



COUNTY OF SAN LUIS OBISPO
DEPARTMENT OF PLANNING & BUILDING
Initial Study – Environmental Checklist

PLN-2039
4/2019

Project Title & No. Eden's Dream Minor Use Permit ED24-135 DRC2018-00183

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The proposed project could have a "Potentially Significant Impact" for environmental factors checked below. Please refer to the attached pages for discussion on mitigation measures or project revisions to either reduce these impacts to less than significant levels or require further study.

☐ Aesthetics	☐ Greenhouse Gas Emissions	☐ Public Services
☒ Agriculture & Forestry Resources	☒ Hazards & Hazardous Materials	☐ Recreation
☒ Air Quality	☒ Hydrology & Water Quality	☐ Transportation
☒ Biological Resources	☒ Land Use & Planning	☐ Tribal Cultural Resources
☐ Cultural Resources	☐ Mineral Resources	☒ Utilities & Service Systems
☒ Energy	☒ Noise	☐ Wildfire
☒ Geology & Soils	☐ Population & Housing	☒ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the Environmental Coordinator finds that:

- ☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Cassidy Bewley, SWCA
Environmental Consultants
Prepared by (Print)

Signature

12/2/2024
Date

Eric Hughes

Signature

12/2/2024
Date

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Project Environmental Analysis

The County's environmental review process incorporates all of the requirements for completing the Initial Study as required by the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The Initial Study includes staff's on-site inspection of the project site and surroundings and a detailed review of the information in the file for the project. In addition, available background information is reviewed for each project. Relevant information regarding soil types and characteristics, geologic information, significant vegetation and/or wildlife resources, water availability, wastewater disposal services, existing land uses and surrounding land use categories and other information relevant to the environmental review process are evaluated for each project. Exhibit A includes the references used, as well as the agencies or groups that were contacted as a part of the Initial Study. The County Planning Department uses the checklist to summarize the results of the research accomplished during the initial environmental review of the project.

Persons, agencies or organizations interested in obtaining more information regarding the environmental review process for a project should contact the County of San Luis Obispo Planning Department, 976 Osos Street, Rm. 200, San Luis Obispo, CA, 93408-2040 or call (805) 781-5600.

A. Project

DESCRIPTION: A request by Eden's Dreams LLC for a Minor Use Permit (DRC2018-00183) for the phased establishment of 22,000 square feet (sf) of indoor, mixed-light cannabis cultivation canopy, 5,500 sf of indoor ancillary cannabis nursery canopy, ancillary processing activities, and ancillary transport of cannabis products grown on-site on an approximately 99.11-acre parcel (assessor parcel number [APN] 034-321-003). The project includes demolition of an existing 14,000-sf arena structure and construction of a 35,500-sf greenhouse for indoor cannabis cultivation and nursery uses, construction of a 980-sf structure and a 9,000-sf structure for ancillary processing activities, cannabis storage, and office uses. The project also includes various site improvements, including installation of water tanks, portable restrooms, dumpsters, and a compost area. The project would result in approximately 1.13 acres of site disturbance. The project also includes a request to modify the parking requirements set forth in County Land Use Ordinance Section 22.18.020 to allow for the provision of 13 parking spaces where 79 would be required. The project would be located at 4337 South El Pomar Road approximately 2.8 miles east of the city of Atascadero. The project site is within the Agriculture land use category within the North County Planning Area, El Pomar Sub-region.

Expanded Project Description

The project would be developed in two phases, as described below and summarized in Table 1. Phase I is anticipated to be implemented within 1 to 3 years following project approval, and Phase II is anticipated to be implemented within 3 to 10 years following project approval, depending on market conditions.

Phase I of Proposed Project Components

Phase I of the proposed project would include the construction of a 35,500-sf greenhouse and a 980-sf processing building (herein referred to as Processing Building A; see Appendix A). The proposed 35,500-sf greenhouse would be located approximately 559 feet from the northern property line, 235 feet from the western property line, 930 feet from the eastern property line, and 2,289 feet from the southern property line. Uses within the proposed greenhouse would include establishment of 22,000 sf of indoor, mixed-light cannabis cultivation canopy within a 27,500-sf cultivation area and 5,500 sf of ancillary cannabis nursery canopy within a 6,875-sf cultivation area. The ancillary cannabis nursery would be physically separated from the indoor cannabis cultivation area and all nursery plants would be used to support the proposed on-site

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cannabis cultivation and would not be sold or transported off-site in accordance with County LUO 22.40.050.A.3. The proposed greenhouse would also include a 1,125-sf storage area for storage of raw harvested cannabis plants, pesticides and fertilizers, and up to three 5,000-gallon water storage tanks for irrigation purposes and an approximately 100-gallon propane tank for heating purposes (Kirk Consulting 2023a).

Table 1. Project Summary

Project Component	Proposed Cannabis Activity	Quantity/Gross Area (sf)	Cannabis Canopy (sf)
Phase I			
Greenhouse (35,500 sf)	Cannabis cultivation	27,500	22,000
	Ancillary nursery	6,875	5,500
	Storage and (3) 5,000-gallon water tanks for cannabis irrigation	1.125	N/A
Processing Building A	Ancillary processing and ADA restroom, septic system	980	
Compost Area	Compostable cannabis waste storage	875	
Portable Restrooms	Employee restrooms	32	
ADA Parking Space	Parking	180	
Existing Parking Spaces		2,430	
Existing 5,000-gallon water storage tank	Water storage for cannabis irrigation	100	
(4) Existing 2,600-gallon water storage tanks		200	
Existing 1,400-gallon water storage tank		50	
Phase II			
Processing Building B (9,000 sf)	Ancillary processing	7,500	N/A
	Storage	1,150	N/A
	Office	200	N/A
	ADA restroom and circulation areas	150	N/A
Total Area, All Uses		49,395 sf (1.13 acres)	22,000 (indoor canopy) 5,500 (ancillary nursery canopy)

Source: Kirk Consulting 2023a

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The greenhouse would be equipped with light-emitting diode (LED) light fixtures to be used to illuminate work areas and stimulate cannabis plant growth. The greenhouse would be equipped with blackout curtains to minimize any potential for off-site light pollution and odor mitigation technology, such as carbon scrubbers. The project would result in three to six harvests of cannabis per year.

Following harvest, cannabis would be brought to Processing Building A where cannabis harvested on-site would be dried, cured, trimmed, and packaged. Processing Building A would be constructed of corrugated metal and have a barn-like appearance. This structure would also be equipped with carbon scrubbers or similar odor mitigation technology. Once processed, cannabis products would be packed into totes and transported off-site for further processing, manufacturing, packaging, and/or distribution.

Phase I of the project also includes construction/installation of site improvements including an 875-sf compost area where cannabis vegetative waste would be disposed, dumpsters for non-compostable waste, a new Americans with Disabilities Act-compliant parking space, use of 15 existing parking spaces, and use of one existing 5,000-gallon water storage tank, four 2,600-gallon water storage tank, and one 1,400-gallon water storage tank for cannabis irrigation. Other site improvements would include installation of up to 5 portable restrooms during harvest seasons adjacent to the proposed greenhouse. Permanent restrooms would be available for staff and located within Processing Building A. The project would include construction and installation of an individual on-site septic system for the restrooms located within Processing Building A.

Phase II of Proposed Project Components

Phase 2 of the proposed project would include construction of a 9,000-sf metal barn-like structure (herein referred to as Processing Building B) to include approximately 7,500 sf of ancillary processing space, 1,150 sf of storage space, 200 sf of office space, and 150 sf of restrooms and internal circulation areas (e.g., walkways; Kirk Consulting 2023a; see Appendix A). The restrooms provided in Processing Building B would connect to the on-site septic system constructed during Phase I of the project. Ancillary processing ancillary processing activities would include drying, curing, trimming, and packaging of cannabis harvested on-site.

Ancillary Transport

The project includes ancillary transport of cannabis products grown on-site (excluding nursery seeds, plants, or clones) and obtaining the necessary Distribution license (Type 11 or Type 13) from the California Department of Cannabis Control (DCC). All cannabis products would be transported in enclosed containers in reefer trucks or passenger vans. One to five ancillary transport vehicle trips are anticipated to occur after each harvest period, occurring during standard hours of operation (dawn to dusk, seven days a week). In the event the applicant has not obtained a distribution state license by the time cannabis is ready to be transported offsite, the applicant will contract with a licensed third-party distributor.

Access

The project would maintain existing vehicle access to the site from a private 20-foot-wide all-weather driveway with 2-foot shoulders off South El Pomar Road, which is a paved, County-maintained roadway. An *Access and Sight Distance Evaluation, and Trip Generation Study* was conducted by Orosz Engineering Group, Inc. (OEG) in May 2023 and concluded that the existing driveway entrance meets the applicable County sight distance standards (OEG 2023; Appendix B).

Security

The project site has existing 4-foot-tall four-strand barbed wire fencing along the property line. The project includes construction of a 6-foot-tall wooden interior fence with barbed wire along the top to surround the greenhouse and processing buildings. The project would also include installation of security monitoring equipment. Camera servers, digital storage data bases with live transmission to the County Sheriff's office,

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desktop viewing stations with live feed monitors of all entry and exit points, and battery back would be installed in the greenhouses (for Phase I of development) and Processing Building B (for Phase II of development). Security entrance gates would be installed at the property entrance and at the entrance of the cannabis premises and would be designed to comply with applicable California Department of Forestry and Fire Protection (CAL FIRE) and County Sheriff's Office specifications. Biometric (thumbprint) readers, or similar devices, would be installed at building interior access points. Exterior security lighting would be installed based on recommendations provided by the County Sheriff's Department. A formal lighting plan would be submitted at the time of application for a construction period. All exterior lighting would be shielded, directed downward, and would comply with California Green Building Code and California Title 24 outdoor lighting energy efficiency requirements.

In accordance with California Department of Cannabis Control regulations, all cannabis products being transported would be accompanied by a travel manifest that would account for all products being transported. All routes and times of transportation would be monitored and randomized. Cannabis products would be locked in containers within the inside of the vehicle. All loading and unloading of cannabis product would occur behind locked gates. All vehicles planned to be used for distribution would also be inspected by the Sheriff's Office prior to use.

Construction

The project includes demolition of an existing 14,000-sf arena structure built in 1981. The project would result in approximately 1.13 acres of total site disturbance, including up to 5,000 cubic yards of earthwork. All proposed earthwork would be balanced on-site. For the purposes of this analysis, the total combined construction period for Phase I and Phase II would be approximately 11 to 12 months.

Operation

The project would employ up to 6 full-time employees with an additional 7 part-time employees during harvest season for a maximum of 13 employees; the project will operate seven days per week between the hours of 7:00 a.m. to 4:30 p.m. Up to six harvests of cannabis would take place on an annual basis. During Phase I, harvest would occur for 1 to 3 weeks, after which cannabis will be brought into Processing Building A, where it would be dried, cured, trimmed, and then transferred to an offsite processing facility. During Phase II, harvest would occur for 2 to 4 weeks, after which cannabis would be brought into Processing Building A or Processing Building B, where it would be dried, cured, trimmed, packaged, and subsequently transported offsite for further preparation and distribution. Processing activities would occur over a 2- to 4-week period, depending on the yield of the harvest.

The project would require an estimated annual water demand of 2.7 acre-feet per year (AFY; Cleath-Harris Geologists 2021; Appendix C). For the purposes of this document analysis, it is assumed that the project's total annual water demand would result in no more than 3.7 AFY as a reasonable worst-case scenario. The project would rely on an existing groundwater well with a 6-inch casing and a 5 horsepower (HP) pump located on the project site for its water supply. A 4-hour pump test was completed by Filipponi & Thompson Drilling in July 2018 and concluded that the well produces an average of 30 gallons per minute (Filipponi & Thompson Drilling 2018; Appendix D). The cannabis operation would use one existing 5,000-gallon tank, four existing 2,600-gallon tanks, and one existing 1,400-gallon tank located on a hill to the east of the greenhouse and three new 5,000-gallon water tanks located inside the storage area within the greenhouse to store water for irrigation purposes. A reclamation rate of 23 percent of total water used is anticipated from the greenhouse. This would be achieved by recycling water from various mechanical systems such as dehumidifiers, cooling systems, and heating systems. In addition, water efficient plumbing fixtures (like low-flow water units) would also be used to assist with conserving water consumption. In addition, the project applicant proposes to

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remove approximately 2.35 acres of the existing approximately 4.56-acre olive orchard on the project site to achieve (or partially achieve) the required water offset requirements set forth in the County LUO for establishing new cannabis uses within the Paso Robles Groundwater Basin.

The project would include use of light emitting diode (LED) grow lights, other lighting fixtures, security equipment, the odor control system, two 280,000-british-thermal-unit (BTU) gas-fired room heaters, and other heating, ventilation, and air conditioning (HVAC) equipment. The project is estimated to result in a total energy demand of 1,379,242 kilowatt-hours per year (InBalance Green Consulting 2023; Appendix E). The project includes a rooftop grid tied solar array on Processing Building B, sized to offset 50 percent of the estimated energy use for the project (approximately 400 kW direct current). The remaining project electricity would be provided by Pacific Gas and Electric (PG&E), and the project applicant proposes to enroll in the PG&E Solar Choice Program, Regional Renewable Choice Program, or another comparable public or private renewable energy program (InBalance 2023; Appendix E).

The project is anticipated to result in the generation of a total of 48 average daily trips (ADT) with seven p.m. peak hour (between 4:00 p.m. and 6:00 p.m.) trips on a typical weekday (OEG 2023). In addition, approximately one to five ancillary transport vehicle trips are anticipated to occur after each harvest period (up to six times per year) and there would be up to six commercial deliveries to the site per year to supply the proposed operation with soil, nutrients, and farm supplies. Supply deliveries would be generally consistent with existing supply deliveries to support the agricultural operations on the property.

During operation, all pesticides and fertilizers would be stored within a 1,125-square-foot room within the proposed greenhouse. The project would use the following pesticides and fertilizers on-site:

• Reynoutria sachalinensis	• Cinnamon
• Chromobacterium subtsugae strain PRAA4-1	• Cloves and clove oil
• Bacillus amyloliquefaciens strain D747	• Garlic and garlic oil
• Potassium silicate	• Bacillus subtilis
• Potassium bicarbonate	• Ammonium sulfate
• Potassium sorbate	• Zinc
• Sulfur	• Sodium molybdate
• Magnesium sulfate	• Manganese
• Copper	• Paraffinic oil (JMS stylet)
• Phosphate	• Rosemary and rosemary oil
• Calcium nitrate	• Soybean oil
• Iron	• Peppermint oil
• Potassium nitrate	• Isaria fumosorosea
• Boron	• Insecticidal soaps (potassium salts of fatty acids)
• Potassium monobasic phosphate	• Geraniol
• Trichoderma harzianum	
• Rhizophagus intraradices	

Previous Environmental Review

A proposed cannabis cultivation project on the project site including both indoor and outdoor cultivation components (herein referred to as the Previously Proposed Project) was previously analyzed in a Mitigated

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Negative Declaration. The Draft Mitigated Negative Declaration prepared for the Previously Proposed Project was received by the State Clearinghouse at the California Governor's Office of Planning and Research on September 27, 2019 (SCH#2019099092) and comments were received from the California Department of Fish and Wildlife (CDFW) and California Department of Food and Agriculture (CDFA). In July 2020, the County of San Luis Obispo published the revised Draft MND for public review and comments were received from legal counsel representing a group of citizens within the community of Templeton (i.e., Save Our Templeton Neighborhoods). The recirculated document contained an amended Biological Resource section which included additional analysis and mitigation measures in response to CDFW's comments on Special Status Wildlife. The recirculated document also contained amendments to the Air Quality, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Noise, Hydrology and Water Quality, and Utilities, and Mandatory Findings of Significance sections in response to comments received from CDFA. In addition, the project was modified to provide 6-foot chain link fence and to acknowledge olive orchard removal activity proposed for Spring 2020. Prior to taking the project to hearing, the County determined additional time was needed to address public comments on the 2020 Draft MND.

In 2021, the project applicant requested that the County initiate preparation of an Environmental Impact Report (EIR) for the proposed indoor and outdoor cannabis cultivation project. While the County had determined that the project would not result in any significant, unavoidable environmental impacts, the project applicant requested that an EIR be prepared to provide a higher standard of legal defensibility in the event that the CEQA document was challenged. This request was due, in part, to the heightened level of controversy associated with a proposed cannabis cultivation project located on the 25-acre parcel directly to the west of the project site, known as the City Boy Farms cannabis project (DRC2017-00123). A Draft MND prepared for the City Boy Farms project in August 2019 (SCH#2019089069) had received a number of comment letters, one of which was prepared by a law firm, and in an effort to provide a higher legal defensibility standard, the City Boy Farms applicant requested the County to prepare an EIR for the project. On January 24, 2022, the County published a Notice of Preparation of a Draft EIR for the Previously Proposed Project (2019099092). Shortly thereafter, the Previously Proposed Project was placed on hold at the request of the applicant. Additionally, the City Boy Farms project has since been withdrawn and no cannabis activities are currently proposed on that site.

In October 2023, the project applicant resubmitted revised application materials to reflect a modified project design to remove the previously proposed outdoor cannabis cultivation component and reduce the total size of proposed processing facilities. This revised project design is the proposed project evaluated in this document.

Requested Modifications

The project includes a request for a modification from the parking standards set forth in Section 22.18.050.C.1 of the County Land Use Ordinance (LUO). Proposed cannabis cultivation activities would generate parking demand comparable to "Nursery Specialties" for the purpose of applying County parking standards, with a parking requirement of one parking space per 500 square feet of building floor area. The proposed drying, curing, trimming, grading, and other processing activities would generate a parking demand comparable to "Ag Processing" which requires one parking space per 1,000 square feet of use area. Proposed storage space and other office uses would generate parking demand comparable to storage and other offices uses, which require 1 space per every 1,000 square feet of use area and 1 space per every 400 square feet of use area respectively. Based on the County's Parking Standards set forth in Section 22.18.050 of the Inland LUO, the project would be required to provide 79 parking spaces on-site (see Table 2).

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Table 2. Required Parking Calculations

Proposed Use	Applicable Parking Standard	Parking Spaces Required	Square Footage Proposed	Parking Spaces Required
Indoor cultivation / indoor nursery	Nursery Specialties	1 space / 500 sf floor area	34,375 sf	68.75
Processing	Ag Processing	1 space / 1,000 sf use area	8,480 sf	8.48
Storage	Warehousing: Commercial Storage ¹	1 space per 2,000 sf use area for first 10,000 sf, 1 space per 5,000 sf use area thereafter	2,275 sf	1.14
Office uses	Ag Processing ¹	1 space / 1,000 sf floor area	200 sf	0.20
Total Required				78.57 spaces

¹Per the County Inland LUO Section 22.18.050.A.5, where a building occupied by a single use contains several functions (such as processing, office and storage areas), parking shall be required for the principal use, for the gross floor area (total area of all internal functions), except where the parking standards in Subsection C set specific requirements for functional areas within a principal use. Where Subsection C. does not set specific requirements for functional areas within a principal use and the principal use contains storage areas larger than 50,000 square feet, the parking requirement shall be determined separately for those areas as specified for warehousing in Subsection C.11.

The project includes a request to modify the parking standards to allow for provision of 13 parking spaces on-site for cannabis operations. As described above under *Operation*, the project would employ up to 6 full-time employees with an additional 7 part-time employees during harvest season for a maximum of 13 employees. It is important to note that while Nursery Specialties is considered the most similar use of equivalent intensity for proposed cultivation and nursery activities, nursery specialty uses are typically open to the public and are visitor-serving and cannabis cultivation and nursery activities are not, resulting in an overall lesser demand for on-site parking.

Baseline Conditions

The project site contains gently sloping topography. Existing vegetation includes olive trees, grape vines and ornamental landscaping; the site also contains three discontinuous stands of oak woodland. An ephemeral drainage with sparse to dense stands of oaks borders the west property line (Figure 2). The proposed greenhouses and accessory structures would be located in a relatively level area at the north end of the project site surrounded by vineyards, olive trees and relatively dense stands of oak trees to the east and west (Figure 2). The site also contains a single-family residence, a bed and breakfast business, and agricultural accessory structures.

ASSESSOR PARCEL NUMBER(S): 034-321-003

Latitude: 35° 31' 40" N

Longitude: 120° 37' 10" W

SUPERVISORIAL DISTRICT # 5

Other Public Agencies Whose Approval is Required

Permit Type/Action	Agency
State Cultivation Licenses	California Department of Cannabis Control
Written Agreement Regarding No Need for Lake and	California Department of Fish and Wildlife (CDFW)

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Streambed Alterations (LSA)	
Waiver of Waste Discharge Requirements for Discharges of Waste Associated with Cannabis Cultivation Activities, Order No. WQ-2017-0023-DWQ (General Order)	Regional Water Quality Control Board (RWQCB)
National Pollution Discharge Elimination System (NPDES) General Construction Permit	RWQCB
Safety Plan Approval and Final Inspection	California Department of Forestry (CalFire)

A more detailed discussion of other agency approvals and licensing requirements is provided in Exhibit B of this Initial Study.

