and yellow pine forest. Elevation: < 1,100 meters.	No / No	No suitable habitat on site.		
Calystegia subacaulis subsp. episcopalis Cambria morning-glory	CRPR 4.2	April – June	Dry, open scrub and woodland, chaparral, coastal prairie, grassland; usually in clay soil. Elevation: < 500 meters.	No / Yes	Marginally suitable habitat on site.		

SPECIAL-STATUS BOTANICAL SPECIES							
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/ Habitat Present? ⁴	Comments / Potential for Occurrence		
Castilleja densiflora subsp. obispoensis San Luis Obispo owl's- clover	CRPR 1B.2	March – June	Coastal grassland. Elevation: < 400 meters.	No / Yes	Marginally suitable habitat on site.		
<i>Ceanothus cuneatus</i> var. <i>fascicularis</i> Lompoc ceanothus	CRPR 4.2	February – May	Sandy substrates in coastal chaparral. Elevation: < 275 meters.	No / No	No suitable habitat on site.		
<i>Ceanothus gloriosus var. gloriosus</i> Point Reyes ceanothus	CRPR 4.3	March – May	Sandy places, coastal bluffs, closed-cone-pine forest. Elevation: < 500 meters.	No / No	No suitable habitat on site.		
<i>Centromadia parryi</i> subsp. <i>congdonii</i> Congdon's tarplant	CRPR 1B.1	June – October	Terraces, swales, floodplains, grassland, and disturbed sites. Elevation: < 300 meters.	No / No	No suitable habitat on site.		
Chenopodium littoreum Coastal goosefoot	CRPR 1B.2	June – October	Generally sandy soils and dunes. Elevation: < 40 meters.	No / No	No suitable habitat on site.		
<i>Chorizanthe breweri</i> Brewer's spineflower	CRPR 1B.3	March – July	Gravel or rocks, typically on serpentine soil. Elevation: 60 – 800 meters.	No / No	No suitable habitat on site.		
<i>Chorizanthe palmeri</i> Palmer's spineflower	CRPR 4.2	May – August	Serpentine. Elevation: 60 – 700 meters.	No / No	No suitable habitat on site.		
Chorizanthe rectispina Straight-awned spineflower	CRPR 1B.3	May – July	Sand or gravel. Elevation: 200 – 600 meters.	No / No	No suitable habitat on site.		
<i>Cirsium rhothophilum</i> Surf thistle	State: Threatened CRPR 1B.2	April – August	Dunes and bluffs. Elevation: < 60 meters.	No / No	No suitable habitat on site.		

SPECIAL-STATUS BOTANICAL SPECIES							
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/ Habitat Present? ⁴	Comments / Potential for Occurrence		
<i>Cirsium scariosum</i> var. <i>Ioncholepis</i> La Graciosa thistle	Fed: Endangered State: Threatened CRPR 1B.1	April – September	Marshes, dune wetlands. Elevation: < 50 meters.	No / No	No suitable habitat on site.		
Cladium californicum California sawgrass	CRPR 2B.2	June – September	Alkaline marshes and swamps. Elevation: < 2,150 meters.	No / No	No suitable habitat on site.		
<i>Clarkia speciosa</i> subsp. <i>immaculata</i> Pismo clarkia	Fed: Endangered State: Rare CRPR 1B.1	May – July	Sandy coastal hills. Elevation: < 100 meters.	No / No	No suitable habitat on site.		
<i>Convolvulus simulans</i> Small-flowered morning- glory	CRPR 4.2	April – June	Clay substrates, occasionally serpentine, annual grassland, coastal-sage scrub, chaparral. Elevation: 30 – 875 meters.	No / No	No suitable habitat on site.		
<i>Deinandra increscens</i> subsp. <i>villosa</i> Gaviota tarplant	Fed: Endangered State: Endangered CRPR 1B.1	June – September	Coastal bluffs, fields. Elevation: 30 – 50 meters.	No / No	No suitable habitat on site.		
<i>Deinandra paniculata</i> Paniculate tarplant	CRPR 4.2	May – November	Grassland, open chaparral and woodland, disturbed areas, often in sandy soils. Elevation: < 1,320 meters.	No / Yes	Marginally suitable habitat on site. Not observed during survey.		
<i>Delphinium parryi</i> subsp. <i>blochmaniae</i> Dune larkspur	CRPR 1B.2	April – May	Coastal chaparral, coastal dunes, sand. Elevation: < 200 meters.	No / No	No suitable habitat on site.		
<i>Delphinium parryi</i> subsp. <i>eastwoodiae</i> Eastwood's larkspur	CRPR 1B.2	March – May	Coastal chaparral and grassland on serpentine. Elevation: 100 – 500 meters.	No / No	No suitable habitat on site.		
Delphinium umbraculorum Umbrella larkspur	CRPR 1B.3	April – June	Moist oak forest. Elevation: 400 – 1,600 meters.	No / No	No suitable habitat on site.		

