8701 Santa Rosa Road Cannabis Cultivation Project

Biological Resources Assessment

prepared for

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1 Introduction

Project Name

8701 Santa Rosa Road Cannabis Cultivation Project

Applicant Name

Central Coast Agriculture, Inc.

Planning and Development Case Number

19CUP-00005/19DVP-00010

Title of Project

8701 Santa Rosa Road Cannabis Cultivation Project

Project Location

The study area is located south of State Route 246 (SR 246) and the Santa Ynez River and west of Buellton, at 8701 Santa Rosa Road, unincorporated Santa Barbara County, California (Figure 1). The study area encompasses one assessor's parcel number (APN 083-180-007) that totals 68.19 acres. It is within the *Solvang, California* United States Geological Survey (USGS) 7.5-minute topographic quadrangles (USGS 2018); the Public Land Survey System depicts the study area within Township 6N, Range 32W, Sections 11, of the San Bernardino Meridian (Earth Point 2018; USGS 2018). Its global positioning system (GPS) location is: (latitude: 34.612079° N, longitude: -120.218326° W).

Brief Project Description Statement

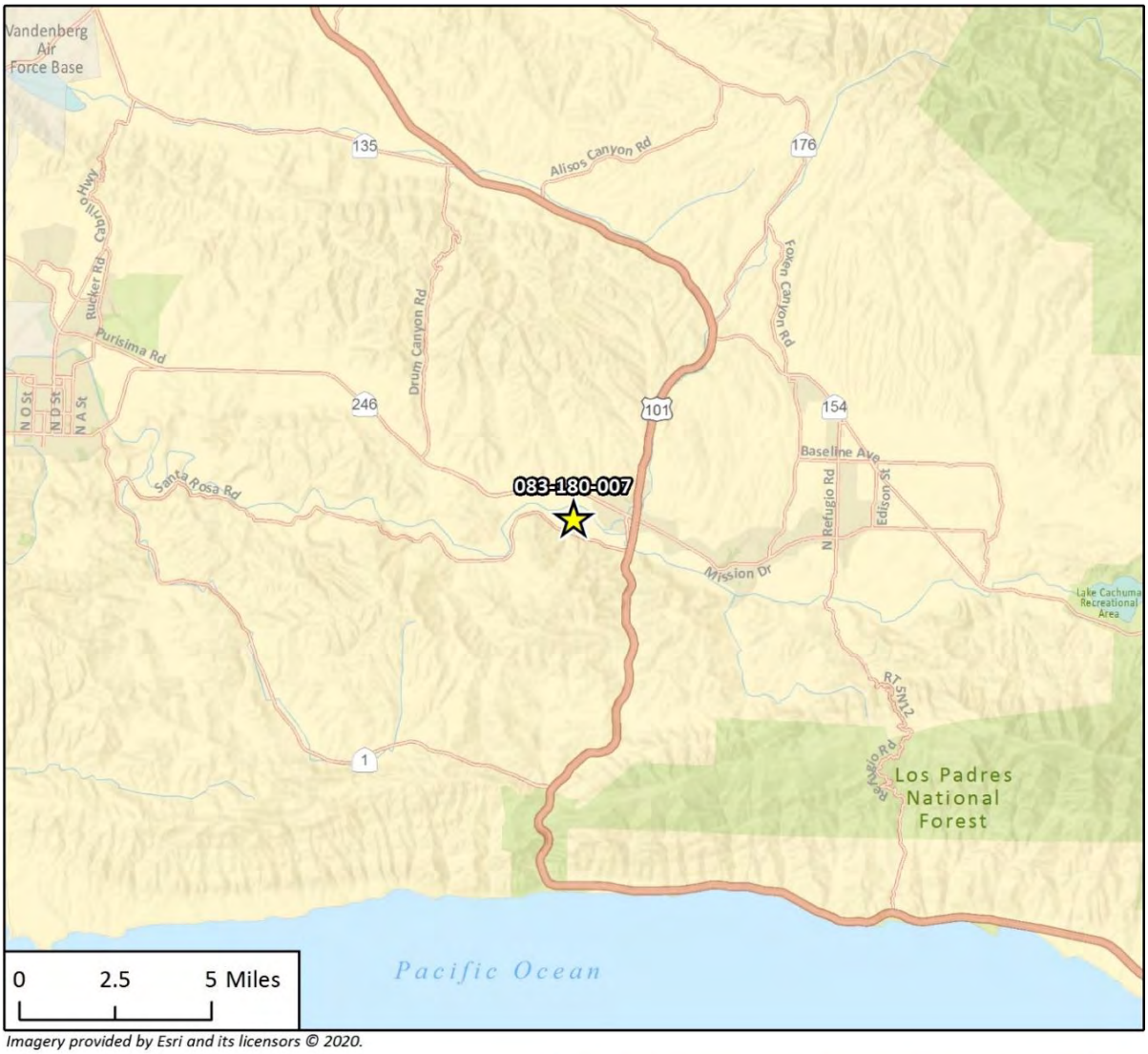
The proposed project encompasses the development and implementation of activities associated with a cannabis cultivation. Specifically, the project will convert approximately 35 acres of previously disturbed land zoned agriculture to cannabis cultivation. The study area is currently zoned for agriculture and is required to obtain a conditional use permit from Santa Barbara County for the cultivation of cannabis. The proposed project includes existing and current cannabis cultivation consisting of approximately 22 acres of existing hoop structures in addition to 1.50 acres of existing outdoor cultivation areas and 1.78 acres for a composting area. The proposed project includes an indoor nursery area totaling 6.34 acres; within the nursery area, seed production would occur in an existing 6,594 square feet (sf) greenhouse and 7,000 sf ag building located on the southern portion of the property. Within the nursery area, shipping containers will be used to store harvested material and seeds, and processing would occur in an existing 3,100 sf warehouse (processing building) surrounded with 52 refrigerated shipping containers to supply refrigerated storage of harvested materials.

Type of Report and Scope

Central Coast Agriculture, Inc. (CCA) retained Rincon Consultants Inc. (Rincon) to prepare the following biological resources assessment (BRA) to document existing conditions, evaluate the potential for project-related impacts to biological resources and recommend measures to avoid, minimize, and mitigate impacts to such resources prior to, during, and following implementation of the proposed project. For the purposes of this report, the entire 68.19-acre parcel at 8701 Santa Rosa Road will be referred to as the study area. The project, inclusive of all project components, is

referred to globally as the project site. This document has been prepared to meet the mitigation and development standards outlined in Appendix H: Cannabis Activities Additional Standards of the County of Santa Barbara (County) Land Use Development Code (LUDC) (County 2020) and Final Environmental Impact Report for the Cannabis Land Use Ordinance and Licensing Program (FEIR) (County 2017), as well as the County Environmental Thresholds and Guidelines Manual (County 2008).

Figure 1 Regional Location Map



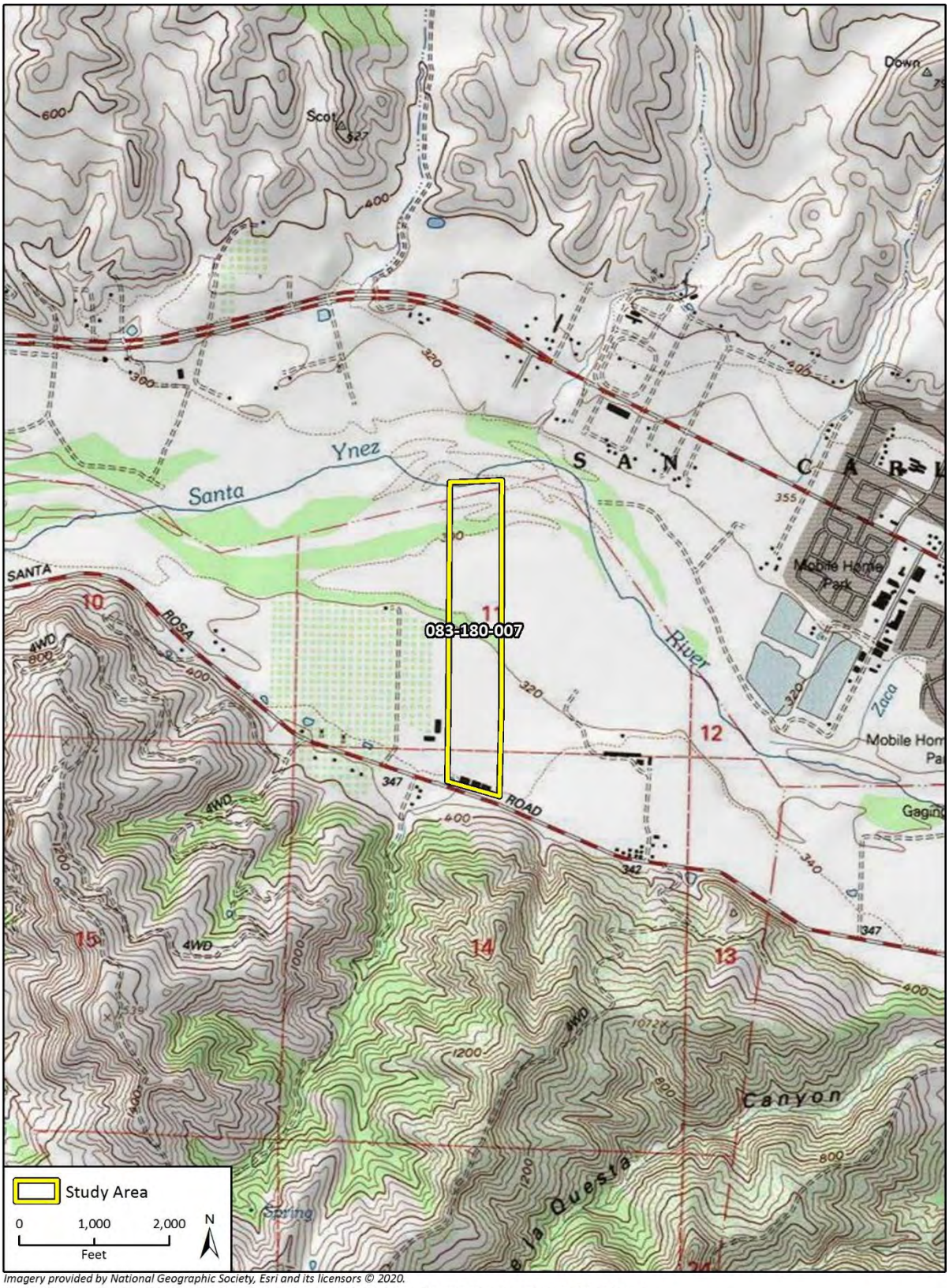
2 Project Description

CCA is requesting a conditional land use permit from the County for the cultivation of cannabis. The proposed project includes the conversion of approximately 35 acres of previously disturbed land zoned agriculture II (AG-II) to cannabis cultivation. The project site is currently cultivating cannabis, per the County temporary use permit authorization. The study area encompasses one 68.19-acre parcel (APN 083-180-007) (Figure 2). The project site includes existing and current cannabis cultivation consisting of approximately 22 acres of existing hoop structures in addition to 1.50 acres of existing outdoor cultivation areas and 1.78 acres for a composting area. Hoop structures would be setback a minimum of 100 feet (ft) from riparian vegetation or top of bank (whichever is more protective) and cultivation areas would be setback a minimum of 150 ft from the Santa Ynez River high flow water levels that occur every 1.5-2 years in accordance with State Water Resources Control Board (SWRCB) Cannabis Cultivation Policy riparian setback requirements.

The proposed project does not include the pruning, damage, or removal of native trees, or the clearing of any native or sensitive vegetation. Additionally, no grading is proposed as part of the project. All areas proposed for cultivation have been used for fruit and vegetable cultivation since 1994 at a minimum. All activities involving typical ground disturbance associated with farming practices are considered routine activities and would be conducted in flat areas that have been tilled and planted regularly for a minimum of 20 years. Other routine activities include utilizing a water truck for daily dust control during the cultivation season (March to November), running a box scraper along the access road every two to three weeks year around, and weeding as needed with hand tools. The proposed project includes an indoor nursery area totaling 6.34 acres; within the nursery area, seed production would occur in an existing 6,594 sf greenhouse and 7,000 sf ag building located on the southern portion of the property. Within the nursery area, shipping containers will be used to store harvested material and seeds, and processing would occur in an existing 3,100 sf warehouse (processing building) surrounded with 52 refrigerated shipping containers to supply refrigerated storage of harvested materials. There will be approximately 22 acres of outdoor cultivation under existing hoop structures and approximately 1.50 acres of outdoor cultivation without hoop structures. An odor control system meeting the County Odor Control Plan requirements would be installed as part of the proposed project. The system would include approximately 4,200 linear feet of the perforated piping system along two sides of the project site. While odors are anticipated to emanate from the processing building, the proposed odor control system would be designed to mitigate odors.

An existing six-foot no-climb fence is present along the western property line. A six-foot chain link fence exists around the southern and eastern study area with the exception of the area associated with the Santa Ynez River. The existing six-foot chain link fencing in the northern portion of the study area is location adjacent to the riparian vegetation associated with the Santa Ynez River and a relatively large non-cannabis area separates the cannabis area from the Santa Ynez River. A four-foot fence is proposed to separate the cannabis cultivation area from the non-cannabis area along the historic side channel of the Santa Ynez River and will exclude cannabis operations from entering the area. A four-foot gate is proposed to separate the cannabis cultivation area from the non-cannabis area along the southern side of the historic side channel of the Santa Ynez River and will exclude cannabis operations from entering the area. Additional security would be provided by full cut-off, downward-facing motion sensor lighting (where necessary) and security cameras that would

Figure 2 Study Area Topographic Map



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Solvang Quadrangle. T06N R32W S11. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may havechanged since the original topographic map was assembled.

provide a view of the cultivation and operations area, as required by the Santa Barbara County Sheriff's Office. Access to the cultivation areas would be provided by an existing paved 30-ft wide driveway from Santa Rosa Road. There is an additional 30-ft wide dirt access road that surrounds the cultivation site. The access roads running along the northern and western edges of the cultivation areas are closed for heavy equipment usage in the winter to prevent erosion.

An existing groundwater well drilled in 1989 is currently used for cannabis operation and would continue to be used to irrigate all cultivation areas. Water usage best management practices (BMPs), including the use of timed drip irrigation, placement of evaporative barriers on exposed soils and soil moisture monitoring, among others, would effectively reduce the water demand of the groundwater well during the cultivation season. The detention basin located in the southwestern portion of the project site does not hold surface water for any portion of the year and is not designated for cannabis use. A detention basin/abandoned agricultural ditch is located along the western portion of the property and would be used to contain any excess stormwater flow, and all stormwater that collects on the southern portions of the property would be routed to this detention basin/abandoned agricultural ditch to prevent erosion in other areas; the feature is hydrologically isolated and flows percolate into the ground. In addition, a cover crop consisting of organic cayuse oats, organic bell beans, common vetch, purple vetch, and organic dundale peas would be planted during the winter periods to prevent sediment transfer during the rainy season.

The existing man-made stormwater system, or artificial drainage, is located on the west and southern side of the property, which consists of a concrete-lined channel that conveys flows from a culvert under Santa Rosa Road to an in-line detention basin, then to an underground pipe which discharges into an agricultural ditch. Activities proposed in the artificial drainage include the removal of stormwater debris and vegetation that accumulates in the inline detention basin immediately adjacent to the beginning of the underground pipe; the maintenance of the basin is required to reduce clogging of the pipe and flooding in the project site. Vegetation in this area would be trimmed on an annual to semi-annual basis, inclusive of hand tools including rakes, shovels, and a weed whacker. Should excess sediment or debris build up in this area, the sediment will be removed by hand using shovels and properly disposed of. All activities proposed in this area will occur outside of the nesting bird season and will not occur when ponded or flowing water is present. If ponded or flowing water is present, prior to the activities a qualified biologist will survey the area for the presence of aquatic or semi-aquatic species.

The ag ditch is located along the western and middle property boundary, downstream of the underground pipe, which conveys flows into the historic side channel of the Santa Ynez River. Activities proposed in the agricultural ditch and detention basin/abandoned agricultural ditch will include routine maintenance on a one to two-year basis. Routine maintenance will include trimming of vegetation using hand tools including rakes, shovels and a weed whacker. These activities will occur outside the nesting bird season and when ponded or flowing water is absent. Along the agricultural ditch and the historic side channel there will be a minimum 50 to 100-foot buffer between the top of bank and cultivation areas. Within the buffer, an existing 40-foot access road will be used for agricultural access purposes only. A visual buffer consisting of a four-foot tall T-post fence with a single cable connecting the posts is proposed to be installed immediately adjacent to the access road to prevent encroachment into a 10-foot buffer along the top of bank. Within the 10-foot buffer, existing 12-foot tall security camera poles with below ground fiber optic cable are present approximately 3 to 10 feet from the top of bank. Any maintenance for the underground fiber optic cable will occur on an as needed basis, in the event of disfunction. Routine maintenance will occur outside of the nesting bird season, and will not occur when ponded or flowing water is

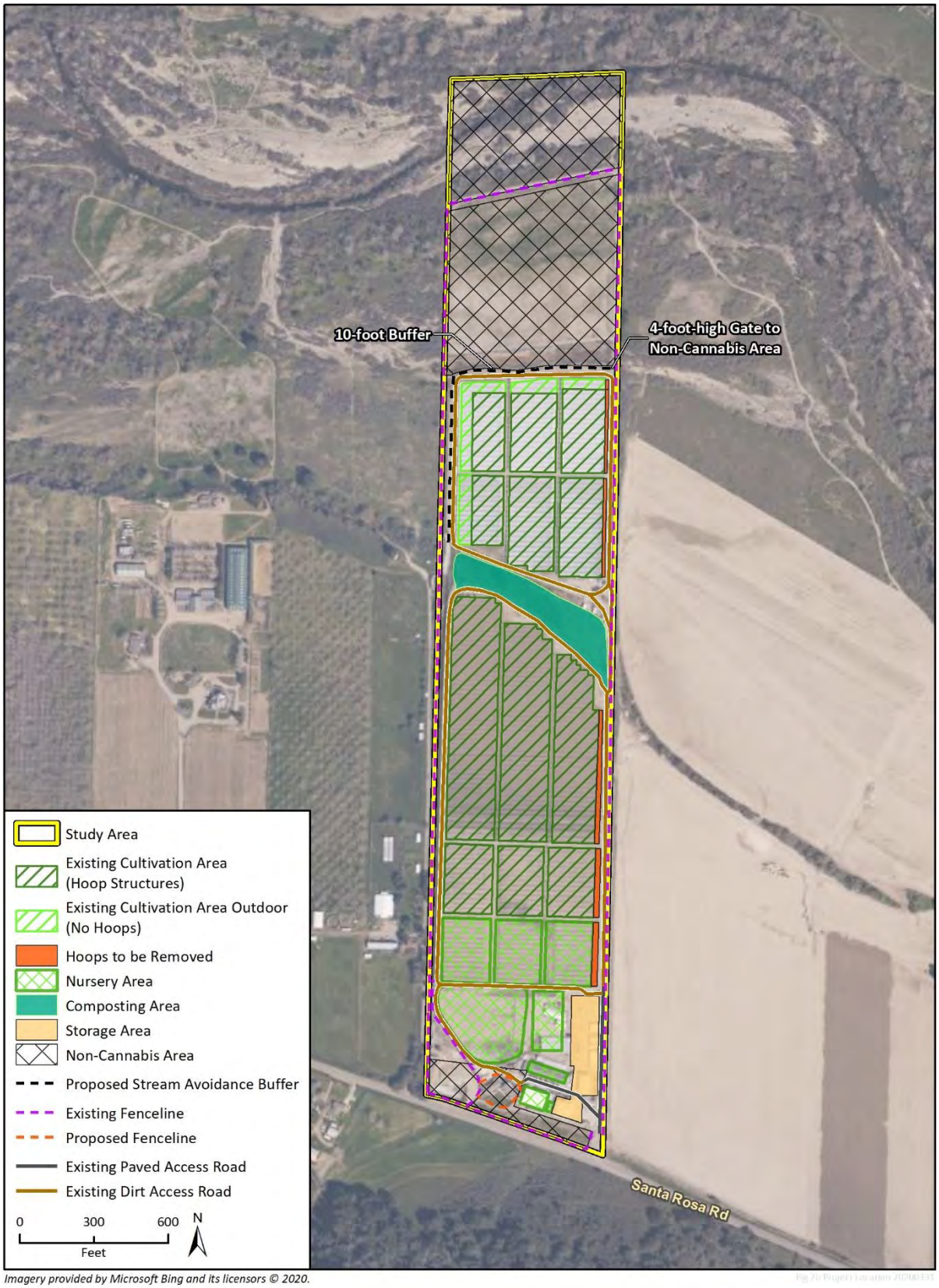
present within the agricultural ditch. Winterization best practice treatment or control (BPTC) measures that would be implemented within the agricultural ditch and include the placement of biodegradable fiber rolls to help prevent sediment from traveling downstream during storm events toward the historic side channel.

The use of farm equipment would occur only within the previously disturbed and currently active areas and on designated access roads. Heavy equipment use includes a tractor, transplanter, box truck, and F450 with a trailer. The main access road running along the eastern edge of the property is partially paved, mostly dirt, and lined with gravel in areas where there are steep hills. The remainder of the access roads are dirt. The access roads running along the northern and western edges of the cultivation areas are closed for heavy equipment usage in the winter to prevent erosion. Traffic along the remaining access roads is significantly reduced during the winter period of November 15 to April 1 as most cultivation activities take place during the summer and early fall months. The use of heavy equipment in the winter period would be to plant, mow, and till a beneficial use cover crop. This practice would also help to control erosion in all cultivation areas. Tilling of cannabis waste would occur in the designated compost area and will use a tractor with tilling equipment attached.

Portable (chemical) toilets serviced by Marborg Industries would be provided for the cultivation areas. The existing distribution building also has permanent bathroom facilities served by an existing septic system.

All project components and proposed stream avoidance buffer are shown on Figure 3.

Figure 3 Site Plan Figure



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3 Regulatory Framework

Regulated or sensitive resources studied and analyzed herein include special status plant and animal species, nesting birds and raptors, sensitive plant communities, jurisdictional waters, wildlife movement, and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by federal, state, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions, in this instance Santa Barbara County.

3.1 Environmental Statutes

For the purpose of this BRA, potential impacts to biological resources were analyzed based on the following statutes (see Appendix A for further details):

- California Environmental Quality Act (CEQA)
- Federal Endangered Species Act (ESA)
- California Endangered Species Act (CESA)
- Federal Clean Water Act (CWA)
- California Fish and Game Code (CFGC)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act (Porter-Cologne Act)

3.2 California Environmental Quality Act

This BRA is intended to support the County's review of the proposed project. The County completed a countywide FEIR for its Cannabis Land Use Ordinance and Licensing Program in 2017 and as a result, individual cannabis projects are not subject to individual review under the California Environmental Quality Act (CEQA). However, the project must comply with the County LUDC and the Santa Barbara County Code of Ordinances (SBCO).

The guidelines for determining CEQA significance are followed in this BRA as it is a useful and defined process for the evaluation and grouping of resource impacts to facilitate detailed discussion of impacts that may occur with this project. The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist, were used to evaluate potential effects to biological resources. Based on these criteria, the proposed project would have a significant effect on biological resources if it would:

a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS).*

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS.*

c) Have a substantial adverse effect on State or federally protected wetlands (including marsh, vernal pool, and coastal areas) through direct removal, filling, hydrological interruption, or other means.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional or state habitat conservation plan.

In addition, in accordance with the CEQA thresholds adopted by the County in its Environmental Thresholds and Guidelines Manual (County 2018) (incorporated herein by reference), the project would have a significant effect on biological resources if it would:

- Substantially reduce or eliminate species diversity or abundance.
- Substantially reduce or eliminate quantity or quality of nesting areas.
- Substantially limit reproductive capacity through losses of individuals or habitat.
- Substantially fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources.
- Substantially limit or fragment range and movement (geographic distribution or animals and/or seed dispersal routes).
- Substantially interfere with natural processes, such as fire or flooding, upon which the habitat depends.

The project site is located within the Santa Ynez Valley Community Plan (Community Plan) (County of Santa Barbara 2009). The following policies were reviewed for their applicability to the proposed project:

- Policy BIO-SYV-1: Environmentally sensitive biological resources and habitat areas shall be protected and, where appropriate, enhanced.
- Policy BIO-SYV-4: Sensitive Habitats shall be protected to the maximum extent possible.
- Policy BIO-SYV-5: Pollution of the Santa Ynez River, streams and drainage channels, underground water basins and areas adjacent to such waters shall be minimized.
- Policy BIO-SYV-7: Southern California steelhead trout is a federally listed endangered species that shall be protected.
- Policy BIO-SYV-8: Native protected trees and non-native specimen trees shall be preserved to the maximum extent feasible.
- Policy BIO-SYV-14: Where sensitive plant species and sensitive animal species are found pursuant to the review of a discretionary project, efforts shall be made to preserve the habitat in which they are located to maximum extent feasible.

3.3 Cannabis Regulatory Review

The following regulations were reviewed for their applicability to the proposed project.