B. Existing Setting

Plan Area: North County **Sub:** El Pomar/Estrella **Comm:** Rural
Land Use Category: Agriculture
Combining Designation: Renewable Energy
Parcel Size: 99.11 acres
Topography: Nearly level to gently rolling
Vegetation: Agriculture (olive orchard and vineyards), trees, ruderal
Existing Uses: Agricultural uses (olive orchard and vineyards), single-family residence(s), Bed and Breakfast

Surrounding Land Use Categories and Uses:

North: Agriculture; agricultural uses , single-family residence(s) **East:** Agriculture; agricultural uses single-family residence(s)
South: Agriculture; **West:** Agriculture;

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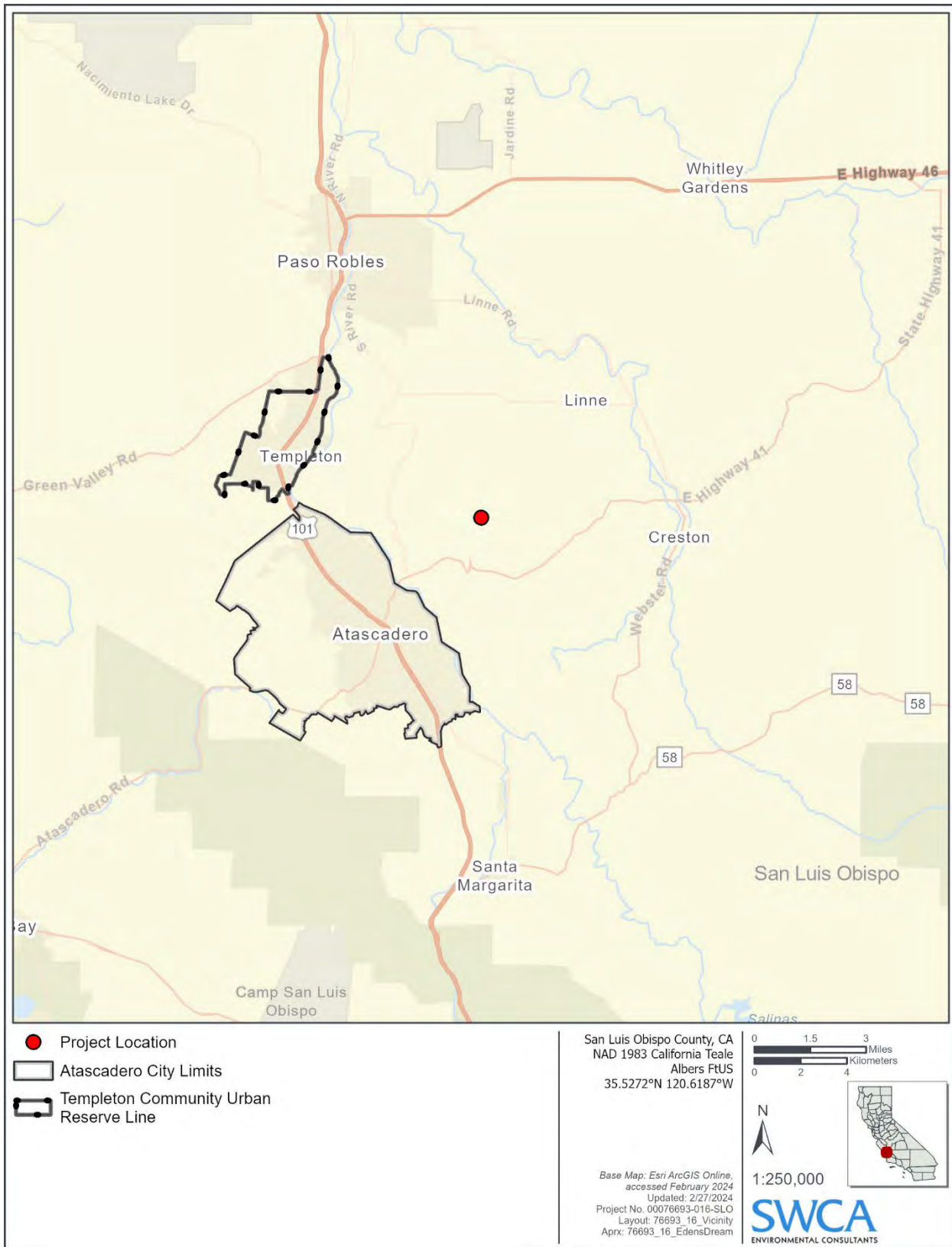


Figure 1. Project Vicinity Map

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Figure 2. Project Location Map

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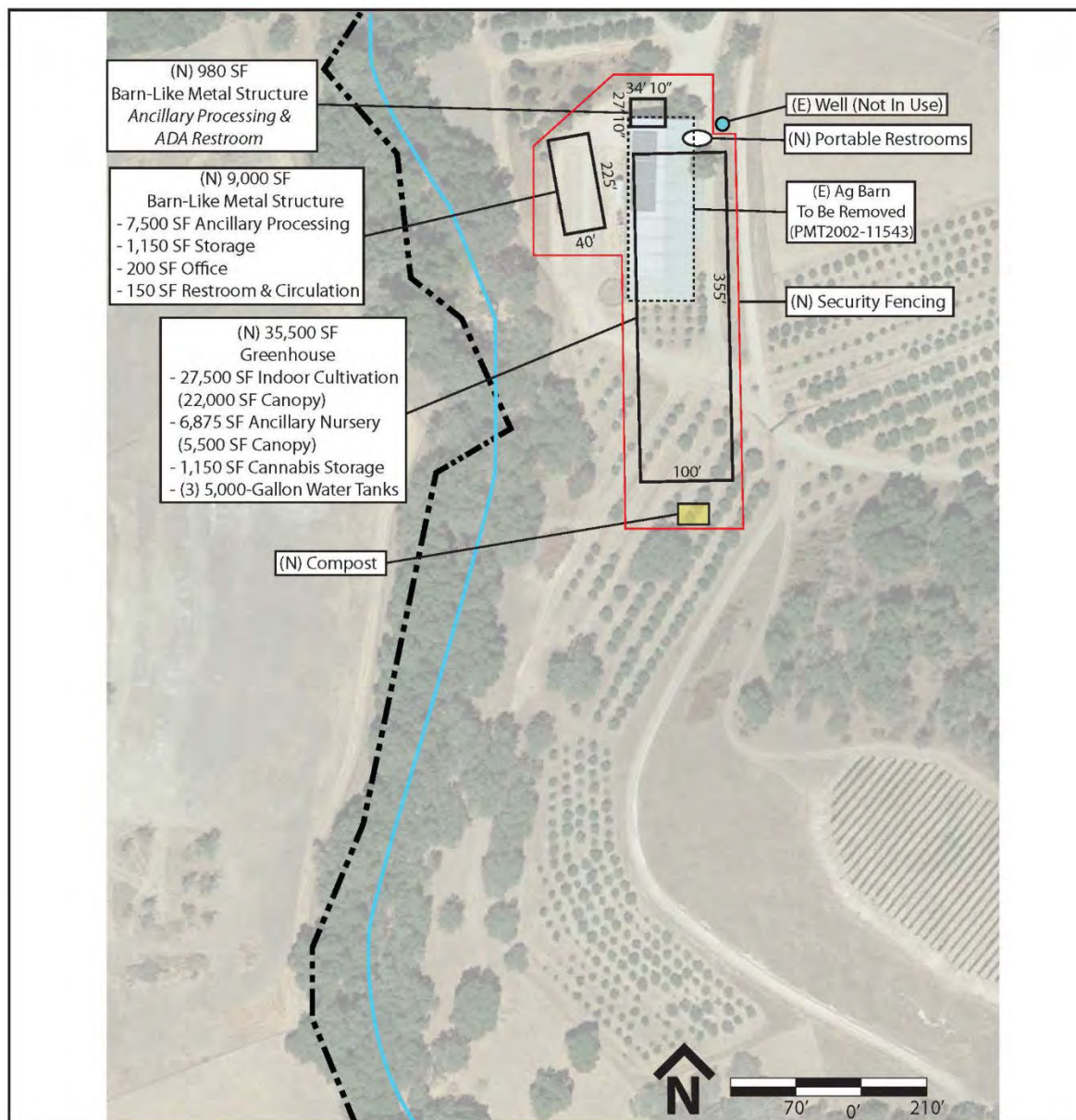


Figure 3. Project Site Plan.

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C. Environmental Analysis

The Initial Study Checklist provides detailed information about the environmental impacts of the proposed project and mitigation measures to lessen the impacts.

I. AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Except as provided in Public Resources Code Section 21099, would the project:</i>				
(a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
(c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Setting

Scenic Vistas

CEQA establishes that it is the policy of the state to take all action necessary to provide people of the state "with... enjoyment of aesthetic, natural, scenic and historic environmental qualities" (California Public Resources Code [PRC] Section 21001(b)).

A scenic vista is generally defined as a high-quality view displaying good aesthetic and compositional values that can be seen from public viewpoints. Some scenic vistas are officially or informally designated by public agencies or other organizations. A substantial adverse effect on a scenic vista would occur if the project would significantly degrade the scenic landscape as viewed from public roads or other public areas. A proposed project's potential effect on a scenic vista is largely dependent upon the degree to which it would complement or contrast with the natural setting, the degree to which it would be noticeable in the existing environment, and whether it detracts from or complements the scenic vista.

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California Scenic Highway Program

The California Scenic Highway Program was created by the State Legislature in 1963 with the intention of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

There are several officially designated state scenic highways and several eligible state scenic highways within the county. State Route (SR) 1 is an Officially Designated State Scenic Highway and All-American Road from the city of San Luis Obispo to the northern San Luis Obispo County boundary. A portion of Nacimiento Lake Drive is an Officially Designated County Scenic Highway. Portions of US 101, SR 46, SR 41, SR 166, and SR 33 are also classified as Eligible State Scenic Highways – Not Officially Designated. The project site is located approximately 5 miles east of US 101 and approximately 8 miles south of SR 46, which at these locations, both are designated as Eligible State Scenic Highways (California Department of Transportation [Caltrans] 2021). An eligible State highway can become officially designated through a process in which the local governing body applies to the California Department of Transportation (Caltrans) for scenic highway approval, adopts a Corridor Protection Program, and receives notification that the highway has been officially designated a State Scenic Highway by the Caltrans Director (Caltrans 2024).

California Department of Cannabis Control Regulations

On January 16, 2019, the Office of Administrative Law (OAL) approved the California Department of Food and Agriculture's (CDFA's) cannabis cultivation regulations and the regulations went into effect immediately. These regulations have been set forth in Title 4, Division 19 of the California Code of Regulations and include general environmental protection measures for cannabis cultivation projects, including standards related to aesthetic resources.

In 2021, the Department of Cannabis Control (DCC) was established, which consolidated three state cannabis programs including the Bureau of Cannabis Control, CDFA's CalCannabis cultivation Licensing Division, and the California Department of Public Health's Manufactured Cannabis Safety Branch, into a single, new state department. The DCC licenses and regulates cannabis businesses in the state of California, including growing of cannabis plants, manufacturing of cannabis products, transportation and tracking of cannabis goods throughout the state, sale of cannabis goods, events where cannabis is sold or used, and labeling of goods sold at retail. Section 16304 (c) states, "all outdoor lighting used for security purposes shall be shielded and downward facing." Section 8304 (g) states, "mixed-light license types of all tiers and sizes shall ensure that lights used for cultivation are shielded from sunset to sunrise to avoid nighttime glare" (DCC 2024).

County Conservation and Open Space Element

The Conservation and Open Space Element (COSE) of the County of San Luis Obispo General Plan identifies several goals for visual resources in rural parts of the county, listed below:

- **Goal VR 1:** The natural and agricultural landscape will continue to be the dominant view in rural parts of the county.
- **Goal VR 2:** The natural and historic character and identity of rural areas will be preserved.
- **Goal VR 3:** The visual identities of communities will be preserved by maintaining rural separation between them.
- **Goal VR 7:** Views of the night sky and its constellation of stars will be maintained.

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Some of the strategies identified to accomplish the goals listed above include encouraging project designs that emphasize native vegetation and conforming grading to existing natural forms, as well as ensuring that new development follows the Countywide Design Guidelines to protect rural visual and historical character.

County of San Luis Obispo Land Use Ordinance

The LUO defines a Sensitive Resource Area (SRA) combining designation that applies to areas having high environmental quality and special ecological or educational significance. Some designated SRAs are considered visual resources by the County, and the LUO establishes specific standards for projects located within these areas. These standards include, but are not limited to, setback distances from public viewpoints, prohibition of development that silhouettes against the sky, grading slope limitations, set back distances from significant rock outcrops, design standards including height limitations and color palette, and landscaping plan requirements. The project is not located within or adjacent to a designated SRA.

In addition, the County of San Luis obispo Inland LUO includes standards for screening and fencing of proposed cannabis cultivation uses. LUO Section 22.40.050.D.6 states that cannabis plants shall not be easily visible from offsite and that all cannabis cultivation activities shall occur within a secure fence at least 6 feet in height that fully encloses the cultivation area(s) and prevents easy access to the cultivation areas (indoor and/or outdoor). The fence must include a lockable gate(s) that is locked at all times, except for during times of active ingress/egress. Fencing materials shall be solid, such as wood, masonry, or chain-link with security slats. Where structures are designed to provide the functional equivalent of fencing for security and opacity for screening, fencing around indoor cultivation structures may be waived or modified as specified in the LUO.

Lastly, the Inland LUO includes standards for outdoor lighting and indoor lighting for cannabis cultivation facilities. Outdoor lighting shall be used for the purposes of illumination only and is subject to the provisions of the Exterior Lighting standards set forth in Section 22.10.060 of the LUO, which include requirements such as height limits of light fixtures, limiting the direction of light to be directed away from any road or street and away from any dwelling outside of the ownership of the applicant and light shielding standards. All facilities shall prevent interior lighting from being detected outside the facilities between the period of 1 hour before dusk and 1 hour after dawn. All facilities employing artificial lighting techniques shall include shielding and/or blackout tarps that are engaged between the period of 1 hour before dusk and 1 hour after dawn and prevent any and all light from escaping.

Countywide Design Guidelines

The Countywide Design Guidelines identify objectives for both urban and rural development. Rural area guidelines applicable to the project include the following:

- **Objective RU-5:** Fences and screening should reflect an area's rural quality.
- **Objective RU-7:** Landscaping should be consistent with the type of plants naturally occurring in the County and should limit the need for irrigation.

It should also be noted that the Inland LUO details standards for exterior lighting (LUO Section 22.10.060); however, these standards do not apply to uses established within the Agriculture land use category.

Project Visual Setting and Baseline Conditions

The following information is based, in part, on a site visit conducted by SWCA Environmental Consultants (SWCA) on January 11, 2024, which included assessment of visual resources.

The project site is located within a 99.11-acre parcel on the south side of South El Pomar Road, approximately 2.8 miles east of the city of Atascadero in an area intermixed with rural residential and agricultural land uses.

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Surrounding residential parcels generally range from 5 acres to 45 acres in size, and agricultural parcels range from 15 to 170 acres. South El Pomar Road is not an Officially Designated Scenic Highway and is not listed as a “Suggested Scenic Corridor” on Table VR-2 of the Conservation and Open Space Element. Development along South El Pomar Road is not subject to the County’s Scenic Protection Standards.

The baseline visual components on the project parcel include an existing bed and breakfast, vineyards, olive orchards, an existing 14,000-square-foot arena structure, and other agricultural accessory structures. The project site, as it is currently, is not visible from South El Pomar Road due to the driveway being lined with olive trees and other intervening vegetation and topography (see Photographs 1 and 2). The project site is also not highly visible from the east due to topography (see Photograph 3) or from the west due to the presence of a creek and associated riparian woodland vegetation (see Photograph 4). There are no drainages within the project site, but there is an unnamed drainage feature directly to the west of the project site.

The combining patterns of rolling topography, agriculture, and scattered rural residential housing in the project vicinity create a visually appealing rural visual character. Plant communities in the area include annual grassland, oak woodland, and riparian woodland.



Photograph 1. View of the access driveway of the project site from South El Pomar Road, facing south. (January 11, 2024)

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Photograph 2. View towards South El Pomar Road from the project site, facing northeast. (January 11, 2024)



Photograph 3. View of topography from the southern end of the project site facing east. (January 11, 2024)

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Photograph 4. View of riparian woodland vegetation adjacent to the project site, facing southwest. (January 11, 2024)

Discussion

(a) *Have a substantial adverse effect on a scenic vista?*

For the purposes of determining significance under CEQA, a scenic vista is defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. The project site would be located in a rural area accessed from a private driveway along South El Pomar Road, which is a paved County maintained road, and South El Pomar Road would serve as the primary public viewing area of the project site. While the project site is located in an area with an appealing rural and agricultural visual character, it is not located within an identified scenic vista, scenic corridor, a designated scenic sensitive resource area or within a highly valued landscape of which expansive views are accessible from a public vantage point. Therefore, the project would not have a substantial adverse effect on a scenic vista and *no impacts* would occur.

(b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The project site is located approximately 5 miles east of US 101 and approximately 8 miles south of SR 46 which are both designated as Eligible State Scenic Highways at these locations (Caltrans 2021). The project site is not visible from US 101 or SR 46 due to distance as well as intervening topography, vegetation, and existing development. Therefore, the project would not result in substantial damage to scenic resources within the viewshed of a State Scenic Highway, and *no impacts* would occur.

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- (c) *In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The project is located in a non-urbanized area characterized by rolling hills with low-density scattered rural residential housing and agricultural uses consisting mostly of orchards and vineyards. Surrounding land uses include Rural Residential and Agriculture with residential parcels generally ranging from 5 acres to 45 acres in size, and agricultural parcels from 15 to 170 acres.

The project would include the construction of a 35,000-square-foot greenhouse, a 980-square-foot processing building, and a 9,000-square-foot metal barn-like structure. The project also includes installation of 6-foot-tall wooden interior fencing with barbed wire along the top to surround the proposed structures, up to three 5,000-gallon water storage tanks, an approximately 100-gallon propane tank, an 875-square-foot compost area, dumpsters, and exterior security lighting.

The proposed structural components would be located within a natural low point of the project property would be moderately to well screened by existing steep topography to the east, riparian woodland vegetation to the west, and planted olive trees and other vegetation to the north (see Photograph 1). Viewers traveling on South El Pomar Road are unlikely to experience views of the proposed structures due to intervening existing topography and existing olive trees on the project property; therefore, opportunities to view the project components by the public are correspondingly low. Additionally, the proposed project activities including cannabis cultivation, processing, and related activities would be similar to other agricultural operations in the area and would be generally consistent with the surrounding rural and agriculture visual character of the area. Because the majority of the 99.11-acre project parcel extends south of the project site, there are no public vantage points located south of the project site.

The project would be generally consistent with the Agriculture land use category of the project parcel based on cannabis cultivation and processing activities being an allowed use and the proposed project components are consistent with the building height, square footage, and setbacks established for these uses. The project would also be consistent with County LUO standards governing scenic quality, including fencing and screening standards and standards for exterior lighting. Lastly, based on the project's limited visibility from public vantage points, compatibility with other surrounding agricultural operations, and required compliance with the County LUO standards for exterior lighting, the project would be consistent with the goals and policies set forth in the County Conservation and Open Space Element related to preservation of natural and agricultural landscape views, separation between developed communities and rural areas, and preservation of night sky views.

Based on existing site topography and vegetation features, and the design and location of project components, the project would not substantially degrade the existing visual character or quality of public views of the site or its surroundings. Therefore, potential impacts would be *less than significant*.

- (d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

The project would include establishment of mixed-light cannabis cultivation within the proposed greenhouse. Exterior security lighting would also potentially be installed based on recommendations

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provided by the County Sheriff's Department. The greenhouse would be equipped with blackout curtains to minimize any potential for off-site light pollution. The project would be required to comply with applicable DCC regulations for cannabis cultivation facilities, including Title 3, Division 8, Chapter 1 Article 4 of the California Code of Regulations Section 16304(c) which states, "all outdoor lighting used for security purposes shall be shielded and downward facing" and Section 8304(g) which states, "mixed-light license types of all tiers and sizes shall ensure that lights used for cultivation are shielded from sunset to sunrise to avoid nighttime glare."

The project proposes the use of solar panels on Processing Building B and may also install solar panels on Processing Building A, which would have the potential to create a new source of glare; however, both of these buildings are located where there is natural screening between these uses and public viewpoints. As such, potential impacts associated with creation of substantial glare affecting daytime views would be less than significant.

Based on current project design and compliance with applicable lighting standards, the project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area and potential impacts would be *less than significant*.

Conclusion

The project is not located within view of a scenic vista and would not result in a substantial change to scenic resources in the area. The project would be consistent with existing policies and standards in the County LUO and COSE related to the protection of scenic resources. Potential impacts to aesthetic resources would be less than significant and no mitigation measures are necessary.

Mitigation

None necessary.

II. AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</i>				
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☒	☐
(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
(d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☒	☐	☐

Setting

San Luis Obispo County supports a unique, diverse, and valuable agricultural industry that can be attributed to its Mediterranean climate, fertile soils, and sufficient water supply. Wine grapes are regularly the top agricultural crop in the county, and fruits and nuts, vegetables, field crops, nursery products, and animals are top value agricultural products. The *County of San Luis Obispo General Plan Agriculture Element* includes policies, goals, objectives, and other requirements that apply to lands designated in the AG land use category. In addition to the Agriculture Element, in accordance with Sections 2272 and 2279 of the California Food and Agriculture Code, the County Agricultural Commissioner releases an annual report on the condition, acreage, production, pest management, and value of agricultural products within the county. The most recent annual crop report can be found on the [County's website](#).

Under Section 22.40.020 it states the California Business and Professions Code Section 26067 specifies: "For the purposes of this division [Division 10], cannabis is an agricultural product." However, the identification of cannabis as an agricultural product does not extend to other areas of the law. For example, cannabis is not an agricultural commodity with respect to local "right to farm" ordinances. Additionally, cannabis cultivation has never been considered "crop production and grazing" as a land use type defined in County Code and is, therefore, not exempt from land use permitting requirements.

Farmland Designations

The California Department of Conservation (CDOC) Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing impacts on California's agricultural resources.

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Agricultural land is rated according to soil quality and current land use. For environmental review purposes under CEQA, the FMMP categories of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land are considered “agricultural land.” Other non-agricultural designations include Urban and Built-up Land, Other Land, and Water. Based on the FMMP, soils at the project site are within the Farmland of Statewide Importance, Farmland of Local Potential, Unique Farmland, Grazing Land designations (CDOC 2018; see Figure 4).

The CDOC tracks and publishes farmland conversion reports documenting changes in acreage of irrigated farmland by farmland designation as well as total urban development acreage changes, solar facility development, land removed from irrigated categories, and land idling, where irrigated land was converted to non-irrigated land due to a lack of irrigation over time, conversion to dry farming, or in advance of a planned use for urbanization. The most recent Farmland Conversion Report reflects these statistics between the years 2016 and 2018. Between 2016 and 2018, Irrigated farmland in California decreased by 56,186 net acres. The highest-quality farmland, known as Prime Farmland, decreased by 38,683 net acres, coupled with a Farmland of Statewide Importance decrease of 30,052 net acres. The addition of 12,549 net acres of irrigated crops on lesser quality soils, mapped as Unique Farmland, partially offset these losses of farmland (CDOC 2024). As shown in Table 3, between 2006 and 2018 the County experienced a net increase in the acreage of important farmland of 124,976 acres, including a net increase of 1,348 acres of prime farmland (CDOC 2024).

Table 3. Acreage of Important Farmland in San Luis Obispo County, 2006 – 2018

Farmland/Land Use Category	2006	2008	2010	2012	2014	2016	2018	Net Change
Prime Farmland	39,722	41,569	41,319	40,860	40,990	41,189	41,070	+1,348
Farmland of Statewide Importance	19,721	21,109	21,132	20,884	21,908	22,698	23,202	+3,481
Unique Farmland	36,411	38,777	39,950	39,979	43,225	45,175	45,718	+9,307
Farmland of Local Importance	174,552	309,081	307,325	304,401	289,309	288,127	285,392	+110,840
IMPORTANT FARMLAND SUBTOTAL	270,406	410,536	409,726	406,124	395,432	397,189	395,382	+124,976
Grazing Land	742,004	1,183,042	1,181,015	1,183,035	1,189,777	1,189,169	1,190,197	+448,193
AGRICULTURAL LAND TOTAL	1,012,410	1,593,578	1,590,741	1,589,159	1,585,209	1,586,358	1,586,579	+574,169

Source: CDOC 2024.

Williamson Act

The Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agriculture or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full

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market value. The project parcel is currently subject to a Williamson Act contract (County of San Luis Obispo 2023).

On-site Soils

Based on the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) web soil survey (NRCS 2023), on-site soils include:

- **Soil Unit 153: Linne-Calodo complex, 30 to 50 percent slopes.** The parent material of this soil type is residuum weathered from calcareous shale and/or sandstone, and it consists of Linne and similar soils at 30 percent, Calodo and similar soils at 25 percent, and minor components at 45 percent. The drainage class of this soil type is well drained, and it is composed primarily of clay loam and weathered bedrock. This soil type occurs on backslopes and side slopes at elevations between 500 and 2,500 feet (150 and 760 meters). This soil type is considered not prime farmland.
- **Soil Unit 159: Lockwood-Concepcion complex, 2 to 9 percent slopes.** The parent material of this soil type is alluvium derived from sedimentary rock and mixed rocks, and it consists of Lockwood and similar soils at 35 percent, Concepcion and similar soils at 25 percent, and minor components at 40 percent. The drainage class is moderately well drained to well drained, and it is composed of mostly channery clay loam, sandy loam, clay, and sandy clay loam. This soil type occurs on terraces, toe slopes, and treads at elevations between 600 and 1,500 feet (180 and 460 meters). This soil type is considered Farmland of Statewide Importance.

County Agriculture Element Policies

The County of San Luis Obispo General Plan Agriculture Element includes policies pertaining to the protection, conservation, and conversion of productive agricultural lands, as detailed below.

AGP8: Intensive Agricultural Facilities.

- a. *Allow the development of compatible intensive agricultural facilities that support local agricultural production, processing, packing, and support industries.*
- b. *Locate intensive agricultural facilities off of productive agricultural lands unless there are no other feasible locations. Locate new structures where land use compatibility, circulation, and infrastructure capacity exist or can be developed compatible with agricultural uses.*

AGP18: Location of Improvements.

- a. *Locate new buildings, access roads, and structures so as to protect agricultural land.*

AGP14: Agricultural Preserve Program.

- a. *Encourage eligible property owners to participate in the county's agricultural preserve program.*

AGP24: Conversion of Agricultural Land.