	SPECIAL-STATUS BOTANICAL SPECIES							
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/ Habitat Present? ⁴	Comments / Potential for Occurrence			
<i>Dithyrea maritima</i> Beach spectaclepod	State: Threatened CRPR 1B.1	March – August	Seashores and coastal sand dunes. Elevation: < 50 meters.	No / No	No suitable habitat on site.			
<i>Dudleya abramsii</i> subsp. <i>murina</i> Mouse-gray dudleya	CRPR 1B.3	May – June	Serpentine outcrops. Elevation: 120 – 300 meters.	No / No	No suitable habitat on site.			
<i>Dudleya blochmaniae</i> subsp. <i>blochmaniae</i> Blochman's dudleya	CRPR 1B.1	April – June	Open, rocky slopes, often serpentine or clay-dominated. Elevation: < 450 meters.	No / No	No suitable habitat on site.			
<i>Erigeron blochmaniae</i> Blochman's leafy daisy	CRPR 1B.2	July – October	Sand dunes and hills, coastal dunes, and coastal scrub. Elevation: < 70 meters.	No / No	No suitable habitat on site.			
Erysimum suffrutescens Suffrutescent wallflower	CRPR 4.2	December – August	Stabilized coastal sand dunes, coastal scrub. Elevation: < 150 meters.	No / No	No suitable habitat on site.			
<i>Horkelia cuneata</i> var. <i>puberula</i> Mesa horkelia	CRPR 1B.1	March – July	Dry, sandy, coastal chaparral. Elevation: 70 – 870 meters.	No / No	No suitable habitat on site.			
<i>Horkelia cuneata</i> var. <i>sericea</i> Kellogg's horkelia	CRPR 1B.1	April – August	Old dunes, coastal sand hills. Elevation: < 200 meters.	No / No	No suitable habitat on site.			
Lupinus ludovicianus San Luis Obispo County Iupine	CRPR 1B.2	April – July	Open, grassy areas, on limestone, in oak woodland. Elevation: 50 – 500 meters.	No / No	No suitable habitat on site.			
Lupinus nipomensis Nipomo Mesa lupine	Fed: Endangered State: Endangered CRPR 1B.1	March – May	Stable dunes. Elevation: < 25 meters.	No / No	No suitable habitat on site.			
<i>Malacothamnus jonesii</i> Jones' bush-mallow	CRPR 4.3	May – July	Open chaparral in foothill woodland. Elevation: 250 – 830 meters.	No / No	No suitable habitat on site.			

SPECIAL-STATUS BOTANICAL SPECIES							
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/ Habitat Present? ⁴	Comments / Potential for Occurrence		
<i>Malacothrix incana</i> Dunedelion	CRPR 4.3	All year	Dunes. Elevation: < 300 meters.	No / No	No suitable habitat on site.		
<i>Monardella sinuata</i> subsp. <i>sinuata</i> Southern curly-leaved monardella	CRPR 1B.2	April – September	Sandy soils, coastal strand, dune and sagebrush scrub, coastal chaparral and oak woodland. Elevation: < 300 meters.	No / No	No suitable habitat on site.		
<i>Monardella undulata</i> subsp. <i>crispa</i> Crisp monardella	CRPR 1B.2	April – November	Active dunes. Elevation: < 100 meters.	No / No	No suitable habitat on site.		
<i>Monardella undulata</i> subsp. <i>undulata</i> San Luis Obispo monardella	CRPR 1B.2	April – September	Stabilized dunes, coastal scrub, stabilized sandy soils. Elevation: < 200 meters.	No / No	No suitable habitat on site.		
<i>Mucronea californica</i> California spineflower	CRPR 4.2	March – August	Sand. Elevation: < 1,000 meters.	No / No	No suitable habitat on site.		
<i>Nasturtium gambelii</i> Gambel's water cress	Fed: Endangered State: Threatened CRPR 1B.1	May – August	Marshes, streambanks, lake margins. Elevation: < 350 meters.	No / No	No suitable habitat on site.		
Nemacaulis denudata var. denudata Coast woolly-heads	CRPR 1B.2	March – August	Beaches. Elevation: < 100 meters.	No / No	No suitable habitat on site.		
Nemacladus secundiflorus var. robbinsii Robbins' nemacladus	CRPR 1B.2	April – May	Dry, gravelly slopes. Elevation: 350 – 1,700 meters.	No / No	No suitable habitat on site.		