- Santa Barbara County LUDC:
  - Chapter 35.21 - Agricultural Zones
  - Section 35.42.075 - Cannabis Regulations
  - Section 35.42.140 - Greenhouses, Hoop Structures, and Shade Structures
    - Attachment A - Guidelines for Applying Streams and Creeks Setbacks to Exempt Hoop Structures and Shade Structures (2019)
  - Section 35.30.070 - Fences and Walls
  - Appendix H - Cannabis Activities Additional Standards (2020)
- Final EIR for the Cannabis Land Use Ordinance and Licensing Program (2017)
- SWRCB Order WQ 2019-0001 DWQ (2019)

Santa Barbara County LUDC 35.42.075-Cannabis Regulations

Fencing and Security Plan

Where fencing would separate an agricultural area from undeveloped areas with native vegetation and/or Habitat Management Plan easement area, said fencing shall use material or devices that are not injurious to wildlife and enable wildlife passage.

Tree Protection Plan

Applicants who apply for a cannabis license for a site that would involve pruning, damage, or removal of a native tree or shrub, are shall be required to submit for the Planning and Development Department approval a Tree Protection Plan (TPP) prepared by a Planning and Development Department-approved arborist/biologist and designed to determine whether avoidance, minimization or compensatory measures are necessary.

Habitat Protection Plan

Applicants who apply for a cannabis license for a site that would involve clearing of established sensitive native vegetation, other sensitive vegetation shall submit a Habitat Protection Plan (HPP) to the County Planning and Development Department. The plan shall apply within areas that have been identified as having a medium to high potential of being occupied by a special-status plant or wildlife species, nesting, or a federal or state-listed special-status plant species. The plan shall be prepared by a Planning and Development Department-approved biologist and designed to determine whether protected species, habitat, or sensitive communities may be present, and whether avoidance, minimization or measures are necessary. Focused species-specific surveys shall be required to whether a sensitive species or nesting bird may be present and shall be conducted at the appropriate time of year and time of day when that species is active or otherwise identifiable. Where warranted by the findings of initial review, protocol level surveys may also be required. In addition, the HPP shall determine whether specific restoration measures are required where disturbance associated with previous cannabis activities on the property being considered for permitting or licensing has occurred.

Wildlife Movement Plan

If fencing is required for outdoor cultivation sites, the applicant shall prepare a Wildlife Movement Plan for all cannabis cultivation sites proposed. The Wildlife Movement Plan shall analyze proposed fencing in relation to the surrounding opportunities for migration, identify the type, material, length, and design of proposed fencing, and shall propose nondisruptive, wildlife-friendly fencing, such as post and rail fencing, wire fencing, and/or high tensile electric fencing, to allow passage by smaller animals and prevent movement in and out of cultivation sites by larger mammals, such as deer.

Santa Barbara County LUDC 35.42.140-Greenhouses, Hoop Structures, and Shade Structures

In addition, as stated in the countywide Cannabis Land Use Ordinance and Licensing Program FEIR, all developments within the county are required to comply with the County Setback Ordinance, which includes the following measure, applicable to the study area.

Streams and Creeks

Within the rural areas, hoop structures and shade structures shall be setback 100 feet from the top-of-bank or edge of riparian vegetation of streams and creeks, whichever is more protective of the resource.

State Water Resources Control Board

In 2019, the SWRCB adopted Order WQ 2009-0001-DWQ-*General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities* (Cannabis General Order). The Cannabis General Order dictates general waste discharge requirements for discharges into state-jurisdictional waters associated with cannabis cultivation activity.

Attachment A of the Cannabis General Order states that cannabis cultivators shall comply with the minimum riparian setbacks for all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage). The minimum riparian setbacks include: 150 feet for perennial watercourses (Class I), 100 feet for intermittent watercourses (Class II), 50 feet for ephemeral watercourses (Class III), and edge of established riparian vegetation zone for man-made watercourses that support native aquatic species (Class IV). RWQCBs may adopt site-specific waste discharge requirements (WDRs).

4 Methods

4.1 Literature and Database Review

Queries of the U.S. Fish and Wildlife Service (USFWS) *Information for Planning and Consultation System* (IPaC; 2018a), USFWS Critical Habitat Portal (2018b), and California Department of Fish and Wildlife (CDFW) *California Natural Diversity Database* (CNDDB; 2018b) were conducted with a 5-mile radius. A list of special status plant species was also queried from California Native Plant Society (CNPS), with a twelve USGS 7.5-minute quadrangle search (CNPS 2018). The queries were conducted to obtain comprehensive information regarding state and federally listed species, as well as other special status species, considered to have potential to occur. In addition, the following resources were reviewed for information about the study area:

- Aerial photographs of the study area and vicinity (Google Earth 2020) (UCSB 2020)
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) *Web Soil Survey* (2018a)
- National Hydrography Dataset (USGS 2018)
- National Wetlands Inventory (USFWS 2018c)
- Rare Plants of Santa Barbara County (Santa Barbara Botanic Garden 2012)
- California Tiger Salamander Habitat Map (USFWS 2010) and Final Recovery Plan for the Santa Barbara County Distinct Population Segment of the California Tiger Salamander *(Ambystoma californiense*) (USFWS 2016)

4.2 Field Reconnaissance Survey

Rincon Senior Biologist Julie Love and Associate Biologist Charis van der Heide conducted a field reconnaissance survey on November 1, 2018 (see Table 1 for survey details). Ms. Love and Ms. van der Heide surveyed the entire study area on foot and recorded all botanical and wildlife resources encountered on site. The survey was conducted to document the existing site conditions and to evaluate the potential for presence of sensitive biological resources, including sensitive plant and animal species, sensitive plant communities, and habitat for nesting birds protected by federal and state laws. During the survey, an inventory of all plant and animal species observed was compiled and an evaluation of potentially jurisdictional aquatic features was conducted.

Table 1 Field Reconnaissance Survey

Date	Personnel	Time	Weather Conditions	Survey Type
11/1/2018	Julie Love Charis van der Heide	0930 - 1250	65-68°F, winds 1-3 mph, 5% cloud cover	Biological Reconnaissance and Jurisdictional Delineation Survey

Plant species nomenclature and taxonomy followed *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012) and the Jepson eFlora (Jepson Flora Project eds. 2018). All plant species encountered were noted and identified to the lowest taxonomic level possible given the condition of the materials during the site visit. The vegetation classification

system used for this analysis is based on *A Manual of California Vegetation, Second Edition* (Sawyer et al. 2009), but has been modified as needed to accurately describe the existing habitats observed on site. These vegetation communities were mapped onto aerial imagery depicting the study area and then later digitized using ArcGIS® (ESRI 2018).

Wildlife identification and nomenclature followed standard reference texts, including Sibley Birds West: Field Guide to Birds of Western North America (Sibley 2016), Field Guide to Western Reptiles and Amphibians (Stebbins 2003), and Mammals of North America (Bowers et al. 2004). The habitat requirements for each regionally occurring special status species were assessed and compared to the type and quality of the habitats observed within the study area during the field survey. Habitat requirements for avian species referenced the Cornell Lab of Ornithology *Birds of North America* database (Cornell 2019). Several sensitive species were eliminated from consideration as having potential to occur on site due to lack of suitable habitat, lack of suitable soils/substrate, and/or knowledge of regional distribution. The quality and relative density of fossorial mammal burrows and soil characteristics throughout the site were also noted.

Habitats for potentially occurring special-status species were assessed and compared to the type and quality of the habitats observed within the study area. California Natural Communities List and the Sensitive Natural Communities Lists (CDFW 2020) were reviewed for the presence on sensitive and natural communities.

All County-protected native trees within the study area, excluding those in the riparian of the Santa Ynez River, were mapped and visually evaluated for tree health based on the above ground portions of the trees. The following information was gathered for all protected oak and other native trees within the project boundary:

- Scientific and common name
- Geographic location of each tree using GPS with sub-meter accuracy (Trimble GEO7X series GPS unit)
- General health characteristics
- Diameter of all native trees with single or multiple trunks of at least 4 inches in diameter at 4.5 feet above natural grade (i.e., diameter at breast height [DBH]) using a DBH tape or visual estimate

4.3 Jurisdictional Delineation

In addition to the field reconnaissance survey, Ms. Love and Ms. van der Heide conducted a jurisdictional delineation of the study area on November 1, 2018. The entire study area was surveyed on foot for potential wetland and non-wetland jurisdictional areas, including streambeds, and riparian resources. Current methods and guidelines and state policies and guidelines were used to identify and delineate potentially state-jurisdictional aquatic resources, such as streams and wetlands. The study area was surveyed for any streams and other hydrologic features that might constitute waters of the state, as well as having a defined channel, bed and banks and any associated riparian habitat that could be subject to CDFW jurisdiction under the CFGC and/or Regional Water Quality Control Board (RWQCB) jurisdiction under the Porter-Cologne Act. Potential jurisdictional features that might constitute waters of the U.S. were noted but not formally delineated. Results were further refined and characterized during an August 2020 survey as described in Section 4.4.

Extents of potential jurisdictional features, centerlines, and photo locations were mapped using a Trimble GEO7X series GPS unit with sub-meter accuracy and were also plotted on aerial photographs. Note that final jurisdictional determinations of the boundaries of waters and riparian habitats are made by each agency, typically at the time that authorizations to impact such features are requested.

4.4 Agency Consultation

On August 19, 2020 Rincon biologist Jaime McClain and Ms. Love conducted a site visit with CCA and CDFW between the hours of 0900 to 1130. The intent of the site visit was to document existing conditions and determine adequate buffers from potential jurisdictional features and sensitive resources. As a part of the site visit, recommendations from CDFW were provided to CCA, which will be incorporated into the project, and summarized in the Wildlife Movement Plan - Appendix E.

5 Environmental Setting

This section summarizes the general environmental setting, vegetation communities present, and plants and animals observed for the study area. The study area for the project was defined by the property boundaries, equivalent to the project's APN. Representative photographs of the study area are provided in Appendix B. A complete list of all plant and animal species observed on site during the field survey is presented as Appendix C.

5.1 Climate, Topography, and Historic Land Use

The study area is located in central Santa Barbara County near Buellton, California and is characterized by long, hot, dry summers and short, wet winters. On average, temperatures range from 49 degrees Fahrenheit to 93 degrees Fahrenheit during the summer, with an average of 71 degrees Fahrenheit, and from 39 degrees Fahrenheit to 75 degrees Fahrenheit during the winter months, with an average temperature of 57 degrees Fahrenheit. On average, the warmest month is July and the coolest month is December. The average annual precipitation in Buellton is 18 inches, with most of the precipitation typically occurring from December to March and highest rainfall typically occurring in February (National Oceanic and Atmospheric Administration [NOAA] 2018).

The topography of the study area is comprised of terraces that decrease in elevation as you move north through the site. Elevation within the study area ranges from 293 to 401 feet above mean sea level. Adjacent land use includes active agricultural land to the west, east, and south, and undisturbed riparian corridor and the Santa Ynez River to the north.

A review of historical imagery (Appendix G) has been provided. The imagery depicts activities related to agriculture uses, including clearing, grading, trimming, moving, tilling, and maintenance. The historical imagery depicts these activities as early as 1938, further review of google earth time lapse imagery shows regular maintenance occurring within the project site continuous until present day.

5.2 Hydrology and Watershed

The study area is in the Santa Ynez watershed (Hydrologic Unit Code [HUC] 18060010) (USGS 2018). The Santa Ynez River flows in the westerly direction in the northern portion of the study area and meets the Pacific Ocean approximately 17 miles west of the study area. The National Wetlands Inventory (NWI) indicates that the portion of the Santa Ynez River within the study area is a palustrine wetland adjacent to a second riverine system. The palustrine system is non-tidal and dominated by trees, shrubs, and emergent mosses or lichens. The water regime can be seasonally or temporarily flooded where surface water is present for brief or extended periods during the growing season, but the water table usually lies well below the ground surface for most of the season. The riverine system includes all wetlands and deepwater habitats contained within a channel. The system includes channels that contain flowing water only part of the year and when the water is not flowing, it may remain in isolated pools or surface water may be absent (USFWS 2018c).

The Santa Ynez River is one of the largest rivers on the Central Coast of California. It is 92 miles long, flowing through the Santa Ynez Valley. The river contains breeding populations of the federally

listed endangered southern California steelhead DPS (*Oncorhynchus mykiss irideus*) (steelhead), critical habitat for the federally and state listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*), as well as other species of federal, state, and local concern.

In addition, a historic side channel associated with the Santa Ynez River, an agricultural ditch, and an artificial drainage comprised of a concrete-lined channel, in-line detention basin, and below-ground pipe occur within the study area. A non-jurisdictional detention basin is also present. These features are discussed in more detail in Section 6.3. No water was present at the time of the field surveys, and these drainages are ephemeral (i.e., only conveying water during and immediately after rain events).

Five potentially jurisdictional hydrologic features are present within the study area (discussed further in Section 6.3): 1) the Santa Ynez River, 2) a historic side channel associated with the Santa Ynez River, 3) an agricultural ditch, 4) a concrete-lined channel, and 5) a below-ground pipe. Additionally, one non-jurisdictional feature, a detention basin, is discussed further in Section 6.3

5.3 Soils

Based on the literature review four soil map units within the study area: *Camarillo very fine sandy loam* (Cc) underlies the majority of the study area in the northern portion of the project site and adjacent to the Santa Ynez River (37 percent of the study area). Camarillo fine sandy loam series consists of very deep, somewhat poorly drained soils that formed in alluvium derived from sedimentary rocks. The next largest soil type is *Metz loamy sand*, *0 to 2 percent slopes* (MnA) which underlies the central portion of the study area (24 percent of the study area). Metz loamy sand consists of somewhat excessively drained loamy sands that are underlain by coarse, stratified, calcareous sediments. This soil is found on low flood plains along major streams and recently deposited alluvial fans. They are not subject to flooding except during highly intensive storms. Permeability is rapid, surface runoff is very slow, and the erosion hazard is none to slight. The next largest soil type is *Mocho Loam*, *0 to 2 percent slopes* (Mv) which underlies the southern portion of the study area (23 percent of the study area). This soil is nearly level and occurs on flood plains in the Santa Maria and Lompoc Valleys. It is not subject to flooding. This soil consists of well-drained silty clay loams throughout developed from recently deposited alluvium. Permeability is moderate, surface runoff is very slow, and the erosion hazard is none to slight. The remining soil type, *Salinas loam, 2 to 9 percent slopes, MLRA 14*, comprises 16 percent of the study area and underlies the southwestern portion of the study area. This soil is found in small, irregularly shaped areas in small valleys and on terrace breaks between levels of alluvial flood plains. It occurs in widely scattered areas in the western part of the Santa Maria Valley, in the Santa Ynez Valley, and in the Los Alamos Valley.

5.4 Vegetation and Other Land Covers

The study area is located within the Transverse Ranges (TR) geographic subregion of California. The TR subregion comprises the mountain ranges that are oriented in the east-west direction and is characterized as lower elevations by chaparral and at higher elevations by oak forest and dry montane forests of white fir, incense cedar, or pines. The TR is divided into three districts that are progressively higher, hotter, and drier eastward. The project site lies in the *Western Transverse Ranges District* (WTR) (Baldwin et al. 2012).

The study area consists mostly of agricultural lands, including several existing buildings and structures associated with on-site agricultural operations, as well as residences and areas consisting of existing structures, roads, residences, and greenhouses. A few natural vegetation communities are present in limited quantities throughout the study area as described below. Only common plant species were observed on site, no special-status species were observed.

The study area is documented to contain a variety of plant species as compiled in Appendix C. Vegetation communities and land cover types detected in the study area are summarized in Table 2 and displayed graphically in Figure 4. A description of natural communities and land covers are discussed below. Table 3 below lists the species, size, health, and location of native trees observed in the project site. Locations of Trees are presented in Figure 4.

Table 2 Vegetation Communities and Land Covers within the Study Area

	CDFW Sensitive Natural Community[1] Designation (Yes/No)	Study Area (acres)	If Sensitive Resource, Minimum Distance from Project Site (feet)
Natural Communities			
Ruderal – Sandbar willows	No	3.46	No; N/A
Fremont cottonwood forest (*Populus fremontii/Salix exigua* association)	Yes	6.29	740
Anthropogenic Land Covers			
Agricultural	No	53.80	No; N/A
Developed	No	1.91	No; N/A
Ruderal	No	2.73	No; N/A

[1]Natural Community is included on the CDFW Sensitive Natural Communities List (2019)

Table 3 Native Tree Species and Size Observed in the Project Site

Species	DBH[1]	Health[2]	Latitude	Longitude
Coast live oak	36”	good	34.612109°	-120.218629°
Fremont cottonwood	27”	good	34.611979°	-120.217276°
Fremont cottonwood	32”	good	34.613406°	-120.217218°

[1]The diameter at breast height (DBH)/circumference. Measured at the mid-point 4.5 feet between the uphill and downhill side of the root crown.

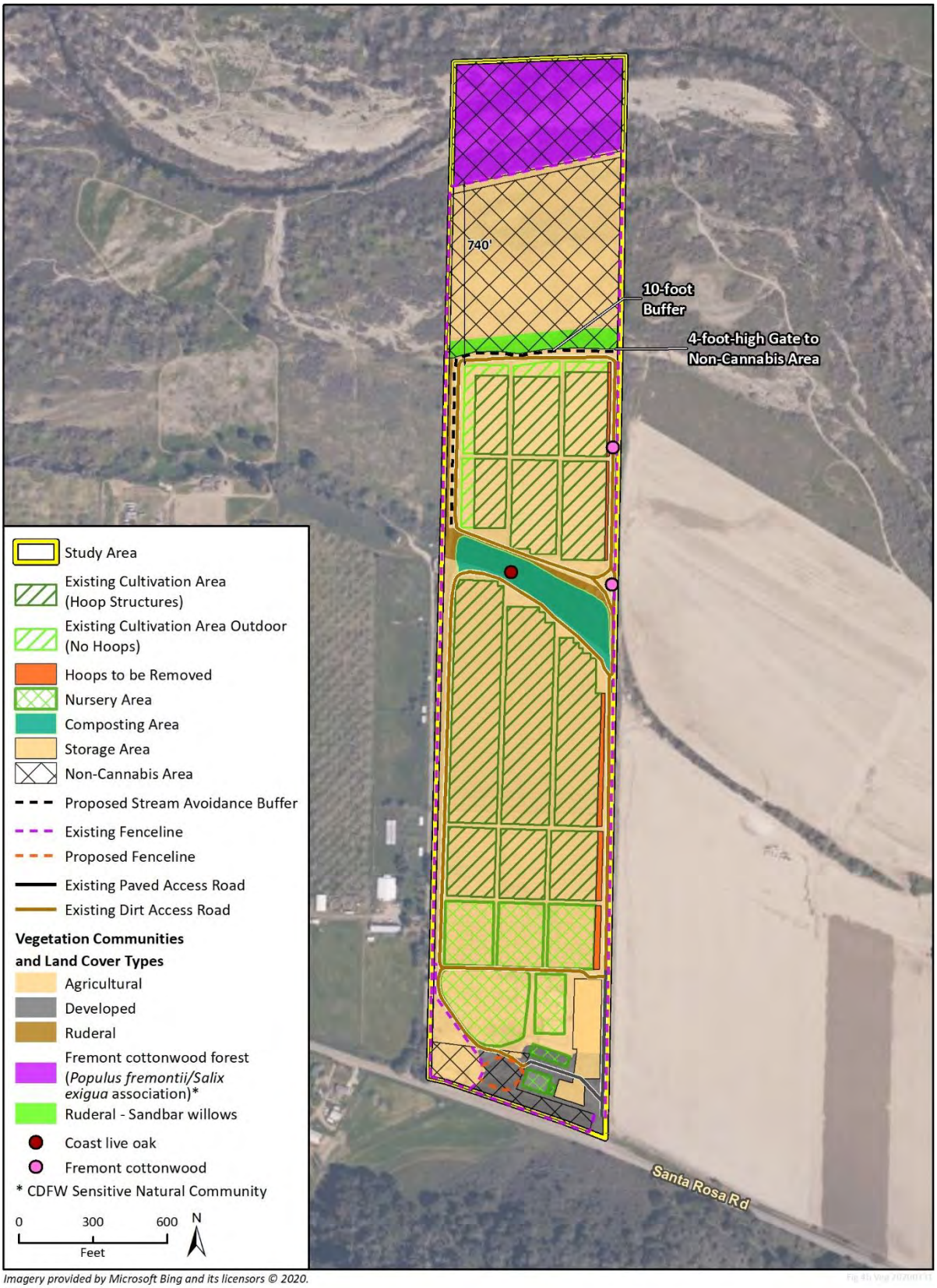
[2]The health of the tree was determined by appearance of leaves, sign of disease, trunk health, branch health and sign of recent damage or burn.

5.4.1 Natural Communities

Ruderal – Sandbar Willow

The Ruderal - Sandbar Willow community is characterized as a highly disturbed ruderal area with emergent individual native sandbar willows (*Salix exigua*). These areas are dominated by ruderal and non-native grass species, with emergent immature sandbar willows scattered sparsely throughout the area, contributing a very low proportion of vegetative cover to the area as a whole. The sandbar willows are not dense enough to constitute a sandbar willow thicket (*Salix exigua*

Figure 4 Vegetation Communities and Land Cover Types in the Study Area



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Shrubland Alliance) as the canopy is very sparse and not dense enough to constitute the "intermittent to continuous" canopy required for this vegetation community.

Fremont Cottonwood Forest

Fremont cottonwood forest (*Populus fremontii* Forest Alliance) is ranked as G4S3 and is considered a CDFW sensitive natural community. A Manual of California Vegetation, 2nd Edition (Sawyer et al. 2009) classifies Fremont cottonwood forest's tree canopy as continuous to open with Fremont cottonwood dominant or co-dominant with box elder (*Acer negundo*), a variety of walnut species (*Juglans* spp.), Oregon ash (*Fraxinus latifolia*), California sycamore (*Platanus racemosa*), desert baccharis (*Baccharis sergiloides*), bigleaf maple (*Acer macrophyllum*), coast live oak (*Quercus agrifolia*), and a variety of willow species (*Salix* spp.) The canopy is continuous to open with an intermittent to open shrub layer (Sawyer et al. 2009). Although direct access to this area was not feasible, the community was sufficiently observed for afar for characterization. Fremont cottonwoods were dominant in the tree layer, and abundant patches of sandbar willow (*Salix exigua*) was present; therefore, the *Populus fremontii* Forest Alliance is further characterized as a *Populus fremontii/Salix exigua* association.

5.4.2 Anthropogenic Land Covers

Agricultural

Agriculture land cover is characterized by lands that support an active agricultural operation – in this case, row crops. Row crops are comprised of annual and perennial crops grown in rows with open space between. These areas are irrigated artificially.

Developed

Developed land cover includes areas that have been constructed upon or otherwise altered to an extent that native vegetation is no longer supported. These areas have been cleared of vegetation and include residences, parking lots, a combination or dirt and paved roads, and small warehouses.

Ruderal

Ruderal land cover is characterized by pre-dominantly non-native species (e.g., thistles, non-native grasses) introduced and established through human action. These areas have been physically disturbed and are no longer recognizable as a native or naturalized vegetation community. These areas are not typically artificially irrigated but receive water from precipitation or runoff.

5.5 General Wildlife

One special-status wildlife species was observed during the field reconnaissance survey, loggerhead shrike (*Lanius ludovicianus*), a CDFW species of special concern (SSC). This species is only of special concern during the breeding season. The individual was observed outside of the known breeding season flying overhead, no foraging or breeding behavior was observed. This special status species is not included on a figure in relationship to the project site due to the brief observation and the species is not expected to nest or forage in the project site. Other general wildlife activity was low during the field reconnaissance survey. Agricultural areas on site offer little to no habitat value for wildlife, except for common species that are adapted to disturbed conditions, i.e., western fence lizard (*Sceloporus occidentalis*), American crow (*Corvus brachyrhynchos*), etc. Intact native

vegetation on site supports a suite of common avian, mammalian, and reptilian wildlife, and has potential to support sensitive wildlife species. A complete list of species observed can be found in Appendix C. Special status species with potential to occur are discussed below in Section 6.

6 Sensitive Biological Resources

Local, state, and federal agencies regulate special status species and other sensitive biological resources and require an assessment of their presence or potential presence to be conducted on site prior to the approval of any proposed development on a property. This section discusses sensitive biological resources observed on the project site and evaluates the potential for the project site to support other sensitive biological resources. Assessments for the potential occurrence of special status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB, species occurrence records from other sites in the vicinity of the survey area, previous reports for the project vicinity, and the condition of habitats present on the site. The potential for each special status species to occur in the survey area was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDB, other reports) on the site recently (within the last 5 years).

The literature review resulted in a total of 86 plant and animal species that are known to occur in the region. Of these, 17 species (11 plants and 6 animals) were evaluated as having potential to occur in the study area. A complete list of species evaluated for this project can be found in Appendix D.

6.1 Special Status Species

For the purpose of this report, special status species are defined as those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS or National Marine Fisheries Service (NMFS) under the ESA; those listed or candidates for listing as rare, threatened, or endangered by the CDFW under the CESA; animals designated as “Species of Special Concern” by the CDFW or “Fully Protected” under the CFGC; and plants recognized on the California Rare Plant Rank (CRPR) lists.

Additionally, raptors and other nesting birds protected by the MBTA and the CFGC Sections 3503 and 3503.5 are also discussed in this section.

6.1.1 Special Status Plant Species

Based on the literature review, a number of special status plant species have been previously documented in the regional vicinity of the study area (regional vicinity refers to within a 5-mile buffer or a multi-quad search radius as defined in Section 4.1). Based on the evaluation of the findings, the study area has the potential to support the following special status plant species:

- Seaside bird's-beak (*Cordylanthus rigidus* ssp. *littoralis*), SE, CRPR 1B.1; low potential

None of the special status plant species listed above were detected during the reconnaissance-level survey; however, the survey was not a protocol-level botanical survey and did not include systematic transects over the entire study area; therefore, their potential to occur within the study area is based on the presence of suitable habitat, the proximity of the study area to CNDDB documented occurrences, and the observation date of the CNDDB occurrences as described in Appendix D.