- a. *Discourage the conversion of agricultural lands to non-agricultural uses through the following actions:*
 1. *Work in cooperation with the incorporated cities, service districts, school districts, the County Department of Agriculture, the Agricultural Advisory Liaison Board, Farm Bureau, and affected community advisory groups to establish urban service and urban reserve lines and village reserve lines that will protect agricultural land and will stabilize agriculture at the urban fringe.*

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2. *Establish clear criteria in this plan and the Land Use Element for changing the designation of land from Agriculture to non-agricultural designations.*
3. *Avoid land redesignation (rezoning) that would create new rural residential development outside the urban and village reserve lines.*
4. *Avoid locating new public facilities outside urban and village reserve lines unless they serve a rural function or there is no feasible alternative location within the urban and village reserve lines.*

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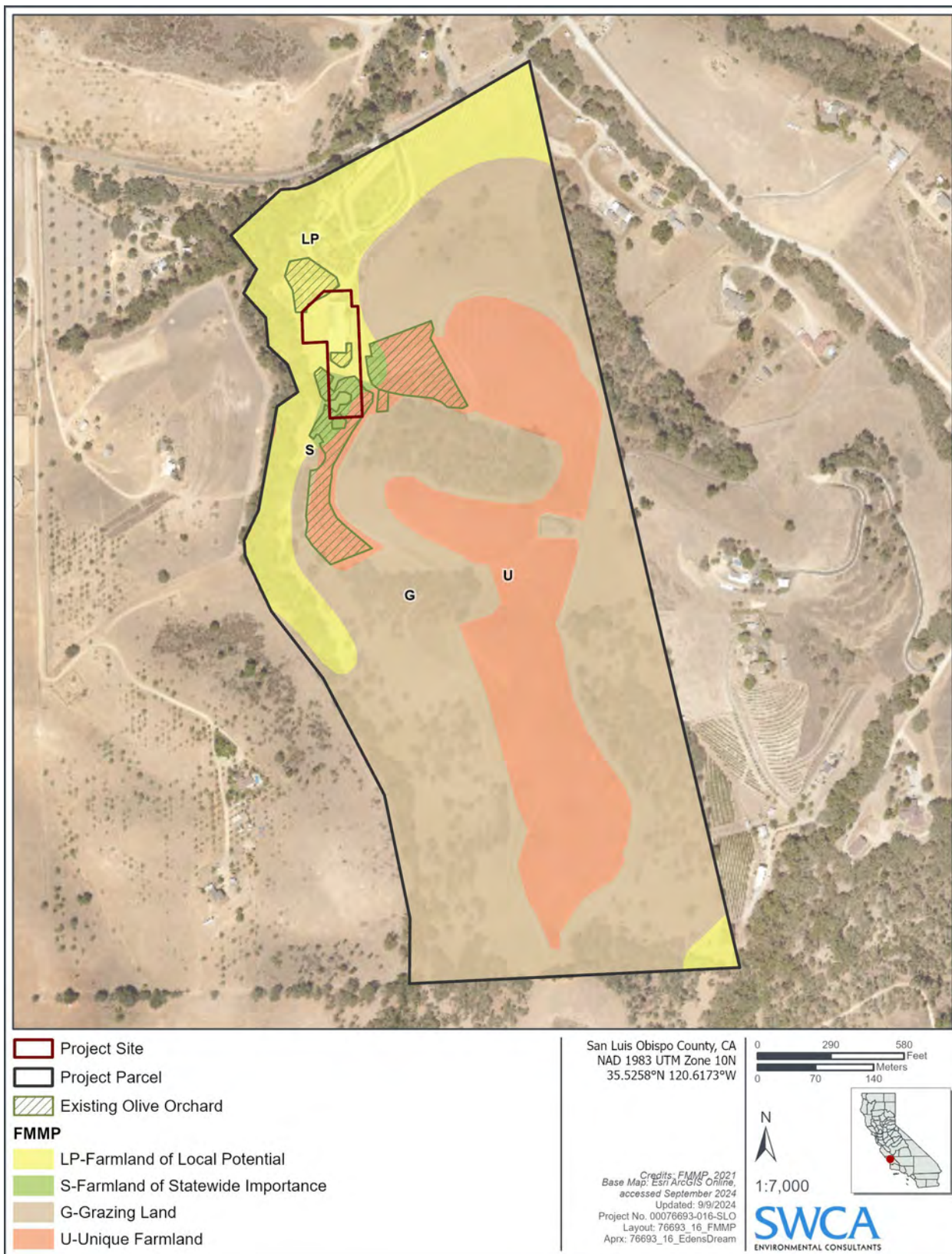


Figure 4. Farmland Mapping and Monitoring Program (FMMP) Designations On-Site.

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Forestland and Timberland

Forestland is defined in Public Resources Code Section 12220(g) as land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. The project site does not support enough native tree cover to meet the criteria to be defined as forest land per PRC Section 12220(g).

Timberland is defined in Public Resources Code Section 4526 as land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. The project site does not meet the definition of timberland per PRC Section 4526.

Discussion

- (a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*

The project would result in approximately 1.13 acres of site disturbance. Soils within the project site are classified as the Farmland of Statewide Importance, Farmland of Local Potential, and Unique Farmland by the California FMMP (CDOC 2018; see Figure 4). The project development would result in conversion of less than 1 acre of Unique Farmland and less than 1 acre of Farmland of Statewide Importance. In addition, the project applicant proposes to remove approximately 2.35 acres of the existing approximately 4.56-acre olive orchard on the project site to achieve (or partially achieve) the required water offset requirements set forth in the County LUO for establishing new cannabis uses within the Paso Robles Groundwater Basin. As seen in Figure 4, the existing olive orchard areas overlay Farmland of Local Potential, Farmland of Statewide Importance, and Unique Farmland. Existing olive orchard located within the proposed project site would be removed, and additional olive orchard trees would be removed based on productivity to offset project water use. All remaining areas of active agricultural cultivation of wine grapes, olives, and other agricultural activities on the the 99-acre parcel would remain in production. As shown in Table 3, the acreage of important farmland in San Luis Obispo County experienced a net increase between 2006 and 2018 of 124,976 acres (CDOC 2024). Respectively, the loss of less than 4 acres total of Unique Farmland and Farmland of Statewide Importance would not result in a cumulatively considerable impact associated with loss of important farmland within the county.

The proposed greenhouse and processing buildings would be primarily located within area that is developed with existing structures and within the Farmland of Local Potential classification. This would be consistent with County Agriculture Element policies that encourage new construction on agricultural land to be located in the same area as existing development and reducing the net acreage of new disturbance and conversion of important farmland. The project site is located outside of urban reserve lines and the project would not result in a land use designation change from Agriculture to a non-agricultural designation. Therefore, the project would be consistent with County Agriculture Element policies associated with discouraging conversion of agricultural lands to non-agricultural uses.

Based on the limited acreage of important farmland that would be converted to non-agricultural uses, continuation of agricultural uses on other areas of the project site, and consistency with County Agriculture Element policies pertaining to conversion of agricultural lands, potential impacts

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associated with conversion of Important Farmland to non-agricultural uses would be *less than significant*.

(b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract?*

The project site is within the Agriculture land use designation. The project site is located in the El Pomar Agricultural Preserve and is subject to a Williamson Act contract. The project, along with the existing contract, were reviewed by Agricultural Preserve Review Committee (APRC) on March 25, 2019, who determined that the proposed cannabis activities are compatible with the contract and the Williamson Act. Therefore, the project would not result in a conflict with existing zoning for agricultural use or a Williamson Act contract and *no impacts would occur*.

(c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*

The project site does not include land use designations or zoning for forest land or timberland; *no impacts would occur*.

(d) *Result in the loss of forest land or conversion of forest land to non-forest use?*

The project site does not support forest land or timberland and would not result in the loss or conversion of these lands to non-forest use; *no impacts would occur*.

(e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

The project property is generally surrounded by rural residential and agriculture land uses. Surrounding agricultural uses would be temporarily affected by noise and dust generated during the construction phase of the project. These impacts would be temporary in nature and would not result in the direct impairment or conversion of agricultural land to other uses.

During operation, the project would consist of indoor cultivation and processing of cannabis, which would utilize the same groundwater basin as surrounding agricultural production activities. Based on the water demand analysis detailed in Section X. *Hydrology and Water Quality* and the groundwater well's location within the Paso Robles Groundwater Basin Area of Severe Decline, the project's proposed water use would have potential to result in an adverse effect on the production and recovery of surrounding groundwater wells used for agricultural uses. Mitigation Measure WQ-1 and WQ-2 have been identified to require preparation and implementation of a water conservation program, including offsetting all project water use at a 2:1 ratio. This plan and the associated water offset measures would be reviewed, approved, and monitored by County staff to ensure the project maintains full compliance.

In addition, as described in the referral response letter received by the County Department of Agriculture, Weights, and Measures, there are potential incompatibility issues between cannabis activities and traditional crop production. The project site is located in proximity to other parcels that support wine grape vineyards. These vineyards are known to use pesticides that cannabis is required to be tested for by California law to ensure there are no pesticide residues above the established tolerance levels. The establishment of the proposed project has the potential to trigger traditional agricultural operators to cease or curtail their pesticide application and/or crop production activities near the proposed site because of the state regulations which have imposed pesticide residue thresholds for cannabis, which are significantly lower than the residue thresholds for traditional crops.

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(County of San Luis Obispo Department of Agriculture 2023). More specifically, the County has received substantial evidence indicating pesticide applicators would refuse to serve an agricultural operation if a cannabis site is permitted in close proximity to the agricultural operation because fear of potential crippling liability should a nearby cannabis operation be able to allege their cannabis has been made unmarketable as a result of offsite pesticide application, even when the levels of pesticide residue on the cannabis would otherwise be well within the amounts allowed for traditional agriculture food crops, such as citrus, avocados, vineyards, vegetables, and strawberries (County of San Luis Obispo Department of Agriculture 2023).

The Agriculture Element has policies to protect and encourage agricultural operations and conserve agricultural resources. As stated in Section 22.40.020 of the San Luis Obispo County Code, cannabis is not an agricultural commodity with respect to local "right to farm" ordinances nor is it considered "crop production and grazing" as a land use type. For this reason, the proposed project would be conditioned to require the applicant and their representatives, agents, employees, etc. to waive, hold harmless, and covenant not to sue any property owner for any claim, loss, or damage to cannabis or cannabis products located on the site resulting from application of a registered pesticide on an agricultural commodity located outside the project. With this condition, the project's potential to result in conversion of agricultural uses on surrounding properties to non-agricultural uses would be reduced to less than significant.

Therefore, the project would not involve other changes in the environment that would result in conversion of Farmland to non-agricultural use or forest land to non-forest use, and potential impacts would be *less than significant with mitigation*.

Conclusion

The project would not result in potentially significant impacts associated with the conversion of farmland, forest land, or timberland to non-agricultural uses or non-forest uses, and would not conflict with agricultural zoning. Potential impacts associated with the project otherwise adversely affecting agricultural resources or uses would be less than significant with implementation of mitigation identified below. Potential impacts to agricultural resources would be less than significant with mitigation.

Mitigation

Implement Mitigation Measures WQ-1 and WQ-2.

III. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

(a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
(c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
(d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

Setting

California Department of Cannabis Control

The DCC includes regulations includes standards for licensed cultivators using generators rated below 50 horsepower to comply with specific standards such as operating no more than 80 hours per year and to meet Tier 4 requirements, or current engine requirements if not stringent regulations are established at the time of permit issuance (CCR Section 16306). The DCC regulations also include provisions for pesticide use, including standards to prevent offsite drift (CCR Section 16307; DCC 2024).

San Luis Obispo County Clean Air Plan

The San Luis Obispo County Air Pollution Control District (SLOAPCD) San Luis Obispo County 2001 Clean Air Plan (CAP) is a comprehensive planning document intended to evaluate long-term air pollutant emissions and cumulative effects and provide guidance to the SLOAPCD and other local agencies on how to attain and maintain the state standards for ozone and particulate matter 10 micrometers or less in diameter (PM₁₀). The CAP presents a detailed description of the sources and pollutants that impact the jurisdiction's attainment of state standards, future air quality impacts to be expected under current growth trends, and an appropriate control strategy for reducing ozone precursor emissions, thereby improving air quality. In order to be considered consistent with the San Luis Obispo County CAP, a project must be consistent with the land use planning and transportation control measures and strategies outlined in the CAP.

SLOAPCD Criteria Pollutant Thresholds

The SLOAPCD has developed and updated their CEQA Air Quality Handbook (most recently updated via a 2023 Administrative Update Version) to help local agencies evaluate project-specific impacts and determine if air quality mitigation measures are needed, or if potentially significant impacts could result. This handbook includes established thresholds for both short-term construction emissions and long-term operational emissions.

Use of heavy equipment and earth-moving operations during project construction can generate fugitive dust and engine combustion emissions that may have substantial temporary impacts on local air quality and climate change. Combustion emissions, such as nitrogen oxides (NO_x), reactive organic gases (ROG), greenhouse gases (GHGs), and diesel particulate matter (DPM), are most significant when using large, diesel-

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fueled scrapers, loaders, bulldozers, haul trucks, compressors, generators, and other heavy equipment. The SLOAPCD has established thresholds of significance for each of these contaminants.

Operational impacts are focused primarily on the indirect emissions (i.e., motor vehicles) associated with residential, commercial, and industrial development. Certain types of projects can also include components that generate direct emissions, such as power plants, gasoline stations, dry cleaners, and refineries (referred to as stationary source emissions). Operational impacts associated with residential development consist primarily of indirect emissions (i.e., motor vehicles). Certain other types of projects can also include components that generate direct emissions, such as power plants, gasoline stations, dry cleaners, and refineries (referred to as stationary source emissions). The SLOACPD has established several different methods for determining the significance of project operational air quality impacts:

1. Demonstrate consistency with the most recent CAP for San Luis Obispo County;
2. Demonstrate consistency with a plan for the reduction of GHG emissions that has been adopted by the jurisdiction in which the project is located that complies with State CEQA Guidelines Section 15183.5;
3. Compare predicted ambient criteria pollutant concentrations resulting from the project to federal and state health standards, when applicable;
4. Compare calculated project emissions to SLOAPCD emission thresholds; and
5. Evaluate special conditions that apply to certain projects.

In addition, many architectural coatings consist of oil-based paints. Solvents contained in these paints evaporate into the atmosphere as the paint dries, contributing to local ozone formation.

County Conservation and Open Space Element

The County General Plan Conservation and Open Space Element includes several goals related to improving and maintaining air quality, as detailed below.

- **Goal AQ1:** Per capita vehicle-miles-traveled countywide will be substantially reduced consistent with statewide targets.
- **Goal AQ2:** The County will be a leader in implementing air quality programs and innovations.
- **Goal AQ 3:** State and federal ambient air quality standards will, at a minimum, be attained and maintained.

Sensitive Receptors

Sensitive receptors are people that have an increased sensitivity to air pollution or environmental contaminants, such as the elderly, children, people with asthma or other respiratory illnesses, and others who are at a heightened risk of negative health outcomes due to exposure to air pollution. Some land uses are considered more sensitive to changes in air quality than others due to the population that occupies the uses and the activities involved. Sensitive receptor locations include schools, parks and playgrounds, day care centers, nursing homes, hospitals, and residences. Proximate sensitive receptor locations include off-site single-family residences located approximately 430 feet northwest of the project site, 700 feet southwest of the project site, 1,000 feet east of the project site, and 1,425 feet east of the project site.

Naturally Occurring Asbestos

Naturally Occurring Asbestos (NOA) is identified as a toxic air contaminant by the California Air Resources Board (CARB). Serpentine and other ultramafic rocks are fairly common throughout San Luis Obispo County and may contain NOA. If these areas are disturbed during construction, NOA-containing particles can be

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released into the air and have an adverse impact on local air quality and human health. The project site is not located in an area of concern near known serpentine rock formations (SLOAPCD 2024a).

Odors

Typically, odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (i.e., irritation, anger, or anxiety) to physiological, including circulatory and respiratory effects, nausea, vomiting, and headache.

Neither the State nor the federal governments have adopted rules or regulations for the control of odor sources. The SLOAPCD does not have an individual rule or regulation that specifically addresses odors; however, odors would be applicable to SLOAPCD's Rule 204, Nuisance. Any actions related to odors would be based on citizen complaints to local governments and the SLOAPCD. The SLOAPCD recommends that odor impacts be addressed in a qualitative manner. Such analysis shall determine if the project results in excessive nuisance odors, as defined under the California Code of Regulations, Health & Safety Code Section 41700, air quality public nuisance.

Developmental Burning

As of February 25, 2000, the SLOAPCD prohibits developmental burning of vegetative material within San Luis Obispo County. However, under certain circumstances where no technically feasible alternatives are available, limited developmental burning under restrictions may be allowed. Any such exception must complete the following prior to any burning: SLOAPCD approval, payment of fee to the SLOAPCD based on the size of the project, and issuance of a burn permit by the SLOAPCD and the local fire department authority. As a part of SLOAPCD approval, the applicant shall furnish them with the study of technical feasibility (which includes costs and other constraints) at the time of application.

Discussion

(a) Conflict with or obstruct implementation of the applicable air quality plan?

As part of the CCAA, the SLOAPCD is required to develop a plan to achieve and maintain the State ozone standard by the earliest practicable date. The SLOAPCD's 2001 Clean Air Plan (CAP) addresses the attainment and maintenance of state and federal ambient air quality standards. In order to be considered consistent with the 2001 San Luis Obispo County CAP, a project must be consistent with the land use planning and transportation control measures and strategies that are outlined in the CAP (SLOAPCD 2023). In addition, regional vehicle miles traveled (VMT) estimates are relied upon for regional air quality planning purposes and are used to determine the strategies to be implemented to reach the emission reduction targets set by CARB through Senate Bill 375. Therefore, the project has been evaluated for consistency with regional VMT-reduction efforts as well.

Adopted land use planning strategies include, but are not limited to, planning compact communities with higher densities, providing for mixed land use, and balancing jobs and housing. The project does not include development of retail or commercial uses that would be open to the public; therefore, land use planning strategies such as mixed-use development and planning compact communities would not be applicable to the project. The project would result in the establishment of activities that are agricultural in nature and would employ up to six full-time regular employees and seven additional seasonal employees. The project would not include the establishment of residential uses or result in a significant increase in employment opportunities and therefore would not significantly affect the local area's jobs/housing balance.

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Adopted transportation control measures in the CAP include, but are not limited to, a voluntary commute options program, local and regional transit system improvements, bikeway enhancements, and telecommuting programs. The voluntary commute options program targets employers in the county with more than 20 employees; because the project would employ up to a maximum of six full-time regular employees, this program would generally not be applicable to the project. The project would not conflict with regional plans for transit system or bikeway improvements. Project employees would generally be performing manual tasks, such as planting, harvesting, and monitoring the irrigation equipment; therefore, the project would not be a feasible candidate for participation in a telecommuting program.

The project is not located in an area where work-based projects would generate VMT of 15% or less below the baseline VMT rates. As discussed in greater detail in Section XVII. *Transportation* of this document, based on County Public Works Department standard trip generation rates for cannabis activities and applicable Institute of Transportation Engineers (ITE) trip generation rates, the new vehicle trips generated by the proposed project would fall below the suggested screening threshold of 110 trips/day identified in the State Technical Advisory on Evaluating Transportation Impacts in CEQA (California Office of Planning and Research [OPR] 2018). Therefore, the project would not result in a conflict with regional VMT-reduction efforts and associated plans and policies, including, but not limited to the San Luis Obispo County Regional Transportation Plan and the County General Plan Conservation and Open Space Element.

Therefore, the project would not conflict with or obstruct implementation of the CAP or other applicable plans adopted for the purposes of regulating air quality; therefore, impacts would be *less than significant*.

- (b) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

The county is currently designated as non-attainment for ozone and PM₁₀ under state ambient air quality standards. Construction and operation of the project would result in emissions of ozone precursors, including reactive organic gases (ROG), nitrogen oxides (NO_x), and fugitive dust emissions (PM₁₀).

Construction Emissions

As proposed, the project would result in approximately 1.13 acres of site disturbance, including 5,000 cubic yards of cut and fill material to be balanced on-site. This would result in the creation of construction dust, as well as short-term vehicle emissions. Based on the SLOAPCD's CEQA Air Quality Handbook (2023) and the Air Quality, Greenhouse Gas, and Noise Impacts Study for A Cannabis Cultivation Project in Templeton, CA prepared for the project (Yorke Engineering LLC [York] 2023; see Appendix F), estimated construction-related emissions were calculated and are shown in Table 1 below. Emissions associated with the construction of the proposed project were calculated using the California Emissions Estimator Model (CalEEMod), version 2022.1.1.2 computer program. Table 4 presents a summary of the maximum daily and quarterly emissions associated with construction of the proposed project.

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Table 4. Proposed Project Estimated Construction Air Pollutant Emissions

Pollutant	Maximum Daily Emissions (lbs/day)	APCD Construction Emissions Threshold		Mitigation Required?
Reactive Organic Gases (ROG) + Nitrogen Oxide (NO _x) (combined)	109.13 lbs/day	137 lbs/day		No
Diesel Particulate Matter (DPM)	0.74 lbs/day	7 lbs/day		No
	Maximum Quarterly Emissions (tons/quarter)	Tier 1	Tier 2	
ROG+NO _x	0.55 tons/quarter	2.5 tons/quarter	6.3 tons/quarter	No
DPM	0.02 tons/quarter	0.13 tons/quarter	0.32 tons/quarter	No
Fugitive Dust (PM ₁₀)	0.01 tons/quarter	2.5 tons/quarter	None	No

Source: Yorke Engineering, LLC 2023; Appendix F

Based on the calculations shown above, project construction emissions of ozone precursors, DPM, and fugitive dust would fall below both daily and quarterly emissions thresholds set forth by SLOAPCD. In addition, use of portable equipment during project construction activities may be subject to SLOAPCD permitting requirements, including, but not limited to, use of portable generators and equipment with engines that are 50 horsepower (hp) or greater, use of standby generators, and internal combustion engines (SLOAPCD 2023b).

According to the SLOAPCD, any project with a grading area greater than 4 acres of worked area can exceed the 2.5-ton PM₁₀ quarterly threshold (SLOAPCD 2023a). The project would include construction of a 35,500-square-foot greenhouse for indoor cannabis cultivation and nursery uses, construction of a 980-sf structure and a 9,000-sf structure for ancillary processing activities, cannabis storage, office uses, and other site improvements, totaling approximately 1.13 acres in total site disturbance. Therefore, the project would not result in PM₁₀ emissions in exceedance of SLOAPCD thresholds during project construction activities.

Based on estimated construction emissions calculated by CalEEMod and total area of site disturbance, the project would not exceed construction criteria air pollutant thresholds set forth by the SLOAPCD or violate a construction air quality standard set forth by the CARB. Therefore, construction impacts would be *less than significant*.

Operation-Related Emissions

Long-term operational emissions associated with the proposed project would be predominantly associated with mobile sources (e.g., vehicle trips) and use of the proposed propane-fueled heaters. To a lesser extent, operational emissions would also be generated by area sources as well as the use of electricity.

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The project is anticipated to result in the generation of a total of 48 average daily trips (ADT) with seven p.m. peak hour trips (between 4:00 p.m. and 6:00 p.m.) on a typical weekday (OET 2023). In addition, approximately one to five ancillary transport vehicle trips are anticipated to occur after each harvest period (up to six times per year) and there would be up to six commercial deliveries to the site per year to supply the proposed operation with soil, nutrients, and farm supplies. Supply deliveries would be generally consistent with existing supply deliveries to support the agricultural operations on the property. Vehicles traveling to and from the project site would access the site via South El Pomar Road, a paved roadway, and the existing unpaved all-weather driveway on-site.

The project would include use of two 280,000-british-thermal-unit (BTU) gas-fired room heaters. Use of these heaters would be required to be permitted by SLOAPCD and meet the 2022 Title 20 appliance efficiency standards requirement for Warm-Air unit heaters, Gas-Fired of 81 percent combustion efficiency. The estimated propane consumption input of each heater would be 345,600 British Thermal Units per hour (btuh; InBalance 2023). The project would include storage of an approximately 100-gallon propane tank to support the use of these heaters.

The project would include installation and use of a rooftop grid tied solar array sized to offset 50 percent of the estimated energy use for the project (approximately 400 kW direct current). The remaining project electricity would be provided by 3CE and Pacific Gas and Electric (PG&E), and the project applicant proposes to enroll in PG&E Solar Choice Program, Regional Renewable Choice Program, or another comparable public or private renewable energy program (InBalance 2023; Appendix E).

Emissions associated with long-term operation of the proposed project were calculated using the California Emissions Estimator Model (CalEEMod), version 2022.1.1.2 computer program. Unmitigated operational emissions associated with the proposed project are summarized in Table 5, below.