SPECIAL-STATUS BOTANICAL SPECIES							
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/ Habitat Present? ⁴	Comments / Potential for Occurrence		
<i>Phacelia hubbyi</i> Hubby's phacelia	CRPR 4.2	April – July	Generally open gravelly or rocky slopes, chaparral, grassland. Elevation: < 1,000 meters.	No / No	No suitable habitat on site.		
<i>Prunus fasciculata</i> var. <i>punctata</i> Sand almond	CRPR 4.3	March – April	Sandy soils, scrubland, oak woodland. Elevation: < 200 meters.	No / No	No suitable habitat on site.		
<i>Scrophularia atrata</i> Black-flowered figwort	CRPR 1B.2	April – July	Calcium, diatom-rich soils in forest, scrub, chaparral, riparian, and dune habitats. Elevation < 400 meters.	No / No	No suitable habitat on site.		
Senecio aphanactis Chaparral ragwort	CRPR 2B.2	February – May	Alkaline flats, dry open rocky areas. Elevation: 10 – 800 meters.	No / No	No suitable habitat on site.		
Senecio astephanus San Gabriel ragwort	CRPR 4.3	April – June	Steep rocky slopes in chaparral/coastal-sage scrub and oak woodland. Elevation: 400 – 1,500 meters.	No / No	No suitable habitat on site.		
Senecio blochmaniae Blochman's ragwort	CRPR 4.2	May – November	Coastal sand dunes, sandy floodplains. Elevation: < 150 meters.	No / No	No suitable habitat on site.		
Symphyotrichum defoliatum San Bernardino aster	CRPR 1B.2	July – November	Grassland, disturbed places. Elevation: < 2,050 meters.	No / No	Not within known species range; nearest occurrence > 18 miles away. Not detected during survey.		

¹List of regionally-occurring special-status species acquired from CNDDB (CDFW, 2018), CCH (2018), and CNPS Rare and Endangered Plant Inventory (CNPS, 2018), and local expert knowledge.

²Listing status obtained from CNPS Rare and Endangered Plant Inventory (CNPS, 2018).

³Blooming period and habitat type obtained from Jepson eFlora (2018) and occasionally supplemented with information provided by CNPS (Jepson eFlora, 2018; CNPS, 2018).

⁴Species observed during field survey indicated with **bold** font; species determined to have suitable habitat present on the site, even marginally suitable habitat, indicated with gray highlight. Species highlighted gray are discussed further in the report.

SPECIAL-STATUS WILDLIFE SPECIES							
Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence		
<i>Ablautus schlingeri</i> Oso Flaco robber fly	State: Special Animal	Unknown	Occurs on sand dunes in the vicinity of Oso Flaco Lake.	No / No	No suitable habitat on site; not expected to occur.		
Accipiter striatus Sharp-shinned hawk	State: Watch List	March – June	Native to aspen, pine, and fir forests. Attracted to urban, rural and agricultural areas for food. Elevation from sea level to mountains.	No / No	No suitable habitat on site; outside of known nesting range. Not expected to occur.		
<i>Actinemys marmorata</i> Western pond turtle	Federal: Candidate for Listing State: CSC	April – August	Riparian areas such as ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with either a rocky or muddy bottom. Prefers shallow pools with logs or rocks for basking. Can enter brackish or even seawater.	No / No	No suitable habitat on site; not expected to occur.		
<i>Agelaius tricolor</i> Tricolored blackbird	State: CSC	Spring – Fall	Nests near water sources such as marshes, grassland, and wetlands. Requires access to substrates, usually aquatic, to build nests. Forages for insects and plant matter on agricultural sites and grasslands. Very colonial.	No / No	No suitable habitat on site; not expected to occur.		
Ambystoma californiense California tiger salamander	Federal: Threatened State: Threatened	December – February	Grassland, oak savannah, edges of mixed woodland and lower elevation coniferous forest.	No / No	No suitable habitat on site; not expected to occur.		