6.1.2 Special Status Animal Species

Based on the literature review, thirty-five special status wildlife species have been previously documented in the regional vicinity of the project site. Based on the evaluation of the findings of the literature review, the study area has potential to support the following ten to eleven special status animal species.

- California tiger salamander (*Ambystoma californiense*), Federally Endangered (FE) and State Threatened (ST); no to low potential
- California red-legged frog (*Rana draytonii*), Federally Threatened (FT), Species of Special Concern (SSC); low potential
- Western spadefoot (*Spea hammondii*), SSC; low potential
- Western pond turtle (*Actinemyes marmorata pallida*), SSC; moderate potential
- Steelhead, FE; low potential
- Northern California legless lizard (*Anniella pulchra*), SSC; low potential
- Blainville's horned lizard (*Phrynosoma blainvillii*), SSC; low potential
- Southwestern willow flycatcher (*Empidonax traillii extimus*), FE and State Endangered (SE); low potential
- Least Bell's vireo (*Vireo bellii pusillus*), FE and State Endangered (SE); low potential
- Yellow-breasted chat (*Icteria virens*), SSC; low potential
- Yellow warbler (*Setophaga petechia*), SSC; low potential

The following analysis of potential for occurrence is based on the presence of suitable habitat, the proximity of the study area to CNDDB documented occurrences, and the observation date of the CNDDB occurrences.

California Tiger Salamander

The Santa Barbara County Distinct Population Segment (DPS) of the California tiger salamander, a federally endangered and state threatened species, is endemic to the northern portion of Santa Barbara County. This species was documented in the CNDDB within two miles of the study area in 2008 and no sighting has been recorded in recent years. The study area is located outside and on

the other side of the Santa Ynez River of all known occurrences and the Santa Rita metapopulation area, as well as being located at least two miles from known or potential breeding ponds (USFWS 2016). The California tiger salamander requires a combination of seasonal pond habitat for breeding and upland (underground) habitat for the rest of its life cycle. A majority of the know California tiger salamander occurrences in Santa Barbara County currently occur on private lands. The likelihood of California tiger salamander occurring on the southern side of the Santa Ynez River in the study area is highly unlikely and therefore, the California tiger salamander is not expected to occur in the study area.

California Red-legged Frog

California red-legged frog, a federally threatened species, occurs in lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. This species requires 11-20 weeks of permanent water for larval development and must have access to estivation habitat. This species was documented in the CNDDB within two miles of the study area in 2008 and no sighting has been recorded in recent years. Additionally, federally designated critical habitat is located within 5 miles of the study area. Suitable habitat is not located within the project site due to agricultural disturbances and lack of permanent sources of water. Suitable habitat is located within the portion of the Santa Ynez River that is located within the study area. However, this area is separated by a non-cannabis area and property boundary fence which likely precludes individuals from entering the project site.

Western Spadefoot

Western spadefoot, a SSC, is a species of spadefoot toad that is almost completely terrestrial, entering water only to breed. Pools that are suitable for breeding do not contain bullfrogs, fish, or crayfish and hold water for at least thirty (30) days to support successful completion of larval development (Morey and Reznick 2004). Outside the breeding season, western spadefoot spends the majority of time underground to avoid desiccation. They prefer open areas with sandy or gravelly soils in a variety of habitats, including annual grassland and coastal scrub, and in the vicinity of a suitable breeding pond. This species has not been documented by the CNDDB within a 5-mile radius. The study area contains marginal aquatic habitat and the continual disturbance and lack of continually ponded water would more than likely preclude western spadefoot from establishing breeding habitat. The detention basin present in the southwestern portion of the study area does not hold water for any part of the year. The basin is used as a flood control measure for Santa Rosa Road and only during extreme rain events would the basin be utilized to control flooding. Shortly after a flood event the water captured within the basin percolates subsurface and is not present for prolonged periods (i.e., less than 14 days). In addition, the basin does not support native riparian vegetation suitable for the species.

Aquatic and Semi-Aquatic Species

The western pond turtle has been documented within one mile of the study area. This species is an aquatic turtle that occurs in ponds, marshes, rivers, streams and irrigation ditches that typically support aquatic vegetation. It requires downed logs, rocks, mats of vegetation, or exposed banks for basking. Western pond turtles lay their eggs in nests that are dug along the banks of streams or other uplands in sandy, friable soils. Those that reside in creeks, are also known to over-winter in upland habitats, or during the dry season when waterways dry. Upland movements can be quite extensive and individuals have been recorded nesting or overwintering hundreds of meters from

aquatic habitats. The typical nesting season is usually from April through August; however, variation exists, depending upon geographic location. Portions of the Santa Ynez River within the study area are suitable habitat for the western pond turtle. However, due to the distance from the active channel (740 feet), the species is not expected to occur at the project site. The project site does not support suitable habitat, such as permanent and intermittent waters, sandy soils, or open grassy fields, suitable for basking or egg-laying.

The Santa Ynez River contains breeding populations of the federally listed endangered steelhead. Anthropogenic migration barriers on the Santa Ynez River prevent steelhead from accessing a majority of their habitat and has brought the steelhead run close to extinction. The upper Santa Ynez River watershed remains in a relatively natural and protected state within the Los Padres National Forest. High quality habitat also occurs on private land in the lower river and tributaries (Stoecker Ecological 2004). Portions of the Santa Ynez River within the study area, are suitable for steelhead. However, based upon the Hydrologic Overview and Potential Impact Assessment Report (Kear Groundwater 2020), the existing well extracts occurring as a part of the project is negligible within the larger flow system and will not substantially affect instream flows from the baseline condition. Therefore, no impacts to steelhead are expected to occur as a result of the proposed project.

Northern California Legless Lizard

Northern California legless lizard is a SSC and occurs in moist warm loose soil with plant cover. They prefer soils with high moisture content and can often be found under surface objects such as rocks, boards, and logs. The CNDDB occurrences for northern California legless lizard are documented to the north of the Santa Ynez River and separated from the river by agricultural land. The species may occur within the Santa Ynez River, but would likely not utilize the non-cannabis area in the northern study area. The non-cannabis area is grubbed of vegetation and actively utilized for agricultural operations. The non-cannabis area separates the project site from the Santa Ynez River and does not provide suitable scattered low bushes and sandy loose soils suitable for the species. Based on the lack of suitable moist soils within the study area, this species has a low potential to occur on site. The continued tilling and working of the current agricultural land would likely preclude the species from occurring on site.

Blainville's Horned Lizard

Blainville's (coast) horned lizard is a SSC that frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes containing open areas and patches of loose soil. The riparian corridor and Santa Ynez River adjacent to the project site contains suitable habitat for this species. However, there are no CNDDB occurrences of this species within a 5-mile radius. The species may occur within the Santa Ynez River, but would likely not utilize the non-cannabis area in the northern study area. The non-cannabis area is grubbed of vegetation and actively utilized for agricultural operations.

Southwestern Willow Flycatcher

The southwestern willow flycatcher (SWFL) is a federally and state endangered species historically found throughout the American southwest. Their breeding habitat occurs in southern California and requires relatively dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands. They are present in breeding territories by mid-May, build their nests and lay eggs in late May and early June and fledges young in early to mid-July. Habitat patches must be at least

0.25 acre in size and at least 30 feet wide. Historically, the SWFL nested in native vegetation including willows, boxelder (*Acer negundo*), and cottonwoods (*Populus* spp.). However, following modern changes to riparian communities, the SWFL still nests in native vegetation, but also uses thickets dominated by non-native tamarisk or in mixed native non-native stands.

The primary cause of this species' decline is removing, thinning, or destroying riparian vegetation, water diversions and groundwater pumping which alters riparian vegetation, overstocking or other mismanagement of livestock, and recreational development. In addition, the SWFL is also subject to brown-headed cowbird (*Molothrus ater*) parasitism. The CNDDB documents two occurrences (1995 and 1989) of the species within 1,000 feet of the project site. The riparian corridor of the Santa Ynez River in the study area contains marginally suitable habitat for nesting and foraging habitat. The riparian vegetation in the floodplain of the Santa Ynez River is setback 740 feet from cultivation activities and no riparian vegetation is present in the project site. The properties to the east and west are active agriculture operations and do not contain suitable riparian habitat. The species would likely not occur in the project site due to the lack of suitable breeding and forging habitat and has not been documented within 5 miles of the study area since 1995.

Least Bell's Vireo

The least Bell's vireo (LBV) is a federally endangered migratory bird species. They prefer well defined, often linear riparian vegetation primarily in the lower elevation, flatter sections of streams and rivers. The vegetation in vireo home ranges is dominated in the tree and shrub layers by several willow species. Important nesting and foraging shrubs include mulefat, California blackberry (*Rubus ursinus*), California wild rose, and blue elderberry.

The least Bell's vireo (LBVI), has a low potential to occur as a transient, foraging, or migratory species. Suitable breeding habitat is associated with the Santa Ynez River within 740 feet of the project site. The CNDDB documents one occurrence (2016) of the species one mile from the project site. The occurrence documents one territorial male heard singing and no active nesting. In general, the study area lacks suitable nesting or breeding habitat for the species. However, the study area does contain foraging and transitory habitat such that species could occur transiently within the study area.

Nesting Birds

The study area and its surrounding have the potential to support several species of migratory and resident raptors. However, no active or previously occupied nests were observed during the reconnaissance surveys. The project site contains suitable nesting habitat for bird species that nest in anthropogenic structures, but largely the project site does not support suitable nesting habitat in the form of shrubs and trees that may support species such as residents and migrants, including yellow-breasted chat and yellow warbler. Within the study area, the portion within the Santa Ynez River contains suitable habitat for nesting birds; however, the suitable habitat is located at least 740 feet from cannabis cultivation areas. Agriculture areas likely preclude most nesting birds, and those species that require dense riparian vegetation, due to the frequent activities associated with agricultural operations.

6.1.3 Designated Critical Habitat

A search of the USFWS critical habitat mapper (USFWS 2018b) revealed that federally designated critical habitat occurs within the study area for southwestern willow flycatcher (*Empidonax traillii extimus*). The study area is adjacent to critical habitat for steelhead (*Oncorhynchus mykiss*) and is

within five miles of critical habitat for the following species: California tiger salamander (*Ambystoma californiense*) and California red-legged frog (*Rana draytonii*). Critical habitat for southwestern willow flycatcher and steelhead is mapped within the Santa Ynez River and associated riparian corridor. To avoid potential impacts, all project components are setback at least 50 feet from the riparian corridor and the designated critical habitat and therefore, the project will not impact designated critical habitat.

6.1.4 Sensitive Plant Communities

Natural communities are evaluated using NatureServe's Heritage Methodology, the same system used to assign global and state rarity ranks for plant and wildlife species in the CNDDB. For rarity, the ranking incorporates the knowledge of range and distribution of a given type of vegetation, and the proportion of occurrences that are of good ecological integrity. Evaluation is conducted at both the Global (full natural range within and outside of California) and State (within California) levels – resulting in a single G (global) and S (state) rank, ranging from 1 (very rare and threatened) to 5 (demonstrably secure) (CDFW 2018e). There can be exceptions to this rule; namely, CDFW includes a sensitive designation denoted by "yes" or "no". For this reason, demonstrably secure communities can also be considered sensitive. Further, when addressing impacts to wetlands, State CEQA guidelines may group riparian habitat with sensitive natural communities.

The current Sensitive Natural Communities List (CDFW 2019) was referenced to determine that the following vegetation community located within the study area is sensitive: Fremont cottonwood forest (G4/S3). This sensitive resource is located 740 ft from the northern edge of the project site and cultivation area (Figure 4). The remaining communities are not sensitive.

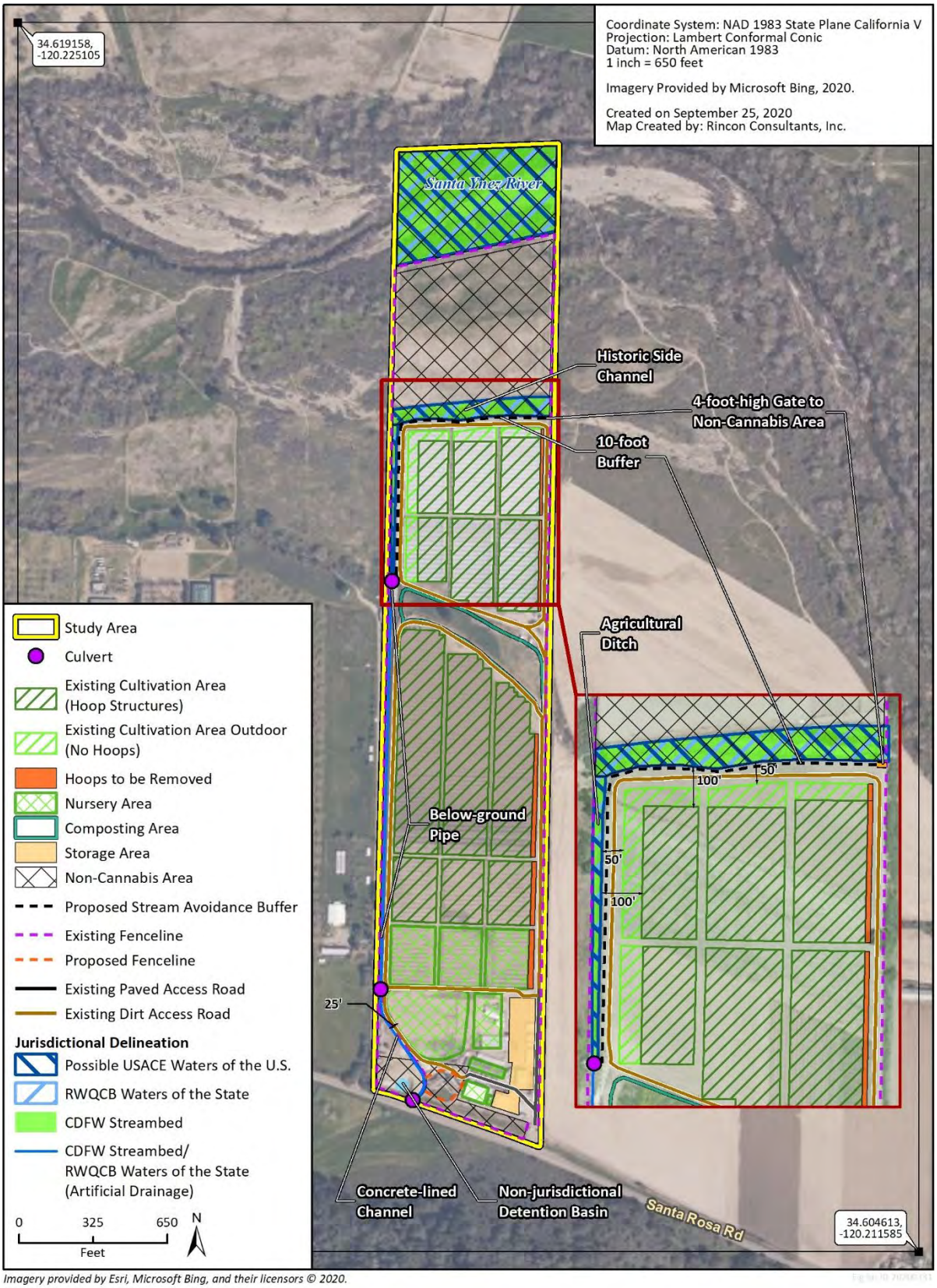
6.2 Jurisdictional Areas

Based upon the findings of Rincon's jurisdictional delineation, five potentially jurisdictional hydrologic features are present within the study area: 1) a mainstem portion of the Santa Ynez River; 2) a historic side channel to the Santa Ynez River; 3) an agricultural ditch, 4) a concrete-lined channel, and 5) a below-ground pipe. These five features are expected to be subject to the jurisdiction(s) of the U.S. Army Corps of Engineers (USACE), RWQCB, and/or CDFW as summarized in Table 4 and displayed in Figure 5.

6.2.1 Santa Ynez River

As described in Section 5.2, within the study area the Santa Ynez River, a sensitive resource and perennial watercourse, is characterized by the NWI as a riverine and palustrine wetland system. The river is located along the northern border of the study area. The riparian vegetation is comprised of Fremont cottonwood forest. The portion of the river located within the study area is an active floodplain; no water was present at the time of the surveys. The floodplain terrace is situated approximately 10 to 15 feet below the terrace upon which the project site is located. To the north and outside of the study area is the main river channel, which may alternate between perennial and intermittent depending on the season and location (USFWS 2018c). The 92-mile-long Santa Ynez River drains nearly 900-square-mile area from east to west across the Santa Ynez Valley. Dams impound its flow into reservoirs, largely for water supply purposes, at three locations: from upstream to downstream, Jameson Lake behind Juncal Dam (constructed 1930), Gibraltar Reservoir behind Gibraltar Dam (constructed 1920), and Lake Cachuma behind the Bradbury Dam

Figure 5 Potentially Jurisdictional Features within the Study Area



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(constructed 1950-53). Stream discharge along the majority of the Santa Ynez River is controlled by Lake Cachuma operations. The Santa Ynez River is considered a water of the U.S.; however, due to the lack of access to the river, an exact determination of where the boundaries of the waters of the U.S. are located could not be determined. Therefore, conservatively, the entire portion of the river located within the study area was determined to be possible waters of the U.S., coterminous with the CDFW streambed and waters of the state. The feature is a potential CDFW-jurisdictional streambed; the jurisdictional boundary is mostly defined by the top of bank. The extent of the CDFW-jurisdictional streambed was determined to be coterminous with waters of the state. This sensitive resource is located a minimum of 500 ft from the project site (see Figure 5 and Table 4).

6.2.2 Santa Ynez River – Historic Side Channel

The historic side channel of the river is located through the middle portion of the study area. This segment of the river is located in the historical floodplain and likely only receives flows in extremely high flow events; flows are ephemeral and can move into and out of the channel from the floodplain located on the eastern and western sides. The segment is trapezoidal in shape, with man-made berms that prevent most flows from the adjacent agricultural fields from entering the feature. An existing dirt access road that is used on a regular basis is located along the eastern border of the study area, transecting the channel. The road appears to have no negative affect upon the functionality of the channel. The riparian vegetation is comprised of ruderal vegetation with individual sandbar willows.

Non-wetland waters of the U.S. were present based on presence of OHWM indicators. No wetland waters of the U.S. were present due to the lack of wetland characteristics. The feature is also a potential CDFW-jurisdictional streambed; the jurisdictional boundary was defined by the top of bank, riparian vegetation is not present beyond the top of bank. The extent of the CDFW-jurisdictional streambed was determined to be coterminous with waters of the state. The project site is setback a minimum of 50 feet from this sensitive resource; within the 50 foot buffer a 10 foot minimum vegetation buffer is proposed in which all activities will cease, within 10 to 50 feet an existing access road is present which is used minimally for routine activities. (see Figure 5 and Table 4).

6.2.3 Agricultural Ditch

An agricultural earthen ditch is located along the western border of the study area, the ditch is man-made and excavated in uplands. At its northern terminus the agricultural ditch feeds into a historic side channel; however, it is unlikely that flows can move from the side channel to the ditch as the ditch is located a few feet higher in elevation than the historic side channel and the connection is not distinct nor evident. The only hydrologic inputs are agricultural run-off and direct rainfall; therefore, flows are ephemeral. At its southern terminus two water sources feed into the agricultural ditch, an approximate 36-inch culvert with an unknown source, and a riprap structure that conveys overland nuisance flows from the uplands in the south down a gradual hillslope approximately 20 feet high. Vegetation is comprised of ruderal vegetation with individual sandbar willows.

Non-wetland waters of the U.S. were conservatively presumed present. No wetland waters of the U.S. were present due to the lack of wetland characteristics. Even though the feature is man-made and excavated in and wholly drains uplands, it maintains a direct hydrologic surface connection to the historic side channel of the river as described above. The feature is a potential CDFW-jurisdictional streambed since the ditch conveys water to the Santa Ynez River; the jurisdictional

boundary is defined by the top of bank, riparian vegetation is not present beyond the top of bank. The extent of the CDFW-jurisdictional streambed was determined to be coterminous with waters of the state. This sensitive resource is located 50 feet from the project site, within the 50 foot buffer an existing access road is present; however, the road will not be used from November to March (see Figure 5 and Table 4).

6.2.4 Below-Ground Pipe and Non-jurisdictional Detention Basin /Abandoned Agricultural Ditch

At the upstream terminus of the agricultural ditch, a below-ground pipe discharges into a concrete rock slope protection/structure that functions as an in-line detention basin. The pipe is part of a man-made stormwater system, or artificial drainage. The pipe is approximately 4 feet wide and channels flows through the western edge of the project site. Surface flows from a concrete-lined channel and limited run-off is the only direct hydrologic connectivity to the below-ground pipe and the flows are ephemeral. Directly above the below-ground pipe there is a detention basin/abandoned agricultural ditch which collects excess stormwater from the property and percolates subsurface. The feature is hydrologically isolated, the excess stormwater flows do not have connectivity to the below-ground pipe or the agricultural ditch to the north. Adjacent to the detention basin/abandoned agricultural ditch, a 10-foot vegetation buffer is present.

The below-ground pipe is man-made and excavated in and wholly drains uplands; no waters of the U.S. are present. Based on informal consultation with CDFW on August 19, 2020, the below-ground pipe is considered a CDFW-jurisdictional streambed. Therefore, the feature would be potentially considered a water of the state due to the capacity to convey flows and that waters of the state are typically coterminous with CDFW-jurisdictional streambeds. The jurisdictional boundary is not easily defined since the feature is below ground. However, the diameter of the pipe is assumed to define the jurisdictional boundary. This sensitive resource is located below ground and therefore not assumed to be subjected to the 50-foot setback (see Figure 5 and Table 4).

The detention basin/abandoned agricultural ditch is man-made and excavated in and wholly drains uplands; no waters of the U.S. are present. Based on informal consultation with CDFW on August 19, 2020, the detention basin/abandoned agricultural ditch is not considered a CDFW-jurisdictional streambed as it is hydrologically isolated form the remainder of the system and no natural streambed functions are present. Rincon understands from CCA that the RWQCB has been made aware of this feature and that they have determined that it is not a water of the state and therefore, non-jurisdictional. This feature is not a sensitive resource.

6.2.5 Concrete-lined Channel

A concrete-lined channel and in-line detention basin is present at the upstream terminus of the below-ground pipe. The concrete-lined channel receives flows from a culvert under Santa Rosa Road that conveys flows from an intermittent stream originating outside of the study area; NWI characterizes the stream as a riverine seasonally flooded streambed. The concrete-lined channel is part of a man-made stormwater system, or artificial drainage. The channel is approximately 5 feet in width and 6 feet in depth. A concrete curb is present along the top of bank and a chain-link fence with silt fencing is installed adjacent to the channel to limit debris from entering the waterway. At the terminus of the concrete channel is an in-line detention basin that is earthen and rip-rap lined. Flows are conveyed from the concrete-lined channel through the in-line detention basin, and then into the under-ground pipe.

The detention basin/abandoned agricultural ditch is man-made and excavated in and wholly drains uplands; no waters of the U.S. are present. Based on informal consultation with CDFW on August 19, 2020, it was confirmed that the feature was a CDFW-jurisdictional streambed. Therefore, the feature would be potentially considered a water of the state due to the capacity to convey flows and that waters of the state are typically coterminous with CDFW-jurisdictional streambeds. However, Rincon understands from CCA that the RWQCB has been made aware of this feature and that they have determined that it is not a water of the state. The jurisdictional boundary is defined by the top of bank, riparian vegetation is not present. This sensitive resource is located 25 feet from the nursery area and within the 25 feet an access road is present. The feature is protected from project related debris by existing silt fencing and therefore is not expected to require an additional setback (see Figure 5 and Table 4).

6.2.6 Detention Basin (Non-jurisdictional)

A detention basin is situated within the southwest corner of the study area. The feature is mapped by the NWI as an excavated, palustrine, temporary flooded feature. The feature was mapped from color infrared imagery from 1981 and upon investigation during the field survey conducted by Rincon and CDFW it was determined the feature was not jurisdictional. The feature is controlled by an overflow valve where the concrete-lined channel originates at Santa Rosa Road. The intent of the overflow value is for flood control and only during significant rain events the detention basin is used to capture stormwater. The feature does not convey flows from the basin to the concrete-lined channel and stormwater percolates subsurface over a short period of time. The feature does not exhibit a defined bed, bank, channel, or OHWM indicative of a jurisdictional drainage feature. No indicators of hydrophytic vegetation or hydric soils were evident.

The detention basin is man-made and excavated in and wholly drains uplands; no waters of the U.S. are present. Based on informal consultation with CDFW on August 19, 2020, it was confirmed that the feature is not a CDFW-jurisdictional streambed as it does not convey flows to the concrete-lined channel. Rincon understands from CCA that the RWQCB has been made aware of this feature and that they have determined that it is not a water of the state (see Figure 5 and Table 4).