Table 5. Proposed Project Estimated Operational Air Pollutant Emissions

Pollutant	Maximum Daily Emissions (lbs/day)	APCD Daily Operational Emissions Threshold	Mitigation Required?
ROG+NO _x	2.03 lbs/day	25 lbs/day	No
DPM	0.01 lbs/day	1.25 lbs/day	No
PM ₁₀	0.13 lbs/day	25 lbs/day	No
Carbon Monoxide (CO)	2.95 lbs/day	550 lbs/day	No
	Maximum Annual Emissions (tons/year)	APCD Annual Operational Emissions Threshold	
ROG+NO _x	0.37 tons/year	25 tons/year	No
Fugitive Dust (PM ₁₀)	0.02 tons/year	25 tons/year	No

Source: Yorke Engineering, LLC 2023; Appendix F

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As shown in Table 5, the CalEEMod results indicated that maximum daily operational emissions would total approximately 2.03 lbs per day of combined ROG and NO_x, 0.01 lbs per day of DPM, 0.13 lbs/ per day of PM₁₀ fugitive dust, and 2.95 lbs per day of CO. Daily emissions for each of these air pollutants would not exceed SLOAPCD operational emissions thresholds. Similarly, estimated project annual emissions of combined ROG and NO_x and fugitive dust would not exceed annual SLOAPCD emissions thresholds for these pollutants (York 2023; Appendix F).

It is also important to note that the project would be subject to SLOAPCD permitting requirements, including an Authority to Construct (ATC) permit for the proposed processing facilities as well as permitting requirements for the use of odor masking/neutralizing agents to control or eliminate odors related to growing and/or processing of cannabis (SLOAPCD 2023b). SLOAPCD also requires permits for operational sources of air pollution including, but not limited to, portable generators and equipment with engines that are 50 hp or greater, boilers, internal combustion engines, and cogeneration facilities (SLOAPCD 2023b).

Based on estimated operational emissions calculated by CalEEMod, the project would not exceed operational criteria air pollutant thresholds set forth by the SLOAPCD or violate an operational air quality standard set forth by the CARB. Therefore, operational impacts would be *less than significant*.

(c) *Expose sensitive receptors to substantial pollutant concentrations?*

Proximate sensitive receptor locations include off-site single-family residences located approximately 430 feet northwest of the project site, 700 feet southwest of the project site, 1,000 feet east of the project site, and 1,425 feet east of the project site.

Construction Equipment Emissions

Based on the analysis provided for threshold III.b, above, project construction would not result in substantial pollutant concentrations of ozone precursors, DPM, or fugitive dust in exceedance of applicable SLOAPCD thresholds. However, initial project demolition, grading, and trenching activities would occur within 1,000 feet of a sensitive receptor location, which may result in localized concentrations of DPM and/or fugitive dust emissions that could result in adverse health effects on proximate receptors. In accordance with current SLOAPCD guidance, implementation of fugitive dust mitigation measures (expanded list) and diesel idling mitigation is required when a parcel(s) being developed is within 1,000 feet of sensitive receptors. Mitigation Measures AQ-1 and AQ-1 have been identified to require applicable SLOACPD diesel-idling restrictions and fugitive dust suppression practices to be implemented and shown on all project plan sets.

Total project construction activities (Phase I combined with Phase II) would be anticipated to last approximately 11 to 12 months. Based on the limited scale of the project (total of 1.13 acres of site disturbance), relatively short duration of proposed construction activities involving use of diesel-fueled equipment (1 year or less cumulatively), proximity of nearest off-site sensitive receptor location (430 feet), and implementation of Mitigation Measures AQ-1 and AQ-2, project impacts associated with construction equipment emissions on proximate sensitive receptors would be *less than significant with mitigation*.

Aerially Deposited Lead, Naturally Occurring Asbestos, and Asbestos Containing Materials

In addition to equipment emissions, project construction activities could also have the potential to result in potentially harmful emissions of aerially deposited lead (ADL), naturally occurring asbestos (NOA), and/or asbestos from asbestos containing materials (ACM), if present within the project site.

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The project does not require soil disturbance within 20 feet of an existing major roadway (e.g., US 101) that could release hazardous levels of ADL if present within the soil. Based on the SLOAPCD Naturally Occurring Asbestos Zones map, the project site is not located in an area of concern near known serpentine rock formations (SLOAPCD 2024a). Therefore, potential impacts associated with release of ADL or NOA would be *less than significant*.

The project includes demolition of an existing 14,000-sf arena structure. Demolition activities could have potential negative air quality impacts, including issues surrounding proper handling, abatement, and disposal of ACM, if present. According to the SLOAPCD, asbestos is not banned and may be present even in new construction and an asbestos survey is required prior to any tenant improvement or demolition of a regulated structure (SLOAPCD 2024b). Mitigation Measure AQ-3 has been identified to ensure that project demolition activities are conducted in compliance with the National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations (40CFR61, Subpart M - asbestos NESHAP). NESHAP requirements include, but are not limited to, written notification to the SLOAPCD at least 10 days prior to commencement of demolition activities, completion of an asbestos survey report conducted by a Certified Asbestos Consultant, and preparation of written work plan addressing asbestos handling procedures in order to prevent visible emissions, as applicable. With implementation of AQ-3, potential impacts associated with ACM would be *less than significant with mitigation*.

Operational Impacts

Following the construction phases of the project, the project would include cultivation, processing, storage, and ancillary transportation of cannabis products grown on-site. The project would not result in establishment of any uses that would generate a substantial amount of long-term air pollutant emissions, as demonstrated via CalEEMod emissions calculations detailed under question (b) above. Therefore, impacts associated with operational emissions would be *less than significant*.

- (d) *Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

The project includes establishment of indoor mixed-light cannabis cultivation, processing, packaging, and storage of cannabis products grown on-site. Cultivation of cannabis can produce potentially objectionable odors during the flowing and harvest phases of the proposed operations, which would occur between three to six times per year. Proposed processing activities such as drying, trimming, and curing cannabis would also have potential to result in odors.

All proposed cultivation, processing, and storage of cannabis products would occur within the proposed greenhouse, Processing Building A, and Processing Building B. Each of these buildings would be equipped with an air scrubbing system that has carbon filtration. Activated carbon would act as an odor absorbent and has the capacity to retain a wide variety of chemicals under a wide range of temperature and humidity conditions. All cultivation rooms would be equipped with a fan/carbon filter system that would provide a minimum of 12 air changes per hour or a 5-minute air change (Kirk Consulting 2023b).

The proposed fan/carbon filter systems would be used in conjunction with an exhaust system that is also equipped with carbon filtration. This exhaust fan would be interlocked to a pressure controller which would maintain a 5-pascal pressure differential between the areas where cannabis is grown, processed, stored, and packaged in relation to the corridors and other employee common areas (Kirk Consulting 2023b).

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The proposed greenhouse and processing building would be setback from the property lines of the project parcel, as detailed in Table 6, below. Building setbacks from property lines would allow any residual cannabis odors to dissipate considerably before reaching an off-site receptor.

Table 6. Building Setbacks from Property Lines

Proposed Structure	Setbacks from Property Lines (feet)			
	North	West	East	South
Greenhouse	559	235	930	2,289
Processing Building A	495	235	1,003	2,654
Processing Building B	529	165	1,060	2,080

Source: Kirk Consulting 2023a

Proximate receptor locations include off-site single-family residences located approximately 430 feet northwest of the project site, 700 feet southwest of the project site, 1,000 feet east of the project site, and 1,425 feet east of the project site. The project is located in a primarily undeveloped agricultural area and surrounding rural residential uses are distributed at a low density in the vicinity of the project, resulting in a generally low number of potential receptors being affected by odors generated on the project site.

Based on the proposed odor control technology to be installed and operated within each structure in which cannabis cultivation, processing, packaging, and storage activities would take place, proximity of these uses to offsite receptors, and the relatively low number of potential receptors that could be affected, the project would not result in odor emissions that would adversely affect a substantial number of people and impacts would be *less than significant*.

Conclusion

The project would not result in potentially significant impacts associated with conflicting with an applicable air quality plan, a net increase in criteria pollutant emissions for which the region is nonattainment for, or emissions (such as those leading to odors) that would adversely affect a substantial number of people. The project would result in potentially significant impacts associated with exposing sensitive receptors to substantial pollutant concentrations of DPM, fugitive dust, and asbestos. With implementation of identified mitigation, all potential impacts would be reduced to less than significant. Therefore, impacts associated with air quality would be less than significant with mitigation.

Mitigation

AQ-1 Diesel Idling Control Measures. During all construction activities and use of diesel-fueled vehicles, the applicant shall implement the following idling control techniques:

1. Idling Restrictions Near Sensitive Receptors for Both On- and Off-Road Equipment.
 - a. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors, if feasible. If not feasible, staging and queuing areas shall be located at the maximum distance from sensitive receptors;
 - b. Diesel idling within 1,000 feet of sensitive receptors shall not be permitted;
 - c. Use of alternative-fueled equipment shall be used whenever possible; and

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- d. Signs that specify the no idling requirements shall be posted and enforced at the construction site.
2. California Diesel Idling Regulations. On-road diesel vehicles shall comply with Section 2485 of Title 13 of the California Code of Regulations. This regulation limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:
 - a. Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation.
 - b. Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 1,000 feet of a restricted area, except as noted in Subsection (d) of the regulation.

Signs must be posted in the designated queuing areas and job sites to remind drivers of the 5-minute idling limit. The specific requirements and exceptions in the regulation can be reviewed at the following website: www.arb.ca.gov/msprog/truck-idling/2485.pdf.

3. These requirements shall be detailed on all project plan sets.

AQ-2

Fugitive Dust Control Measures. The following measures shall be implemented during all project site disturbance, demolition, construction activities to reduce construction generated fugitive dust. These measures shall be shown on grading and building plans:

- a. Reduce the amount of the disturbed area where possible;
- b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the APCD's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (nonpotable) water should be used whenever possible. When drought conditions exist and water use is a concern, the contractor or builder should consider use of a dust suppressant that is effective for the specific site conditions to reduce the amount of water used for dust control. Please refer to the following link from the San Joaquin Valley Air District for a list of potential dust suppressants: Products Available for Controlling Dust;
- c. All dirt stockpile areas should be sprayed daily and covered with tarps or other dust barriers as needed;
- d. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible, and building pads should be laid as soon as possible after grading unless seeding, soil binders or other dust controls are used;
- e. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) or otherwise comply with California Vehicle Code (CVC) Section 23114;

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- f. "Track-Out" is defined as sand or soil that adheres to and/or agglomerates on the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto any highway or street as described in CVC Section 23113 and California Water Code 13304. To prevent 'track out', designate access points and require all employees, subcontractors, and others to use them. Install and operate a 'track-out prevention device' where vehicles enter and exit unpaved roads onto paved streets. The 'track-out prevention device' can be any device or combination of devices that are effective at preventing track out, located at the point of intersection of an unpaved area and a paved road. Rumble strips or steel plate devices need periodic cleaning to be effective. If paved roadways accumulate tracked out soils, the track-out prevention device may need to be modified;
- g. All fugitive dust mitigation measures shall be shown on grading and building plans;
- h. The contractor or builder shall designate a person or persons whose responsibility is to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures as necessary to minimize dust complaints and reduce visible emissions below the APCD's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Their duties shall include holidays and weekend periods when work may not be in progress (for example, wind-blown dust could be generated on an open dirt lot). The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition (Contact the Compliance Division at 805781-5912).
- i. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible, following completion of any soil disturbing activities;
- j. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
- k. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
- l. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
- m. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers shall be used with reclaimed water where feasible. Roads shall be pre-wetted prior to sweeping when feasible; and
- n. Take additional measures as needed to ensure dust from the project site is not impacting areas outside the project boundary.

AQ-3

Abatement of Asbestos-Containing Materials (ACM). Prior to issuance of demolition permits, the project applicant shall demonstrate full compliance with the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - asbestos NESHAP). These requirements include, but are not limited to, written notification to the SLOAPCD, completion of an asbestos survey conducted by a Certified Asbestos Inspector, and preparation and implementation of a written work plan detailing the applicable removal and disposal requirements of identified asbestos containing materials. Compliance

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shall be verified through either submittal of evidence of SLOAPCD determining the project is exempt from NESHAP requirements, asbestos survey results indicating there are no ACM within the project site, or a complete work plan detailing the applicable removal and disposal requirements of identified asbestos containing materials.

IV. BIOLOGICAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(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 Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
(c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
(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?	☐	☒	☐	☐

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(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?	☐	☐	☒	☐

Setting

Federal and State Endangered Species Acts

The Federal Endangered Species Act of 1973 (FESA) provides legislation to protect federally listed plant and animal species. The California Endangered Species Act of 1984 (CESA) ensures legal protection for plants listed as rare or endangered, and wildlife species formally listed as endangered or threatened, and also maintains a list of California Species of Special Concern (SSC). SSC status is assigned to species that have limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, the CDFW has the authority to review projects for their potential to impact special-status species and their habitats. CDFW also maintains a Watch List (WL) for species that were previously SSC but no longer merit SSC status, or which do not meet SSC criteria but for which there is concern and a need for additional information to clarify status. Lastly, CDFW also identifies a Fully Protected classification to identify and provide additional protection to those animals that were rare or faced possible extinction. Fully Protected Species (FPS) may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for scientific research, for relocation of the bird species for the protection of livestock, or if they are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan (NCCP). The California Native Plant Society (CNPS) maintains a list of plant species ranging from presumed extinct to limited distribution, based on the following:

California Rare Plant Ranks (CRPR):

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

California Rare Plant Threat Ranks:

- 0.1: Seriously threatened in California
- 0.2: Moderately threatened in California
- 0.3: Not very threatened in California

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by the U.S. Fish and Wildlife Service (USFWS), and potential impacts

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to species protected under the MBTA are evaluated by the USFWS in consultation with other federal agencies and are required to be evaluated under CEQA.

California Department of Cannabis Control

DCC Annual License Application Requirements include the requirement for State cannabis licensees to provide “A copy of any final lake or streambed alteration agreement issued by the California Department of Fish and Wildlife, pursuant to sections 1602 or 1617 of the Fish and Game Code, or written verification from the California Department of Fish and Wildlife that a lake and streambed alteration agreement is not required.”

DCC Regulations also include general environmental protection measures, including, but not limited to the following (CCR 16304):

- Compliance with section 13149 of the Water Code as implemented by the State Water Resources Control Board, Regional Water Quality Control Boards, or California Department of Fish and Wildlife;
- Compliance with any conditions requested by the California Department of Fish and Wildlife or the State Water Resources Control Board under section 26060.1(b)(1) of the Business and Professions Code;
- All outdoor lighting used for security purposes shall be shielded and downward facing;
- Immediately halt cultivation activities and implement section 7050.5 of the Health and Safety Code if human remains are discovered;
- Requirements for generators pursuant to section 8306 of this chapter; and
- Compliance with pesticide laws and regulations pursuant to section 16307 of this chapter.

Pursuant to CCR Section 16307, all licensed cultivators are required comply with all applicable pesticide statutes and regulations enforced by the Department of Pesticide Regulation (DPR).

Oak Woodland Ordinance

The County of San Luis Obispo Oak Woodland Ordinance was adopted in April 2017 to regulate the clear-cutting of oak woodlands. This ordinance applies to sites located outside of Urban or Village areas within the inland portions of the county (not within the Coastal Zone). “Clear-cutting” is defined as the removal of one acre or more of contiguous trees within an oak woodland from a site or portion of a site for any reason, including harvesting of wood, or to enable the conversion of land to other land uses. “Oak woodland” includes the following species: Blue oak (*Quercus douglasii*), coast live oak (*Quercus agrifolia*), interior live oak (*Quercus wislizeni*), valley oak (*Quercus lobata*), and California black oak (*Quercus kelloggii*). The ordinance applies to clear-cutting of oak woodland only and does not apply to the removal of other species of trees, individual oak trees (except for Heritage Oaks), or the thinning, tree trimming, or removal of oak woodland trees that are diseased, dead, or creating a hazardous condition. Heritage oaks are any individual oak species, as defined in the Oak Woodland Ordinance, of 48 inches diameter at breast height (dbh) or greater, separated from all Stands and Oak Woodlands by at least 500 feet.

County of San Luis Obispo General Plan Conservation and Open Space Element

The COSE identifies several key goals pertaining to biological resources within the county:

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

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- **Goal BR 3.** Maintain the acreage of native woodlands, forests, and trees at 2008 levels.
- **Goal BR 4.** The natural structure and function of streams and riparian habitat will be protected and restored.
- **Goal BR 5.** Wetlands will be preserved, enhanced, and restored.
- **Goal BR 6.** The County's fisheries and aquatic habitats will be preserved and improved.
- **Goal BR 7.** Significant marine resources will be protected.

Biological Setting

The following information is based on the Biological Resources Assessment (BRA) prepared for the project (Terra Verde Environmental Consulting, LLC [Terra Verde] 2018).

The project site is located in the Creston U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle, approximately 2.8 miles east of the city of Atascadero in northern San Luis Obispo County. Plant communities in the surrounding area include annual grassland, oak woodland, and active agriculture. Surrounding land uses include rural single-family residences on large lots, vineyards, and olive orchards. The BRA included a field survey, and the survey area included the northwestern portion of the project parcel (Figure 5). There are two unnamed drainage features within the survey area that converge and eventually flow into the Salinas River approximately 4.5 miles northwest of the project site.

The site consists of gently sloping topography with a hilltop located adjacent to the southeastern part of the project site. An existing bed and breakfast is located north of the project site within the project parcel, and olive orchards are present to the north, south, and southeast of the project site within the project parcel. The unnamed drainage feature to the west of the project site contains associated riparian vegetation which can provide habitat for special-status species.

Natural Communities

Four plant communities were identified within the survey area, including wild oats grassland, coast live oak woodland, developed, and active agriculture (Figure 5). The wild oats grassland consisted mostly of non-native grasses and herbs dominated by oats (*Avena barbata* and *Avena fatua*) and ripgut brome (*Bromus diandrus*) and it is present along the margins of access roads, in disturbed fields, between existing agricultural use areas, and the riparian woodland (oak woodland habitat). Coast live oak woodland was observed within the riparian corridor of the unnamed drainage feature as well as in the relatively undisturbed areas surrounding the existing vineyards and orchards; co-dominant species included coast live oak (*Quercus agrifolia*) and interior live oak (*Quercus wislizeni* var. *wislizeni*) with several native woody species dominating the understory. Developed habitat occurs in association with man-made structures, landscaped areas, and access roads and consists of herbaceous weedy species. Landscaped areas are dominated by native and non-native ornamental species. Active agriculture, characterized by frequent disturbance associated with existing olive orchards, consists of variable cover of weedy species between the rows of olives. Developed and active agriculture areas do not correspond to a natural vegetation community but may provide marginally suitable habitat for wildlife foraging and cover. Plant communities within the project site consist mostly of developed, active agriculture, and wild oats grassland (see Figure 5). No sensitive natural communities were recorded within 5 miles of the project site.

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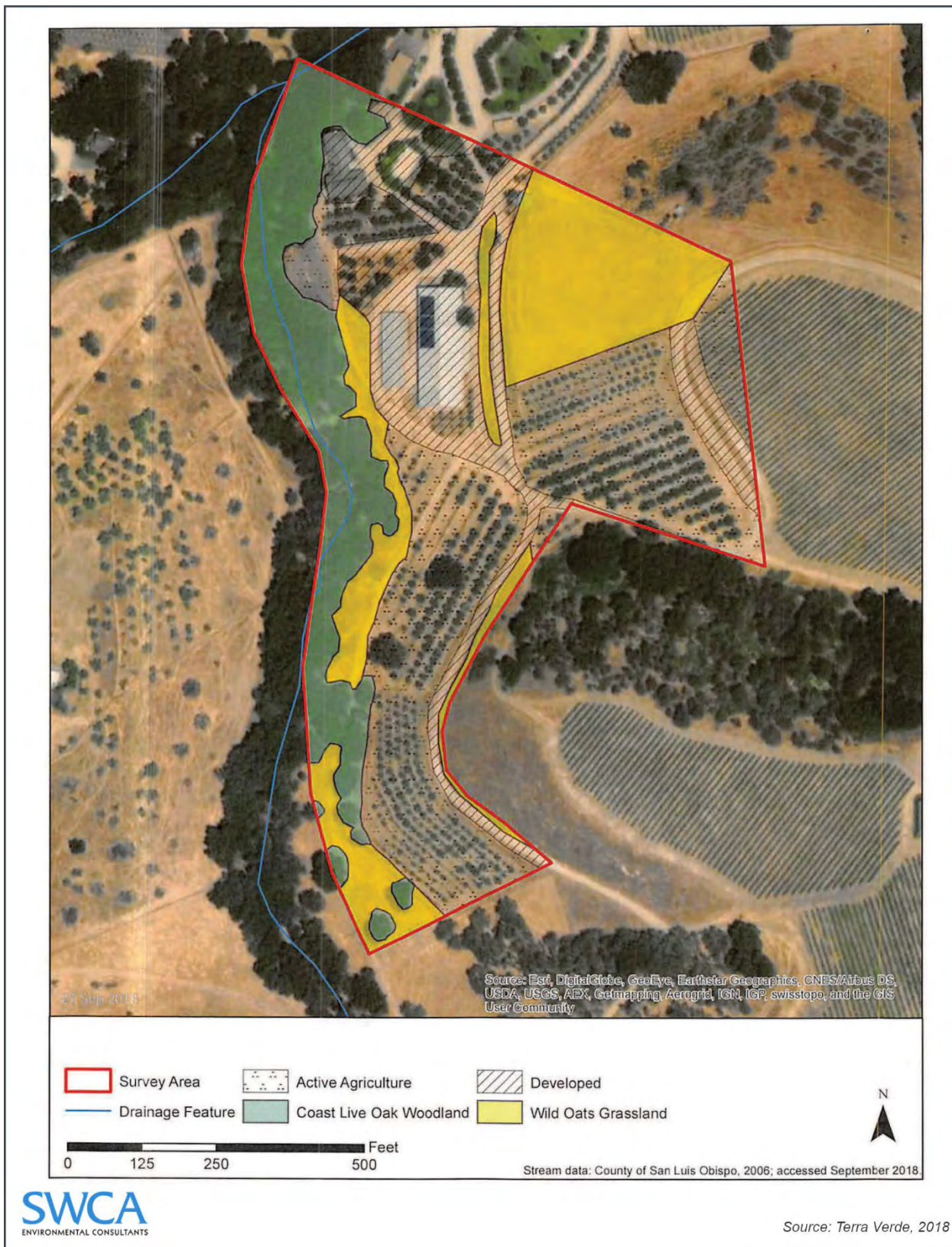


Figure 5. Biological Survey Area and Vegetation Communities

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Special-Status Plants

The BRA included desktop review of relevant maps, databases and other literature including the California Natural Diversity Database (CNDDDB), California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants, and the Consortium of California Herbaria (CCH). Desktop review included a query for occurrences of special-status plant species within the Creston 7.5-minute quadrangle and the surrounding eight quadrangles. Following desktop review, a field survey was completed which included an assessment of on-site habitats and seasonally timed botanical survey. Based on the results of the query and habitat conditions observed during the field survey, nine special-status plant species were determined to have potential to occur on-site:

- Douglas' Fiddleneck (*Amsinckia douglasiana*) (CRPR 4.2)
- Dwarf calycadenia (*Calycadenia villosa*) (CRPR 1B.1)
- Lemmon's jewelflower (*Caulanthus lemmonii*) (CRPR 1B.2)
- Panicle tarplant (*Deinandra paniculata*) (CRPR 4.2)
- Yellow-flowered eriastrum (*Eriastrum luteum*) (CRPR 1B.2)
- Santa Lucia dwarf rush (*Juncus luciensis*) (CRPR 1B.2)
- Pale-yellow layia (*Layia heterotricha*) (CRPR 1B.1)
- Santa Lucia bush-mallow (*Malacothamnus palmeri* var. *palmeri*) (CRPR 1B.2)
- San Gabriel ragwort (*Senecio astephanus*) (CRPR 4.3)

No special-status plant species were observed during the on-site survey, which was conducted on May 10, 2018, during the appropriate blooming period for the special-status plant species with potential to occur on-site. Additionally, oak trees and woodland (*Quercus agrifolia* and *Quercus douglasii*) were observed within the survey area, but not within the project site (see Figure 5).

Special-Status Wildlife

The BRA included desktop review of relevant maps, databases and other literature including the California Natural Diversity Database (CNDDDB). Desktop review included a query for occurrences of special-status wildlife species within the Creston 7.5-minute quadrangle and the surrounding eight quadrangles. Following desktop review, a field survey was completed which included an assessment of on-site habitats and special-status wildlife species. Based on the results of the query and habitat conditions observed during the field survey, seven special-status wildlife species in addition to migratory nesting birds were determined to have potential to occur on-site:

- Crotch's bumble bee (*Bombus crotchii*) (CESA Candidate Endangered)
- Townsend's Big-eared Bat (*Corynorhinus townsendii*) (CDFW SSC)
- American Badger (*Taxidea taxus*) (CDFW SSC)
- Northern California Legless Lizard (*Anniella pulchra*) (CDFW SSC)
- Grasshopper Sparrow (*Ammodramus savannarum*) (CDFW SSC)
- White-tailed Kite (*Elanus leucurus*) (CDFW Fully Protected)
- Western spadefoot (*Spea homondii*) (CDFW SSC; ESA proposed threatened)

No special-status wildlife species were observed during the on-site survey, which was conducted on May 10, 2018.