SPECIAL-STATUS WILDLIFE SPECIES					
Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence
Anaxyrus californicus Arroyo toad	Federal: Endangered State: CSC	March – July	Washes, arroyos, sandy streamsides, and riparian areas with willows, sycamores, oaks, and cottonwoods. Also require exposed sandy streamsides with stable terraces for burrowing and scattered vegetation for shelter.	No / No	No suitable habitat on site; not expected to occur.
Anniella pulchra Northern California legless lizard	State: CSC	March – July; live birth September – November	Moist warm loose soil with plant cover and under leaf litter. Found in beach dunes, chaparral, foothill woodlands, desert scrub, sandy washes, and stream terraces.	No / Yes	Suitable habitat present within oak woodlands surrounding site.
<i>Antrozous pallidus</i> Pallid bat	State: CSC	Spring/Winter	Low elevations of California within grasslands, shrublands, woodlands, and forests. Most common in dry habitats with rocky areas for roosting.	No / No	No suitable habitat on site; not expected to occur.
Aquila chrysaetos Golden eagle	State: Fully Protected	January – August	Open to semi-open grassland, forest, shrubland or oak woodland. Require steep cliffs or large trees in open areas for nesting.	Yes / Yes	Observed flying over site; marginally suitable nesting habitat surrounding site.
Areniscythris brachypteris Oso Flaco flightless moth	State: Special Animal	Unknown	Dunes along the Central Coast of San Luis Obispo. Larvae eat and are reared on a variety of dune vegetation.	No / No	No suitable habitat on site; not expected to occur.
Athene cunicularia Burrowing owl	State: CSC	March – July	Open, dry grasslands and deserts. Will use the burrows of other terrestrial animals.	No / No	No suitable habitat on site; outside of nesting range. Not expected to occur.

SPECIAL-STATUS WILDLIFE SPECIES					
Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence
<i>Baeolophus inornatus</i> Oak titmouse	State: Special Animal	February – September	Mixed oak woodland, oak woodland, coniferous forests, or shrub habitat immediately adjacent to woodland habitats. Typically nests in natural cavities of trees and less frequently, artificial structure.	No / Yes	Suitable habitat present within valley oak trees on site.
Branchinecta lynchi Vernal pool fairy shrimp	Fed: Threatened	Rainy season	Vernal pools and depressions in grasslands.	No / No	No suitable habitat on site; not expected to occur.
<i>Buteo swainsoni</i> Swainson's hawk	State: Threatened	March – September	Prairie and grassland habitat for foraging. Also utilize converted agricultural land. Require scattered stands of trees near grassland or agricultural fields for nesting.	No / No	No suitable habitat on site; not expected to occur.
Charadrius alexandrinus nivosus Western snowy plover	Federal: Threatened State: CSC	March – September	Coastal beaches, sand spits, dunebacked beaches, sparsely vegetated dunes, beaches at creek mouths, and estuaries.	No / No	No suitable habitat on site; not expected to occur.
<i>Chlosyne leanira elegans</i> Oso Flaco patch butterfly	State: Special Animal	Unknown	Dunes within Oso Flaco lake system.	No / No	No suitable habitat on site; not expected to occur.
<i>Coelus globosus</i> Globose dune beetle	State: Special Animal	Unknown	Occupies coastal dunes. Lives in tunnels beneath and sand and relies on native vegetation for food.	No / No	No suitable habitat on site; not expected to occur.

SPECIAL-STATUS WILDLIFE SPECIES					
Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence
<i>Danaus plexippus</i> Monarch butterfly	Federal: Candidate for Listing State: Special Animal	Spring	Relies on milkweed and protected stands of trees for roosting, usually blue gum eucalyptus. Found in fields, meadows, weedy areas, marshes, and along roadsides.	No / No	No suitable habitat on site; not expected to occur.
<i>Eucyclogobius newberryi</i> Tidewater goby	Federal: Endangered State: CSC	Year-round (April – May)	Found in shallow water lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels. Can tolerate an array of different conditions depending on seasonal changes.	No / No	No suitable habitat on site; not expected to occur.
<i>Falco mexicanus</i> Prairie falcon	State: Watch List	February – July	Primarily inhabits dry grasslands, woodlands, savannahs, cultivated fields, lake shores, and rangelands. Primarily nests on cliffs, canyons, and rock outcrops.	No / No	No suitable habitat on site; not expected to occur.
<i>Gila orcuttii</i> Arroyo chub	State: CSC	February – August	Slow flowing or backwater areas with sand or mud substrate.	No / No	No suitable habitat on site; not expected to occur.
<i>Gymnogyps californianus</i> California condor	Federal: Endangered State: Endangered Fully Protected	February – September	Rocky, open-country scrubland, coniferous forest and oak savannah.	No / No	No suitable habitat on site; not expected to occur.
Laterallus jamaicensis coturniculus California black rail	State: Threatened Fully Protected	February – June	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, flooded grassy vegetation. Requires dense cover for predator protection.	No / No	No suitable habitat on site; not expected to occur.