Table 4 Summary of Jurisdictional Areas within the Study Area

Feature	Waters of the U.S.		Waters of the State (acres/linear feet)	CDFW Jurisdictional Streambed (acres/linear feet)	Minimum Distance from Project Site (feet)
	Non-wetland Waters of the U.S. (acres/ linear feet)	Wetland Waters of the U.S. (acres/linear feet)			
Santa Ynez River	6.01/701	–/–	6.01/701	6.01/701	Perennial feature – 700
Santa Ynez River – Historic Side Channel	0.28/741	–/–	0.28/741	0.28/741	50
Agricultural Ditch	0.30/701	–/–	0.30/701	0.30/701	50
Below-Ground Pipe	–/–	–/–	0.64/1,770	0.64/1,770	n/a
Concrete-lined Channel	–/–	–/–	0.07/580	0.07/580	25
Detention Basin	–/–	–/–	–/–	–/–	–/–

[1] Note that each agency categorizes different feature types within their jurisdiction slightly differently, thus acreages are presented separately by type and are not intended to be additive between columns. The CDFW jurisdictional streambed category includes riparian canopy where present.

6.3 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The habitats within the link do not necessarily need to be the same as the habitats that are being linked. Rather, the link merely needs to contain sufficient cover and forage to allow temporary inhabitation by ground-dwelling species. Typically, habitat linkages are contiguous strips of natural areas, though dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Depending upon the species using a corridor, specific physical resources (such as rock outcroppings, vernal pools, or oak trees) may need to be located within the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources spaced sufficiently close together to permit travel along a route in a short period of time.

Wildlife movement corridors can be both large and small scale. Regionally, the study area is not located within an Essential Connectivity Area (ECA) as mapped in the report California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (CDFW 2010). ECAs represent principle connections between Natural Landscape Blocks. ECAs are regions in which land conservation and management actions should be prioritized to maintain and enhance ecological connectivity. ECAs are mapped based on coarse ecological condition indicators, rather than the needs of particular species and thus serve the majority of species in each region.

No mapped wildlife movement corridors are present within the study area. However, the small portion of undeveloped condition and natural vegetation within portions of the study area allow for local movement of wildlife along the Santa Ynez River. The river segment within the northern portion of the study area provide suitable small-scale wildlife movement corridors for wildlife to travel locally and are important in linking non-contiguous or fragmented wildlife habitats. The project site itself, which occupies much of the study area, lacks the features that would make it attractive as a wildlife movement route, topographic or vegetative cover or water sources for example. Additionally, the project site is surrounded by a 6-foot fence that separates the project site from the adjacent areas to the east, south, and west. A four-foot high stream avoidance buffer fence and gate separates the project site from the non-cannabis area along the northern perimeter. To the north of the non-cannabis area a similar 6-foot chain-link fence separates the non-cannabis area from the Santa Ynez River and associated riparian vegetation. The existing fencing assists to minimize the potential for wildlife to enter the project site and instead use the Santa Ynez River and adjacent riparian areas for wildlife movement.

6.4 Resources Protected by Local Policies and Ordinances

The project would need to comply with the FEIR measures and County General Plan, including the County LUDC. The FEIR identifies mitigation measures for unique, rare, threatened, or endangered plant or wildlife species; habitats or sensitive natural communities; movement or patterns of native resident or migratory species; and compliance with adopted local plans, policies, or ordinances for protection and conservation of biological resources.

Regarding tree protection, the FEIR analyzed the Program impacts and mitigation measures to be consistent with the Santa Barbara County Comprehensive Plan Conservation Element: Oak Tree Protection in the Inland Rural Areas of Santa Barbara County, the County's Environmental Thresholds and Guidelines Manual (County 2018), and the County Deciduous Oak Tree Protection and Regeneration Ordinance (County 2003). Per the FEIR; if project activities would involve pruning, damage, or removal of a native tree; a Tree Protection plan shall be prepared by a Planning and Development Department-approved arborist to determine whether avoidance, minimization, or compensatory measures are necessary.

The individual coast live oak is located upslope and 25 feet in elevation gain from the access road and where composting activities will take place. The two individual Freemont cottonwood trees are set back from project activities and access roads. No trees or driplines of individual trees are located directly adjacent to the access road or project activities. The access road is existing, and no changes will occur to the road (e.g., grading or recontouring).

The project site does not contain native vegetation that has a medium to high potential of being occupied by special status wildlife species, nesting birds, or federally or state-listed or other special status plant species, although such habitat is present in the northern part of the study area along the river. Perimeter fencing, present around the entire project site and non-cannabis area that separates the project site from the Santa Ynez River, has the potential to further restrict wildlife movement into the project site. Regarding compliance with other local ordinances, the project may utilize pesticides, rodenticides, herbicides, insecticides, fungicides, disinfectants, and fertilizers that require compliance with the Cannabis General Order.

The Community Plan defines environmentally sensitive biological resource and habitat areas as the following:

- Unique, rare, or fragile communities which should be preserved to ensure their survival in the future;
- Habitats of rare and endangered species as protected by State and/or Federal law;
- Outstanding representative natural communities that have values ranging from particularly rich flora and fauna to an unusual diversity of species;
- Specialized wildlife habitats which are vital to species survival;
- Areas structurally important in protecting natural landforms that physically support species (e.g., riparian corridors protecting stream banks from erosion, shading effects of tree canopies);
- Critical connections between separate habitat areas and/or migratory species' routes; and
- Areas with outstanding educational values that should be protected for scientific research and educational uses now and in the future, the continued existence of which is demonstrated to be unlikely unless designated and protected.

The Santa Ynez River is identified as an environmentally sensitive habitat. The project will not interrupt major wildlife travel corridors and the project will allow for wildlife movement, where practical. As shown in Appendix G, the project site has been regularly tilled and planted since 1938 and natural stream channel processes will not be impacted by the project. Project components will be setback at least 740 feet from the active channel of the Santa Ynez River and adjacent riparian habitat. In addition, project components will be setback 50 feet from the historic side channel of the Santa Ynez River and a 10-foot-wide stream avoidance buffer will be erected. Due to site specific conditions present on site and the lack of riparian vegetation and biological resources adjacent to the side channel a 10 to 50-foot-wide setback is suitable in this area. This adjusted setback was confirmed with the County of Santa Barbara Planning and Development Department on August 5, 2020. The project, is compliant with the policies outlined in the Community Plan; no removal of riparian plants or native protected trees are proposed and efforts will be made to avoid and preserve the habitat in which sensitive plants and/or animal species are located to the maximum extent feasible.

7 Impact Analysis and Mitigation Measures

This section provides project-specific information regarding potential impacts that have the potential to result from proposed cannabis cultivation activities in the study area and provides resource-specific recommendations for reducing these impacts, where applicable. The mitigation measures below are adapted from and/or consistent with the mitigation measures in the adopted FEIR and are required for the project.

7.1 Special Status Plants, Vegetation Communities, and Wildlife

7.1.1 Special Status Plant Species and Vegetation Communities

One special status plant species was determined to have a low potential to occur within the study area considering the presence of suitable habitat and soil conditions – specifically, within areas associated with suitable habitat (e.g., riparian corridor of the Santa Ynez River). No direct impacts are anticipated to suitable habitat, as no construction activities are proposed outside of the existing fence that surrounds the project site. No direct impacts to vegetation communities associated with suitable habitats for this plant species are anticipated and therefore, no direct impacts to special status plant species are expected.

The proposed project is not anticipated to result in direct impacts to sensitive plant communities identified by the CNDDB and the List of Vegetation Alliances and Associations (CDFW 2020). No sensitive natural communities would be adversely affected by the proposed project (e.g., Fremont cottonwood forest). All proposed cultivation would be setback a minimum of 50 feet from the edge of riparian vegetation and hoop structures will be setback 100 feet from these areas; additional avoidance and minimization will be incorporated into the project as outlined in BIO-1 Wildlife Movement Plan (Appendix E) to further avoid impacts to special status plant species and vegetation communities.

7.1.2 Special Status Animal Species

Ten to eleven special status animal species have a low potential to occur in the study area based upon known ranges, habitat preferences for the species, and species occurrence records in the vicinity of the study area as documented in the CNDDB.

California Red-legged Frog, Western Spadefoot, Northern California Legless Lizard, **and Blainville's** Horned Lizard

Direct impacts to California red-legged frog, western spadefoot, northern California legless lizard, and Blainville's horned lizard could occur in the form of injury or mortality through initial ground-disturbance activities and/or removal of suitable habitat if required by the project. Indirect impacts to these species could occur in the form of noise from use of heavy equipment and/or vehicles that result in altered behavior and other species-specific patterns of activity. The project involves routine agriculture uses and if ground disturbance or vegetation removal that is not considered routine (i.e., debris or vegetation clearing within drainages, removal of hoop structure covers, which occurs annually prior to the rain season) is proposed, additional avoidance and minimization will be

incorporated into the project as outlined in BIO-1 Wildlife Movement Plan (Appendix E) to further avoid impacts to special status wildlife species. Routine activities associated with cannabis cultivation will occur in compliance with local and state policies and no impacts to special status species or their habitat is expected. However, to further reduce any potential impacts to the species, a Wildlife Movement Plan (Appendix E) has been prepared for the project.

Aquatic and Semi-Aquatic Species

Western pond turtles are found in permanent and intermittent waters of rivers and creeks and can spend upwards to 200 days out of water. Males may be found on land for up to ten months annually, while females can be found on land during all months of the year due to nesting and overwintering. The project does not propose the removal of native vegetation or the development of upland habitat adjacent to the Santa Ynez River. The routine operational activities, such as watering, harvesting, and tilling soil, will remain consistent with what is currently occurring at the project site. In addition, the existing six-foot fence surrounding the project area acts as an exclusion buffer for any wildlife that cannot fit through a three-inch opening, while allowing passage of smaller wildlife species. The fence line excludes the segments of the Santa Ynez River that lie within the northern portion of the study area, thus minimizing the potential for wildlife to enter the project site and encouraging use of the Santa Ynez River corridor for wildlife movement. The Santa Ynez River contains suitable habitat for the species and the project site does not contain any primary constituent elements (PCEs) required for the species. Therefore, the project is not expected to impact western pond turtles. However, to further reduce any potential impacts to the species, a Wildlife Movement Plan (Appendix E) has been prepared for the project.

The Santa Ynez River contains breeding populations of steelhead. As a part of the propose project, a hydrologic study was conducted by Kear Groundwater (Kear Groundwater 2020) (Appendix F). The report concludes that that while the existing well extracts from a shallow alluvial aquifer that may be classified as part of the “subterranean stream” of the Santa Ynez River flow system, water usage for cannabis cultivation at 8701 Santa Rosa Road is negligible within the larger flow system and will not “substantially affect instream flows” from the baseline condition. Therefore, it is expected that the project will not impact steelhead associated with the Santa Ynez River and no avoidance or minimization measures are recommended.

Southwestern Willow Flycatcher **and Least Bell’s Vir**eo

Direct impacts to SWFL and LBVI could occur if heavy equipment and vehicular transport is used near riparian areas during the species breeding season. All cultivation will be setback at least 50 feet from riparian areas in compliance with local and state policies. Routine maintenance may occur within the drainages but is proposed to occur outside of the nesting season, and the drainages do not support suitable riparian habitat for the species. Indirect impacts may include noise impacts but with proposed setbacks and with noise levels remaining below <65 dB at the fence line during normal operations (noise records provided by CCA), no impacts are expected to these species; however, to further reduce any potential impacts to the species, a Wildlife Movement Plan (Appendix E) has been prepared for the project to avoid any potential impacts to these species.

Other Nesting Birds

The project has potential to result in direct impacts to nesting birds, if nests are intentionally removed, and indirect impacts through noise or other anthropogenic factors, including special status birds (yellow-breasted chat and yellow warbler), if they are nesting within the project site

and/or immediate vicinity during cultivation/staging activities. The project site does not contain suitable breeding habitat for nesting birds aside from non-sensitive nesting birds that utilize anthropogenic structures and that may not be disturbed by on-going agricultural operations. The project is set back at least 740 feet from riparian vegetation associated with the Santa Ynez River and no riparian vegetation is proposed for removal as part of the project. The project activities area considered routine operation and noise levels are not likely to change, if a nest is built around the project site the species is likely accustom to routine noise disturbances and the project would not likely impact the nest. Routine maintenance may occur within the drainages but is proposed to occur outside of the nesting season. Native or migratory species of nesting birds are protected under the MTBA and CFGC. Take of these species is prohibited by federal and state law and must be avoided. To reduce any potential impacts to the species, a Wildlife Movement Plan (Appendix E) has been prepared for the project.

7.1.3 BIO-1 (FEIR MM BIO-3) Wildlife Movement Plan

The proposed project is considered routine cultivation activities and would not substantially interfere with wildlife movement on a local or regional scale or considerably reduce opportunities for wildlife movement. However, to avoid impacts to sensitive wildlife species that may be present seasonally or transitionally on site, a Wildlife Movement Plan (WMP) is required. Included in the Wildlife Movement Plan are additional measures to avoid and minimize impacts to special status birds, other nesting birds, and other special status plant and wildlife species and their habitats. A Wildlife Movement Plan (adapted from and in compliance with the FEIR for the Program) has been prepared for the project (Appendix E).

7.2 Jurisdictional Waters and Wetlands

The five jurisdictional features within the study area, the Santa Ynez River mainstem, historic side channel, agricultural ditch, below-ground pipe, and concrete-lined channel, are expected to be under USACE jurisdiction pursuant to the Clean Water Act, CDFW jurisdiction pursuant to Section 1600 et seq. of the CFGC, and RWQCB jurisdiction pursuant to the Clean Water Act and Porter-Cologne Act as described in Section 6.2. However, the jurisdictional features are not expected to be directly impacted by project related activities.

As noted previously in Section 3, the SWRCB Cannabis General Order dictates general waste discharge requirements for discharges into state-jurisdictional waters associated with cannabis cultivation activity (SWRCB 2019). The requirements within the Cannabis General Order will be incorporated and implemented through any waste discharge requirements addressing cannabis cultivation activities adopted by the RWQCB. Attachment A of the Cannabis General Order states that cannabis cultivators shall comply with the minimum riparian setbacks for all land disturbance, cannabis cultivation activities, and facilities (e.g., material or vehicle storage). The minimum riparian setbacks include: 150 feet for perennial watercourses (Class I), 100 feet for intermittent watercourses (Class II), 50 feet for ephemeral watercourses (Class III), and edge of established riparian vegetation zone for man-made watercourses that support native aquatic species (Class IV). RWQCBs may adopt site-specific waste discharge requirements (WDRs).

The County LUDC development standards for hoop structures state that within rural areas, hoop structures shall be setback 100 feet from the top of bank or edge of riparian vegetation of streams and creeks, whichever is more protective of the resource. As such, the setback for hoop structures on the project site would be 100 feet from the edge of riparian vegetation of the ephemeral

drainages. For other project activities (e.g., material or vehicle storage and other cannabis cultivation activities) the setback would be 50 feet from the edge of riparian vegetation of the ephemeral drainages and at least 500 feet from the perennial feature associated with the Santa Ynez River

Areas within the OHWM, top of banks, and associated riparian vegetation would likely be subject to regulations under CDFW, RWQCB, and/or USACE jurisdictions as described in Section 6.2. However, as stated above, project activities would be set back from the ephemeral drainages and perennial feature associated with the Santa Ynez River to comply with the County and Cannabis General Order requirements and therefore, no impacts to jurisdictional areas are expected. A Wildlife Movement Plan has been prepared to reduce any potential indirect impacts to jurisdictional waters (Appendix E).

7.3 Wildlife Movement

There are no major wildlife movement corridors within the project site. The smaller on-site hydrologic features may provide a suitable small-scale corridor for wildlife to travel locally. However, the project is not anticipated to adversely affect the wildlife utilization and movement along the Santa Ynez River or adjacent riparian vegetation.

The proposed project does not include the introduction of barriers to movement of any resident or migratory fish or wildlife species; nor will it deteriorate any existing fish or wildlife habitat. The proposed project is in compliance with local conservation and biological resources protection polices, thereby reducing potential impacts to wildlife movement associated with the proposed project. The proposed project additionally complies with local requirements regarding lighting of cultivation sites and it would therefore not impact wildlife movement due to artificial lighting. Based on the literature review and field survey performed for this study and presented in this report, the project site does not have a high presence of potentially sensitive biological resources; therefore, a Habitat Protection Plan is not recommended. However, a Wildlife Movement Plan has been prepared (Appendix E).

7.4 Local Policies and Ordinances

The project is designed to meet the mitigation/development standards outlined in the Santa Barbara County LUDC to ensure its consistency with local policies including Appendix H of the LUDC and the County of Santa Barbara Environmental Thresholds and Guidelines Manual and the Community Plan.

The project site does not contain native vegetation or other sensitive vegetation communities that would have medium to high potential of being occupied by special status wildlife species, nesting birds, or Federal or State-listed special status plant species. Therefore, a Habitat Protection Plan is not anticipated to be required by the County or regulatory agencies for additional avoidance, minimization, or compensatory measures are necessary for the protection of special status species.

The FEIR for the Cannabis Land Use Ordinance and Licensing Program analyzed the program impacts and mitigation measures for consistency with the Santa Barbara County Comprehensive Plan Conservation Element: Oak Tree Protection in the Inland Rural Areas of Santa Barbara County, the County's Environmental Thresholds and Guidelines Manual (County 2008), and the County

Deciduous Oak Tree Protection and Regeneration Ordinance (County 2003) (added for reference but not applicable to this project).

No native trees are located within the cultivation areas. Three native trees (one coast live oak and two Fremont cottonwoods) are located within the project site, but these trees are not anticipated to be pruned, damaged, or removed by project activities. These native trees will not be impacted by access to the cultivation site or by project related activities. Although the two Freemont cottonwoods overhang the existing access road, they are mature and healthy and existing use the road has not negatively impacted them. Several Freemont cottonwood trees are located outside of the cultivation site within the Santa Ynez River and beyond existing fencing. The full extent of these native trees are located within the river, the driplines do not overhang the access road or cultivation site. The access roads are existing and will be maintained for the proposed project; no major changes will occur to the roads (e.g., grading, recontouring). No new impacts will occur to the native trees from continued use of the existing access roads. The perimeter fencing is adjacent to the two Freemont cottonwoods. The fence aids in the protection of sensitive communities outside of the property, they are mature and healthy and the existing fence has not negatively impacted them.

No direct impacts to natural or sensitive vegetation communities are anticipated for the project. No trenching or grading is proposed around the native trees or riparian vegetation. No Tree Protection Plan is recommended for the project.

7.5 Habitat Conservation Plans

The project is not located within a HCP, Natural Community Conservation Plan (NCCP), or other approval habitat conservation plan area. The project would not involve clearing native vegetation or other sensitive vegetation within areas that have been identified as having a medium to high potential of being occupied by special status wildlife or plant species, nesting birds, or federal or state listed special status species. No mitigation measures are recommended.

8 Conclusion

The proposed project encompasses the development and implementation of activities associated with cannabis cultivation within the project site. In particular, the project proposes to convert previously disturbed land zoned agriculture II to cannabis cultivation.

A few natural vegetation communities are present in limited quantities throughout the study area. There is a potential for eleven special status plant species to occur on site; however, no direct impacts are anticipated to occur to these species. Indirect impacts to these species are not expected with proposed avoidance and minimization measures incorporated into the project. No impacts to the on-site sensitive natural communities are anticipated. All cultivation will be set back 50 feet from the edge of riparian vegetation and hoop structures will be set back 100 feet from these areas.

One special status wildlife species was observed on site during the field survey, loggerhead shrike (*Lanius ludovicianus*), a SSC. However, the individual was observed outside the breeding season, flying overhead and no foraging, breeding, or an active nest was observed in the study area. Additionally, ten to eleven special status wildlife species have a low potential to occur on site. However, direct and indirect impacts to these species are not expected with proposed avoidance and minimization measures incorporated into the project. Recommendations incorporated herein include BMPs and adequate setbacks to prevent impacts to sensitive habitats that may provide suitable habitat for special status species.

Five potentially jurisdictional hydrologic features are present within the study area: 1) a mainstem portion of the Santa Ynez River; 2) a historic side channel to the Santa Ynez River; 3) an agricultural ditch, 4) a below-ground pipe, and 5) a concrete-lined channel. These features are expected to be subject to USACE, RWQCB and/or CDFW jurisdiction(s). The project area is located outside of these potentially jurisdictional features and no work is expected to occur within these jurisdictional features, with the exception of vegetation and debris maintenance. Avoidance and minimization measures presented within the Wildlife Movement Plan (Appendix E) will limit direct impacts. Indirect impacts to potentially jurisdictional features are not expected with avoidance and minimization measures pertaining to BMPs incorporated into the project.

Cannabis cultivation activities will be confined to portions of the project site that are currently used for agricultural and active cannabis cultivation. Based on the proposed project description and biological resources review summarized in this study, a Wildlife Movement Plan (Appendix E) is required.

Table 5 below provides a summary of avoidance and minimization measures.

Table 5 Avoidance and Minimization Measures

Biological Resources	Avoidance and Minimization Measure
Special Status Plant Species and Sensitive Habitats	Direct impacts to sensitive habitats have been avoided through the design of the project and implementation of the SWRCB Cannabis General Order and the County LUDC; additional avoidance and minimization measures are outlined in the Wildlife Movement Plan (Appendix E).
Special Status Animal Species	Direct impacts to special status animal species have been avoided through the design of the project and implementation of the SWRCB Cannabis General Order and the County LUDC; additional avoidance and minimization measures are outlined the Wildlife Movement Plan (Appendix E).
Jurisdictional Waters and Wetlands	Direct impacts to jurisdictional areas have been avoided through the design of the project and implementation of the SWRCB Cannabis General Order and the County LUDC; additional avoidance and minimization measures are outlined in the Wildlife Movement Plan (Appendix E).
Wildlife Movement	A Wildlife Movement Plan (Appendix E) has been prepared for the project.
Regulatory Measures	**Avoidance and Minimization Measure**
Santa Barbara County Code-County Land Use and Development Code; Cannabis Activities Additional Standards	Tree Protection Plan (not recommended)
Santa Barbara County Code-County Land Use and Development Code; Cannabis Activities Additional Standards	Habitat Protection Plan (not recommended)
Santa Barbara County Code-County Land Use and Development Code; Cannabis Activities Additional Standards	BIO-1 Wildlife Movement Plan (Appendix E)
State Water Resources Control Board General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities	BIO-1 Wildlife Movement Plan (Appendix E)

Sources: Santa Barbara County Code-County Land Use and Development Code-Appendix H, 2000.

SWRCB General Waste Discharge Requirements and Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities, 2019.

9 Limitations, Assumptions, and Use Reliance

This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis or re-establish populations in the future. Rincon's field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

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Appendix A

Regulatory Setting

Regulatory Setting

Special-status habitats are vegetation types, associations, or sub-associations that support concentrations of special-status plant or animal species, are of relatively limited distribution, or are of particular value to wildlife.

Listed species are those taxa that are formally listed as endangered or threatened by the federal government (e.g., U.S. Fish and Wildlife Service [USFWS]), pursuant to the Federal Endangered Species Act (FESA) or as endangered, threatened, or rare (for plants only) by the State of California (i.e., California Fish and Game Commission), pursuant to the California Endangered Species Act or the California Native Plant Protection Act. Some species are considered rare (but not formally listed) by resource agencies, organizations with biological interests/expertise (e.g., Audubon Society, CNPS, The Wildlife Society), and the scientific community.

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States);
- Santa Barbara Regional Water Quality Control Board (waters of the State);
- U.S. Fish and Wildlife Service (federally listed species and migratory birds);
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; Species of Special Concern; nesting birds);
- County of Santa Barbara

U.S. Army Corps of Engineers

Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (USACE) has authority to regulate activities that could discharge fill of material into wetlands or other “waters of the United States.” Perennial and intermittent creeks are considered waters of the United States if they are hydrologically connected to other jurisdictional waters (typically a navigable water). The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland value or acres. In achieving the goals of the Clean Water Act, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any fill of wetlands that are hydrologically connected to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetland acres or values is met through avoidance and minimization to the extent practicable, followed by compensatory mitigation involving creation or enhancement of similar habitats.

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Board (RWQCB) have jurisdiction over “waters of the State,” pursuant to the Porter-Cologne Water Quality Control Act, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. The SWRCB has issued general Waste Discharge Requirements (WDRs) regarding discharges to “isolated” waters of the State (Water Quality Order No. 2004-0004-

DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the U.S. Army Corps of Engineers to be Outside of Federal Jurisdiction). The RWQCB administers actions under this general order for isolated waters not subject to federal jurisdiction, and is also responsible for the issuance of water quality certifications pursuant to Section 401 of the Clean Water Act for waters subject to federal jurisdiction.

United States Fish and Wildlife Service

The USFWS implements the Migratory Bird Treaty Act (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the Federal Endangered Species Act (FESA) (16 USC § 153 et seq.). Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadramous species. Projects that would result in "take" of any federally threatened or endangered species are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan [HCP]) of the FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California. The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is restricted to direct mortality of a listed species and the law does not prohibit indirect harm by way of habitat modification. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated.

The CDFW also enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibits take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided.

California Fish and Game Code sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level office to take any bird in violation of the federal Migratory Bird Treaty Act. CDFW administers these requirements.

Species of Special Concern (SSC) is a category used by the CDFW for those species which are considered to be indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the Fish and Game Code as noted above. The SSC category is intended by the CDFW for use as a management tool to include these species in special consideration when decisions are made concerning the development of natural lands. The CDFW also has authority to

administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA's permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Perennial, intermittent, and ephemeral streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Section 1600 *et seq*. of the Fish and Game Code (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over activities that divert, obstruct, or alter the channel, bed, or bank of any river, stream or lake.

County of Santa Barbara

The project is subject to the Cannabis Land Use ordinances and development standards for the County. Specifically, the County has amended Section 35-1 of the County Land Use and Development Code to implement new development standards, permit requirements and procedures regarding commercial cannabis activities.