Wetlands and other Water Bodies

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As mentioned above, two unnamed USGS blue line drainages occur within the survey area and converge before reaching the Salinas River. During the field survey, the drainages were observed with a clearly defined bed and bank as well as evidence of ordinary high water mark (OHWM) which included debris wracking and shelving. No formal wetland delineations were conducted to determine whether wetland habitat occurs within the drainage banks. Coast live oak and interior live oak are the dominant species forming an intermittent tree canopy around the ephemeral drainage, while blue oak (*Quercus douglasii*), blue elderberry (*Sambucus mexicana*), toyon (*Heteromeles arbutifolia*), western poison oak (*Toxicodendron diversilobum*), and Pacific sanicle (*Sanicula crassicaulis*) made up the understory. One of the drainages occurs along the western border of the project parcel and the second drainage is in the northwestern corner of the project parcel; neither of the drainages occur within the project site.

Discussion

- (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 Game or U.S. Fish and Wildlife Service?*

The following analysis is based on the observations and findings provided in the BRA prepared for the project (Terra Verde 2018).

Special-Status Plants

Based on the desktop review and field survey completed as a part of the BRA prepared for the project, nine special-status plant species were determined to have potential to occur in the study area: Douglas' fiddleneck, dwarf calycadenia, Lemmon's jewelflower, paniculate tarplant, yellow-flowered eriastrum, Santa Lucia dwarf rush, pale-yellow layia, Santa Lucia bush-mallow, and San Gabriel ragwort. No special-status plant species were observed on-site during the site surveys, including a May 2018 survey that was conducted during the blooming period of the special-status plant species with potential to occur on-site. Due to the regular history of site disturbance and absence of rare species during the seasonally timed survey, *no impacts* to special-status plant species would occur.

Special-Status Wildlife

Based on the desktop review and field survey completed as a part of the BRA prepared for the project, there is potential for five special-status wildlife species in addition to migratory nesting birds to occur on-site, the potential impacts to which are discussed below.

Crotch's Bumble Bee

Crotch's bumble bee is a candidate species for listing as Endangered under CESA. The Crotch bumble bee range is located throughout California to Baja California, Mexico, and is typically found in wildflower rich grasslands and shrublands foraging on many families and genera of flowering plants. Nesting sites for the crotch bumble bee are typically be found in small mammal burrows, thatched/bunch grasses, upland scrubs, brush piles, unmowed/overgrown areas, dead trees, or hollow logs. Crotch bumble bee was not observed during the on-site survey and there is insufficient data to determine if the species nests onsite; additionally, CDFW's guidance provided in Surveys Considerations for CESA Candidate Bumble Bee Species (CDFW 2023) recommends three surveys be conducted during the colony active period (April to August) to fully assess the presence of Crotch bumble bee in a given year.

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Mitigation Measure BIO-3 has been identified to require surveys of suitable habitat areas and preparation of a Biological Resources Management Plan with avoidance measures and consultation with CDFW if individuals are found on-site. With implementation of this measure, potential impacts to Crotch bumblebee would be *less than significant with mitigation*.

Townsend's Big-eared Bat

Townsend's big-eared bats is a CDFW SSC. Townsend's big-eared bat require areas containing caves and cave-like roosting habitat including buildings or other man-made structures for roosting. This species is extremely sensitive to disturbance of roosting sites; a single visit may result in abandonment of the roost. According to CNDDDB records, there is a single documented occurrence of this species approximately eight miles south of the project site. Suitable habitat for Townsend's big-eared bat is present within the arena structure on the project site and in the cavities of interior live oak trees. Direct impacts to this species could occur from removal of the existing arena structure, if it is being used for roosting habitat, and indirect impacts include increased lighting in the areas adjacent to suitable roosting habitat that may deter use of the habitat. In addition, increased short- and long-term anthropogenic activity in the vicinity of roosts may further deter use of the area by bats. Mitigation Measure BIO-3A has been included to avoid and minimize impacts to Townsend's big-eared bat by requiring a preconstruction survey for this species. Upon implementation of this measure, potential impacts to Townsend's big-eared bat would be *less than significant with mitigation*.

American Badger

The American badger is a CDFW SSC. This species is highly mobile, can occupy a variety of habitat types, but generally occurs in grasslands, meadows, savannahs, open-canopy, desert scrub, and open chaparral. This species requires soils with a crumbly texture between that of sand and clay, in areas with low to moderate slopes. According to CNDDDB records, this species has been documented approximately 5.4 miles northwest of the project site. Suitable habitat, as well as a prey base (e.g., pocket gopher and squirrel), is present for this species within the grassland habitat scattered throughout the survey area, as well as the surrounding areas. As the project is currently designed, no direct impacts to this species are expected to occur as a result of construction activities because the project would not disturb the grassland habitat present surrounding the project site and would be limited to existing developed areas and olive tree orchards. Mitigation Measure BIO-1 has been identified to require implementation of general site maintenance and operational measures including limiting use of heavy equipment and materials to the proposed project limits and defined staging areas and access points. With implementation of this measure impacts to American badger would be *less than significant with mitigation*.

Northern California Legless Lizard

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

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According to CNDDDB records, the nearest documented occurrence of this species is approximately four miles southwest of the project site. Suitable habitat for northern California legless lizard is present in the understory of oak woodland and riparian area on site. As proposed, the project would maintain a 50-foot buffer from the top of bank of the drainage on-site and no work would occur within the oak woodland habitat areas on the project parcel. No direct impacts are proposed within areas of suitable habitat for these species. As such, impacts to the northern California legless lizard would be less than significant and no Mitigation Measures for northern California legless lizard are necessary.

Grasshopper Sparrow, White-tailed Kite, and Other Avian Species Protected under the MBTA

Grasshopper sparrow is a CDFW SSC. This species' habitat typically consists of open grasslands with scattered trees and patches of bare ground. This species is declining throughout its range due to habitat loss, fragmentation and degradation. According to CNDDDB records the nearest documented occurrence is approximately eight miles south of the project site. Suitable habitat is present within the grassland and agricultural fields surrounding the project area.

The white-tailed kite is a CDFW Fully Protected species. This species is a resident of coastal valleys and lowlands of California where it inhabits herbaceous and open stands of various habitats near agricultural operations. Nest sites are typically placed on the top of a tall tree near or within riparian areas, with adjacent grasslands for foraging. Nesting occurs within thick, upper canopies of oaks, willows, or other tree stands in close proximity to open foraging area. According to CNDDDB records, the nearest documented occurrence of this species is approximately 10 miles southwest of the project site. Suitable nesting habitat is present within dense canopies of oak woodlands and mature riparian trees on site. Additionally, white tailed kite may forage in the project area.

Avian species can be expected to occur within the project area during all seasons and throughout construction of the proposed project. The potential to disrupt these species is highest during the typical avian nesting season, from February 1 through September 15 when nests are likely to be active and eggs and young are present. Grassland habitat, mature oaks, and ornamental plantings provide particularly suitable habitat for common passerines and ground nesting birds, while the mature oak trees provide suitable nesting habitat for raptors. Direct impacts to bird species are most likely to occur if construction activities take place during the typical avian nesting season. Indirect impacts may occur due to habitat loss such as removal of suitable nesting trees or construction-related disturbances that may deter nesting or cause nests to fail. Mitigation Measure BIO-3B has been included to require a preconstruction nesting bird survey if work is planned to occur between February 1 and September 15. Upon implementation of this measure, potential impacts to grasshopper sparrow, white-tailed kite, and other avian species would be *less than significant with mitigation*.

Western Spadefoot

Western spadefoot is a CDFW SSC and is also currently proposed to be listed as endangered under the Endangered Species Act. The project site is within the known range of western spadefoot. Western spadefoot persists in upland underground burrows with sandy or gravelly soils for the majority of the year, and emerge during periods of rainfall to breed in temporary pools or pools in intermittent streams. While there is potentially suitable habitat for this species within the project vicinity, the project site consists of developed areas, active agriculture, and areas with ruderal vegetation. No suitable habitat for this species is located within the project site. Therefore, no potential impacts to western spadefoot would occur.

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To further reduce potential impacts to special-status species, Mitigation measure BIO-6 has been identified to require retention of a qualified biologist prior to project activities to carry out preconstruction surveys, training, monitoring, and reporting, as detailed in the mitigation measures. Based on the analysis provided above, and with implementation of Mitigation Measures BIO-3 and BIO-6, project impacts associated with adverse effects on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the USFWS or CDFW, would be *less than significant with mitigation*.

Other Impacts on Special Status Species

In addition to the direct and indirect impacts to special status species described above, project activities may have the potential to adversely affect wildlife through nighttime lighting and use of potentially toxic fertilizers and pesticides. As described in Section I. *Aesthetics*, the greenhouse would be equipped with blackout curtains to minimize any potential for off-site light pollution. The project would be required to comply with applicable DCC regulations for cannabis cultivation facilities, including Title 3, Division 8, Chapter 1 Article 4 of the California Code of Regulations Section 16304(c) which states, "all outdoor lighting used for security purposes shall be shielded and downward facing" and Section 8304(g) which states, "mixed-light license types of all tiers and sizes shall ensure that lights used for cultivation are shielded from sunset to sunrise to avoid nighttime glare."

In addition, all pesticides and fertilizers used during operation of the project would be stored within a 1,125-sf room within the proposed greenhouse. Pursuant to CCR Section 16307, all licensed cultivators are required to comply with all applicable pesticide statutes and regulations enforced by the Department of Pesticide Regulation (DPR). Therefore, other impacts on special status species such as nighttime lighting and use of potentially toxic fertilizers and pesticides would be *less than significant*.

- (b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?*

According to the National Wetlands Inventory Mapper (NWI) and field survey conducted as a part of the BRA prepared for the project (Terra Verde 2018), the project parcel supports two unnamed drainage features occurring along the western border and in the northwestern corner of the parcel. The unnamed drainage features along with their associated riparian vegetation, consisting of coast live oak woodland, are not located within the project site. Other plant communities within the project disturbance area include wild oats grassland, active agriculture, and developed, which have been previously disturbed by anthropogenic uses. Although removal of riparian habitat is not proposed as a part of the project, indirect impacts to riparian habitat could occur through use of heavy equipment in the critical root zones of riparian trees or damage to tree branches with the use of machinery. As such, Mitigation Measures BIO-1 and BIO-2 have been identified to require general measures for site operations that would protect riparian habitat and require protective fencing along the drip line or critical root zone of oak woodland. In addition, DCC Annual License Application Requirements include the requirement for State cannabis licensees to provide "A copy of any final lake or streambed alteration agreement issued by the California Department of Fish and Wildlife, pursuant to sections 1602 or 1617 of the Fish and Game Code, or written verification from the California Department of Fish and Wildlife that a lake and streambed alteration agreement is not required."

Upon implementation of Mitigation Measures BIO-1 and BIO-2, project activities would not disturb existing riparian habitat; therefore, potential impacts would be *less than significant with mitigation*.

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

According to the BRA prepared for the project (Terra Verde 2018), the on-site drainage in proximity to the project development area is ephemeral in nature and is considered a Class III watercourse under the SWRCB General Order for Cannabis Cultivation Activities (Order WQ 2017-0023-DWQ). Under the SWRCB General Order, cannabis activities are required to be setback 50 feet from the drainage (SWRCB 2024). The project proposes at least a 50-foot setback from the riparian corridor for all proposed structures, which would be consistent with the General Order and substantially reduce the potential for indirect impacts such as erosion or sedimentation. However, the project still has the potential to impact the drainages through sedimentation and erosion during grading and construction activities and spills associated with machinery fluids. Mitigation Measures BIO-1, BIO-4, and BIO-5 have been identified to require Best Management Practices (BMPs) for stormwater runoff and erosion and sedimentation related construction impacts as well as requiring a 50-foot setback from the edge of USGS drainage. Upon implantation of Mitigation Measures BIO-1, BIO-4, and BIO-5, construction activities would not have a substantial effect on the drainage features or associated riparian habitat adjacent to the project; therefore, potential impacts to state or federally protected wetlands would be *less than significant with mitigation*.

- (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?*

The proposed project would not affect the movement of native fish because all work will be conducted more than 50 feet from drainage features on the project parcel. Additionally, no drainages with habitat conditions that could support fish are located near the proposed project site.

Maintaining connectivity between areas of suitable habitat is critical for dispersal, migration, foraging, and genetic health of plant and wildlife species. Existing barriers to migration between non-developed portions of the surrounding area, particularly for wildlife, are influenced by agriculture in the region. Agriculture typically correlates with a high frequency of land manipulation and can include the use of wildlife-exclusion fences and pest management activities. There are undeveloped, non-agricultural portions of land present in small pockets on the project site. In addition, properties surrounding the project site are mostly large lots containing undeveloped or agricultural land with a small fraction of dispersed residential development. As such, existing habitat and movement corridors in the vicinity of the project are somewhat fragmented, but relatively intact. The project would involve construction of a 6-foot-tall wooden interior fence, with barbed wire along the top, around the 35,500-sf greenhouse and ancillary processing buildings, which would prevent the movement of medium to large mammals while not affecting movement of invertebrates, birds, bats, amphibians, reptiles, or smaller mammals.

The proposed project would occur within disturbed agricultural use areas and existing developed areas on the project site, which do not show sign of frequent use by any special-status species. New localized barriers may be created by the conversion of existing olive orchards to permanent structures, which may further impede general wildlife movement through the area. However, no large-scale passage barriers are proposed. As such, the proposed project is not expected to increase the overall level of fragmentation in the region and would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native

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resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites; therefore, potential impacts would be *less than significant*.

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

Individual oak trees and oak woodland are present within the riparian corridor, immediately adjacent to the proposed project site along the western border of the project parcel. No oak tree trimming or removals are expected during project implementation, and no project activities are expected to occur within 50 feet of the existing riparian corridor. However, if project activities are required to occur within 50 feet of the existing riparian corridor (oak woodland), then impacts to oak trees have potential to occur through compaction of soil in the critical root zone. Mitigation Measure BIO-2 has been included to require protective fencing be installed along the outer limit of the oak woodland dripline or individual tree critical root zone where project activities are expected to occur within 50 feet of oak trees or oak woodland. Upon implementation of the identified mitigation, potential impacts associated with conflicting with local policies or ordinances protecting biological resources would be *less than significant with mitigation*.

- (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?*

The project is not located within an area under an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the project would not conflict with the provisions of an adopted plan and impacts would be *less than significant*.

Conclusion

Upon implementation of Mitigation Measures BIO-1 through BIO-6 to reduce potential impacts to special-status wildlife, native oak trees, and wetlands and other waterways, potential impacts to biological resources would be less than significant.

Mitigation

BIO-1

Site Maintenance and General Operations The following general measures shall be shown on project plans and implemented during all project demolition, grading, and construction activities to minimize impacts to biological resources:

- a. The use of heavy equipment and vehicles shall be limited to the proposed project limits and defined staging areas/access points. The boundaries of each work area shall be clearly defined and marked with high visibility fencing. No work shall occur outside these limits.
- b. In the vicinity of sensitive resources and habitats (e.g., unnamed USGS blue line drainages and oak woodlands), signs shall be posted at the boundary of the work area indicating the presence of sensitive resources.
- c. Staging of equipment and materials shall occur at least 50 feet from aquatic features.
- d. Secondary containment such as drip pans shall be used to prevent leaks and spills of potential contaminants.
- e. Washing of concrete, paint, or equipment, and refueling and maintenance of equipment shall occur only in designated areas. Sandbags and/or absorbent pads shall be available to prevent water and/or spilled fuel from leaving the site.

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- f. Any chemicals used shall be prevented from entering the USGS blue line drainages.
- g. Construction equipment shall be inspected by the operator daily to ensure that equipment is in good working order and no fuel or lubricant leaks are present.

BIO-2 Oak Tree Protection. At the time of application for grading or building permits, whichever occurs first, project site plans shall identify all oak trees to be protected. During project site disturbance and construction activities, where project activities are expected to occur within 50 feet of oak trees or oak woodland, tree protection fencing shall be installed as close to the outer limit of the woodland dripline or individual tree critical root zone as practicable. At no time shall any removal or trimming of oak trees equal to or greater than five inches in diameter be allowed.

BIO-3 Surveys for Special-status Wildlife. A qualified biologist shall conduct surveys prior to the start of initial project activities to ensure special-status wildlife species are not present within proposed work areas. In the event that special-status wildlife species are found, they shall be allowed to leave the area on their own volition or relocated (as permitted) to suitable habitat areas located outside the work area(s). If necessary, resource agencies will be contacted for further guidance. All preconstruction survey dates, times, surveyors, and results shall be summarized in survey reports and provided to the County prior to initiation of project activities. Pre-activity surveys shall be conducted as follows:

- a. **Surveys and Avoidance for Crotch's Bumble Bee.** Prior to the start of work, including demolition, a qualified biologist shall conduct three surveys for Crotch's bumble bee during the colony active period (April through August) with each survey occurring at least 2 weeks apart to determine if Crotch's bumble bee is present, in accordance with CDFW's guidance provided in Surveys Considerations for CESA Candidate Bumble Bee Species (CDFW 2023). Surveys shall occur during the day (at least 1 hour after sunrise and at least two hours before sunset). The results of each survey shall be provided to the County prior to initiation of project demolition and construction activities.

If no Crotch bumble bee individuals or nests are observed, project activities may proceed as planned. Because bumble bees move nest sites each year, three surveys during the colony active period shall be conducted each year that project construction activities would occur.

If a Crotch bumble bee nest or individual is identified during surveys, the following measures shall be implemented:

- i. If a Crotch bumble bee nest is observed, no work shall occur within 25 feet of the nest until it is no longer active. If an exclusion buffer is not feasible, the applicant shall contact the County for further guidance. The County will coordinate with appropriate resource agencies for guidance to implement project activities and avoid take or proceed with an Incidental Take Permit, if appropriate.
- ii. If Crotch bumble bee is identified on-site during the active spring and summer period, and work is planned between September 1 and March 31, small mammal burrows and thatched/bunch grasses shall be avoided by a minimum of 50 feet. If potential overwintering habitat cannot be avoided, the County shall be contacted for further guidance. The County will coordinate with

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appropriate resource agencies for guidance to implement project activities and avoid take or proceed with an Incidental Take Permit, if appropriate.

If, prior to the start of work, the California Fish and Game Commission determines that the conservation status of Crotch bumble bee does not warrant CESA protections or litigation changes the conservation status and the species is removed from the list of candidate species, the applicant shall consult with the County to determine the applicability and/or potential modifications of measures i and ii above.

- b. **Preconstruction Surveys for Townsend's Big-eared Bat.** Prior to the start of work, including demolition, all suitable roosting habitat for Townsend's big-eared bats (e.g., arena structure and mature oaks) within 100 feet of work areas shall be surveyed during the appropriate time of day to determine if bats are utilizing the potential roosts. If bats are detected, a bat exclusion plan shall be developed and submitted to CDFW for approval prior to implementing any exclusion methods. If no bats are detected, the survey report shall be submitted to the County Department of Planning and Building and no further action is required.
- c. **Preconstruction Survey for Sensitive and Nesting Birds.** If work is planned to occur between February 1 and September 15, a qualified biologist shall survey the area for nesting birds within one week prior to activity beginning on site. If nesting birds are located on or near the proposed project site, they shall be avoided until they have successfully fledged or the nest is no longer deemed active. A non-disturbance buffer of 50 feet will be placed around non-listed, passerine species, and a 250-foot buffer will be implemented for raptor species. All activity will remain outside of that buffer until a qualified biologist has determined that the young have fledged or that proposed construction activities would not cause adverse impacts to the nest, adults, eggs, or young. If special-status avian species are identified, no work will begin until an appropriate buffer is determined in consultation with the CDFW, and/or the USFWS. If special-status avian species (aside from the burrowing owl) are identified and nesting within the work area, no work will begin until an appropriate exclusion zone is determined in consultation with the County and any relevant resource agencies. The results of the survey shall be provided to the County prior to initial project activities. The results shall detail appropriate fencing or flagging of exclusion zones and include recommendations for additional monitoring requirements. A map of the project site and nest locations shall be included with the results. The qualified biologist conducting the nesting survey shall have the authority to reduce or increase the recommended exclusion zone depending on site conditions and species (if non-listed). If two weeks lapse between different phases of project activities (e.g., vegetation trimming and the start of grading), during which no or minimal work activity occurs, the nesting bird survey shall be repeated.

BIO-4

Avoidance of Federal and State Waters. At the time of application for grading and building permits, the 50-foot setback from the top of bank of on-site USGS blue line drainages shall be shown. During all project site preparation, demolition, grading, and construction activities, proposed permanent and/or temporary features shall be located a minimum of 50 feet from the edge of the USGS blue line drainages.

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- BIO-5** **Protection of Federal and State Waters.** In addition to Measures BIO-1 and BIO-4, the following measures are provided to further protect the drainage features on site. If work must occur during the rainy season, temporary erosion and sedimentation Best Management Practices (BMPs) shall be implemented, as necessary, to prevent erosion and sedimentation during construction. Acceptable BMPs include the use of weed-free, natural fiber (i. e., non-monofilament) fiber rolls, jute or coir netting, and/or other industry standards. The BMPs shall be installed and maintained until the disturbance areas are stabilized. These measures shall be incorporated into the project erosion control plan and submitted to the County for review at the time of application for grading and construction permits.
- BIO-6** **Retention of Qualified Biologist.** At the time of application for grading or construction permits or establishment of the use, whichever occurs first, the applicant shall provide evidence to the County that they have retained a County-approved qualified biologist. The scope of work shall include preconstruction surveys, training, monitoring, and reporting, as detailed in the mitigation measures listed above.

V. CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☐	☒	☐
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☒	☐
(c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

Setting

San Luis Obispo County possesses a rich and diverse cultural heritage and has an abundance of historic and prehistoric cultural resources dating as far back as 9,000 B.C. The County protects and manages cultural resources in accordance with the provisions detailed by CEQA and local ordinances.

As defined by CEQA, a historical resource includes:

1. A resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR).
2. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant. The architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural records of California may be considered

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to be a historical resource, provided the lead agency's determination is supported by substantial evidence.

California Department of Cannabis Control

DCC Regulations include general environmental protection measures, including, but not limited to the requirement that all licensees immediately halt cultivation activities and implement section 7050.5 of the Health and Safety Code if human remains are discovered (CCR 16304).

County Conservation and Open Space Element and California Health and Safety Code

The COSE identifies and maps anticipated culturally sensitive areas and historic resources within the county and establishes goals, policies, and implementation strategies to identify and protect areas, sites, and buildings having architectural, historical, Native American, or cultural significance. The project site is not within an Archaeological Sensitive Area (County of San Luis Obispo 2023).

Health and Safety Code Section 7050.5 and LUO Section 22.10.040 (Archaeological Resources) require that in the event of accidental discovery or recognition of any human remains, no further disturbances shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California PRC Section 5097.98.

Phase I Archaeological Survey

A Phase I Archaeological Surface Survey was completed for the project (Heritage Discoveries Inc. 2019) that included a request for review of the Sacred Lands File which produced negative results as well as a records search from the Central Coast Information Center (CCIC) of the California Historical Resources Information System which concluded that no archaeological sites have been recorded previously within the project parcel or a one half-mile radius.

Discussion

(a) *Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?*

No historic cultural material or indications of historic activity on the parcel were identified by the Phase I Archaeological Surface Survey prepared for the project (Heritage Discoveries Inc. 2019) The project site is not within the Historic Site (H) combining designation and does not contain other structures of historic age (45 years or older) that could be potentially significant as a historical resource. Therefore, the project would not result in an adverse change in the significance of a historical resource and impacts would be *less than significant*.

(b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*

A Phase I Archaeological Surface Survey was prepared for the project (Heritage Discoveries Inc. 2019) and included a surface survey and a records search of the CCIC of the California Archaeological Inventory. Based on the results of the records search and surface survey, the project site has low potential for containing archaeological or cultural resources.