SPECIAL-STATUS WILDLIFE SPECIES					
Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence
<i>Lichnanthe albipilosa</i> White sand bear scarab beetle	State: Special Animal	Unknown	Inhabits coastal dunes of San Luis Obispo County, in the vicinity of dune lakes.	No / No	No suitable habitat on site; not expected to occur.
Oncorhynchus mykiss irideus Steelhead south/central California coast DPS	Federal: Threatened State: CSC	February – April	Federal listing refers to runs in coastal basins from Pajaro River south to, but not including, the Santa Maria River.	No / No	No suitable habitat on site; not expected to occur.
<i>Phrynosoma blainvillii</i> Coast horned lizard	State: CSC	May - September	Inhabits open, loose, sandy soil and low vegetation in valleys, foothills, and semiarid mountains below 2,438 meters. Found in grasslands, coniferous forests, woodlands, and chaparral, and frequently found near ant hills.	No / No	No suitable habitat on site; not expected to occur.
<i>Plebejus icarioides moroensis</i> Morro Bay blue butterfly	State: CSC	March - July	Found on the immediate coast of San Luis Obispo and Santa Barbara Counties. Silver dune lupine (host plant).	No / No	No suitable habitat present; not expected to occur.
<i>Rana draytonii</i> California red-legged frog	Fed: Threatened State: CSC	January – July	Most common in ponds of woodlands and grasslands. Found in habitats adjacent to streams or water access.	No / Yes	Marginally suitable upland/dispersal habitat on site, no pool habitat observed; not observed during surveys.
<i>Spea hammondii</i> Western spadefoot	State: CSC	Rainy Season	Persist in upland refugium (i.e., underground burrows with sandy or gravelly soils) for the majority of the year and emerge during periods of rainfall to breed in temporary pools or pools in intermittent streams.	No / No	No suitable habitat on site; not expected to occur.

SPECIAL-STATUS WILDLIFE SPECIES					
Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence
Sternula antillarum browni California least tern	Federal: Endangered State: Endangered Fully Protected	April – June	Seacoasts, beaches, bays, estuaries, lagoons, and lakes. Needs sandy or gravelly areas to construct nests.	No / No	No suitable habitat on site; not expected to occur.
<i>Taricha torosa</i> California newt	State: CSC	December – April	Slow moving streams, ponds, and lakes with surrounding evergreen/oak forests along coast. Aquatic when breeding.	No / No	No suitable habitat on site; not expected to occur.
<i>Taxidea taxus</i> American badger	State: CSC	Late Summer – Early Fall	Dry, open fields with friable soil for tunneling and foraging.	No / No	No suitable habitat on site; not expected to occur.
Thamnophis hammondii Two-striped gartersnake	State: CSC	Spring	Primarily inhabits aquatic habitats and forages under water. May occur around pools, creeks, cattle tanks, and other water sources, often in rocky areas.	No / No	No suitable habitat on site; not expected to occur.
<i>Tryonia imitator</i> Mimic tryonia	State: Special Animal	Unknown	Found in brackish salt marshes, coastal lagoons and estuaries; able to withstand a wide range of salinities.	No / No	No suitable habitat on site; not expected to occur.

¹List of regionally-occurring special-status species and listing status acquired from CNDDB (2018) and local expert knowledge. Obscure bumblebee (*Bombus caliginosus*), crotch bumblebee (*Bombus crotchii*), and western bumblebee (*Bombus occidentalis*) were omitted from this list due to a scarcity of available biological information. Further research is necessary within the home ranges of these species to identify specific conservation needs and appropriate protection measures.

²Life history information obtained from multiple sources, including Cornell Lab of Ornithology Online (Cornell, 2018), CaliforniaHerps.com (CAHerps, 2018). ³Species observed during field survey indicated with **bold** font; species determined to have suitable habitat present on the site, even marginally suitable habitat, indicated with gray highlight. Species highlighted gray are discussed further in the report.