The project is also subject to the County Comprehensive Plan Conservation Element: Oak Tree Protection in the Inland Rural Areas of Santa Barbara County as adopted in 2003, and republished in 2009 outlines protection goals, development standards, policies and implementing actions to promote the conservation, protection, and regeneration of native oak populations and oak woodlands (County 2009).

- Oak Tree Protection Policy 1 states that "native oak trees, native oak woodlands and native oak savannas shall be protected to the maximum extent feasible in the County's rural and/or agricultural lands. Regeneration of oak trees shall be encouraged."
- Development Standard 1 (Protection of all species of mature oak trees) states that "development shall avoid removal of or damage to mature oak trees, to the maximum extent feasible." Mature oak trees are defined as live oak trees six inches or greater in diameter at breast height (DBH). "Native oak trees that cannot be avoided shall be replanted on site or on a receiver site known to be capable of supporting the particular oak tree species. Replanting shall conform to the County's Standard Conditions and Mitigation Measures."

The County's Environmental Thresholds and Guidelines Manual (County 2008) states that individual native specimen trees (mature trees that are healthy and structurally sound and have grown into the natural stature particular to the species) are potentially significant. In general, the loss of 10 percent or more of the trees (by number or by canopy cover) of biological value on a study area is considered potentially significant.

In addition, the project shall comply with any applicable policies in the Santa Ynez Valley and Community Plan (Community Plan) (County of Santa Barbara 2009), including the County Flood Control Ordinance regarding development in floodways and floodplains, which includes specific setback requirement for development (200 feet from top of the bank of the Santa Ynez River and 50 feet from top of bank of stream and creeks). The local policies presented in the Community Plan restate the importance for the protection of resources through buffers, pollution prevention, restoration, and education policies.

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Appendix B

Site Photographs

Photograph 1. Ruderal vegetation on hillslope in middle portion of study area. (aspect: west; November 1, 2018)

Photograph 2. Historic side channel of Santa Ynez River in study area, ruderal-sanbar willows. (aspect: west; November 1, 2018)

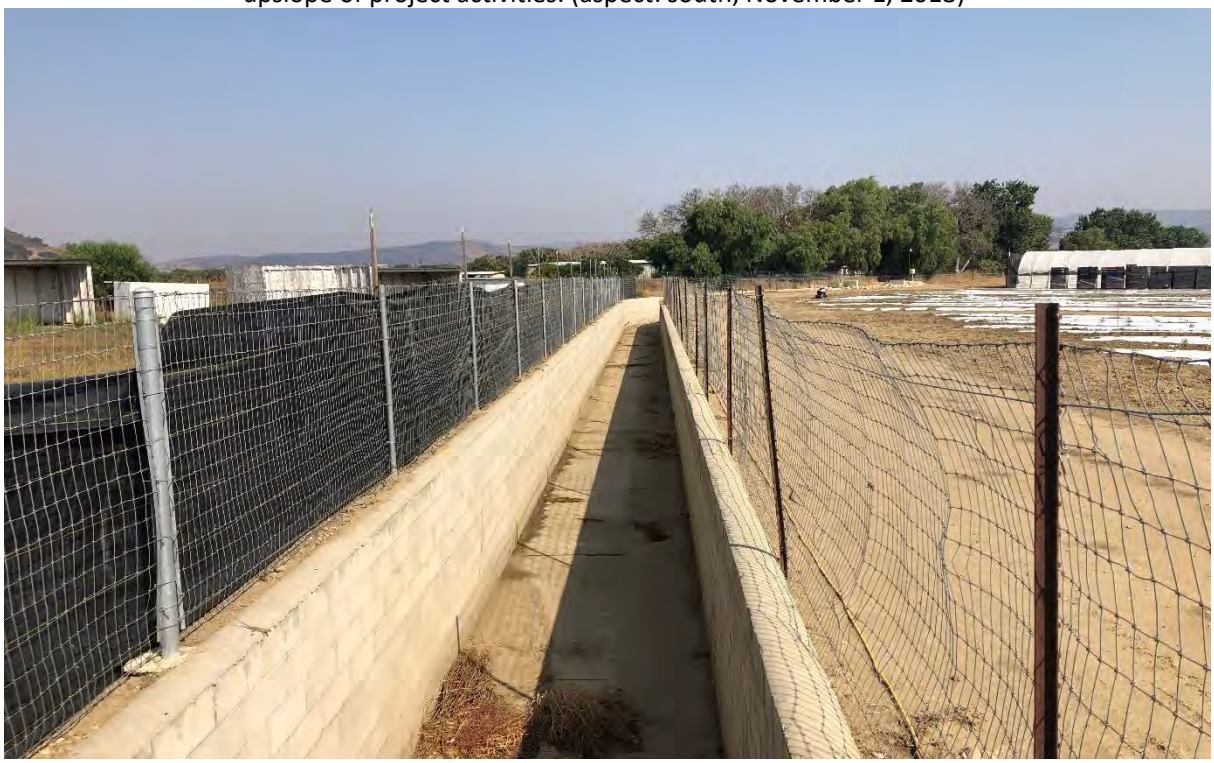
Photograph 3. Historic side channel of Santa Ynez River in study area. (aspect: east and upstream; November 1, 2018)

Photograph 4. Agricultural ditch that drains flows from culvert in western portion of study area, ruderal vegetation. Note ruderal vegetation community in far background and single coast live oak tree. (aspect: south and upstream; November 1, 2018)

Photograph 5. Downstream terminus of below-ground pipe in western portion of study area draining into in-line detetntion basin and agriculture ditch, riprap feature visible on left. (aspect: south and upstream; November 1, 2018)

Photograph 6. Northern portion of study area, Santa Ynez River mainstem, Fremont cottonwood forest. (aspect: north; November 1, 2018)

Photograph 7. Ruderal land cover on hilllslope in center of study area. Note single coast live oak tree upslope of project activities. (aspect: south; November 1, 2018)



Photograph 8. Concrete-lined channel in southern portion of the study area. (aspect: southeast; September 19, 2020)

Photograph 9. Detention basin/abaondoned agriculture ditch in western portion of the study area. (aspect: south; September 19, 2020)

Photograph 10. In-line detention basin upstream of below-ground pipe. (aspect: north; November 1, 2018)

Appendix C

Floral and Faunal Compendium

Plant Species Observed in Study Area (November 1, 2018)

Scientific Name	Common Name	Origin[1,3]
Acer negundo	boxelder	Native
Amaranthus sp.	amaranth	Introduced
Ambrosia psilostachya	ragweed	Native
Amsinckia sp.	Fiddleneck[2]	Native
Annona cherimola	cherimoya	Introduced
Artemisia californica	California sagebrush	Native
Asparagus officinalis	asparagus	Introduced
Baccharis pilularis	coyote brush	Native
Brachypodium distachyon	annual false-brome	Introduced, Cal-IPC Moderate
Cannabis sp.	cannabis	Introduced
Centaurea melitensis	tocalote	Introduced, Cal-IPC Moderate
Chenopodium album	lambs quarters	Introduced
Cirsium vulgare	bull thistle	Introduced, Cal-IPC Moderate
Convolvulus arvensis	field bindweed	Introduced
Cynodon dactylon	Bermuda grass	Introduced, Cal-IPC Moderate
Datura wrightii	Jimsonweed	Native
Elymus triticoides	beardless wild rye	Native
Eschscholzia californica	California poppy	Native
Erodium cicutarium	Coastal heron's bill	Introduced, Cal-IPC Limited
Ericameria ericoides/linearfolia	mock heather	Native
Eriogonum fasciculatum	California buckwheat	Native
Heterotheca grandifolia	telegraph weed	Native
Heliotropium curassavicum	Chinese parsely	Native
Hirschfeldia incana	short-pod mustard	Introduced, Cal-IPC Moderate
Isocoma menziesii	Menzie's goldenbush	Introduced, Cal-IPC Moderate
Juglans regia	English walnut	Introduced
Lactuca serriola	prickly lettuce	Introduced
Lepidospartum squamatum	scalebroom	Native
Malva parviflora	cheeseweed mallow	Introduced
Olea europaea	olive	Introduced; Cal-IPC Limited
Physalis philadelphica	tomatillo	Introduced
Polygonum argyrocoleon	Persian knotweed	Introduced
Populus fremontii	Fremont cottonwood	Native
Populus trichocarpa	black cottonwood	Native
Punica granatum	pomegranate	Native
Quercus agifolia	coast live oak	Native
Raphanus sativus	wild radish	Native
Rumex acetosella	common sheep sorrel	Introduced, Cal-IPC Moderate
Salix exigua	narrowleaf willow	Native

Scientific Name	Common Name	Origin[1,3]
Salix exigua	sandbar willow	Native
Salix laevigata	polished willow	Native
Salix lasiolepis	arroyo willow	Native
Sambucus nigra	elderberry	Native
Sonchus asper	spiny sowthistle	Introduced
Toxicodendron diversilobum	poison oak	Native
Xanthium spinosum	spiny cocklebur	Native

[1]Cal-IPC – California Invasive Plant Council (Cal-IPC 2018)

[2]Common *Amsinckia* sp.

[3] Baldwin , B.G. (Ed.), D.H. Goldman (Ed.), D. J. Keil (Ed.), R. Patterson (Ed.), T. J. Rosatti (Ed.), and D. H. Wilken (Ed.). 2012. The Jepson Manual: Vascular Plants of California, Second Edition, Thoroughly Revised and Expanded. University of California Press. Berkeley, California.

Animal Species Observed Within the Study Area (November 1, 2018)

Scientific Name	Common Name	Status	Native or Introduced
Birds			
Buteo jamaicensis	red-tailed hawk	None	Native
Fulica americana	American coot	None	Native
Melospiza melodia	song sparrow	None	Native
Haemorhous mexicanus	house finch	None	Native
Lanius ludovicianus	loggerhead shrike	SSC[1], BCC[2]	Native
Zonotrichia leucophrys	white-crowned sparrow	None	Native
Sayornis nigricans	black phoebe	None	Native
Aphelocoma californica	California scrub jay	None	Native
Buteo lineatus	red shouldered hawk	None	Native
Cathartes aura	turkey vulture	None	Native
Picoides nuttallii	Nuttall's woodpecker	None	Native
Reptiles			
Sceloporus occidentalis	Western fence lizard	None	Native
Insects			
Anax junius	green darter dragonfly	None	Native
Pieris rapae	cabbage butterfly	None	Introduced
Mammals			
Thomomys bottae	*pocket gopher*	None	Native
Canis lupus familiaris	domestic dog	None	Native

[1]SSC – State Species of Special Concern

[2] BCC - Birds of Conservation Concern, breeding season is of Special Concern

Appendix D

Special Status Species Evaluation Tables

Special Status Natural Communities in the Regional Vicinity of the Project Site

Plant Community	G-Rank/ S-Rank	Anticipated Impact	Rationale
Central Coast Arroyo Willow Riparian Forest	G3/S3.2	Not Expected	Not present in study area.
Central Maritime Chaparral	G2/S2.2	Not Expected	Not present in study area.
Southern California Steelhead Stream	GNR/SNR	Not Expected	Present in study area; although, the project will not occur within the Santa Ynez River and will not require the diversion of surface waters.
Southern Coast Live Oak Riparian Forest	G4/S4	Not Expected	Not present in study area.
Southern Cottonwood Willow Riparian Forest	G3/S3.2	Not Expected	Present in study area; although, impacts are anticipated to be avoided. See Sections 4.2 and 5.2.
Southern Vernal Pool	GNR/SNR	Not Expected	Not present in the study area.
Southern Willow Scrub	G3/S2.1	Not Expected	Not present in study area.
Valley Needlegrass Grassland	G3/S3.1	Not Expected	Not present in the study area.

G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind3 (CDFW 2018b).

Special Status Plant Species in the Regional Vicinity of the Project Site

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Plants and Lichens				
Abronia maritima red sand-verbena	None/None G4/S3? 4.2	Coastal dunes. Dune plant. 0-100 m. perennial herb. Blooms Feb-Nov	Not Expected	No coastal dune habitat present in the study area.
Agrostis hooveri Hoover's bent grass	None/None G2/S2 1B.2	Chaparral, cismontane woodland, closed-cone coniferous forest, valley and foothill grassland. Sandy sites. 60-765 m. perennial herb. Blooms Apr-Jul	Not Expected	Although one CNDDB record (1976) exists approximately 5 miles northeast of the study area (east), the site is highly disturbed and does not provide suitable habitat. Not observed during the field survey.
Amsinckia douglasiana Douglas' fiddleneck	None/None G4/S4 4.2	Valley and foothill grassland, oak woodland. Monterey shale; dry habitats. 0-1950 m. annual herb. Blooms Mar-May	Not Expected	No suitable habitat present; not observed during the field survey.
Ancistrocarphus keilii Santa Ynez groundstar	None/None G1/S1 1B.1	Chaparral, cismontane woodland. Sandy soils. 40-130 m. annual herb. Blooms Mar-Apr	Not Expected	Although one historic CNDDB record (1929) indicates this species was present within the Santa Ynez River and general vicinity, the site is highly disturbed and does not provide suitable habitat. Not observed during the field survey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Arctostaphylos crustacea ssp. eastwoodiana Eastwood's brittle-leaf manzanita	None/None G4T2/S2 1B.1	Chaparral. In maritime chaparral on sandy soils, in the La Purisima Ridge, Burton Mesa, and Point Sal areas. 150-245 m. perennial evergreen shrub. Blooms Mar	Not Expected	No suitable habitat present; not observed during the field survey.
Arctostaphylos pechoensis Pecho manzanita	None/None G2/S2 1B.2	Closed-cone coniferous forest, chaparral, coastal scrub. Grows on siliceous shale with other chaparral associates. 60-855 m. perennial evergreen shrub. Blooms Nov-Mar	Not Expected	No suitable habitat present; not observed during the field survey.
Arctostaphylos purissima La Purisima manzanita	None/None G2/S2 1B.1	Chaparral, coastal scrub. Sandstone outcrops, sandy soil. 60-470 m. perennial evergreen shrub. Blooms Nov-May	Not Expected	No suitable habitat present; not observed during the field survey.
Arctostaphylos refugioensis Refugio manzanita	None/None G3/S3 1B.2	Chaparral. On sandstone. 60-765 m. perennial evergreen shrub. Blooms Dec-Mar(May)	Not Expected	No suitable habitat present; not observed during the field survey.
Arctostaphylos rudis sand mesa manzanita	None/None G2/S2 1B.2	Chaparral, coastal scrub. On sandy soils in Lompoc/Nipomo area. 20-335 m. perennial evergreen shrub. Blooms Nov-Feb	Not Expected	No suitable habitat present; not observed during the field survey.
Arenaria paludicola marsh sandwort	Endangered/ Endangered G1/S1 1B.1	Marshes and swamps. Growing up through dense mats of Typha, Juncus, Scirpus, etc. in freshwater marsh. Sandy soil. 3-170 m. perennial stoloniferous herb. Blooms May-Aug	Not Expected	No suitable habitat present; not observed during the field survey.
Astragalus didymocarpus var. milesianus Miles' milk-vetch	None/None G5T2/S2 1B.2	Coastal scrub. Clay soils. 50-385 m. annual herb. Blooms Mar-Jun	Not Expected	No suitable habitat present; not observed during the field survey.
Atriplex coulteri Coulter's saltbush	None/None G3/S1S2 1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Ocean bluffs, ridgetops, as well as alkaline low places. Alkaline or clay soils. 2-460 m. perennial herb. Blooms Mar-Oct	Not Expected	No suitable habitat present; not observed during the field survey.
Atriplex pacifica south coast saltscale	None/None G4/S2 1B.2	Coastal scrub, coastal bluff scrub, playas, coastal dunes. Alkali soils. 1-400 m. annual herb. Blooms Mar-Oct	Not Expected	No suitable habitat present; not observed during the field survey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Atriplex serenana var. davidsonii Davidson's saltscale	None/None G5T1/S1 1B.2	Coastal bluff scrub, coastal scrub. Alkaline soil. 0-460 m. annual herb. Blooms Apr-Oct	Not Expected	No suitable habitat present; not observed during the field survey.
Calochortus catalinae Catalina mariposa-lily	None/None G3G4/S3S4 4.2	Valley and foothill grassland, chaparral, coastal scrub, cismontane woodland. In heavy soils, open slopes, openings in brush. 15-700 m. perennial bulbiferous herb. Blooms (Feb)Mar-Jun	Not Expected	No suitable habitat present; not observed during the field survey.
Calochortus fimbriatus late-flowered mariposa-lily	None/None G3/S3 1B.3	Chaparral, cismontane woodland, riparian woodland. Dry, open coastal woodland, chaparral; on serpentine. 270-1435 m. perennial bulbiferous herb. Blooms Jun-Aug	Not Expected	Study area is out of the elevation range for this species, suitable soils are not present.
Ceanothus cuneatus var. fascicularis Lompoc ceanothus	None/None G5T4/S4 4.2	Chaparral. Sandy soils. 5-400 m. perennial evergreen shrub. Blooms Feb-Apr	Not Expected	No suitable habitat present; not observed during the field survey.
Cercocarpus betuloides var. blancheae island mountain-mahogany	None/None G5T4/S4 4.3	Chaparral, closed-cone coniferous forest. 30-600 m. perennial evergreen shrub. Blooms Feb-May	Not Expected	No suitable habitat present; not observed during the field survey.
Chorizanthe rectispina straight-awned spineflower	None/None G2/S2 1B.3	Chaparral, cismontane woodland, coastal scrub. Often on granite in chaparral. 45-1040 m. annual herb. Blooms Apr-Jul	Not Expected	No suitable habitat present; not observed during the field survey.
Cirsium rhothophilum surf thistle	None/ Threatened G1/S1 1B.2	Coastal dunes, coastal bluff scrub. Open areas in central dune scrub; usually in coastal dunes. 3-60 m. perennial herb. Blooms Apr-Jun	Not Expected	Study area is out of the elevation range for this species. No suitable habitat on-site.
Cirsium scariosum var. loncholepis La Graciosa thistle	Endangered/ Threatened G5T1/S1 1B.1	Coastal dunes, coastal scrub, brackish marshes, valley and foothill grassland, cismontane woodland. Lake edges, riverbanks, other wetlands; often in dune areas. Mesic, sandy sites. 4-220 m. perennial herb. Blooms May-Aug	Not Expected	No suitable habitat present; not observed during the field survey.
Cladium californicum California saw-grass	None/None G4/S2 2B.2	Meadows and seeps, marshes and swamps (alkaline or freshwater). Freshwater or alkaline moist habitats. -20-2135 m. perennial rhizomatous herb. Blooms Jun-Sep	Not Expected	No suitable habitat present; not observed during the field survey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Cordylanthus rigidus ssp. littoralis seaside bird's-beak	None/ Endangered G5T2/S2 1B.1	Closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub, coastal dunes. Sandy, often disturbed sites, usually within chaparral or coastal scrub. 30-520 m. annual herb (hemiparasitic). Blooms Apr-Oct	Low Potential	CNDDB records exist approximately 2 miles north of (1956) and 1 mile west of (1973) the study area (west). No suitable habitat present; not observed during the field survey.
Deinandra increscens ssp. villosa Gaviota tarplant	Endangered/ Endangered G4G5T2/S2 1B.1	Coastal scrub, valley and foothill grassland, coastal bluff scrub. Known from coastal terrace near Gaviota; sandy blowouts amid sandy loam soil; grassland/coast scrub ecotone. 10-430 m. annual herb. Blooms May-Oct	Not Expected	No suitable habitat present; not observed during the field survey.
Deinandra paniculata paniculate tarplant	None/None G4/S4 4.2	Coastal scrub, valley and foothill grassland, vernal pools. Usually in vernally mesic sites. Sometimes in vernal pools or on mima mounds near them. 25-940 m. annual herb. Blooms (Mar)Apr-Nov	Not Expected	No suitable habitat present; not observed during the field survey.
Delphinium parryi ssp. blochmaniae dune larkspur	None/None G4T2/S2 1B.2	Chaparral, coastal dunes (maritime). On rocky areas and dunes. 18-305 m. perennial herb. Blooms Apr-Jun	Not Expected	Although one historic CNDDB record (1929) exists approximately 2 miles north of the study area (west), no suitable chaparral or coastal dune habitat present. Not observed during the field survey.
Delphinium umbraculorum umbrella larkspur	None/None G3/S3 1B.3	Cismontane woodland, chaparral. Mesic sites. 215-2075 m. perennial herb. Blooms Apr-Jun	Not Expected	Study area is out of the elevation range for this species.
Diplacus vandenbergensis Vandenberg monkeyflower	Endangered/ None G1/S1 1B.1	Cismontane woodland, chaparral, coastal dunes. Sandy, often disturbed areas. 75-120 m. annual herb. Blooms Apr-Jun	Not Expected	No suitable habitat present; not observed during the field survey.
Erigeron blochmaniae Blochman's leafy daisy	None/None G2/S2 1B.2	Coastal dunes, coastal scrub. Sand dunes and hills. 0-185 m. perennial rhizomatous herb. Blooms Jun-Aug	Not Expected	No suitable habitat present; not observed during the field survey.
Erigeron sanctarum saints' daisy	None/None G3/S3 4.2	Chaparral, cismontane woodland, coastal scrub. 160-300 m. perennial rhizomatous herb. Blooms Mar-Jul	Not Expected	Study area is out of the elevation range for this species.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Eriodictyon capitatum Lompoc yerba santa	Endangered/ Rare G2/S2 1B.2	Closed-cone coniferous forest, chaparral. Sandy soils on terraces. 60-505 m. perennial evergreen shrub. Blooms May-Sep	Not Expected	No suitable habitat present; not observed during the field survey.
Eriogonum elegans elegant wild buckwheat	None/None G3G4/S3S4 4.3	Cismontane woodland, valley and foothill grassland. Usually in sandy or gravelly substrates; often in washes, sometimes roadsides. 200-1525 m. annual herb. Blooms May-Nov	Not Expected	Study area is out of the elevation range for this species, suitable habitat is not present.
Erysimum capitatum var. lompocense San Luis Obispo wallflower	None/None G5T3/S3 4.2	Chaparral, coastal scrub. Sandy hillsides and mesas. 60-500 m. perennial herb. Blooms Feb-May	Not Expected	No suitable habitat present; not observed during the field survey.
Fritillaria ojaiensis Ojai fritillary	None/None G2?/S2? 1B.2	Broadleafed upland forest (mesic), chaparral, lower montane coniferous forest, cismontane woodland. Usually loamy soil. Sometimes on serpentine; sometimes along roadsides. 100-1140 m. perennial bulbiferous herb. Blooms Feb-May	Not Expected	No suitable habitat present; not observed during the field survey.
Horkelia cuneata var. puberula mesa Horkelia	None/None G4T1/S1 1B.1	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 15-1645 m. perennial herb. Blooms Feb-Jul(Sep)	Not Expected	No suitable habitat present; not observed during the field survey.
Horkelia cuneata var. sericea Kellogg's horkelia	None/None G4T1?/S1? 1B.1	Closed-cone coniferous forest, coastal scrub, coastal dunes, chaparral. Old dunes, coastal sandhills; openings. Sandy or gravelly soils. 5-430 m. perennial herb. Blooms Apr-Sep	Not Expected	No suitable habitat present; not observed during the field survey.
Layia heterotricha pale-yellow layia	None/None G2/S2 1B.1	Cismontane woodland, coastal scrub, pinyon and juniper woodland, valley and foothill grassland. Alkaline or clay soils; open areas. 90-1800 m. annual herb. Blooms Mar-Jun	Not Expected	No suitable habitat present; not observed during the field survey.
Lepidium virginicum var. robinsonii Robinson's pepper-grass	None/None G5T3/S3 4.3	Chaparral, coastal scrub. Dry soils, shrubland. 4-1435 m. annual herb. Blooms Jan-Jul	Not Expected	No suitable habitat present; not observed during the field survey.
Lonicera subspicata var. subspicata Santa Barbara honeysuckle	None/None G5T2?/S2? 1B.2	Chaparral, cismontane woodland, coastal scrub. 5-825 m. perennial evergreen shrub. Blooms May-Aug(Dec-Feb)	Not Expected	No suitable habitat present; not observed during the field survey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Micropus amphibolus Mt. Diablo cottonweed	None/None G3G4/S3S4 3.2	Valley and foothill grassland, cismontane woodland, chaparral, broadleafed upland forest. Bare, grassy or rocky slopes. 45-825 m. annual herb. Blooms Mar-May	Not Expected	No suitable habitat present; not observed during the field survey.
Mimulus subsecundus one-sided monkeyflower	None/None G3G4Q/S3S4 4.3	Lower montane coniferous forest, chaparral. One site states: "on rock talus outcrop, south-facing slope, in herbaceous community. 450-915 m. annual herb. Blooms May-Jul	Not Expected	Study area is out of the elevation range for this species.
Monardella hypoleuca ssp. hypoleuca white-veined monardella	None/None G4T3/S3 1B.3	Chaparral, cismontane woodland. Dry slopes. 50-1280 m. perennial herb. Blooms (Apr)May-Aug(Sep-Dec)	Not Expected	Although one CNDDB record (1969) exists approximately 5 miles southwest of the study area, the species prefers dry and undisturbed slopes. No suitable habitat present. Not observed during the field survey.
Monardella sinuata ssp. sinuata southern curly-leaved monardella	None/None G3T2/S2 1B.2	Coastal dunes, coastal scrub, chaparral, cismontane woodland. Sandy soils. 20-305 m. annual herb. Blooms Apr-Sep	Not Expected	Multiple CNDDB records (2009-2012) exist approximately 3 miles north of the study area, species prefers dry and undisturbed slopes. No suitable habitat present. Not observed during the field survey.
Mucronea californica California spineflower	None/None G3/S3 4.2	Chaparral, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland. Sandy soil. 0-1400 m. annual herb. Blooms Mar-Jul(Aug)	Not Expected	No suitable habitat present; not observed during the field survey.
Nasturtium gambelii Gambel's water cress	Endangered/ Threatened G1/S1 1B.1	Marshes and swamps. Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. 5-330 m. perennial rhizomatous herb. Blooms Apr-Oct	Not Expected	No suitable habitat present; not observed during the field survey.
Ophioglossum californicum California adder's-tongue	None/None G4/S4 4.2	Chaparral, vernal pool areas, valley and foothill grassland. Grassy pastures, vernal pool margins, chaparral. Mesic sites. 60-525 m. perennial rhizomatous herb. Blooms (Dec)Jan-Jun	Not Expected	No suitable habitat present; not observed during the field survey.
Phacelia hubbyi Hubby's phacelia	None/None G4/S4 4.2	Chaparral, coastal scrub, valley and foothill grassland. Gravelly, rocky areas and talus slopes. 0-1000 m. annual herb. Blooms Apr-Jul	Not Expected	No suitable habitat present; not observed during the field survey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Phacelia ramosissima var. austrolitoralis south coast branching phacelia	None/None G5?T3/S3 3.2	Chaparral, coastal scrub, coastal dunes, coastal salt marsh. Sandy, sometimes rocky sites. 5-300 m. perennial herb. Blooms Mar-Aug	Not Expected	No suitable habitat present; not observed during the field survey.
Prunus fasciculata var. punctata sand almond	None/None G5T4/S4 4.3	Chaparral, coastal scrub, cismontane woodland, coastal dunes. Sandy flats. 15-200 m. perennial deciduous shrub. Blooms Mar-Apr	Not Expected	No suitable habitat present; not observed during the field survey.
Sanicula hoffmannii Hoffmann's sanicle	None/None G3/S3 4.3	Broadleafed upland forest, coastal scrub, coastal bluff scrub, chaparral, cismontane woodland, lower montane coniferous forest. Cool slopes in deep soil, often in moist shaded serpentine soils, or in clay soils. 30-300 m. perennial herb. Blooms Mar-May	Not Expected	No suitable habitat present; not observed during the field survey.
Scrophularia atrata black-flowered figwort	None/None G2?/S2? 1B.2	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, riparian scrub. Sand, diatomaceous shales, and soils derived from other parent material; around swales and in sand dunes. 10-445 m. perennial herb. Blooms Mar-Jul	Not Expected	No CNDDB species records within a 5-mile radius of the study area. Disturbed sandy soils present. Not observed during the field survey.
Senecio aphanactis chaparral ragwort	None/None G3/S2 2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20-855 m. annual herb. Blooms Jan-Apr(May)	Not Expected	No suitable habitat present; not observed during the field survey.
Thelypteris puberula var. sonorensis Sonoran maiden fern	None/None G5T3/S2 2B.2	Meadows and seeps. Along streams, seepage areas. 60-930 m. perennial rhizomatous herb. Blooms Jan-Sep	Not Expected	No suitable habitat present; not observed during the field survey.
Invertebrates				
Ammopelmatus muwu Point Conception jerusalem cricket	None/None G1/S1	Coastal dunes at Point Conception.	Not Expected	No suitable habitat present; not observed during the field survey.
Bombus caliginosus obscure bumble bee	None/None G4?/S1S2	Coastal areas from Santa Barbara County to north to Washington state. Food plant genera include Baccharis, Cirsium, Lupinus, Lotus, Grindelia and Phacelia.	Not Expected	No suitable coastal habitat present; not observed during the field survey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Branchinecta lynchi vernal pool fairy shrimp	Threatened/ None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not Expected	No vernal pools present within the study area.
Danaus plexippus pop. 1 monarch - California overwintering population	None/None G4T2T3/S2S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Not Expected	No suitable coastal habitat present; not observed during the field survey.
Trimerotropis occulens Lompoc grasshopper	None/None G1G2/S1S2	Known only from Santa Barbara and San Luis Obispo counties.	Not Expected	No CNDDB records documented in the study area. Study area may support this species; although, not observed during the field survey.
Fish				
Eucyclogobius newberryi tidewater goby	Endangered/ None G3/S3 SSC	Brackish water habitats along the California coast from Agua Hedionda Lagoon, San Diego County to the mouth of the Smith River. Found in shallow lagoons and lower stream reaches, they need fairly still but not stagnant water and high oxygen levels.	Not Expected	No suitable habitat present; not observed during the field survey.
Gasterosteus aculeatus williamsoni unarmored threespine stickleback	Endangered/ Endangered G5T1/S1 FP	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams. Cool (<24 C), clear water with abundant vegetation.	Not Expected	No suitable habitat present; not observed during the field survey.
Oncorhynchus mykiss irideus pop. 10 steelhead - southern California DPS	Endangered/ None G5T1Q/S1	Federal listing refers to populations from Santa Maria River south to southern extent of range (San Mateo Creek in San Diego County). Southern steelhead likely has greater physiological tolerances to warmer water and more variable conditions.	Low Potential	A small portion of the study area is within southern California DPS critical habitat; however, not expected to encounter this species as no activities will be conducted in standing or flowing water. Not observed during the field survey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Amphibians				
Ambystoma californiense California tiger salamander	Endangered/ Threatened G2G3/S2S3 WL	Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	No to Low Potential	No CNDDB species records within a 5-mile radius of the study area. No vernal pools present in the study area; however, small mammal burrows are present providing marginally suitable habitat. Adjacent habitat is suitable.
Rana boylii foothill yellow-legged frog	None/ Candidate Threatened G3/S3 SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Not Expected	No suitable habitat present; not observed during the field survey.
Rana draytonii California red-legged frog	Threatened/ None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Low potential	Three CNDDB species records within a 3-mile radius of the study area. Not observed during the field survey. Critical habitat is located within 5 miles.
Spea hammondii western spadefoot	None/None G3/S3 SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Low potential	No CNDDB species records within a 5-mile radius of the study area. The study area does not contain essential grassland vernal pool habitat..
Taricha torosa Coast Range newt	None/None G4/S4 SSC	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats & will migrate over 1 km to breed in ponds, reservoirs & slow moving streams.	Not Expected	Species has not been documented by the CNDDB within 5 miles of the study area. No suitable habitat present; not observed during the field survey.
Reptiles				
Anniella pulchra northern California legless lizard	None/None G3/S3 SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with high moisture content.	Low Potential	CNDDB species record within a 4-mile radius of the study area. The Santa Ynez River may provide suitable habitat. Not observed during the field survey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Emys marmorata western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Moderate Potential	No CNDDB species records within a 5-mile radius of the study area. No suitable habitat present in the project area but the species is likely to occur along the Santa Ynez River; not observed during the field survey.
Phrynosoma blainvillii coast horned lizard	None/None G3G4/S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Low Potential	Three CNDDB species records within 3-mile radium of the study area. Suitable habitat present within the Santa Ynez River. Not observed during the field survey.
Salvadora hexalepis virgultea coast patch-nosed snake	None/None G5T4/S2S3 SSC	Brushy or shrubby vegetation in coastal Southern California. Require small mammal burrows for refuge and overwintering sites.	Not Expected	Species has not been documented by the CNDDB within 5-miles of the study area. No suitable habitat present; not observed during the field survey.
Thamnophis hammondii two-striped gartersnake	None/None G4/S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	Not Expected	Permanent/perennial fresh water is not present within the study area.
Birds				
Agelaius tricolor tricolored blackbird	None/ Threatened G2G3/S1S2 SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Not Expected	No CNDDB species records within a 5-mile radius of the study area. Adjacent riverine habitat provides marginally suitable nesting and foraging habitat. No suitable nesting habitat is present within the project site, although marginally suitable foraging habitat may be present; not observed during the field survey.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	None/None G5T3/S3 WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Not Expected	Suitable habitat is not present in the study area. Species has not been documented by the CNDDB within a five-mile radius of the study area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Buteo regalis ferruginous hawk	None/None G4/S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	Not Expected	The CNDDB has documented the species within a 2-mile radius of the study area. Adjacent habitat provides marginally suitable nesting and foraging habitat. No suitable nesting habitat is present within the project site, although marginally suitable foraging habitat may be present; not observed during the field survey.
Empidonax traillii extimus southwestern willow flycatcher	Endangered/ Endangered G5T2/S1	Riparian woodlands in Southern California.	Low Potential	The species has been documented by the CNDDB within 1-mile radius of the project site. Adjacent habitat provides suitable nesting and foraging habitat No suitable nesting habitat is present within the project site, although marginally suitable foraging habitat may be present; not observed during the field survey.
Falco peregrinus anatum American peregrine falcon	Delisted/ Delisted G4T4/S3S4 FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Not Expected	The CNDDB has not documented the species within the study area. Adjacent habitat provides marginally suitable nesting and foraging habitat No suitable nesting habitat is present within the project site, although marginally suitable foraging habitat may be present; not observed during the field survey.
Icteria virens yellow-breasted chat	None/None G5/S3 SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	Low Potential	The CNDDB does not document this species in the study area. However, the species has been documented along the Santa Ynez River (Lehman 2020). The project site does not support suitable nesting habitat. The study area has marginally suitable nesting habitat, no dense riparian vegetation present. The species may occur transiting the project site but is not likely to nest in the project site.
Progne subis purple martin	None/None G5/S3 SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly; also in human-made structures. Nest often located in tall, isolated tree/snag.	Not Expected	The species has been documented by the CNDDB within a 5-mile radius of the study area. However, the study area does not provide suitable habitat. Not observed during the field survey.
Setophaga petechia yellow warbler	None/None G5/S3S4	Riparian plant associations in close proximity to water.	Low Potential	The CNDDB does not document this species in the study area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
		Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.		However, the species has been documented along the Santa Ynez River (Lehman 2020). Migrants may occur in the study area but the project site does not contain suitable habitat for breeding.
Vireo bellii pusillus least Bell's vireo	Endangered/ Endangered G5T2/S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Low Potential	The project site does not support suitable nesting habitat. Adjacent habitat provides suitable nesting and foraging habitat; although, not observed during the field survey.
Mammals				
Antrozous pallidus pallid bat	None/None G5/S3 SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low Potential	The CNDDB has documented the species within a 1-mile radius of the study area which, along with adjacent habitat, provides marginally suitable roosting and foraging habitat. The project site does not support suitable nesting habitat. Not observed during the field survey.
Corynorhinus townsendii Townsend's big-eared bat	None/None G3G4/S2 SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Not Expected	The CNDDB has documented the species within a 5-mile radius of the study area; however, the study area does not provide suitable habitat. Not observed during the field survey.
Lasionycteris noctivagans silver-haired bat	None/None G5/S3S4	Primarily a coastal and montane forest dweller, feeding over streams, ponds & open brushy areas. Roosts in hollow trees, beneath exfoliating bark, abandoned woodpecker holes, and rarely under rocks. Needs drinking water.	Not Expected	The CNDDB has not documented the species within the study area. No suitable roosting or foraging habitat present; not observed during the field survey.
Lasiurus blossevillii western red bat	None/None G5/S3 SSC	Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Not Expected	The CNDDB has not documented the species within the study area. No suitable roosting or foraging habitat present; not observed during the field survey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Lasiurus cinereus hoary bat	None/None G5/S4	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Not Expected	The CNDDB has not documented the species within the study area. No suitable roosting or foraging habitat present; not observed during the field survey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Site	Habitat Suitability/ Observations
Myotis yumanensis Yuma myotis	None/None G5/S4	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	Not Expected	The CNDDB has not documented the species within the study area. No suitable roosting or foraging habitat present; not observed during the field survey.
Neotoma lepida intermedia San Diego desert woodrat	None/None G5T3T4/S3S4 SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Not Expected	The CNDDB has not documented the species within the study area. No suitable habitat present; not observed during the field survey.
Taxidea taxus American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low Potential	Species has been documented by the CNDDB within 5 miles of the study area. The study area is within the known range for this species and contains suitable habitat as well as suitable friable soils for burrowing; although, no sign or suitably sized burrows indicating the presence of this species were documented during the field survey. The project site does not support suitable habitat.