In the event that archaeological resources are uncovered during grading activities, implementation of LUO Section 22.10.040 (Archaeological Resources) would be required. This section requires that, in the event archaeological resources are encountered during project construction, construction activities shall cease, and the County Department of Planning and Building must be notified of the discovery so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and the disposition of artifacts may be accomplished in accordance with state and

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federal law. This protocol would ensure full compliance with Health and Safety Code Section 7050.5 as well as DCC requirements regarding accidental discovery of cultural resources. Therefore, impacts related to a substantial adverse change in the significance of archaeological resources would be *less than significant*.

(c) *Disturb any human remains, including those interred outside of dedicated cemeteries?*

Based on existing conditions and results of the Phase I Archaeological Surface Survey conducted on-site, buried human remains are not expected to be present in the site area. In the event of an accidental discovery or recognition of any human remains, Health and Safety Code Section 7050.5 and LUO Section 22.10.040 (Archaeological Resources) require that no further disturbances shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. With adherence to Health and Safety Code Section 7050.5 and the County LUO, impacts related to the unanticipated disturbance of archaeological resources and human remains would be reduced to less than significant; therefore, potential impacts would be *less than significant*.

Conclusion

No archaeological or historical resources are known or expected to occur within or adjacent to the project site. In the event unanticipated archaeological resources or human remains are discovered during project construction activities, adherence with County LUO standards and Health and Safety Code procedures would reduce potential impacts to less than significant; therefore, potential impacts to cultural resources would be less than significant and no mitigation measures are necessary.

Mitigation

None necessary.

VI. ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☒	☐	☐
(b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☒	☐	☐

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Setting

Local Utilities

PG&E is the primary electricity provider for urban and rural communities within San Luis Obispo County. The 2021 PG&E electric power mix consists of 50% renewable energy sources and 43% GHG-free energy sources (Pacific Gas and Electric Company [PG&E] 2021).

PG&E offers two programs through which consumers may purchase electricity from renewable sources: the Solar Choice program and the Regional Renewable Choice program. Under the Solar Choice program, a customer remains on their existing electric rate plan and pays a modest additional fee on a per kilowatt-hour (kWh) basis for clean solar power. The fee depends on the type of service, rate plan, and enrollment level. Customers may choose to have 50% or 100% of their monthly electricity usage to be generated via solar projects. The Regional Renewable Choice program enables customers to subscribe to renewable energy from a specific community-based project within PG&E's service territory. The Regional Renewable Choice program allows a customer to purchase between 25% and 100% of their annual usage from renewable sources.

In addition, on March 21, 2023, the County Board of Supervisors voted to enroll the county in Central Coast Community Energy (3CE), a Community Choice Aggregator (CCA). 3CE is a locally controlled public agency supplying clean and renewable electricity for residents and businesses in Santa Cruz, San Benito, Monterey, and Santa Barbara Counties as well as multiple incorporated cities within these counties. 3CE is based on a CCA model, which means that 3CE partners with the local utility (i.e., PG&E) which continues to provide consolidated billing, electricity transmission and distribution, customer service, and grid maintenance services. 3CE provides customers with a choice for clean and renewable energy, and community reinvestment through rate benefits and local GHG-reducing energy programs for residential, commercial, and agricultural customers. 3CE is currently on a pathway to achieving 60% clean and renewable energy by 2025 and 100% clean and renewable energy by 2030, which is 15 years ahead of California's mandate for zero emissions. Participation in 3CE as an electricity provider is voluntary, customers are automatically opted in to 3CE but can voluntarily opt out and continue service solely with PG&E if desired. 3CE services is anticipated to begin for unincorporated San Luis Obispo County in January 2025 (Central Coast Community Energy [3CE] 2023).

The Southern California Gas Company (SoCalGas) is the primary provider of natural gas for urban and rural communities within San Luis Obispo County. SoCalGas has committed to replacing 20% of its traditional natural gas supply with renewable natural gas by 2030 (Sempra 2019).

Local Energy Plans and Policies

The COSE establishes goals and policies that aim to reduce vehicle miles traveled (VMT), conserve water, increase energy efficiency and the use of renewable energy, and reduce GHG emissions. This element provides the basis and direction for the development of the County's EnergyWise Plan (EWP), which outlines in greater detail the County's strategy to reduce government and community-wide GHG emissions through a number of goals, measures, and actions, including energy efficiency and development and use of renewable energy resources.

In 2010, the EWP established a goal to reduce community-wide greenhouse gas emissions to 15% below 2006 baseline levels by 2020. Two of the six community-wide goals identified to accomplish this were to "[a]ddress future energy needs through increased conservation and efficiency in all sectors" and "[i]ncrease the production of renewable energy from small-scale and commercial-scale renewable energy installations to account for 10% of local energy use by 2020." In addition, the County has published an EnergyWise Plan 2016 Update to summarize progress toward implementing measures established in the EWP and outline overall

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trends in energy use and emissions since the baseline year of the EWP inventory (2006). While the timeline for the goals in this plan has since passed, the EWP still provides helpful context for evaluating projects' consistency with the County's goals related to energy efficiency, energy conservation, and renewable energy.

The goals and policies in the COSE and EWP address the 2005 GHG emissions reduction targets for California (Executive Order S-03-05) issued by California's Governor in 2005. The targets include:

- By 2010 reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels;
- By 2050, reduce GHG emissions to 80% below 1990 levels.

State Building Code Requirements

The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvement to real property. The CBC includes mandatory green building standards for residential and nonresidential structures, the most recent version of which are referred to as the *2022 Building Energy Efficiency Standards*. These standards focus on four key areas: smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. While the CBC has strict energy and green building standards, U-occupancy structures (such as greenhouses used for cultivation activities) are typically not regulated by these standards.

Vehicle Fuel Economy Standards

In October 2012, the U.S. Environmental Protection Agency (USEPA) and the National Highway Traffic Safety Administration (NHTSA), on behalf of the U.S. Department of Transportation (USDOT), issued final rules to further reduce GHG emissions and improve corporate average fuel economy (CAFE) standards for light-duty vehicles for model years 2017 and beyond. NHTSA's CAFE standards have been enacted under the Energy Policy and Conservation Act since 1978. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program would increase fuel economy to the equivalent of 54.5 miles per gallon (mpg) limiting vehicle emissions to 163 grams of carbon dioxide (CO₂) per mile for the fleet of cars and light-duty trucks by the model year 2025.

In January 2017, USEPA Administrator Gina McCarthy signed a Final Determination to maintain the current GHG emissions standards for the model year 2022–2025 vehicles. However, on March 15, 2017, USEPA Administrator Scott Pruitt and USDOT Secretary Elaine Chao announced that the USEPA intended to reconsider the Final Determination. On April 2, 2018, USEPA Administrator Pruitt officially withdrew the January 2017 Final Determination, citing information that suggests that these current standards may be too stringent due to changes in key assumptions since the January 2017 Determination. According to the USEPA, these key assumptions include gasoline prices and overly optimistic consumer acceptance of advanced technology vehicles. The April 2, 2018, notice is not the USEPA's final agency action, and the USEPA intends to initiate rulemaking to adopt new standards. Until that rulemaking has been completed, the current standards remain in effect. (USEPA 2017, 2018).

As part California's overall approach to reducing pollution from all vehicles, the CARB has established standards for clean gasoline and diesel fuels and fuel economies of new vehicles. CARB has also put in place innovative programs to drive the development of low-carbon, renewable, and alternative fuels, such as their

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Low Carbon Fuel Standard (LCFS) Program, pursuant to California Assembly Bill (AB) 32 and the Governor's Executive Order (EO) S-01-07.

In January 2012, CARB approved the Advanced Clean Cars Program, which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017–2025. The new rules strengthen the GHG standard for 2017 models and beyond. This would be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's zero-emission vehicle regulation requires a battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15% of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the state. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34% fewer global warming gases and 75% fewer smog-forming emissions than the statewide fleet in 2016 (CARB 2022).

All self-propelled off-road diesel vehicles 25 horsepower (hp) or greater used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to the CARB's Regulation for In-Use Off-Road Diesel Fueled Fleets (Off-Road regulation). This includes vehicles that are rented or leased (rental or leased fleets). The overall purpose of the Off-Road regulation is to reduce emissions of NO_x and particulate matter from off-road diesel vehicles operating within California through the implementation of standards including, but not limited to, limits on idling, reporting, and labeling of off-road vehicles; limitations on use of old engines; and performance requirements.

Energy Use in Cannabis Operations

The California Code of Regulations includes renewable energy requirements for indoor mixed-light cannabis cultivation operations. Beginning January 1, 2023, all holders of indoor, tier 2 mixed-light license types of any size, and all holders of nursery licenses using indoor or tier 2 mixed-light techniques shall ensure that electrical power used for commercial cannabis activity meets the average electricity greenhouse gas emissions intensity required by their local utility provider pursuant to the California Renewables Portfolio Standard Program in division 1, part 1, chapter 2.3, article 16 (commencing with section 399.11) of the Public Utilities Code. As such, for cultivators within San Luis Obispo County, if a cultivator's indoor or mixed-light energy use is supplied by resources with a lesser GHG-emission intensity than PG&E's GHG-emission intensity (currently approximately 85%), they would be required to acquire carbon offsets to account for the difference (CCR Section 16305). In addition, the CCR also includes standards for licensed cultivators using generators rated below 50 horsepower to comply with specific standards such as operating no more than 80 hours per year and to meet Tier 4 requirements, or current engine requirements if no stringent regulations are established at the time of permit issuance (CCR Section 16306).

The total energy demand of a cannabis operation depends heavily on the type of cultivation, manufacturing, location of the project, and the types of equipment required. Outdoor cultivation involves minimal equipment and has relatively low energy demands, while indoor cultivation involves more equipment that tends to have much higher energy demands (e.g., high-intensity light fixtures, climate control systems) (County of Santa Barbara 2017). Specific energy uses in indoor grow operations include high-intensity lighting, dehumidification to remove water vapor and avoid mold formation, space heating or cooling during non-illuminated periods and drying processes, preheating of irrigation water, generation of CO₂ from fossil fuel combustion, and ventilation and air conditioning to remove waste heat. Reliance on equipment can vary

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widely as a result of factors such as plant spacing, layout, and the surrounding climate of a given facility (CDFA 2017).

Comparatively, non-cultivation cannabis operations, such as distribution or retail sales, tend to involve typical commercial equipment and processes that may require minor to moderate amounts of power. These non-cultivation activities are subject to the CBC and 2022 *Building Energy Efficiency Standards*, and therefore do not typically result in wasteful or inefficient energy use. Activities and processes related to commercial cannabis do not typically require the demand for natural gas supplies, and it is assumed that such activities would represent a nominal portion of the County's total annual natural gas demand (County of Santa Barbara 2017).

Depending on the site and type of activities, cannabis operations may range in measures that promote the conservation of energy resources. For instance, several current operators are known to engage in practices that promote energy conservation and reduce overall energy demands using high-efficiency lighting or through generation and use of solar energy. However, many other operations within the county have been observed to engage in activities that are highly inefficient and may result in the wasteful use of energy resources. Such operations may include the use of old equipment, highly inefficient light systems (e.g., incandescent bulbs), reliance on multiple diesel generators, and other similar inefficiencies (County of Santa Barbara 2017).

Discussion

- (a) *Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

Construction

During demolition and construction activities, fossil fuels, electricity, and natural gas would be used by construction vehicles and equipment. The energy consumed during construction would be temporary in nature and would be typical of other similar construction activities in the county. Federal and state regulations in place require fuel-efficient equipment and vehicles and prohibit wasteful activities, such as diesel idling. Construction contractors, in an effort to ensure cost efficiency, would not be expected to engage in wasteful or unnecessary energy and fuel practices. Energy consumption during construction would not conflict with a state or local plan for renewable energy and would not be wasteful, unnecessary, or inefficient, and therefore would be *less than significant*.

Operation

Unless the project applicants choose to opt out, the project would rely on electricity provided by 3CE. 3CE is currently on a pathway to achieving 60% clean and renewable energy by 2025 and 100% clean and renewable energy by 2030, which is 15 years ahead of California's mandate for zero emissions. The proposed project would require energy use for grow lighting, air filters, circulation fans, 24-hour security system operation, exterior security lighting (if required by the County Sheriff's Department), processing building heating, ventilation, lights, and well pumps.

Electricity and Propane Gas Use

The project would include use of two 280,000-british-thermal-unit (BTU) gas-fired room heaters. The estimated propane consumption input of each heater is 345,600 btuh (InBalance 2023). The project would include storage of an approximately 100-gallon propane tank for heating purposes. Use of these heaters would be required to be permitted by SLOAPCD and meet the 2022 Title 20 appliance efficiency standards requirement for Warm-Air unit heaters, Gas-Fired of 81 percent combustion efficiency (InBalance 2023).

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The 2022 CBC Building Energy Efficiency Standards include mandatory energy efficiency standards. The proposed processing buildings would be subject to the current CBC Building Energy Efficiency Standards adopted at the time of application for building permits. However, U-occupancy structures, such as greenhouses, are exempt from California Building Code standards and therefore would not necessarily use efficient energy practices. Because the cultivation activities would not be subject to these state energy efficiency regulations, the project could potentially result in wasteful, inefficient, or unnecessary energy consumption.

Cannabis cultivation structures would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during operation if it utilizes significantly more energy (>20%) than a typical commercial building of the same size. Based on the California Energy Commission Report prepared by Itron, Inc. (March 2006), a typical commercial building utilizes 21.25 kilowatt hours per square foot (kWh/sf) annually. The project would include the construction and operation of facilities designated for cannabis cultivation, processing, administration, and security totaling 45,480 sf in floor area. Based on the typical electricity usage for commercial buildings, the total kWh usage for a typical commercial building 45,480 sf in size would be 966,450 kWh per year.

Table 7. Estimated Project Energy Use Compared to Typical Commercial Building

Project Component	Size (sf)	Rate (kWh/year-sf)	Projected Energy (kWh/year)
Typical Commercial Building of Comparable Size	45,480	21.25 ¹	966,450
Mixed-Light Indoor Ancillary, Nursery, and Processing		30.33 ²	1,379,242
Percent In Excess of Typical Commercial Building			42.71%

¹Itron, Inc. March 2006. Average energy demand of commercial businesses. Includes 13.63 kWh from electricity and 7.62 kWh from natural gas.

²InBalance Green Consulting 2023

Based on anticipated equipment and schedules of operation, the proposed project would result in an energy demand of approximately 1,379,242 kWh per year, which is approximately 42.71 percent greater than the energy use of a typical commercial building of the same area (InBalance Green Consulting 2023). This energy use would potentially be wasteful and inefficient when compared to similar sized buildings implementing energy efficiency measures and depending on the project's proposed energy sources.

The project would include a rooftop grid tied solar array on Processing Building B sized to offset 50 percent of the estimated energy use for the project (approximately 400 kW direct current). The project applicant also plans to offset the project's remaining electricity demand by permanently sourcing energy from a clean energy source by enrolling PG&E's Solar Choice program or Regional Renewable Choice program or other comparable public or private program.

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While the proposed solar array would offset up to 50 percent of the project's electricity demand with a renewable energy source, the proposed solar array is proposed for Phase 2 of the proposed project. Therefore, the project would have the potential to result in a temporary potentially significant impact associated with the project's energy use exceeding the energy use of a typical commercial building of the same size. Mitigation Measure ENG-1 has been identified to require preparation and implementation of an energy conservation plan with a performance standard of reducing or offsetting the project's energy demand to within 20% of the energy use of a generic commercial building of the same size for both phases of the proposed project. Mitigation Measure ENG-2 would require quarterly monitoring efforts to include a review of project compliance with Mitigation Measure ENG-1. With implementation of Mitigation Measures ENG-1 and ENG-2, potential impacts associated with wasteful, inefficient, or unnecessary consumption of electricity or propane gas would be *less than significant with mitigation*.

Vehicle Fuel Use

Ongoing operation of the project would result in fuel use associated with employee motor vehicle trips and deliveries. The project would employ up to 13 employees, 6 full-time and 7 seasonal. The project is anticipated to result in the generation of a total of 48 average daily trips (OET 2023). In addition, approximately one to five ancillary transport vehicle trips are anticipated to occur after each harvest period (up to six times per year) and there would be up to six commercial deliveries to the site per year to supply the proposed operation with soil, nutrients, and farm supplies. Supplies deliveries would be generally consistent with existing supplies deliveries to support the agricultural operations on the property.

All vehicles used by employees and deliveries during operation would be subject to applicable state and federal fuel economy standards and State-mandated smog inspections. Based on adherence to applicable state and federal vehicle fuel regulations and the number of proposed vehicle trips, project fuel use would not be wasteful, inefficient, or unnecessary and impacts would be *less than significant*.

(b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Construction

Based on the analysis provided above under Discussion (a), the project would be subject to Federal and state regulations requiring fuel-efficient construction equipment and vehicles and prohibition of wasteful activities, such as diesel idling. During construction activities, the project would also result in a short-term increase in construction-related solid waste. Current California Green Building Code (CALGreen) standards require projects to recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction waste (California Department of Resource Recycling and Recovery [CalRecycle] 2023). Based on required compliance with applicable state and local regulations pertaining to energy conservation and efficiency, the project would not result in a conflict or otherwise obstruct state or local plans during construction and impacts would be *less than significant*.

Operation

In order to be consistent with the County's COSE and the intent of the EWP, the project would be required to reduce GHG emissions where feasible in energy consumption. Unless the project applicant chooses to opt out, the project would rely on 3CE to provide its energy supply, which currently on a pathway to achieving an energy supply mix consisting of 60% clean and renewable energy by 2025 and 100% clean and renewable energy by 2030, which is 15 years ahead of California's mandate for zero emissions (3CE 2023). If the applicant chooses to opt out of 3CE, the project would

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rely on the electricity mix of PG&E, which currently consists of 50% renewable energy sources and 43% GHG-free energy sources.

The project includes installation of rooftop solar PV panels on Processing Building B, which would be sized to offset up to 50% of the project's total energy use (InBalance 2023). The project applicant also plans to offset the project's remaining electricity demand by permanently sourcing energy from a clean energy source by enrolling PG&E's Solar Choice program or Regional Renewable Choice program or other comparable public or private program. All vehicles used by employees and deliveries during operation would be subject to applicable state and federal fuel economy standards and State-mandated smog inspections.

As discussed under Discussion (a) above, the project would result in an energy demand approximately 42.71% greater than the energy demand of commercial buildings of the same size. This would result in a potential conflict with applicable state and local energy conservation and efficiency plans and policies. Mitigation has been identified to require the project to reduce project energy demand or offset excess energy demand with renewable energy sources. Upon implementation of identified mitigation measures, impacts associated with a conflict or obstruction of a state or local energy efficiency or renewable energy plan would be *less than significant with mitigation*.

Conclusion

The project could result in a potentially significant energy demand and inefficient energy use during long-term operations, which could result in potentially significant environmental impacts. Inefficient energy use would potentially conflict with state or local renewable energy or energy efficiency plans. Potential impacts related to energy would be less than significant with implementation of mitigation measures ENG-1 and ENG-2.

Mitigation

- ENG-1 Energy Conservation Plan. Prior to issuance of building permits,** the applicant shall provide to the County Planning and Building Department for review and approval an Energy Conservation Plan with measures that, when implemented, would reduce or offset the project's energy demand to within 20% of the energy use of a generic commercial building of the same size, or 20% less than 21.25 kWh/year-sf. The Energy Conservation Plan shall include the following:
- a. A detailed breakdown of energy demand prepared by a certified energy analyst. The energy breakdown shall include an estimate of total energy demand from all sources associated with all proposed cannabis cultivation activities, including, but not limited to, lighting, odor management, and climate control equipment. Such quantification shall be expressed in total kWh per year and non-electrical sources shall be converted to kWh per year.
 - b. A program for providing a reduction or offset of all energy demand that is 20% or more above a generic commercial building of the same size. Such a program (or programs) may include, but is not limited to, the following:
 - i. Evidence that the project will permanently source project energy demands from renewable energy sources (e.g., solar, wind, hydro). This can include purchasing the project's energy demand from a clean energy source by enrolling PG&E's Solar Choice program or Regional Renewable Choice program or other comparable public or private renewable energy program.

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- ii. Evidence documenting the permanent retrofit or elimination of equipment, buildings, facilities, processes, or other energy-saving strategies to provide a net reduction in electricity demand and/or GHG emissions. Such measures may include the following:
 - 1. Participating in an annual energy audit.
 - 2. Upgrading and maintaining efficient heating/cooling/dehumidification systems.
 - 3. Implement energy efficient lighting, specifically light-emitting diode (LED) over high-intensity discharge (HID) or high-pressure sodium (HPS) lighting.
 - 4. Implementing automated lighting systems.
 - 5. Utilizing natural light when possible.
 - 6. Utilizing an efficient circulation system.
 - 7. Ensuring that energy use is below or in-line with industry benchmarks.
 - 8. Implementing phase-out plans for the replacement of inefficient equipment.
 - 9. Adopting all or some elements of CalGreen Tier 1 and 2 measures to increase energy efficiency in greenhouses.
- iii. Construction of a qualified renewable energy source such as wind, solar photovoltaics, biomass, etc., as part of the project. (Note: Inclusion of a renewable energy source shall also be included in the project description and may be subject to environmental review.)
- iv. Any combination of the above or other qualifying strategies or programs that would achieve a reduction or offset of the project energy demand that is 20% or more above a generic commercial building of the same size.

ENG-2

Quarterly Energy Compliance Monitoring. At time of quarterly monitoring inspection, the applicant shall provide to the County Planning and Building Department for review, a current energy use statement from the electricity provider (e.g., PG&E) that demonstrates energy use to date for the year to date. The applicant shall demonstrate continued compliance with ENG-1 (e.g., providing a currently PG&E energy statement showing continuous enrollment in the Solar Choice program or Regional Renewable Choice program, demonstrating energy use is reduced or offset to be 20% or less of the energy demand of a typical commercial building of the same size).

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VII. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
(ii) Strong seismic ground shaking?	☐	☐	☒	☐
(iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
(iv) Landslides?	☐	☐	☒	☐
(b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Setting

The Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) is a California state law that was developed to regulate development near active faults and mitigate the surface fault rupture potential and other hazards. The Alquist-Priolo Act identifies active earthquake fault zones and restricts the construction of habitable structures over known active or potentially active faults. San Luis Obispo County is in a geologically complex and seismically active region. The Safety Element of the County of San Luis Obispo General Plan identifies three active faults that traverse through the county and are currently zoned under the Alquist-Priolo Act: the San Andreas, the Hosgri-San Simeon, and the Los Osos. The nearest mapped potentially capable faults to the project site includes two faults associated with the Rinconada Fault Zone approximately 1.44 miles and 2.32 miles west of the project site. The nearest mapped active fault to the project site is the San Andreas Fault, approximately 30 miles to the east (CDOC 2015).

Ground shaking refers to the motion that occurs in response to local and regional earthquakes. Seismic ground shaking is influenced by the proximity of the site to an earthquake fault, the intensity of the seismic event, and the underlying soil composition. Ground shaking can endanger life and safety due to damage or collapse of structures or lifeline facilities. The CBC includes requirements that structures be designed to resist a certain minimum seismic force resulting from ground motion.

The County LUO identifies a Geologic Study Area (GSA) combining designation for areas where geologic and soil conditions could present new developments and/or their occupants with potential hazards to life and property. The project site is not located within the LUO Geologic Study Area (GSA) combining designation. Landslides and slope instability can occur as a result of wet weather, weak soils, improper grading, improper drainage, steep slopes, adverse geologic structure, earthquakes, or a combination of these factors. Liquefaction is the sudden loss of soil strength due to a rapid increase in soil pore water pressures resulting from ground shaking during an earthquake. Based on the Safety Element, the project site is located in an area with low to moderate landslide risk potential and low liquefaction potential (County of San Luis Obispo 1999).

Shrink/swell potential is the extent to which the soil shrinks as it dries out or swells when it gets wet. Extent of shrinking and swelling is influenced by the amount and kind of clay in the soil. Shrinking and swelling of soils can cause damage to building foundations, roads, and other structures. A high shrink/swell potential indicates a hazard to maintenance of structures built in, on, or with material having this rating. Moderate and low ratings lessen the hazard accordingly. The project site is underlain by soils containing clay or clay materials that are considered expansive.