APPENDIX D – Botanical and Wildlife Species Observed





6135 Huasna Townsite Road Project Site

List of Botanical Species Observed November 30, 2018

Family	Scientific Name	Common Name	Origin
Asteraceae,	Centaurea solstitialis	Yellow star-thistle	Naturalized
Sunflower Family	Heterotheca grandiflora	Telegraph weed	Native
Brassicaceae,	Brassica nigra	Black mustard	Naturalized
Mustard Family	Hirschfeldia incana	Mediterranean hoary mustard	Naturalized
	Raphanus sativus	Radish	Naturalized
Euphorbiaceae, Spurge Family	Croton setiger	Turkey-mullein	Native
Fabaceae <i>,</i> Legume Family	<i>Trifolium</i> sp.	Clover	Native
Fagaceae, Oak Family	Quercus agrifolia var. agrifolia	Coast live oak	Native
	Quercus lobata	Valley oak	Native
Geraniaceae, Geranium Family	Erodium cicutarium	Redstem filaree	Naturalized
Malvaceae, Mallow Family	Malva parviflora	Cheeseweed	Naturalized
Poaceae,	Avena barbata	Slender wild oat	Naturalized
Grass Family	Bromus diandrus	Ripgut grass	Naturalized
	Stipa sp.	Needle grass	Native
Salicaceae, Willow Family	Salix lasiolepis	Arroyo willow	Native



List of Wildlife Species Observed at the Huasna Townsite Road Cannabis Site November 30, 2018

Family	Scientific Name	Common Name	*Listing Status Federal/State
Birds	Aquila chrysaetos	Golden eagle	Fully Protected
	Buteo jamaicensis	Red-tailed hawk	
	Callipepla californica	California quail	
	Cathartes aura	Turkey vulture	
	Corvus brachyrhynchos	American crow	
	Haemorhous mexicanus	House finch	
	Melanerpes formicivorus	Acorn woodpecker	
	Zonotrichia leucophrys	White-crowned sparrow	
Mammals	Spermophilus beecheyi	California ground squirrel	
	Thomomys bottae	Botta's pocket gopher	
Invertebrates	Pieris rapae	Cabbage white butterfly	

* California Department of Fish and Wildlife Listing Status

- Fully Protected – Fish and Game Code Sections states that these species "...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species"



APPENDIX E – Representative Site Photographs







Photo 1. Representative photo of project area, including cultivation operations. View north (November 30, 2018).



Photo 2. Representative photo of project site, view south (November 30, 2018).





Photo 3. View of impoundment and willow tree within the southern portion of the survey area, view south (November 30, 2018).



Photo 4. Access road into the cultivation area, view southwest (November 30, 2018).





Photo 5. Grassland along the eastern margin of the survey area, view north. Note, needle grass observed in this area (November 30, 2018).



Photo 6. Graded pad adjacent to cultivation area where drying trailers will be placed. View north (November 30, 2018).



APPENDIX F – CNDDB California Native Species Field Survey Form



Mail to: California Natural Diversity Database Department of Fish and Game 1807 13th Street, Suite 202 Sacramento, CA 95811 Fax: (916) 324-0475 email: CNDDB@dfg.ca.gov

Source Code _____ Quad Code _____

For Office Use Only

Elm Code _____ Occ. No. _____

EO Index No. _____ Map Index No. _____

Date of Field Work (mm/dd/yyyy):

California Native Species Field Survey Form

Scientific Name:					
Common Name:					
Species Found? Image: System 3 Yes No If not, why? Total No. Individuals Subsequent Visit? Image: Subsequent Visit?	Reporter:				
Is this an existing NDDB occurrence? 9 no 9 Yes, Occ. # Yes, Occ. # 9 Collection? If yes:	Unk. E-mail Address:				
Plant Information Animal In	nformation				
Phenology:%%%% # adults vegetative flowering fruiting @ wintering	# juveniles # larvae # egg masses # unknown ③ ④ ④ ④ ④ breeding nesting rookery burrow site other				
County:					
Habitat Description (plants & animals) plant communities, dominants, associates, substrates/soils, aspects/slope: Animal Behavior (Describe observed behavior, such as territoriality, foraging, singing, calling, copulating, perching, roosting, etc., especially for avifauna):					
Site Information Overall site/occurrence quality/viability (site Immediate AND surrounding land use: Visible disturbances: Threats:	+ population):				
Comments:					
Determination: (check one or more, and fill in blanks) Keyed (cite reference): Compared with specimen housed at: Compared with photo / drawing in: By another person (name): Other:	Photographs: (check one or more) Slide Print Digital Plant / animal Habitat Diagnostic feature May we obtain duplicates at our expense? yes no				