Regional Vicinity refers to within a [5] mile radius of site (CDFW 2018b).

FT = Federally Threatened
FC = Federal Candidate Species
FE = Federally Endangered
FS=Federally Sensitive
SE = State Endangered
ST = State Threatened
SR = State Rare
SS = State Sensitive
SCT = State Candidate Endangered
SCE = State Candidate Threatened
G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind3
SC = CDFW Species of Special Concern
FP = Fully Protected

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Appendix E

Wildlife Movement Plan

This Biological Resources Report (BRA) was prepared pursuant to the *Santa Barbara County LUDC 35.42.075 - Cannabis Regulations*. The purpose of this Wildlife Movement Plan (WMP) is to describe and analyze the design and extent of proposed and existing fencing around the project area in relation to surrounding opportunities for wildlife migration.

Description of proposed and existing fencing

A stream avoidance buffer is proposed to separate the cannabis cultivation area from the non-cannabis area along the southern side of the historic side channel of the Santa Ynez River and the agricultural ditch. This buffer will prevent human encroachment into the northern portion of the study area. The buffer fencing will consist of four-foot tall T-posts connected by a single cable and will extend approximately 1,500 feet.

An existing six-foot fence surrounds the entire project area, extending approximately 1.5 miles and separating the site from agricultural land to the east and west, Santa Rosa Road to the south, and the Santa Ynez River to the north. The fence is comprised of metal posts connected by no-climb mesh wire with three-inch openings along the western perimeter. Along the southern, eastern, and northern perimeter a 6-foot chain-link fence, with three-inch openings is present.

Figure 3 in this BRA depicts the project site plan, including the location of the existing fence line and proposed stream avoidance buffer fencing.

Analysis of project fencing in relation to wildlife movement

No mapped wildlife movement corridors are present within the study area, nor is it located within an Essential Connectivity Area (ECA), as mapped in the report *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California* (Spencer et al. 2010). The project site itself, which occupies much of the study area, lacks the features (such as water sources or native vegetation) that would make it attractive either as breeding habitat or a wildlife movement route. The northern portion of the study area consists of riparian habitat associated with the Santa Ynez River that could provide suitable small-scale wildlife movement corridors and be important in linking non-contiguous or fragmented wildlife habitats.

The stream avoidance buffer fencing proposed for this project will consist of T-post and single cable fencing that will not prevent the passage of any wildlife and will only serve as a visual aid to ensure that project activities do not occur within the habitat associated with the historic side channel of the Santa Ynez River. Wildlife movement through the Santa Ynez River or the associated riparian habitat will not be inhibited by proposed project fencing.

The existing six-foot fence surrounding the project area acts as an exclusion buffer for any wildlife that cannot fit through a three-inch opening, while allowing passage of smaller wildlife species. The fence line excludes the segments of the Santa Ynez River that lie within the northern portion of the study area, thus minimizing the potential for wildlife to enter the project site and encouraging use of the Santa Ynez River corridor for wildlife movement. Agricultural land exists to the west and east of the project site, and Santa Rosa Road separates these agricultural areas from native vegetation expanses to the south. The existing fence line does not create any isolated patches of native habitat for wildlife and the project area does not function as a means of connecting two or more isolated wildlife areas at a regional level.

The proposed project will not introduce any new barriers to movement of any resident or migratory fish or wildlife species; nor will it deteriorate any existing fish or wildlife habitat. Based on the literature review and field survey performed as part of the BRA, the project site does not have a high presence of special status wildlife species. The existing wildlife-friendly fencing allows passage

of the smallest wildlife species while excluding larger animals from entering the project site and encouraging their passage through the adjacent riparian areas associated with the Santa Ynez River.

The proposed project is in compliance with local conservation and biological resources protection polices, thereby reducing potential impacts to wildlife movement associated with project activities. The proposed project additionally complies with local requirements regarding lighting of cultivation sites and would therefore not impact wildlife movement due to artificial lighting. The proposed project is considered routine cultivation activities and would not substantially interfere with wildlife movement on a local or regional scale or considerably reduce opportunities for wildlife movement. However, to avoid impacts to sensitive wildlife species that may be present seasonally or transitionally on site, the following avoidance and minimization measures BIO-1 through BIO-6 shall be implemented:

BIO-1 Special Status Species Avoidance and Minimization

- No pets should be allowed at the project area during cultivation/staging activities.
- Pallets or secondary containment areas for chemicals, drums, or bagged materials shall be used. Should material spills occur, materials and/or contaminants should be cleaned up appropriately.
- All vehicles and equipment shall be in good working condition and free of leaks.
- Cultivation/staging work, with the exception of spraying inside hoop structures, shall be restricted to daylight hours (7:00 AM to 9:00 PM) to avoid impacts to nocturnal and crepuscular (dawn and dusk activity period) species.
- Sensitive natural communities and jurisdictional drainages shall establish appropriate minimum riparian setbacks based on the SWRCB Cannabis General Order and County requirements.
- If any special status wildlife species are observed on site during cultivation/staging activities, the animal shall be allowed to safely leave the site on its own accord. If the individual is listed by the state and/or federal government(s) and remains in the work area, CDFW and/or USFWS should be contacted to ensure proper action.
- Erosion control and landscaping specifications shall allow only natural-fiber, biodegradable meshes and coir rolls, (i.e., no plastic-mesh temporary erosion control measures) to prevent impacts to the environment and to fish and terrestrial wildlife.
- Activities adjacent to the Santa Ynez River should implement BMPs, such as dust control and protecting construction materials from stormwater runoff and ensure accumulated soil and debris does not enter the Santa Ynez River.
- The existing fencing should be periodically checked for maintenance and verify they are capped to limit nesting birds.
- If rodenticides or other pesticides are used, they shall be wildlife-friendly to the extent feasible to avoid adverse mobilization effects through the food chain. The development and implementation of a Pest Management Plan shall include the techniques, proposed, use, storage and application of pesticides, herbicides, and rodenticides.
- During project activities, all trash that may attract predators should be properly contained, removed from the work site and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

BIO-2 Consultation with USFWS

Informal consultation with USFWS to confirm *no effect* and/or *may affect, but not likely to adversely affect* determination(s) for California red-legged frog, LBVI, and SWFL. Consultation outcome should be documented and recommendations from the USFWS should be implemented.

BIO-3 Workers Environmental Awareness Program

All personnel associated with the project shall attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to assist workers in recognizing special status biological resources with the potential to occur in the project site. This training will include information about California red-legged frog, western spadefoot, Northern California legless lizard, western pond turtle, Blainville's horned lizard, protected nesting birds including SWFL and LBVI, special status plants, sensitive habitats, jurisdictional waters, as well as other special status species potentially occurring in the project site.

The specifics of this program will include identification of special status species and habitats, a description of the regulatory status and general ecological characteristics of special status resources, and review of the limits of construction and measures required to avoid and minimize impacts to biological resources within the project site. A fact sheet conveying this information will also be prepared for distribution to all employees, and other personnel involved with construction of the project. All employees will sign a form provided by the trainer documenting they attended the WEAP and understand the information presented. A supervising employee will be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to special status species. If new personnel are added to the project, the supervising employee will ensure the new personnel receive the WEAP training before starting work. In addition, all WEAP materials will be readily available for reference during work hours.

While encounters with special status species are not likely or anticipated, any worker who inadvertently injures or kills a special status species or finds one dead, injured, or entrapped should immediately report the incident to the employee responsible for WEAP trainings. The employee should immediately notify USFWS and/or CDFW within five working days of the incident.

BIO-4 Seasonal Avoidance

The project is considered routine cultivation activities and does not propose vegetation removal or ground disturbance that is not associated with ongoing cultivation activities. Routine maintenance may occur annually or bi-annually which includes the removal and installation of hoop structure covers (plastic covers) and drainage maintenance. The following seasonal avoidance should be incorporated during maintenance activities:

AQUATIC AND SEMI-AQUATIC SPECIES AVOIDANCE

To avoid the dispersal period for California red-legged frog and other aquatic or semi-aquatic species, maintenance activities, including non-emergency driving along the access road adjacent to the historic side channel of the Santa Ynez River, and vegetation maintenance or debris removal within the jurisdictional detention basins and ditches on the western side of the property, shall be minimized 5 days prior to and 5 days after rain events, or conducted when ponded or flowing water is absent. If maintenance activities must occur during the rainy period or when ponded or flowing

water is present, a qualified biological monitor familiar with special status aquatic or semi-aquatic wildlife species with potential to occur in the project site shall conduct a clearance survey to ensure special status species are not present. If any individuals of California red-legged frog or western pond turtle are observed, work within 100 feet of the observation will stop until USFWS and/or CDFW is(are) contacted and a course of action is determined.

AVIAN NESTING AVOIDANCE

During the nesting bird season (generally February 1 through August 31), changes in routine operations should not occur within 100 feet of riparian areas, this includes the removal of hoop structure covers, road maintenance, and vegetation or debris clearing in drainages. If changes in routine operations occur during the nesting season, then a pre-construction nesting bird survey should be conducted no more than seven days prior to initiation of those activities. The nesting bird pre-construction survey should be conducted on foot inside the project footprint, including a 100-foot buffer around the project site, including access roads (300-foot for raptors), and using binoculars to the extent practicable. The survey should be conducted by a biologist familiar with the identification of avian species known to occur in southern California. If nests are found, an avoidance buffer (dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site) should be determined and demarcated by the biologist with bright orange construction fencing, flagging, or other means to mark the boundary. All personnel should be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No changes in routine activities should occur inside this buffer until a qualified avian biologist has confirmed breeding/ nesting is completed, and the young have fledged the nest.

BIO-5 Buffer Avoidance

Equipment, materials, machinery, vehicles, storage, and other items should not be located, stored, parked or serviced within 100-feet of drainages. At a minimum, a 10-foot visual buffer depicted by four-foot tall T-posts with an attached cable will be erected to restrict access.

The following mitigation measure BIO-2 is required (adapted from and in compliance with the FEIR for the Program).

BIO-6 (FEIR MM HWR-1) Cannabis General Order

The Cannabis General Order (adapted from and in compliance with the FEIR for the Program) includes regulations on the use of pesticides, rodenticides, herbicides, insecticides, fungicides, disinfectants, and fertilizers. The law requires that cannabis cultivators provide evidence of compliance with the SWRCB Requirements (or certification by the SWRCB stating a permit is not necessary) as part of their application for a California Department of Food and Agriculture (CDFA) cannabis cultivation license.

Timing

The applicant shall provide the Planning and Development Department (P&D) staff evidence of compliance with the SWRCB Requirements (or certification by the Central Coast Regional Water Quality Control Board stating a permit is not necessary) prior to issuance of any applicable permit by the P&D staff and issuance of a license by the County.

Monitoring and Reporting

P&D Permit Compliance through review of license applications and site inspections as needed in compliance with the Cannabis Policy and Cannabis General Order.

Appendix F

Hydrological Overview and Potential Impact Assessment (Kear Groundwater 2020)

KG18-0422

TO: Matt Allen

FROM: Kear Groundwater
P.O. Box 2601
Santa Barbara, CA 93120-2601

DATE: January 21, 2020

SUBJECT: *Hydrologic Overview and Potential Impact Assessment*
8701 Santa Rosa Road, Vicinity of West Buellton, Santa Barbara County, CA

Dear Mr. Allen,

This memorandum provides a summary of Kear Groundwater's (KG) hydrogeologic evaluation and review of potential riparian impacts due to groundwater usage for cannabis cultivation by Central Coast Agriculture, LLC (Central Coast) at the 8701 Santa Rosa Road property (APN 083-180-007) along the Santa Ynez River near Buellton, Santa Barbara County. Figure 1 presents the location of the parcel and the shallow alluvial well used for cannabis cultivation.

Our objective was to perform a review of available hydrogeologic information and existing on-parcel groundwater resources, as well as to evaluate the potential hydrologic impacts on nearby water quality, aquatic habitat, riparian habitat, wetlands, and springs, as related to the diversion of water associated with cannabis cultivation, in compliance with the State Water Resources Control Board's (SWRCB) Cannabis Cultivation Policy per the California Water Code (Section 13149). SWRCB and the Department of Fish and Wildlife (DFW) may apply these requirements to groundwater extractions (as is the case herein) where determined to be reasonably necessary. For this assessment, we reviewed publicly-available data and gathered site-specific information relating to the surface/subsurface flow regimes along the Santa Ynez River system (including Lake Cachuma releases) and its local fluvial geomorphology, in addition to details on well characteristics/production rates and the intended cultivation operations.

SWRCB defines groundwater as any water found beneath Earth's surface; however, there is a distinction between "percolating groundwater" in a groundwater basin versus groundwater that

acts as a "subterranean stream" flowing within a known and defined channel.

Based on our review, we conclude that while the existing well extracts from a shallow alluvial aquifer that may be classified as part of the "subterranean stream" of the Santa Ynez River flow system, water usage for cannabis cultivation at 8701 Santa Rosa Road is negligible within the larger flow system and will not "substantially affect instream flows" from the baseline condition.

A summary of our efforts, findings, conclusions, and more detailed recommendations follows.