The project site is underlain by Pleistocene-age pebble, gravel, and, and clay of the Paso Robles Formation (USGS 2004). This type of underlying geologic material is considered to have high paleontological sensitivity due to the record of fossil preservation found in this geologic unit (SWCA 2019). The County COSE identifies a policy for the protection of paleontological resources from the effects of development by avoiding disturbance where feasible. Where substantial subsurface disturbance is proposed in paleontologically sensitive units,

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Implementation Strategy CR 4.5.1 (Paleontological Studies) requires a paleontological resource assessment and mitigation plan be prepared, to identify the extent and potential significance of resources that may exist within the proposed development and provide mitigation measures to reduce potential impacts to paleontological resources.

Discussion

(a) *Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*

(a-i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

The project site is not located within an Alquist-Priolo Fault Hazard Zone, and there are no mapped active faults crossing or adjacent to the site (County of San Luis Obispo 2023; CDOC 2015). The nearest mapped potentially capable faults to the project site includes two faults associated with the Rinconada Fault Zone approximately 1.44 miles and 2.32 miles west of the project site. The nearest mapped active fault to the project site is the San Andreas Fault, approximately 30 miles to the east (CDOC 2015). Therefore, the potential for impacts related to surface ground rupture of known earthquake faults would be *less than significant*.

(a-ii) *Strong seismic ground shaking?*

The Central Coast is a seismically active region and there is always potential for seismic ground shaking to occur. The nearest mapped potentially capable faults to the project site includes two faults associated with the Rinconada Fault Zone approximately 1.44 miles and 2.32 miles west of the project site. The nearest mapped active fault to the project site is the San Andreas Fault, approximately 30 miles to the east (CDOC 2015). Structural components of the project would include the construction of a 35,000-square-foot greenhouse, a 980-square-foot processing building, a 9,000-square-foot metal barn-like structure, and fencing. The project site may be subject to strong seismic ground shaking within the lifetime of the proposed components; however, no new structures for habitation or other structures that could result in a significant safety risk (e.g., bridges, etc.) are proposed. Additionally, occupiable buildings would be required to be constructed in accordance with seismic design standards included in Section 1613 of the 2022 CBC and other engineering standards to adequately withstand earthquake loads and associated risk, including seismic ground shaking. Adherence to the 2022 CBC and other applicable engineering standards would minimize the risk of loss, injury, or death associated with seismic ground shaking; therefore, impacts would be *less than significant*.

(a-iii) *Seismic-related ground failure, including liquefaction?*

As described above, the project is located in a seismically active region but is not traversed or located adjacent to any known fault lines. According to the County Safety Element Maps, the project site is located in an area with low potential for liquefaction. Typically, sandy, silty, or gravelly soils are most susceptible to liquefaction. Soils at the project site consist largely of clay loam, clay, sandy loam, and sandy clay loam; therefore, soils at the site would have a low susceptibility to liquefaction. Proposed construction of occupiable buildings would be required to comply with seismic design standards included in Section 1613 of the 2022 CBC and other engineering standards to adequately withstand earthquake loads and associated risk, including liquefaction. Adherence to the 2022 CBC and other applicable engineering standards would minimize the risk of loss, injury, and death associated with liquefaction; therefore, impacts would be *less than significant*.

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(a-iv) *Landslides?*

According to the Safety Element, the project site is located within a region with moderate to low potential for landslides. Landslides typically occur in areas with steep slopes. The project would not result in deep cuts into existing slopes, substantial changes to the existing topography of the project site, or otherwise exacerbate the potential for landslides to occur on- or off-site. In addition, the project does not propose habitable structures that would put people at risk in the event of a landslide. Further, the proposed project would be required to comply with the most recent CBC and applicable engineering standards and practices to adequately withstand and minimize risk associated with landslides during construction and operation of the proposed project. Therefore, potential impacts associated with landslides would be *less than significant*.

(b) *Result in substantial soil erosion or the loss of topsoil?*

The project would result in approximately 1.13 acres of ground disturbance, and earthwork materials are expected to be balanced on-site. Proposed ground disturbance has the potential to increase erosion and loss of topsoil at the project site that could run off into the surrounding areas. Per County LUO Section 22.52.120, an Erosion and Sedimentation Control Plan is required for all construction and grading projects to minimize potential short- and long-term impacts related to erosion and sedimentation, and includes requirements for specific erosion control materials, setbacks from creeks, and siltation prevention. In addition, the proposed project would disturb more than 1 acre of soils and would be required to comply with RWQCB general construction permit requirements, including preparation and implementation of a SWPPP with BMPs to reduce erosive runoff during project construction. The plan would be prepared by a civil engineer to address both temporary and long-term sedimentation and erosion impacts. Based on required compliance with the RWQCB and County LUO Section 22.52.120, potential impacts associated with substantial soil erosion or loss of topsoil would be *less than significant*.

(c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Based on County Safety Element maps, the project site is located in an area with low to moderate potential for landslide and low potential for liquefaction potential to occur. Additionally, the project site is located in an area with known land subsidence (USGS 2022). However, future residences and occupiable structures would be required to be constructed in accordance with the most recent CBC to adequately withstand and minimize risk associated with potential ground-failure events; therefore, potential impacts related to ground failure would be *less than significant*.

(d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Soils at the project site contain clay components and have potential for soil expansion to occur. The proposed project would be required to comply with Section 18 of the most recent CBC, which requires geotechnical investigations to be conducted by a qualified engineer prior to development to determine soil conditions at the site and provide design recommendations to be implemented in final design and construction plans. Based on required compliance with the CBC, new development would not result in the risk to life or property as a result of development on expansive soils; therefore, impacts would be *less than significant*.

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- (e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

The project includes permanent restrooms in the 980 sf and in the 9,000 sf-metal barn-like structures; in addition, project employees would utilize portable restroom facilities to be located adjacent to the proposed greenhouse on-site. The project would include construction and installation of an individual on-site septic system.

While the exact location and design of this system have not yet been determined, this proposed septic system would be subject to the design and performance standards set forth by the County Onsite Wastewater Treatment Systems Local Agency Management Program (LAMP). The soils within the project site consist of clay materials, which typically do not function properly for a septic leach field because of the slow permeability and depth to rock of clay soils. Using sandy backfill or trench lines and increasing the size of the absorption field would help to compensate for the slow permeability (USDA 1984). The proposed septic tank and leach field area would be required to be located beyond 100 feet of any creeks or bodies of water and on soils with less than 20 percent slopes. The proposed 1.13-acre project site is entirely 50 feet or more from any creeks or bodies of water and the majority of the site has nearly level topography. Therefore, the project site has suitable areas for construction of an individual on-site septic system, and with compliance with local design and siting standards, the project would not have soils incapable of adequately supporting the use of septic tanks and impacts would be *less than significant*.

- (f) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

The project site is underlain by Paso Robles Formation (QTp), which consists of Pleistocene-age pebble, gravel, and, and clay (USGS 2004). This paleontological unit is from the Pleistocene and there is record of fossil preservation found in this geologic unit; therefore, it is determined to have high paleontological sensitivity (SWCA 2019).

The project would result in approximately 1.13 acres of total site disturbance, including up to 5,000 cubic yards of earthwork. No preliminary grading plans have been prepared at the time of preparation of this document, therefore, the project's maximum depth of excavation is unknown. Based on the soils located within the project site, estimated minimum depth to bedrock is between 20 to 40 inches (NRCS 2023). Based on proposed project earthwork and high paleontological sensitivity of the underlying geologic unit, the project may have the potential to directly or indirectly destroy a unique paleontological resource or site.

The County COSE identifies a policy for the protection of paleontological resources from the effects of development by avoiding disturbance where feasible. Where substantial subsurface disturbance is proposed in paleontologically sensitive units, Implementation Strategy CR 4.5.1 (Paleontological Studies) requires a paleontological resource assessment and mitigation plan be prepared, to identify the extent and potential significance of resources that may exist within the proposed development and provide mitigation measures to reduce potential impacts to paleontological resources. Mitigation Measures GEO-1 through GEO-4 have been identified to require preparation and implementation of paleontological monitoring and treatment plan, to include appropriate monitoring protocol and treatment of any discovered paleontological resources that may be found within the project site during project construction activities. Upon implementation of Mitigation Measures GEO-1 through GEO-4, potential impacts to unique or scientifically significant paleontological resources would be *less than significant with mitigation*.

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Conclusion

Upon implementation of mitigation measures identified below to avoid and minimize potential impacts to paleontological resources, impacts associated with geology and soils would be *less than significant*.

Mitigation

GEO-1

Paleontological Monitoring and Treatment Plan. At the time of application for building permits, a County of San Luis Obispo-approved paleontologist shall be retained to prepare a Paleontological Resource Monitoring and Treatment Plan for the project and submit the Paleontological Monitoring and Treatment Plan to the County of San Luis Obispo Planning and Building Department for review and approval. The Paleontological Monitoring and Treatment Plan shall be consistent with the standards of the Society of Vertebrate Paleontology (SVP) and meet all regulatory requirements. The County of San Luis Obispo-approved paleontologist shall have a master's degree or Ph.D. in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Paleontological Monitoring and Treatment Plan shall identify construction impact areas of low, moderate, and high sensitivity for encountering potential paleontological resources and the shallowest depths at which those resources may be encountered. The Paleontological Monitoring and Treatment Plan shall detail the criteria to be used to determine whether an encountered resource is significant, and if it should be avoided or recovered for its data potential. The Paleontological Monitoring and Treatment Plan shall also detail methods of recovery, preparation, and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting.

- a. The Paleontological Monitoring and Treatment Plan shall outline a coordination strategy to ensure that a County of San Luis Obispo-approved paleontological monitor will conduct full-time monitoring of earthwork activities that have the potential to impact areas with a moderate or high paleontological sensitivity. The Paleontological Monitoring and Treatment Plan shall incorporate the results of geotechnical or subsurface data to determine the depth threshold for full-time monitoring. If the depth threshold cannot be established, then initial full-time monitoring regardless of depth shall be conducted to determine the depth to the areas with high sensitivity, and monitoring efforts shall be adjusted accordingly.
- b. The Paleontological Monitoring and Treatment Plan shall define specific conditions in which monitoring of earthwork activities could be reduced and/or depth criteria established to trigger monitoring. These factors shall be defined by the project paleontological resource specialist, following examination of sufficient, representative excavations. As specified in the Paleontological Monitoring and Treatment Plan, approved measures shall be implemented **during ground-disturbing activities**.

GEO-2

During project earthwork activities, based on Mitigation Measure GEO-1 above, the applicant shall conduct monitoring by a County of San Luis Obispo-approved paleontological monitor as specified in the Paleontological Monitoring and Treatment Plan. This shall include monitoring during rough grading and trenching in areas determined to have moderate to high paleontological sensitivity and that have the potential to be deep enough to be adversely affected by such earthwork. Sediments of low, marginal, undetermined sensitivity shall be monitored by a County of San Luis Obispo-approved paleontological monitor on a part-time basis (as determined by the County of San Luis Obispo-approved Paleontologist).

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The paleontological monitor shall have a bachelor's degree in Geology, Paleontology, or Biology with relevant coursework in paleontology and a minimum of 1 year of paleontological monitoring experience in local or similar sediments. Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the County of San Luis Obispo-approved Paleontologist.

GEO-3 **During paleontological field evaluations,** if avoidance of significant paleontological resources is not feasible during grading, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the applicant, in accordance with the approved Paleontological Monitoring and Treatment Plan, per Mitigation Measure GEO-1.

GEO-4 **Prior to the initiation of project ground-disturbing activities,** all construction personnel conducting earthwork activities shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during improvement grading and earthwork activities. The applicant shall complete training for all applicable personnel. Training shall inform all applicable personnel of the procedures to be followed upon the discovery of paleontological materials.

All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on- or off-site by the applicant, its representatives, or employees will not be allowed. Violators shall be subject to prosecution under the appropriate federal and state laws. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

- a. All construction contracts shall include clauses that require grading personnel to attend training so that they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.
- b. A County of San Luis Obispo-approved paleontologist shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential paleontological resources, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.
- c. Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted until cleared by the project paleontologist. Once the find has been inspected and a preliminary assessment made by the paleontologist, the County of San Luis Obispo will be notified. The applicant shall then proceed with data recovery in accordance with the approved Paleontological Monitoring and Treatment Plan.
- d. Prior to final occupancy, the paleontologist shall prepare a final report to be submitted to the County of San Luis Obispo that summarizes impacts to paleontological resources, describes impact minimization efforts, and provides the results of all data recovery efforts.

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VIII. GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Setting

Greenhouse Gas Emissions

Greenhouse gasses (GHGs) are any gases that absorb infrared radiation in the atmosphere. The primary GHGs that are emitted into the atmosphere as a result of human activities are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and fluorinated gases. These are most commonly emitted through the burning of fossil fuels (oil, natural gas, and coal), agricultural practices, decay of organic waste in landfills, and a variety of other chemical reactions and industrial processes (e.g., the manufacturing of cement). Carbon dioxide (CO₂) is the most abundant GHG and is estimated to represent approximately 80–90% of the principal GHGs that are currently affecting the earth's climate. According to the California Air Resources Board (CARB), transportation (vehicle exhaust) and electricity generation are the main sources of GHGs in the state.

State GHG Regulations

In October 2008, the CARB published the *Climate Change Proposed Scoping Plan*, which is the state's plan to achieve GHG reductions in California required by Assembly Bill (AB) 32. The Scoping Plan included CARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations were associated with improving emissions standards for light-duty vehicles, implementing the Low Carbon Fuel Standard program, implementation of energy efficiency measures in buildings and appliances, the widespread development of combined heat and power systems, and developing a renewable portfolio standard for electricity production.

Senate Bill (SB) 32 and EO S-3-05 extend the state's GHG reduction goals and require CARB to regulate sources of GHGs to meet a state goal of reducing GHG emissions to 1990 levels by 2020, 40% below 1990 levels by 2030, and 80% below 1990 levels by 2050. The initial Scoping Plan was first approved by CARB on December 11, 2008, and is updated every 5 years. The first update of the Scoping Plan was approved by the CARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030–2035) toward reaching the 2050 goals. The most recent update released by CARB is the 2017 Climate Change Scoping Plan, which was released in November 2017. The 2017 Climate Change Scoping Plan incorporates strategies for achieving the 2030 GHG-reduction target established in SB 32 and EO S-3-05.

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In addition, the DCC licenses and regulates commercial cannabis activity. Section 16305 of the California Code of Regulations includes the following renewable energy requirements for cannabis operations:

- (e) Beginning January 1, 2023, all holders of indoor, tier 2 mixed-light license types of any size, and all holders of nursery licenses using indoor or tier 2 mixed-light techniques shall ensure that electrical power used for commercial cannabis activity meets the average electricity greenhouse gas emissions intensity required by their local utility provider pursuant to the California Renewables Portfolio Standard Program in division 1, part 1, chapter 2.3, article 16 (commencing with section 399.11) of the Public Utilities Code.
- (f) If a licensed cultivator's average weighted greenhouse gas emission intensity, as calculated and reported upon license renewal pursuant to section 15020, is greater than the local utility provider's greenhouse gas emission intensity, the licensee shall obtain carbon offsets to cover the excess in carbon emissions from the previous annual licensed period. The carbon offsets shall be purchased from one or more of the following recognized voluntary carbon registries:
 - 1. American Carbon Registry;
 - 2. Climate Action Reserve; or
 - 3. Verified Carbon Standard.

Local GHG Regulations

When assessing the significance of potential impacts for CEQA compliance, an individual project's GHG emissions will generally not result in direct significant impacts because the climate change issue is global in nature. However, an individual project could be found to contribute to a potentially significant cumulative impact. Projects that have GHG emissions above the noted thresholds may be considered cumulatively considerable and require mitigation.

The SLOAPCD is a local public agency with the primary mission of realizing and preserving clean air for all county residents and businesses. Responsibilities of the SLOAPCD include but are not limited to, preparing plans for the attainment of ambient air quality standards, adopting and enforcing rules and regulations concerning sources of air pollution, issuing permits for stationary sources of air pollution, inspecting stationary sources of air pollution and responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing programs and regulations required by federal and state regulatory requirements.

As a Commenting Agency under CEQA, the SLOAPCD has developed the *CEQA Air Quality Handbook* to assist lead agencies, planning consultants, and project proponents in assessing the potential air quality and GHG impacts from residential, commercial, and industrial development. SLOAPCD recently developed and published the 2023 Administrative Update Version of the CEQA Air Quality Handbook, which included updated thresholds of significance for GHG emissions. These thresholds have been established through the year 2045,

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the last year specified in AB 1279 and the CARB 2022 Scoping Plan Update for California to achieve its net zero GHG emissions target (SLOAPCD 2023a). The target GHG emissions for SLO county in 2020, 2030, and 2045 were calculated to be consistent with emission reduction targets specified in AB 32, SB 32, and AB 1279. The bright-line thresholds for 2021 to 2045 were determined as a ratio of the adjusted efficiency threshold for the given year relative to the adjusted 2020 efficiency threshold and multiplied by the previous, substantial evidence-based APCD bright-line threshold for new development (SLOAPCD 2023).

For projects with an initial operational year of 2030 or earlier, if emissions are at or below an applicable threshold for that operational year, then the project is considered to be doing its fair share toward the state's SB 32 GHG reduction target. For operational year 2025, the SLOAPCD has established that the GHG threshold for new development 880 metric tons of CO₂ per year (MTCO₂/year) (SLOAPCD 2023).

Discussion

- (a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

The project would result in greenhouse gas emissions associated with stationary source combustion of natural gas/propane in equipment including the two proposed propane heaters as well as from mobile sources including on-road vehicles and off-road construction equipment burning fuels such as gasoline, diesel, biodiesel, propane, or natural gas. The project would also result in indirect GHG emissions associated with use of generation of electricity used to operate processing equipment, lighting, and utilities at the proposed facility.

Using CalEEMod, direct onsite and offsite GHG emissions were estimated for construction and operation, and indirect offsite GHG emissions were estimated to account for electric power used by the proposed Project, water conveyance, and solid waste disposal as shown in Table 8, below (York 2023). Off-site traffic impacts are included in these emissions estimates, along with construction emissions amortized over 30 years (York 2023).

Table 8. Estimated Project Operational GHG Emissions

Greenhouse Gas	Unmitigated Annual Operational Emissions (MT/year)	2025 Operational Year SLOAPCD Significance Threshold (MT/year)	2030 Operational Year SLOAPCD Threshold (MT/year)
Carbon dioxide equivalent (CO ₂ e)	214.15	880	650

Source: York Engineering, LLC 2023

As shown in Table 8 above, the project would not result in the exceedance of the applicable annual operational significance threshold for GHG emissions established by SLOAPCD for projects with an operational year of 2025. Further, if project operation is delayed several years, the project would still fall below applicable SLOAPCD operational GHG thresholds from 2026 through 2030. Therefore, potential impacts would be *less than significant*.

- (b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

As discussed under the Setting and Discussion (a) above, the SLOAPCD has developed operational annual GHG emissions thresholds for projects within San Luis Obispo County, which were calculated

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to be consistent with State GHG emission reduction targets specified in AB 32, SB 32, and AB 1279. The proposed project would not result in GHG emissions above the 2025 operational year SLOAPCD significance threshold, as shown in Table 8. Therefore, the project would be consistent with the GHG emission reduction strategies set forth by the SLOAPCD and AB 32, SB 32, and AB 1279.

The project would include a rooftop grid tied solar array on Processing Building B sized to offset 50 percent of the estimated energy use for the project (approximately 400 kW direct current). The project applicant also plans to offset the project's remaining electricity demand by permanently sourcing energy from a clean energy source by enrolling PG&E's Solar Choice program or Regional Renewable Choice program or other comparable public or private program.

In addition, the project would be subject to DCC regulations requiring that electrical power used for commercial cannabis activity meets the average electricity greenhouse gas emissions intensity required by their local utility provider pursuant to the California Renewables Portfolio Standard Program in division 1, part 1, chapter 2.3, article 16 (commencing with section 399.11) of the Public Utilities Code, and if the cultivator's average weighted greenhouse gas emission intensity is greater than the local utility provider's greenhouse gas emission intensity, the licensee shall obtain carbon offsets to cover the excess in carbon emissions from the previous annual licensed period.

Based on project GHG emissions falling below applicable local APCD significance thresholds, proposed project design features, and required compliance with DCC regulations, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases and impacts would be *less than significant*.

Conclusion

The project would not generate GHG emissions in exceedance of applicable SLOAPCD significance thresholds, contribute considerably to cumulatively significant GHG emissions, or conflict with plans adopted to reduce GHG emissions. Therefore, potential impacts related to GHG emissions would be less than significant and no mitigation measures are necessary.

Mitigation

None necessary.

IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Setting

The Hazardous Waste and Substances Site List (Cortese List), which is a list of hazardous materials sites compiled pursuant to California Government Code (CGC) Section 65962.5, is a planning document used by the state, local agencies, and developers to comply with CEQA requirements related to the disclosure of information about the location of hazardous materials release sites. The project would not be in an area of known hazardous material contamination and is not on a site listed on the Cortese List (SWRCB 2024; California Department of Toxic Substance Control [DTSC] 2024). Based on the SLOAPCD NOA screening, map,

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the project is not located in an area with potential for soils containing naturally occurring asbestos (SLOAPCD 2023).

The DCC includes application requirements regarding hazards and hazardous materials, as detailed in Section 15002 of the CCR and noted below:

- (q) Evidence that the applicant has conducted a hazardous materials record search of the EnviroStor database for the proposed premises. If hazardous sites were encountered, the applicant shall provide documentation of protocols implemented to protect employee health and safety.

The County has adopted general emergency plans for multiple potential natural disasters, including the Local Hazard Mitigation Plan, County Emergency Operations Plan, Earthquake Plan, Dam and Levee Failure Plan, Hazardous Materials Response Plan, County Recovery Plan, and Tsunami Response Plan.

The California Health and Safety Code provides regulations pertaining to the abatement of fire-related hazards and requires that local jurisdictions enforce the CBC, which provides standards for fire resistive building and roofing materials, and other fire-related construction methods. The Safety Element of the County of San Luis Obispo General Plan provides a Fire Hazard Zones Map that indicates unincorporated areas in the county within moderate, high, and very high Fire Hazard Severity Zones (FHSZs). The project would be located within the State Responsibility Area in a high FHSZ (CAL FIRE 2024). Based on the County Land Use View web tool, it would take approximately 10 to 15 minutes to respond to a call regarding fire or life safety (County of San Luis Obispo 2023). For more information about fire-related hazards and risk assessment, see Section XX, Wildfire.

Discussion

- (a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

Construction of the proposed project is anticipated to require use of limited quantities of hazardous substances that have potential to impact the public or the environment, including gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc. Construction contractors would be required to comply with applicable federal and state environmental and workplace safety laws for the handling of hazardous materials, including response and clean-up requirements for any minor spills.

The project proposes the use of pesticides and fertilizers that will be stored within a 1,125-square-foot room within the proposed greenhouse. Project solid waste would include waste from cannabis cultivation and ancillary services that may use cleaning solutions or non-volatile chemicals. Cannabis plant waste would be disposed of in accordance with DCC regulations. Compostable waste from cannabis cultivation would be mixed with other types of waste, including food and yard waste, in a designated compost area on site, and non-compostable waste from cannabis cultivation would be mixed with paper, cardboard, and plastic waste and disposed of in a landfill. The proposed Waste Management Plan for the project would require that waste mixtures be at least 50 percent non-cannabis waste by volume before disposal. The project proposes an 875-square-foot compost area located outside of the greenhouse and processing buildings where cannabis vegetative waste would be disposed of and dumpsters for non-compostable waste storage. Commonly used hazardous materials (e.g., cleaners, solvents, oils, paints, etc.) would be transported, stored, and used according to regulatory requirements and existing procedures for the handling of hazardous materials.

Waste would be handled according to existing state and local regulations to ensure waste disposal does not result in hazard to the public. Compliance with existing regulations would ensure the project

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would not result in significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials therefore, impacts would be *less than significant*.

- (b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

During construction the proposed project would utilize limited quantities of hazardous substances such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc. The project site is located adjacent to sensitive riparian habitat areas as described in Section IV. Biological Resources, which could be impacted from upsets or spills of potentially hazardous substances. A spill or leak of these materials under accident conditions during construction activities could create a potentially significant hazard to the surrounding environment. Mitigation Measures HAZ-1 through HAZ-3 have been included to reduce potential impacts associated with upset or accident conditions during project construction. In addition, Mitigation Measures BIO-1 and BIO-4 through BIO-6 would also reduce potential impacts associated with hazards created by reasonably foreseeable upset or accident conditions during project construction.