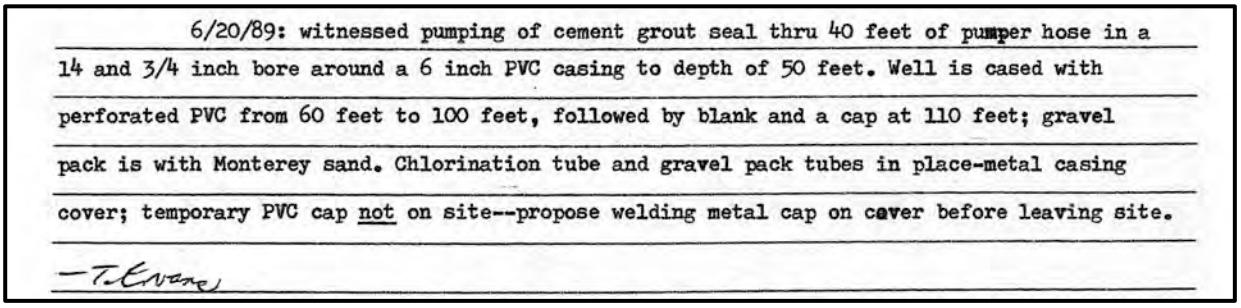
Existing On-Property Well for Cannabis Cultivation

There is one operational shallow groundwater well used for cannabis cultivation at the 8701 Santa Rosa Road property (Photo 1). The shallow well produces groundwater from unconsolidated sand and gravel alluvial aquifers that are, at least in part, in hydraulic connection with the Santa Ynez River flow system.

Per the available well record (Photo 2), Sierra Exploration Drilling Company (Sierra) drilled the agricultural shallow well (Photo 1) in 1989 as a 14.75-inch-diameter borehole to 110 ft bgs. The drillers reportedly equipped the well with a 6-inch-diameter PVC casing to 110 ft bgs and perforations from 60 to 100 ft. Sierra filled the annular space with Monterey sand gravel pack from 110 up to 50 ft, followed by the cement sanitary seal from 50 ft up to ground surface. The wellhead elevation is approximately 306 ft above mean sea level (AMSL) and is about 1750 lateral ft at its closest point to the main Santa Ynez River channel (measured via Google Earth).

The operational capacity and schedule for the well during a typical year is described in the "Cannabis Cultivation Operations and Groundwater Demand" section, below.

Photo 1. The agricultural shallow water well at 8701 Santa Rosa Road.



6/20/89: witnessed pumping of cement grout seal thru 40 feet of pumper hose in a 14 and 3/4 inch bore around a 6 inch PVC casing to depth of 50 feet. Well is cased with perforated PVC from 60 feet to 100 feet, followed by blank and a cap at 110 feet; gravel pack is with Monterey sand. Chlorination tube and gravel pack tubes in place-metal casing cover; temporary PVC cap not on site--propose welding metal cap on cover before leaving site.

—T. Evans

Photo 2. Shallow alluvial well record.

Hydrogeologic Overview

The 68.19-total-acre 8701 Santa Rosa Road property is situated within the Santa Ynez Valley, just south of the westward-draining Santa Ynez River between the Purisima Hills in the north and the Santa Ynez Mountains in the south (Figure 2 for watershed map). The subject parcel appears to be entirely within the delineated Santa Ynez River Valley Groundwater Basin ("Santa Ynez Basin," California Dept. of Water Resources, Bulletin 118, Basin No. 3-15). Specifically, the 8701 Santa Rosa Road property is near the confluence of the up-gradient Buellton Uplands Sub-Basin and the down-gradient Santa Ynez River Alluvial Corridor/Sub-Basin (SYRAB).

The Santa Ynez Basin is bounded by the Pacific Ocean on the west and by the consolidated/semi-permeable rocks that form the Santa Ynez Mountains to the south, the San Rafael Mountains to the northeast, and the Purisima Hills to the northwest. Groundwater aquifers are stored in unconsolidated alluvial deposits (SYRAB) and in the older sedimentary formations (BUB, primarily the semi-consolidated Orcutt Formation, Paso Robles Formation, and Careaga Sandstone, especially where fractured). The SYRAB and the BUB are generally separated by the Santa Ynez River Fault Zone (mapped as a separate limb from the larger Santa Ynez Fault). Local groundwater aquifers around the parcel are principally comprised of the unconsolidated alluvium deposits as well as the secondary fractures of the older bedrock formations.

Santa Barbara County Water Agency's (SBCWA) Groundwater Basins Status Report (2014), more detailed than SBCWA's most recent (August 2019) Summary Report, estimates an annual extraction of 1000 acre-ft from the SYRAB with around 90,000 acre-ft usable groundwater in storage (1.11% of total storage extracted annually). At the BUB, the County estimates an annual extraction of 2000 acre-ft with around 154,000 acre-ft usable groundwater in storage (1.30% of total storage extracted annually). An additional 800 acre-ft (annually) of estimated groundwater surplus from the BUB would conceptually recharge the SYRAB as underflow. Other groundwater sub-basins of the larger Santa Ynez Basin include the Santa Ynez Uplands (with 11,000 acre-ft annual extraction and 900,000 acre-ft estimated storage), and the Lompoc Uplands/Plain/Terrace Basins (with 28,000 acre-ft annual extraction and 170,000 acre-ft

estimated storage).

Groundwater within the SYRAB is managed in accordance subject to water rights agreements (Decision 89-18) so as to protect downstream water rights from Bradbury Dam. Therefore, downstream water levels fluctuate less in response to climate-related trends and more so to water available according to the Decision.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) of 2014 is a three-bill package (AB 1739, SB 1168, and SB 1319) that sets the framework for statewide long-term sustainable groundwater management by local authorities. SGMA requires the formation of new groundwater sustainability agencies (GSAs) tasked with assessing the conditions in their local basins and adopting locally-based sustainable management plans. SGMA provides local GSAs with tools and authority to (1) require registration of groundwater wells, (2) measure and manage extractions (including limiting the amount of water pumped by individual well owners), (3) require reports and assess fees, and (4) request revisions of basin boundaries, including establishing new sub-basins. GSAs responsible for high- and medium-priority basins must adopt long-term groundwater sustainability plans (GSPs) by 2022 (or 2020 if in overdraft). Plans will be evaluated every five years. GSAs have until 2040 to achieve groundwater sustainability.

Via the California Statewide Groundwater Elevation Monitoring (CASGEM), the DWR ranks the 204,642-acre Santa Ynez Basin as a medium-priority basin, with some overdraft and groundwater quality impairments as noted impacts. The Santa Ynez Basin has been divided into three management areas, known as the "Eastern Management Area," "Central Management Area," and the "Western Management Area." Each management area will have its own GSP. The 8701 Santa Rosa Road parcel is within the Central Management Area. The Central Management Area GSA includes the Santa Ynez River Water Conservation District (SYRWCD), the SBCWA, and the City of Buellton. The SYRWCD is a public agency formed in 1939 to protect and preserve local water rights and supplies of the Santa Ynez/Lompoc Valleys.

Hydrostratigraphy

The Santa Ynez River Valley is filled in the low-lying basins with Quaternary-aged alluvium of fluvial origin, with sediment derived from the weathering and erosion of the surrounding mountains. Alluvial deposits are comprised of an unconsolidated mixture of gravels, sands, silts, and clays of various thicknesses. Groundwater is stored in coarser-grained aquifers separated by finer-grained aquitards. Alluvium is generally separated into recent, active (Holocene-aged, Qa) and older, dissected (Pleistocene-aged, Qoa) terrace deposits. Alluvial deposits reach a maximum thickness of around 150 ft within the SYRAB before gradually thinning toward the foothills and becoming either too thin or unsaturated for sustained groundwater development.

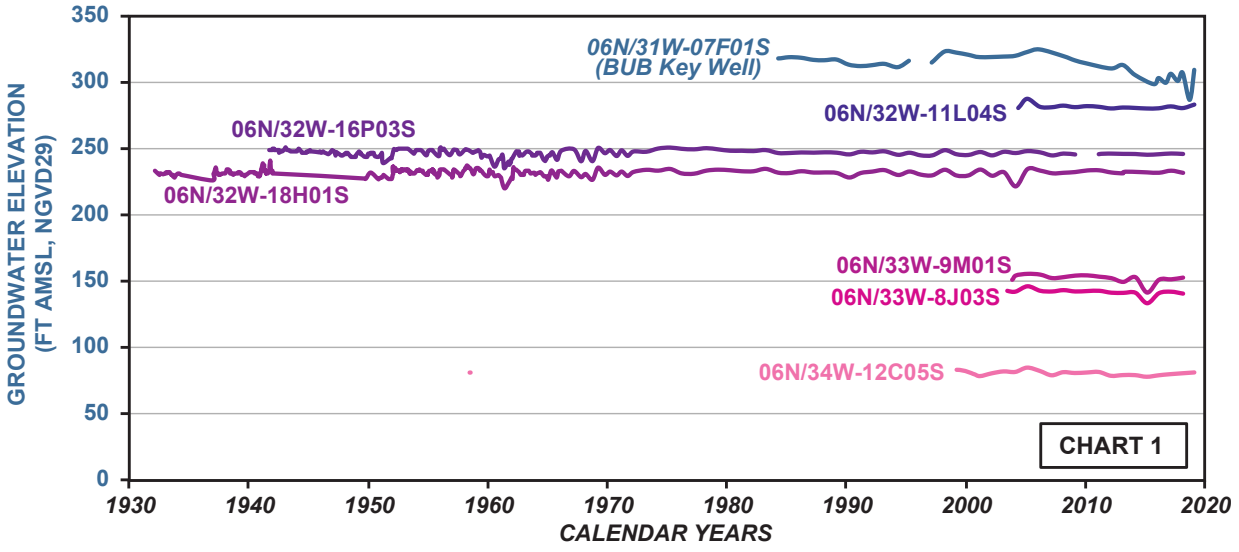
Around the 8701 Santa Rosa Road parcel, basin fill sediments are unconformably underlain by older, Tertiary-aged sedimentary and volcanic formations, including, from youngest to oldest, the Miocene-aged and marine-deposited Rincon Shale (Tr) and Vaqueros Sandstone (Tvq). Older formations include the Oligocene-aged, nonmarine Sespe Formation (Tsp; including its conglomeratic member, Tspcg) and the well-cemented/consolidated, Eocene-aged marine sedimentary units. Younger sedimentary units are exposed in the northern foothills of the Santa Ynez Valley and include the Plio-Pleistocene-aged nonmarine (Paso Robles Formation, QTp) and Pliocene-aged marine sediment (Careaga Sandstone, Tca), reaching a maximum thickness of around 1500 ft along the Santa Rita Syncline around the BUB.

Groundwater Recharge and Levels

Recharge to local aquifers is derived from percolation of precipitation, irrigation return flow, seepage from streams and rivers, and subsurface inflow. Precipitation at the subject parcel averages 18 to 20 inches annually but reaches over 30 inches along the nearby ridge tops (Figure 3 for annual rainfall isohyets). Per the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer (NFHL), the 100-year (1% annual chance) flood hazard zone follows the Santa Ynez River channel and the northern half (roughly) of 8701 Santa Rosa Road.

Surface water moves westward along the Santa Ynez River system before reaching the Lompoc sub-groundwater basins or discharging into the Pacific Ocean. Groundwater flows generally east to west, parallel to the Santa Ynez River flow regime, with some localized water table depressions in high pumping zones (such as by the northern part of the Lompoc Plain with municipal supply wells for the City of Lompoc). Water levels within the Central Management Area have historically remained stable with minimal declines (SBCWA, 2019).

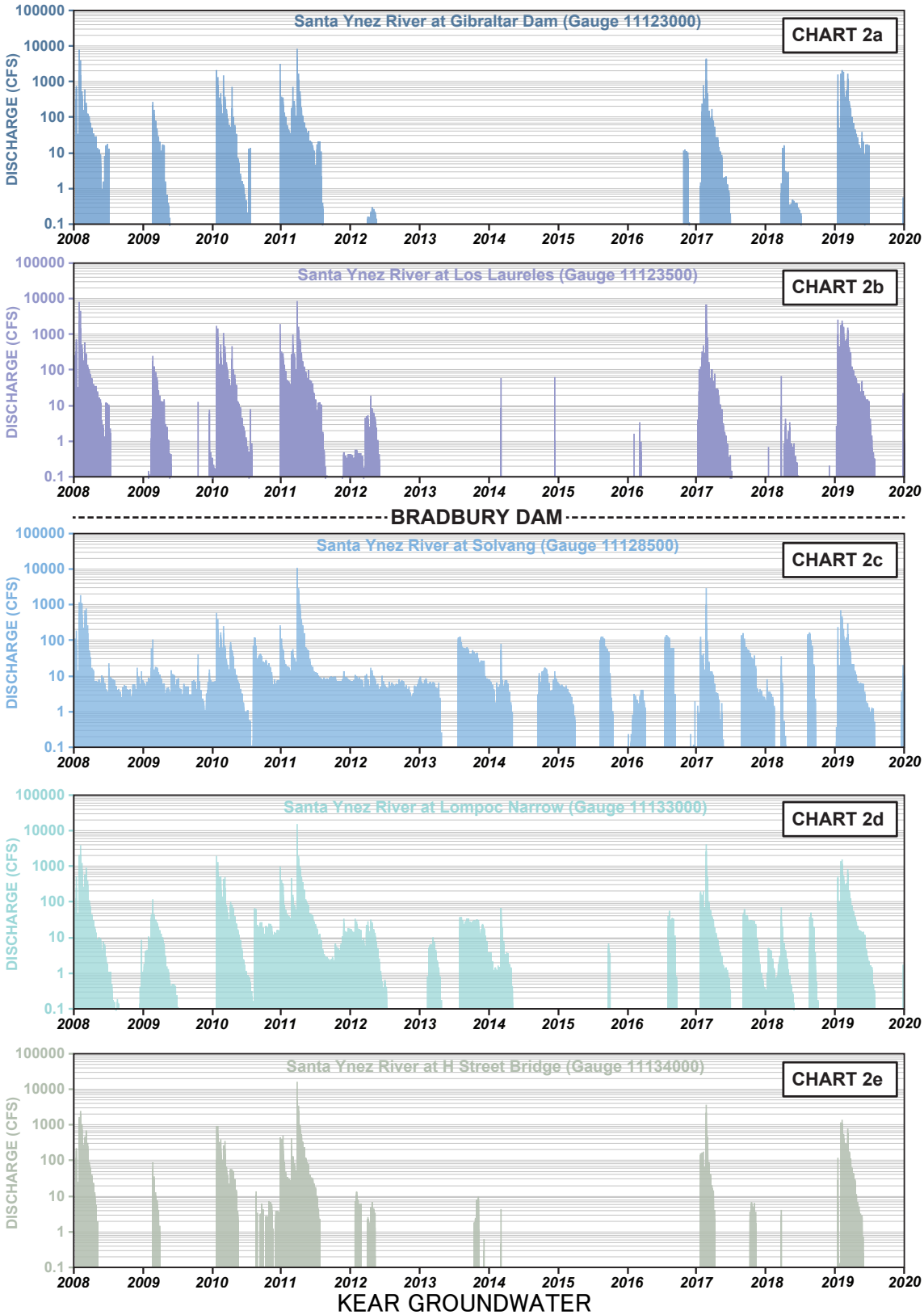
Available hydrographs from local groundwater wells (via the United States Geological Survey's [USGS] National Well Information System) reflect the fairly stable local water levels over the last many decades (Chart 1; Figure 2 for well locations). Level data are available from 1984 to present at the key well within the BUB, the reportedly 633-ft-deep assigned State Well Number 06N/31W-07F01S. The water level has ranged from as shallow as about 60 ft bgs in 2006 to as deep as about 87 ft bgs during the drought in 2015 (a recent measurement, in October 2018, was nearly 100 ft bgs but is still provisional, and the level recovered back to about 76 ft bgs by March 2019). Along the SYRAB, actively-monitored wells with long-term records include those assigned State Well Numbers 06N/32W-11L04S, -16P03S, -18H01S, 06N/33W-08J03S, -09M01S, and 06N/34W-12C05S, demonstrating historically stable water levels between around 30 and 60 ft bgs with well depths (where reported) as shallow as 50 ft and as deep as 162 ft bgs.



Santa Ynez River Surface Water Flow Regime

The 92-mile-long Santa Ynez River drains nearly 900-square-mile area from east to west across the Santa Ynez Valley. Dams impound its flow into reservoirs, largely for water supply purposes, at three locations: from upstream to downstream, Jameson Lake behind Juncal Dam (constructed 1930), Gibraltar Reservoir behind Gibraltar Dam (constructed 1920), and Lake Cachuma behind the Bradbury Dam (constructed 1950-53). Stream discharge along the majority of the Santa Ynez River is controlled by Lake Cachuma operations. Reportedly, the Santa Ynez River had the largest run of steelhead in Southern California prior to dam constructions (CDFW, 2013). Its watershed is generally divided into a lower and upper sub-basins relative to Bradbury Dam.

In addition to numerous precipitation stations, Santa Barbara County's Flood Control District (SBFCD) and the USGS currently maintain automated river/stream gauges within the County (Figure 3 for gauge locations). There are four gauges with continuous/long-term records along the Santa Ynez River: from upstream to downstream, Gibraltar Dam Outflow (USGS 11123000) [Chart 2a], Los Laureles, above Lake Cachuma (USGS 11123500) [Chart 2b], Solvang (USGS 11128500) [Chart 2c], and Lompoc Narrows (USGS 11133000) [Chart 2d]. Each gauge records the stream discharge (flow), water temperature, gauge height, specific conductance, and dissolved oxygen every 15 minutes. Additional daily discharge records are available at other gauges, including at the H Street bridge in Lompoc (USGS 11134000) [Chart 2e]. A stream flow gauge along Santa Rita Valley Creek (USGS 11131700) recorded peak annual streamflows from 1976 to 2006.


Santa Ynez River at Gibraltar Dam (Gauge 11123000)
CHART 2a
Santa Ynez River at Los Laureles (Gauge 11123500)
CHART 2b
BRADBURY DAM
Santa Ynez River at Solvang (Gauge 11128500)
CHART 2c
Santa Ynez River at Lompoc Narrow (Gauge 11133000)
CHART 2d
Santa Ynez River at H Street Bridge (Gauge 11134000)
CHART 2e
DISCHARGE (CFS)
100000
10000
1000
100
10
1
0.1
2008
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020

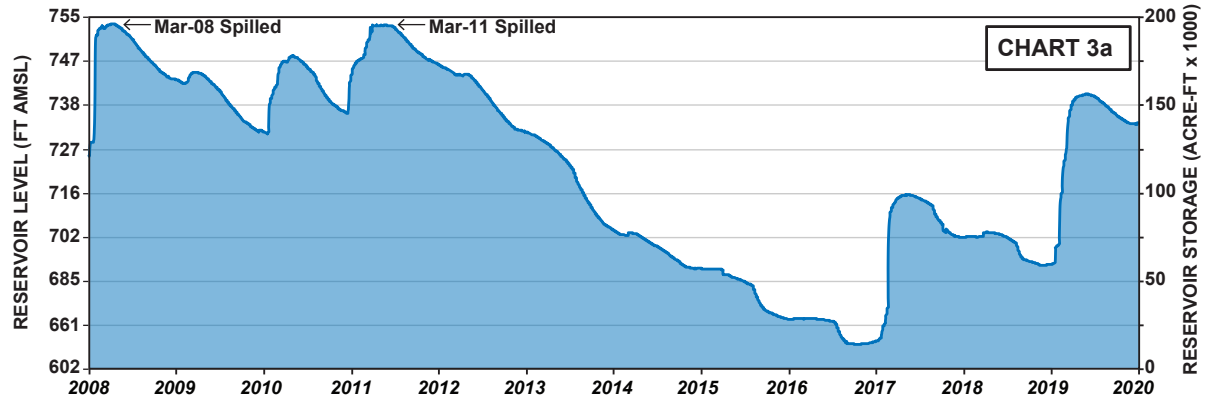
Lake Cachuma Inflows and Outflows

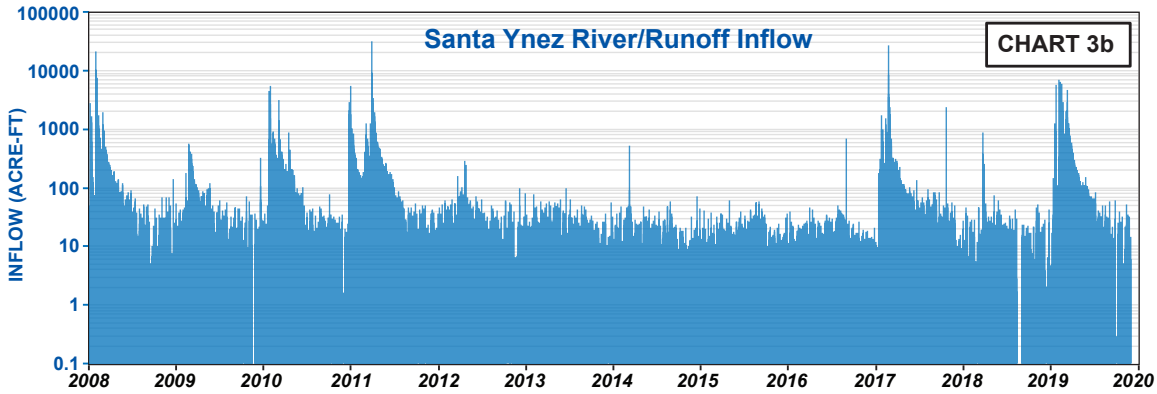
The United States Bureau of Reclamation (USBR) constructed the 279-ft-tall earthen Bradbury Dam between 1950 and 1953, as part of its Cachuma Project to store excess Santa Ynez River discharge. Lake Cachuma filled for the first time by 1958. The reservoir's maximum storage capacity is 193,305 acre-ft (currently around 139,492 acre-ft, or 72.2% filled, up from around 30% filled prior to the previous [2018-2019] wet winter) [Chart 3a]. Approximately 10% of its storage capacity has been lost due to silt accumulation behind the Dam (SBFCD, 2016). At the Dam's base, the Santa Ynez River's elevation is around 560 ft AMSL. The spillway elevation is 753 ft AMSL (actually spills at 750 ft but is surcharged to 753 ft for fish release). A recent (21-Jan-2020) reservoir surface elevation is 733.63 ft AMSL, available via the SBCWA at http://www.countyofsb.org/uploadedFiles/pwd/Content/Water/Documents/rainfallreport.pdf.

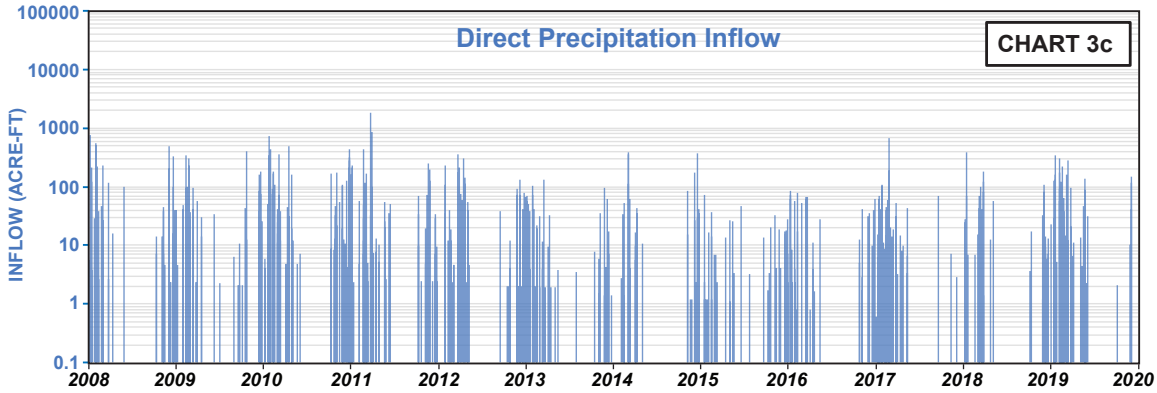
The USBR provides daily summaries on the reservoir's elevation, storage, inflows, and outflows.

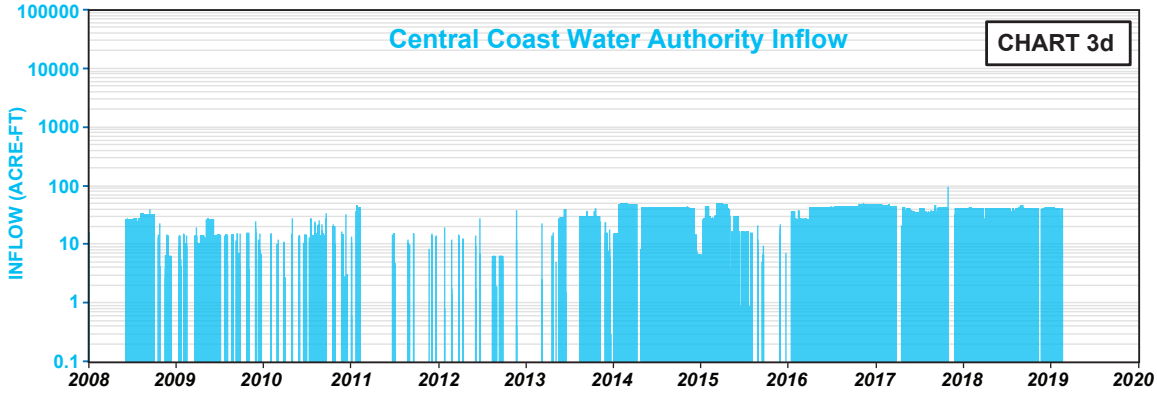
Inflow into Lake Cachuma occurs via (1) the Santa Ynez River runoff [Chart 3b], (2) precipitation directly on the reservoir surface [Chart 3c], and (3) the State Water Project through the Central Coast Water Authority (CCWA) [Chart 3d]. Inflow to the Lake from the River is calculated as the sum of the storage change, releases, and evaporation minus contributions from the CCWA and direct precipitation.

Outflow from Lake Cachuma occurs via (1) the Tecolote Tunnel, for delivery to the Cities of Santa Barbara, Goleta, Montecito, Summerland, and Carpinteria through the South Coast Conduit [Chart 4a], (2) continuously pumped water to Hilton Creek as required by the National Marine Fisheries Service for steelhead trout [Chart 4b], (3) generally annual, late-summer controlled outlet releases from the Tunnel to the Santa Ynez River, including subject to Decision 89-18 [Chart 4c], (4) the spillway when the maximum storage capacity is exceeded (most recently in March 2011) [Chart 4d], and (5) evaporation [Chart 4e]. The region's arid climate results in evaporation losses around 16,000 acre-ft per year (SBFCD, 2016).









KEAR GROUNDWATER

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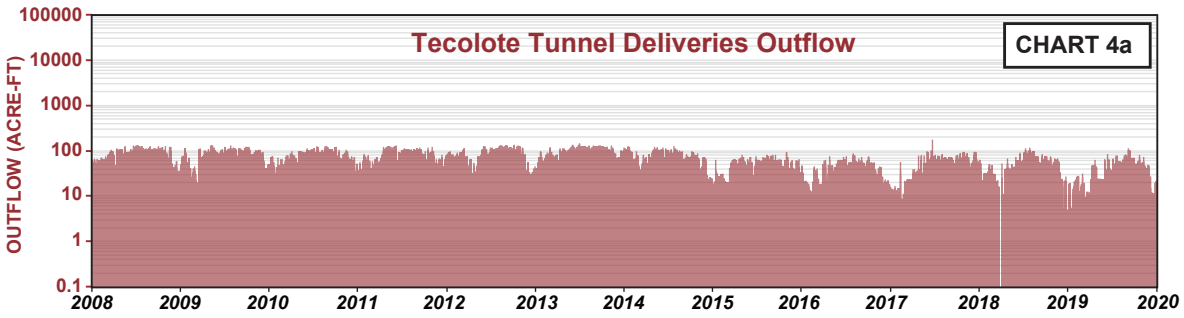
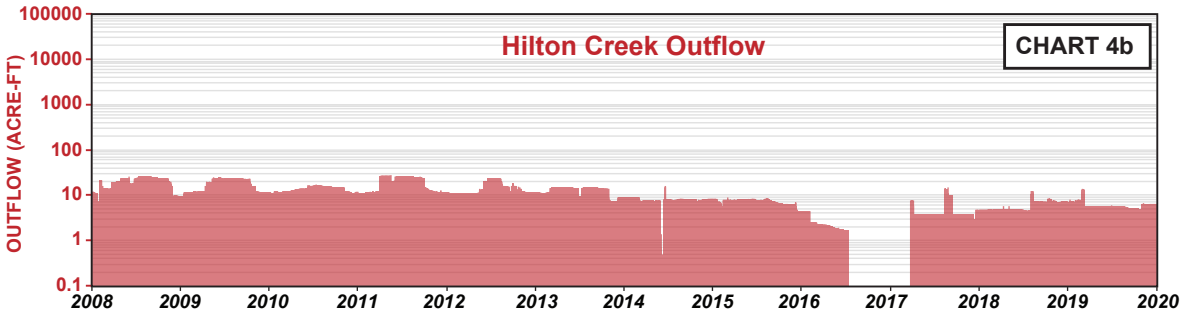
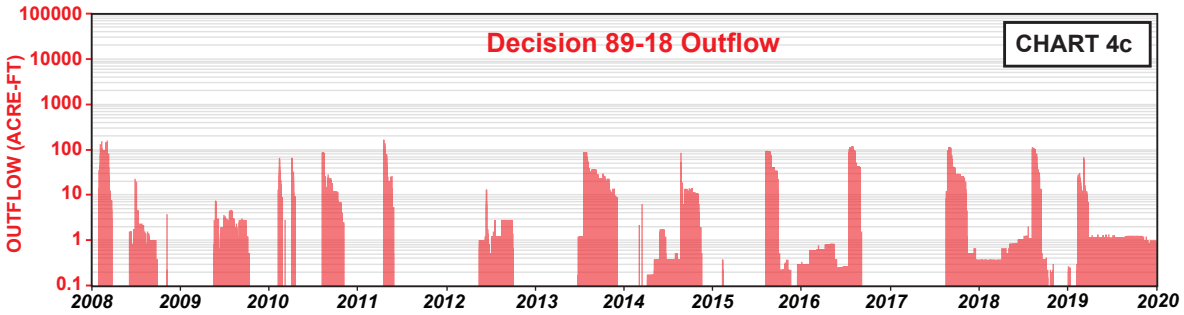
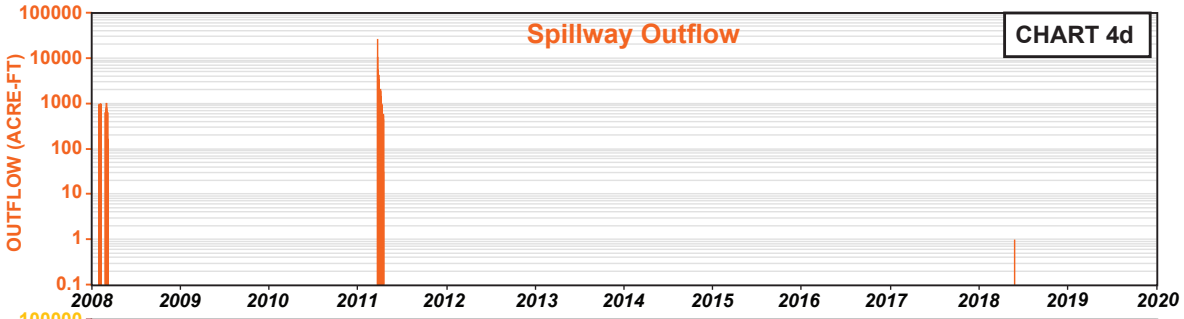
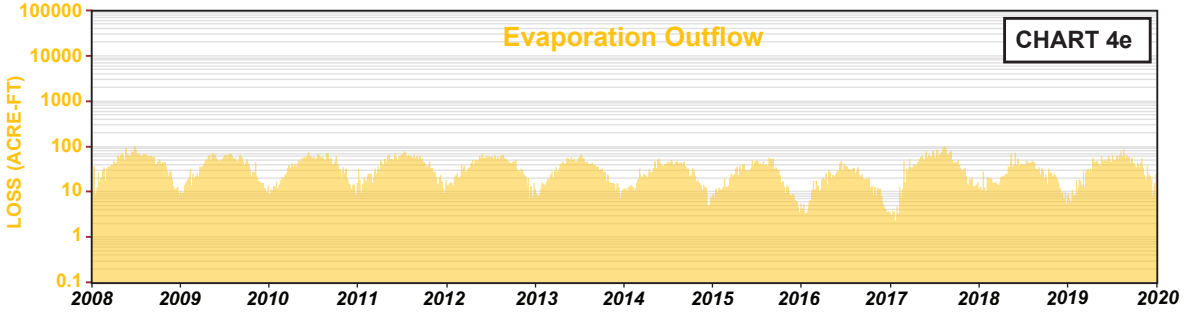

Tecolote Tunnel Deliveries Outflow
CHART 4a
OUTFLOW (ACRE-FT)
100000
10000
1000
100
10
1
0.1
2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020


Hilton Creek Outflow
CHART 4b
OUTFLOW (ACRE-FT)
100000
10000
1000
100
10
1
0.1
2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020


Decision 89-18 Outflow
CHART 4c
OUTFLOW (ACRE-FT)
100000
10000
1000
100
10
1
0.1
2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

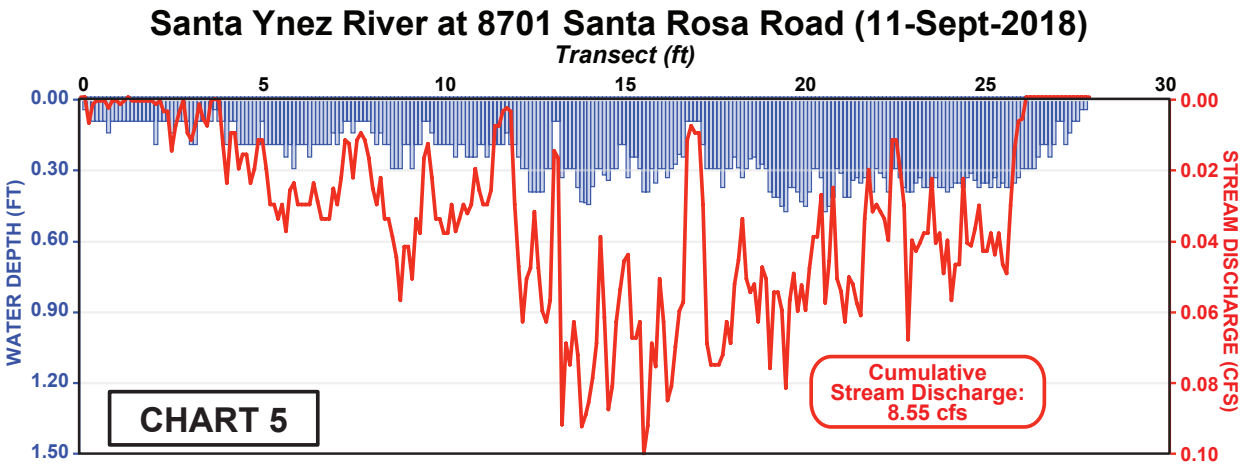

Spillway Outflow
CHART 4d
OUTFLOW (ACRE-FT)
100000
10000
1000
100
10
1
0.1
2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020


Evaporation Outflow
CHART 4e
LOSS (ACRE-FT)
100000
10000
1000
100
10
1
0.1
2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

The Santa Ynez River Hydrology Model, first developed by the SBCWA in 1979, estimates the following average annual values for surface water budgets at Lake Cachuma. During the 1918-1993 simulation period, the model estimates a total of 85,768 acre-ft of annual inflows, with 74,171 acre-ft from runoff, 7663 acre-ft from the CCWA, and 3934 acre-ft from direct precipitation. The model estimates 85,672 acre-ft total outflow, with 11,066 acre-ft to evaporation, 35,350 acre-ft to spills/leakage, 23,053 acre-ft to deliveries (not including an additional 2050 acre-ft lost to infiltration along the Tecolote Tunnel), 5819 acre-ft to Decision 89-18 releases, 2721 acre-ft to fish/habitat releases, and finally 7663 net acre-ft to other State Water Project deliveries (City of Solvang Master Plan EIR, 2012).

Local River Geomorphology

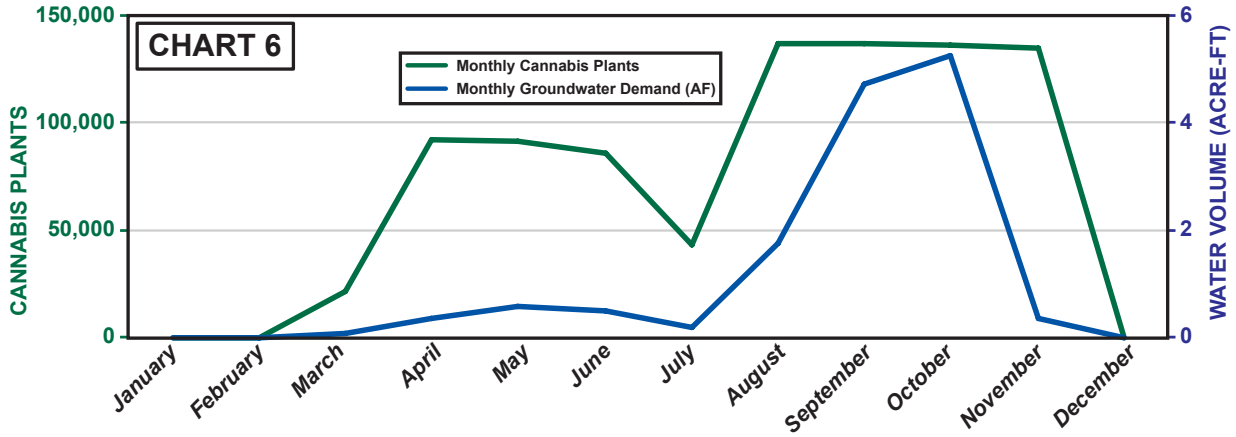
On September 11, 2018, KG measured the stream discharge across an approximately 28-ft-long transect of the Santa Ynez River (Figure 1 for transect location). KG measured the water depth and linear velocity (with a flow probe) at one-tenth-ft increments along the transect, in general agreement with the methods employed by the USGS on open-channel flow measurements. Discharge (in cubic ft per second, cfs) is estimated by multiplying the three parameters together: water depth (ft) x width (ft) x velocity (ft/sec). At the 8701 Santa Rosa Road property on September 11, 2018, KG estimated about 8.55 cfs stream discharge within the Santa Ynez River around 2:00 to 2:45PM (Chart 5), in good general agreement with data from the local USGS stream gauge near Solvang (7.5 and 10.6 cfs during the day of September 11, 2018).



Cannabis Cultivation Operations and Groundwater Demand

Cannabis is planted from March through November at the 8701 Santa Rosa Road property. Plants are harvested twice a year under outdoor canopies and six times a year under indoor canopies. Groundwater pumping generally occurs in the daytime hours. Plants are primarily irrigated with low-volume drip/micro-sprinkler methods. Per the SWRCB's Electronic Water Rights Information Management System (eWRIMS), no recordation of surface water diversion exists at the 8701 Santa Rosa Road property.

Chart 6 presents the month-by-month summary of cannabis plants and water demand at 8701 Santa Rosa Road during the 2019 calendar year. The total number of plants peaked in the late spring (about 90,000 plants in April, May, and June) and late summer into fall (about 135,000 plants in August, September, October, and November), with a mid-summer nadir (about 43,000 plants in July). The total annual demand was about 13.853 acre-ft for cannabis cultivation, entirely supplied as groundwater from the shallow well. The maximum monthly water demand for cannabis cultivation occurred in October with 5.264 acre-ft, which equates to a maximum instantaneous groundwater demand at 8701 Santa Rosa Road of about 39 gpm during that month. Actual operational capacities are higher but for shorter pump durations at the shallow well.



Conclusions

KG has found that alluvial groundwater extraction for cannabis cultivation at 8701 Santa Rosa Road is unlikely to "substantially affect instream flows" along the local reaches of the Santa Ynez River. This finding is based on:

(1) the surface flow regime downstream of Bradbury Dam is overwhelmingly controlled by the Decision 89-18 water releases.
(2) the parcel is located between the Buellton Uplands and the Santa Ynez River Alluvial Corridor sub-basins, where groundwater levels have been historically stable and the SBCWA (2014) recently estimated only 1.30% and 1.11% extracted of the total usable groundwater (about 154,000 acre-ft and 90,000 acre-ft) at the Santa Ynez River Alluvial Corridor and the Buellton Uplands, respectively.
(3) the 68.19-total-acre 8701 Santa Rosa Road property covers about 0.2% of the total surface area of the two sub-basins.

Please do not hesitate to contact us with any questions.

Best Regards,

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Professional Geologist No. 6960
California Certified Hydrogeologist No. 749

Timothy Becker
Professional Geologist No. 9589

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LOMPOC UPLANDS (SUB)BASIN

246

CITY OF LOMPOC

1

SANTA YNEZ RIVER ALLUVIAL CORRIDOR/ (SUB)BASIN

SANTA YNEZ RIVER VALLEY GROUNDWATER BASIN

BUELLTON UPLANDS (SUB)BASIN

SANTA YNEZ RIVER FAULT ZONE

[-07F01S]

CITY OF BUELLTON

-12C05S

-8J03S

-9M01S

-11L04S

-18H01S

-16P03S

Santa Ynez River

Santa Rosa Road

APN 083-180-007

101

LEGEND

- 8701 Santa Rosa Rd Parcel
- Groundwater Basins
- 100-Yr (1% Annual Chance) Flood Zone
- Rivers, Streams, Creeks
- Faults
- Roads
- On-Property Well for Cannabis Cultivation
- Proximal Key USGS-Monitored Groundwater Wells

Parcel Lines: SB County
Groundwater Basins: DWR Bulletin 118
Aerial Image: Google Earth (11-Aug-2018)

Streams, Rivers, Creeks: USGS NHD
Flood Zone: FEMA NFHL
Faults: USGS EHP

0 1 2 Miles

N

FIGURE 1

Central Coast Ag., LLC 8701 Santa Rosa Rd
KG18-0422
Aerial Map

KEAR GROUNDWATER

8701 Santa Rosa Rd Parcel
Groundwater Basins
Santa Ynez Basin Central Management Area
Santa Barbara County Boundary
Rivers, Streams, Creeks
Faults
Major Roads
Proximal Key USGS-Monitored Groundwater Wells
Reservoirs and Lakes
Watershed Boundaries

LEGEND

SIERRA MADRE MOUNTAINS
CARRIZO PLAIN
SAN ANDREAS FAULT
CUYAMA VALLEY
SANTA MARIA VALLEY
CASMALIA HILLS
SOLOMON HILLS
SAN RAFAEL MOUNTAINS
PURISIMA HILLS
SANTA YNEZ VALLEY
SANTA YNEZ MOUNTAINS
PACIFIC OCEAN

166
33
246
101
154
1

-12C05S
-8J03S
-9M01S
-18H01S
-16P03S
-11L04S
-07F01S

Lompoc
Los Olivos
Buellton
Solvang
Santa Ynez
Santa Barbara

Lake Cachuma
Gibraltar Reservoir
Jameson Reservoir
Santa Ynez River

Santa Ynez River Valley Groundwater Basin
Santa Ynez River Watershed

APN
083-180-007

FIGURE 2

Central Coast Ag., LLC
8701 Santa Rosa Rd

KG18-0422

Watershed Map

KEAR GROUNDWATER

Groundwater Basins: DWR Bulletin 118
Shaded Relief: Modified from USGS NED

Watersheds, Waterbodies: USGS NHD/WBD
Major Rivers & Streams: CDFW
Faults: USGS EHP

0 5 10 Miles

N

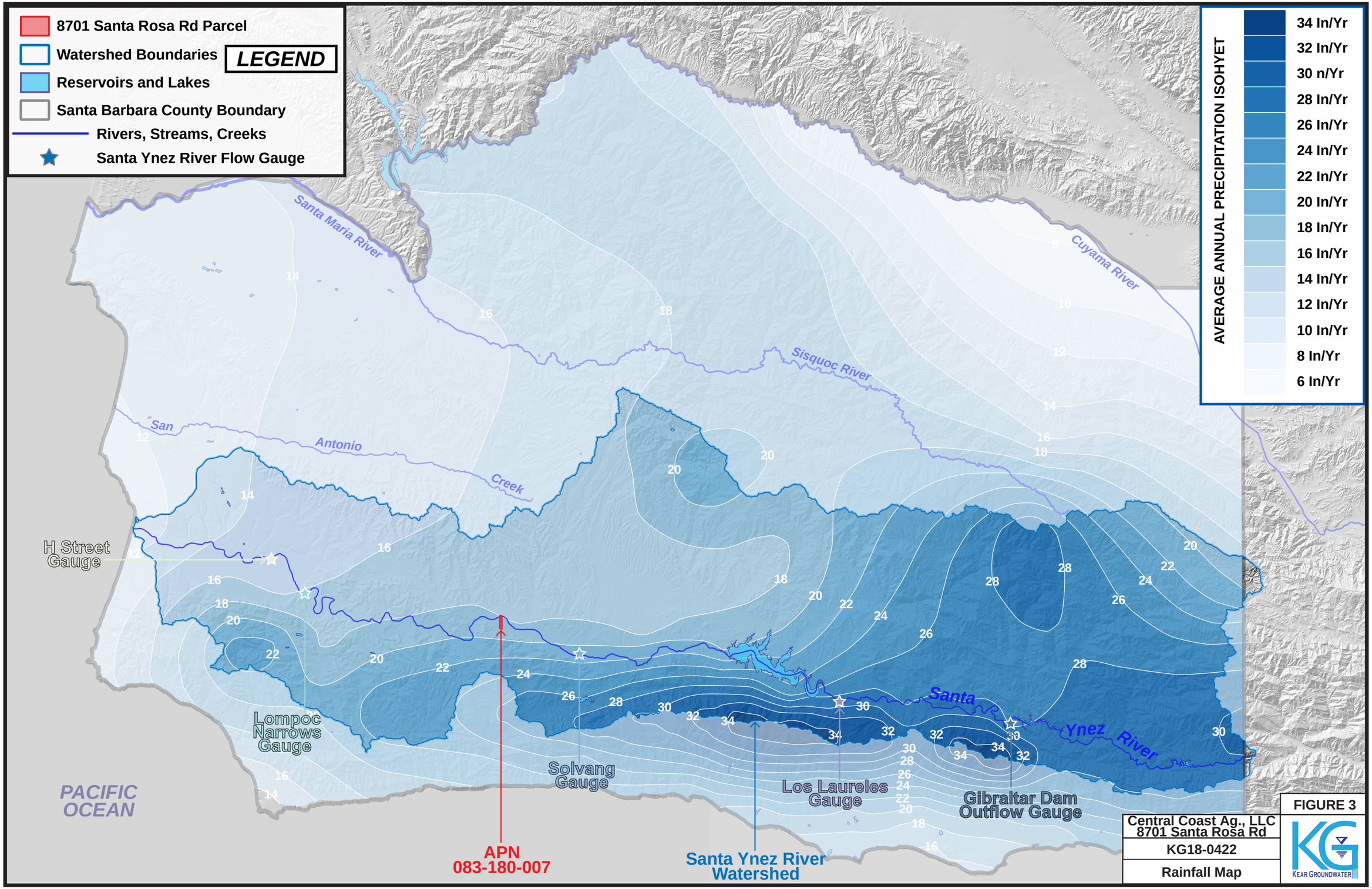


FIGURE 3

Central Coast Ag., LLC
8701 Santa Rosa Rd

KG18-0422

Rainfall Map

KEAR GROUNDWATER

Rainfall Isohyets: SB County
Shaded Relief: Modified from USGS NED

Watersheds, Waterbodies: USGS NHD/WBD
Major Rivers, Creeks: CDFW
Stream Gauges: USGS

0 5 10 Miles

N

Appendix G

Historical Imagery

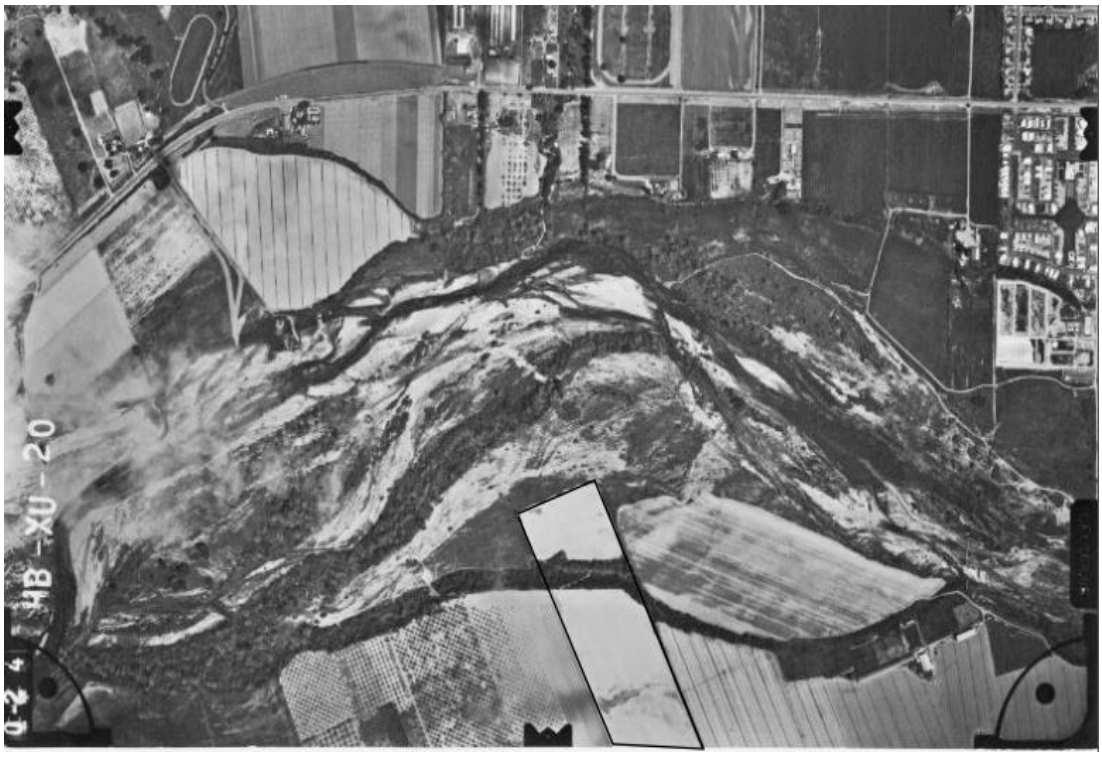
Photograph 1. Historic imagery of proejct site; January 13, 1938 (UCSB 2020)

Photograph 2. Historic imagery of proejct site; May 26, 1952 (UCSB 2020)

Photograph 3. Historic imagery of proejct site; April 20, 1956 (UCSB 2020)

Photograph 4. Historic imagery of proejct site; June 16, 1961 (UCSB 2020)

Photograph 5. Historic imagery of proejct site; July 19, 1969 (UCSB 2020)



Photograph 6. Historic imagery of proejct site; April 9, 1975 (UCSB 2020)

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