During operation, indoor cultivation activities would include the use, and storage of pesticides and fertilizers on-site. Although these materials are not considered highly toxic or hazardous, improper storage and/or handling of these materials could result in a hazard if upset or spilled under accident conditions. Storage, labeling, refilling, use, and dispensing procedures of these materials would be required to be conducted in accordance with Section 16307 of the CCR, CDFA regulations, the California Fire Code, and the project Employee Education, Safety, and Training Program during operation, and would therefore not have the potential to create a significant hazard through upset or accident conditions.

Therefore, potential impacts associated with hazards to the public or the environment through reasonably foreseeable upset or accident conditions would be *less than significant with mitigation*.

- (c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

The nearest school facility is San Benito Elementary School located approximately 3.85 miles southwest of the project site. The project site is not located within 0.25 mile of an existing or proposed school; therefore, *no impacts* would occur.

- (d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Based on a search of the DTSC EnviroStor database, the SWRCB Geotracker database, and the California Environmental Protection Agency (CalEPA) Cortese List website, there are no hazardous waste cleanup sites within the project site (DTSC 2024; SWRCB 2023) and there are no mapped oil or gas wells in the area (CalGEM 2024). The nearest Cortese List site is located approximately 3.11 miles southwest of the project site. The proposed project site is not listed on or located near a site listed on the Cortese List, therefore, *no impacts* would occur.

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- (e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

The project would not be located within an Airport Review Area and there are no active public or private landing strips within 2 miles of the project site; therefore, *no impacts would occur*.

- (f) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The project does not require any road closures and would be designed to accommodate emergency vehicle access. Additionally, the project would not physically block the onsite residents from evacuating during an emergency, and no structures or other obstacles are proposed that would hinder evacuation or emergency response. The project would not impair implementation or physically interfere with County hazard mitigation or emergency plans; therefore, impacts would be *less than significant*.

- (g) *Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?*

The project is located within the State Responsibility Area in a high FHSZ. The project has been reviewed by CAL FIRE/County Fire Department and would be designed to comply with all fire safety rules and regulations, including the California Fire Code and PRC, which includes provision of a Knox Key entry system, as detailed in the referral response letter prepared for the project (CAL FIRE 2023). The project does not include any proposed structures for human habitation, and all combustible fuels proposed to be used on-site would be required to be stored, used, and transported according to applicable state and local regulations. The project would not include any components or activities that would expose people or structures to a significant risk of loss, injury, or death involving wildland fires; therefore, potential impacts would be *less than significant*.

Conclusion

Impacts would be less than significant as a result of hazards or hazardous materials are anticipated with the implementation of Mitigation Measures BIO-1, BIO-4 through BIO-6, HAZ-1, HAZ-2, and HAZ-3.

Mitigation

Implement Mitigation Measures BIO-1 and BIO-4 through BIO-6.

HAZ-1 At the time of application for grading and/or building permits, whichever occurs first, the contractor shall prepare and submit a Hazardous Materials Response Plan to describe protocols necessary for a prompt and effective response to any accidental spills. Workers shall be informed of the importance of preventing spills, measures to prevent spills, and the appropriate measures to take should a spill occur, as detailed in HAZ-2 and HAZ-3 below. The Hazardous Materials Response Plan shall be reviewed and approved by County staff prior to issuance of grading or building permits.

HAZ-2 All project-related spills of hazardous materials shall be cleaned-up immediately. Spill prevention and clean-up materials shall be onsite at all times during construction.

HAZ-3 During construction activities, the cleaning and refueling of equipment and vehicles shall occur only within a designated staging area. This staging area shall conform to all applicable

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Best Management Practices applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles shall be checked and maintained on a daily basis to ensure proper operation and avoid potential leaks or spills.

X. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
(b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☒	☐	☐
(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	☐	☒	☐	☐
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
(iv) Impede or redirect flood flows?	☐	☐	☐	☒
(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐

Setting

The RWQCB *Water Quality Control Plan for the Central Coast Basin* (Basin Plan; RWQCB 2019) describes how the quality of surface water and groundwater in the Central Coast Region should be managed to provide the highest water quality reasonably possible. The Basin Plan outlines the beneficial uses of streams, lakes, and other water bodies for humans and other life. There are 24 categories of beneficial uses, including, but not limited to, municipal water supply, water contact recreation, non-water contact recreation, and cold freshwater habitat. Water quality objectives are then established to protect the beneficial uses of those water resources. The RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose discharges can affect water quality.

The DCC includes several regulations for cannabis licensees pertaining to hydrology and water quality, including, but not limited to, requiring information regarding the location, type, and beneficial uses all proposed water sources (CCR Section 15006), supplemental water source information (CCR Section 16311), and evidence of enrollment in an order or waiver of waste discharge requirements with the RSQCB to be provided at the time of application for State licenses (CCR Section 15011), and requiring all licensed cultivators to comply with the principles, guidelines, and requirements adopted pursuant to section 13149 of the Water Code (CCR Section 16304). In addition, CCR Section 16307 outlines pesticide use requirements for cannabis cultivators including storage, labeling, application, and cleanup protocols.

The County Inland LUO dictates which projects are required to prepare a drainage plan, including any project that would, for example, change the runoff volume or velocity leaving any point of the site, result in an impervious surface of more than 20,000 square feet, or involve hillside development on slopes steeper than 10 percent. Preparation of a drainage plan is not required where grading is exclusively for an exempt agricultural structure, crop production, or grazing. The LUO also dictates that an erosion and sedimentation control plan is required year-round for all construction and grading permit projects and site disturbance activities of 0.5 acre or more in geologically unstable areas, on slopes steeper than 30 percent, on highly erodible soils, or within 100 feet of any watercourse.

The County Inland LUO requires all water demand from cannabis cultivation sites that require a land use permit and are in a groundwater basin of Severity III be offset at a minimum of a 1:1 ratio, and all water demand within an identified Area of Severe Decline shall be offset at a minimum 2:1 ratio. Offset clearance shall be obtained, prior to establishment of the use or receipt of Business License Clearance pursuant to 22.62.020, through an approved project specific or a County approved water conservation program for the respective groundwater basin, that has been subject to environmental review, expressly provides water offsets for cannabis activities, and results in a verifiable reduction of water demand equal to, or exceeding, the required water demand offset for the life of the project.

Per the County's Stormwater Program, the County Department of Public Works is responsible for ensuring that new construction sites implement Best Management Practices (BMPs) during construction, and that site

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plans incorporate appropriate post-construction stormwater runoff controls. Construction sites that disturb 1 acre or more must obtain coverage under the SWRCB Construction General Permit. The Construction General Permit requires the preparation of a SWPPP to minimize on-site sedimentation and erosion. There are several types of projects that are exempt from preparing a SWPPP, including routine maintenance to existing developments, emergency construction activities, and projects exempted by the SWRCB or RWQCB. Projects that disturb less than 1 acre must implement all required elements within the site's erosion and sediment control plan as required by the LUO.

For planning purposes, the flood event most often used to delineate areas subject to flooding is the 100-year flood. The Safety Element of the County of San Luis Obispo General Plan establishes policies to reduce flood hazards and reduce flood damage, including, but not limited to, prohibition of development in areas of high flood hazard potential, discouragement of single-road access into remote areas that could be closed during floods, and review of plans for construction in low-lying areas. The project site is not located within or adjacent to a 100-year flood zone.

Discussion

- (a) *Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*

The project site is located directly west of the nearest mapped surface water feature, which is an unnamed intermittent stream located along the western project parcel boundary. According to Inland LUO Section 22.52.130, projects that disturb more than 1 acre of ground or would result in substantial degradation to water quality require the preparation and implementation of a SWPPP in accordance with the NPDES. The project would result in approximately 1.13 acres of site disturbance. Therefore, preparation of a SWPPP is required prior to issuance of grading permits and the SWPPP would be implemented during project construction activities. The SWPPP would include BMPs, identification of possible pollutants, and an Erosion and Sedimentation Control Plan. Inland LUO Section 22.52.120 requires the preparation and approval of an Erosion and Sedimentation Control Plan to minimize potential impacts related to erosion, sedimentation, and siltation. The plan would be prepared by a civil engineer to address both temporary and long-term sedimentation and erosion impacts. Compliance with existing regulatory requirements would reduce erosion and sedimentation from project activities.

All potentially hazardous materials would be stored, refilled, and dispensed on-site in full compliance with applicable DCC and County Environmental Health Department standards. The project would include the use of pesticides and fertilizers on-site. All pesticides would be registered and regulated by federal and state government codes, with the California Department of Pesticide Regulation being the primary local regulator. However, the project still has the potential to impact surface water and groundwater quality through sedimentation and erosion during grading and construction activities and spills associated with machinery fluids. Mitigation Measures BIO-1, BIO-4, and BIO-5 have been identified to require Best Management Practices (BMPs) for stormwater runoff and erosion and sedimentation related construction impacts as well as requiring a 50-foot setback from the edge of USGS drainage. In addition, Mitigation Measures HAZ-1 through HAZ-3 have been identified to require preparation and implementation of a Hazardous Material Response Plan to ensure measures are implemented to avoid and reduce impacts associated with hazardous material spills during project construction activities.

Based on compliance with existing County and state water quality, sedimentation, and erosion control standards and implementation of identified mitigation measures, the project would not result in a

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violation of any water quality standards, discharge into surface waters, or otherwise alter surface water quality during project operation. Therefore, impacts related to violation of water quality standards would be *less than significant with mitigation*.

- (b) *Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

A Water Demand Analysis was completed by Cleath-Harris Geologists in August 2021 that analyzed a larger project, which included 3-acres of outdoor cultivation canopy and 7,500 sq. ft. of indoor ancillary nursery canopy in addition to the currently proposed project. The project has since been revised to remove outdoor cultivation and reduce indoor ancillary nursery to 6,875 sq. ft. As such, the estimated water demand for the proposed project is 2.7 AFY (Cleath-Harris Geologists, Inc. 2021).

The project would attain its water supply from an existing groundwater well located on the project site. A 4-hour pump test was completed by Filipponi & Thompson Drilling in July 2018 and concluded that the well produces an average of 30 gallons per minute (Filipponi & Thompson Drilling 2018). The cannabis operation would use one existing 5,000-gallon tank, four existing 2,600-gallon tanks, and one existing 1,400-gallon tank located on a hill to the east of the greenhouse and three new 5,000-gallon water tanks located inside the storage area within the greenhouse to store water for irrigation purposes. A reclamation rate of 23 percent of total water used is anticipated from the greenhouse. This would be achieved by recycling water from various mechanical systems such as dehumidifiers, cooling systems, and heating systems. In addition, water efficient plumbing fixtures (like low-flow water units) would also be used to assist with conserving water consumption.

The project site is located within the Paso Robles Subbasin which is identified as a high-priority groundwater basin (Level of Severity III) under the Sustainable Groundwater Management Act (SGMA). The County Inland LUO requires all water demand from cannabis cultivation sites that require a land use permit and are in a groundwater basin of Severity III be offset at a minimum of a 1:1 ratio, and all water demand within an identified Area of Severe Decline shall be offset at a minimum 2:1 ratio. Offset clearance shall be obtained, prior to establishment of the use or receipt of Business License Clearance pursuant to LUO section 22.62.020, through an approved project specific or a County approved water conservation program for the respective groundwater basin, that has been subject to environmental review, expressly provides water offsets for cannabis activities, and results in a verifiable reduction of water demand equal to, or exceeding, the required water demand offset for the life of the project. Based on the location of the groundwater well to be used to support proposed cannabis cultivation activities and the current mapped Paso Robles Groundwater Basin Area of Severe Decline, the project would be required to offset proposed water use at a 2:1 ratio (County of San Luis Obispo 2023).

The project would be required to offset new water use at a 2:1 ratio, which is estimated to be approximately 5.4 AFY for the project. The project applicant is proposing to remove approximately 2.35 acres of the existing approximately 4.56-acre olive orchard on the project site to achieve (or partially achieve) the required water offset requirements set forth in the County LUO for establishing new cannabis uses within the Paso Robles Groundwater Basin. Mitigation Measure WQ-1 has been identified to require the project's water use to be offset through approved methodology, such as removal of irrigated agriculture, water efficiency improvements, or other water demand reduction methods within the Paso Robles Subbasin, subject to the review and verification of the County. In an effort to ensure this mitigation requirement is adaptive, the water conservation plan must identify the total water demand of the project, and a water demand buffer of up to 1 additional acre foot above the project's estimated water demand of 2.7 acre feet would be allowable. The measure would require

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all project water demand be offset at a 2:1 ratio and total project water demand would be limited to a maximum of 3.7 acre feet per year. Mitigation Measure WQ-2 has been identified to require ongoing monitoring of project offset compliance methods. Upon implementation of Mitigation Measures WQ-1 and WQ-2, the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge; therefore, impacts would be *less than significant with mitigation*.

- (c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*
- (c-i) *Result in substantial erosion or siltation on- or off-site?*

The topography of the project site ranges between nearly level and gently rolling. The project would require the preparation of a SWPPP prior to issuance of grading permits. In addition, the project would be required to implement an Erosion and Sedimentation Control Plan to minimize potential impacts related to erosion, sedimentation, and siltation and would address both temporary and long-term sedimentation and erosion impacts. However, the project still has the potential to impact surface water and groundwater quality through sedimentation and erosion during grading and construction activities and spills associated with machinery fluids. Mitigation Measures BIO-1, BIO-4, and BIO-5 have been identified to require Best Management Practices (BMPs) for stormwater runoff and erosion and sedimentation related construction impacts as well as requiring a 50-foot setback from the edge of USGS drainage. Therefore, potential impacts associated with substantial alteration of the existing drainage pattern of the site or area that would result in substantial erosion or siltation would be *less than significant with mitigation*.

- (c-ii) *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

The project would result in an increase in the amount of impervious surface area on the property as a result of construction of a greenhouse, two processing buildings, and new paved areas for ADA parking and circulation. Based on project application materials, the project would result in a total area of all paving and structures of 45,660 square feet. Existing development on the project site includes a 14,000-square-foot arena structure. Accordingly, the project is estimated to result in a net increase of approximately 31,660 square feet (0.73 acre) of impervious surfaces on the project site.

Because the project would result in greater than 1 acre of total site disturbance and the project site is not located within an area with a municipal separate storm sewer system (MS4), the project would be subject to California Construction general Permit Requirements through preparation and implementation of a SWPPP. The SWPPP would be required identify appropriate Best Management Practices for post-construction stormwater management, including measures to slow the rate of stormwater runoff and retaining stormwater flows on-site. Therefore, based on required compliance with applicable post-construction stormwater management requirements, potential impacts related to increased surface runoff resulting in flooding would be *less than significant*.

- (c-iii) *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

The project would require the preparation of a SWPPP prior to issuance of grading permits, and stormwater runoff BMPs would be implemented during project grading and construction activities as well as post-construction. There are no existing or planned stormwater drainage facilities on the project site. The SWPPP would be required include appropriate BMPs for post-construction

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stormwater management, including measures to slow the rate of stormwater runoff and retaining stormwater flows on-site. Therefore, potential impacts related to increased surface runoff exceeding stormwater capacity would be *less than significant*.

(c-iv) *Impede or redirect flood flows?*

Based on the County Flood Hazard Map and FEMA's National Flood Hazard Layer (NFHL) Viewer, the project site is not located within a 100-year flood zone or other mapped flood hazard area (Federal Emergency Management Agency [FEMA] 2024; County of San Luis Obispo 2023). Therefore, *no impacts would occur*.

(d) *In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

Based on the County Flood Hazard Map and FEMA's National Flood Hazard Layer (NFHL) Viewer, the project site is not located within a 100-year flood zone, other mapped flood hazard area, or dam inundation area (Federal Emergency Management Agency [FEMA] 2024; County of San Luis Obispo 2023). or dam inundation area. Based on the San Luis Obispo County Tsunami Inundation Maps, the project site is not located in an area with potential for inundation by a tsunami (CDOC 2022). The project site is not located within close proximity to a standing body of water with the potential for a seiche to occur. Therefore, based on location, the project would not have the potential to release pollutants due to project inundation and *no impacts would occur*.

(e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The project would be in compliance with Inland LUO Sections 22.52.120 and 22.52.130, which require a SWPPP and Erosion and Sedimentation Control Plan for the proposed project. Therefore, the project is not anticipated to result in a substantial increase of erosive or polluted runoff during project construction or operation due to compliance with existing regulations to ensure impacts to water quality are less than significant.

The project is located within a high-priority basin (Level of Service III) and would be required to adhere to Section 22.40.050.CD.5 and offset new water demand at a 2:1 ratio as described in Mitigation Measures WQ-1 and WQ-2. Implementation of these mitigation measures would also ensure that the project would not conflict with the Paso Robles Groundwater Basin Groundwater Sustainability Plan (GSP), which states that the County Water Demand Offset Ordinance is an important tool for controlling new land uses dependent on groundwater until groundwater management controls can be finalized as part of GSP implementation (Paso Robles Subbasin Groundwater Sustainability Agencies 2019). Implementation of these mitigation measures and compliance with other applicable regulations would make impacts *less than significant with mitigation*.

Conclusion

Project construction and operation would result in an increase of erosive and polluted runoff that would be minimized by implementation of identified mitigation measures and compliance with applicable federal and state regulations. The project is located in a high-priority basin and would require implementation of Mitigation Measures WQ-1 and WQ-2 to offset water demand at a 1:1 ratio. With the implementation of necessary mitigation measures, impacts would be *less than significant*.

Mitigation

Implement Mitigation Measures BIO-1, BIO-4 through BIO-6, and HAZ-1 through HAZ-3.

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WQ-1

Water Demand Quantification and Offset. Prior to issuance of a grading permit (or prior to initiation of permitted activities if no grading permits are required), all applicants for cannabis-related activities within the PRGWB shall provide to the County of San Luis Obispo Department of Planning and Building for review and approval a Water Conservation Plan with a package of measures that, when implemented, will achieve the 2:1 water demand offset required by LUO Sections 22.40.050 D.5, 22.40.060 D.5, and 22.94.025 F and Building Ordinance Section 19.07.042(4). The Water Conservation Plan shall include the following:

- a. The quantification of water demand expressed in total acre-feet per year, consistent with the Water Management Plan required by LUO Sections 22.40.050 C.1 and 22.40.060 C.1. Total allowed water demand of the project shall be limited to no more than 3.70 acre-feet per year.
- b. A program for achieving a water demand offset of the quantified water demand as required by LUO Sections 22.40.050 D.5, 22.40.060 D.5, and 22.94.025 F and Building Ordinance Section 19.07.042(4). Such a program may include, but is not limited to, the following:
 - i. Removal of existing irrigated agriculture within the basin. Total water offset by this method shall be verified by County staff.
 - ii. The permanent installation of water facilities and/or infrastructure to improve the efficient use of water on existing irrigated agricultural lands within the basin. Such improvements shall be accompanied by an audit of existing agricultural water demand prepared by an Agricultural Engineer, or other licensed engineer or qualified professional as approved by the Director of Planning and Building. Water efficiency improvements may include, but are not limited to, the following:
 1. Installation of drip irrigation.
 2. Installation of smart controllers, which are irrigation controllers that are climatologically controlled without human intervention, that adjust irrigation based on the amount of moisture lost from soil and plant material since the previous irrigation by utilizing climate data (evapotranspiration rates) broadcast to the controller from the California Irrigation Management Information System and other sources, and that have been tested and certified 100% for irrigation adequacy and schedule shall be installed and maintained on all irrigated and landscaped areas.
 3. Installation of float valves on water tanks to prevent tanks from overflowing.
 4. Conversion from using overhead sprinklers to wind machines for frost protection. [Note: The installation of wind machines shall be included in the project description for cannabis activities and subject to environmental review.]
 5. Installation of rainwater catchment systems to reduce demand on groundwater. [Note: The installation of rainwater catchment facilities

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shall be included in the project description for cannabis activities and subject to environmental review.]

6. Participation in an approved water conservation program within the PRGWB that is verifiable, results in a permanent reduction of water demand equal to, or exceeding, the required water demand offset, and has been subject to environmental review.
 7. Any combination of the above or other qualifying strategies or programs that would achieve the required water demand offset.
- c. The water demand offset documented by the Water Conservation Plan shall be verifiable and permanent and shall not result in adverse environmental effects beyond those assessed by the CEQA compliance document for the proposed cannabis project.

WQ-2 Water Offset Monitoring. For the life of the project, at the time of quarterly monitoring inspection, the applicant shall provide to the County Department of Planning and Building for review, evidence that the water efficiency improvements associated with the approved Water Conservation Program remain in full effect and are continuing to achieve the required water demand offset associated with the approved cannabis activities.

XI. LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Physically divide an established community?	☐	☐	☐	☒
(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☒	☐	☐

Setting

The LUO was established to guide and manage the future growth in the county in accordance with the County of San Luis Obispo General Plan; regulate land use in a manner that will encourage and support orderly development and beneficial use of lands; minimize adverse effects on the public resulting from inappropriate creation, location, use, or design of buildings or land uses; and protect and enhance significant natural, historic, archeological, and scenic resources within the county. The LUO is the primary tool used by the County to carry out the goals, objectives, and policies of the General Plan.

The Land Use and Circulation Element (LUCE) of the County of San Luis Obispo General Plan provides policies and standards for the management of growth and development in each unincorporated community and rural areas of the county and serves as a reference point and guide for future land use planning studies throughout

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the county. The LUE identifies strategic growth principles to define and focus the County's proactive planning approach and balance environmental, economic, and social equity concerns. Each strategic growth principle correlates with a set of policies and implementation strategies that define how land will be used and resources protected. The LUE also defines each of the 14 land use designations and identifies standards for land uses based on the designation within which they are located. The project parcel and surrounding properties are all within the Agriculture and Rural Residential land use designations.

The inland LUCE also contains the area plans of each of the four inland planning areas: Carrizo, North County, San Luis Obispo, and South County. The area plans establish policies and programs for land use, circulation, public facilities, services, and resources that apply "areawide," in rural areas, and in unincorporated urban areas within each planning area. Part three of the LUCE contains each of the 13 inland community and village plans, which contain goals, policies, programs, and related background information for the County's unincorporated inland urban and village areas. The project site is located within the El Pomar-Estrella subarea of the North County Planning Area.

The North County Area Plan identifies the following goals for the El Pomar-Estrella subarea:

1. Land use consistent with the area's heritage and historic rural character.
2. Agriculture as a primary focus of economic activity, with agricultural land uses maintained and protected.
3. Services consistent with each community's willingness and ability to support them.
4. A circulation system that includes a full range of transportation options for all persons in the area.
5. Natural resources that are protected and preserved.

Discussion

(a) *Physically divide an established community?*

The project does not propose project elements or components that would physically divide the site from surrounding areas and uses. The project would be consistent with the general level of development within the project vicinity and would not create, close, or impede any existing public or private roads, or create any other barriers to movement or accessibility within the community. Therefore, the proposed project would not physically divide an established community and *no impacts would occur*.

(b) *Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

The project site is located within the Agriculture land use designation within the El Pomar-Estrella sub area of the North County planning area. Based on the Allowable Land Uses by Land Use Category identified in the inland LUO, Cannabis Activities are permitted uses within the Agriculture land use category (LUO 22.06.030). The project would be consistent with the property's land use designation and the guidelines and policies for development within the applicable area plan and inland LUO, with the exception of the parking standards established in LUO Section 22.18. The project includes a request to modify the parking standards to allow for provision of 13 parking spaces on-site for cannabis operations. The project proposes cannabis activities within a rural area and would employ up to six full-time and up to 7 additional part-time/temporary employees during harvest times for a maximum of 13 total employees. Based on the proposed number of project employees and the nature

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of the project facilities being closed to the general public, this reduction in parking spaces would not result in an adverse environmental effect.

The COSE and LUCE identify goals, policies, and implementation strategies for land uses and the protection of natural resources, including air quality, biological resources, cultural resources, energy, mineral resources, open space, soil resources, visual resources, and water resources. Based on the evaluation of the proposed project within this document, mitigation measures have been identified to address potentially significant impacts associated with air quality, agriculture, biological resources, energy use, hazards and hazardous materials, hydrology and water quality, and noise. With implementation of these identified mitigation measures, the project would be consistent with the policies and implementation strategies set forth in the County of San Luis Obispo COSE and LUE, as well as the goals established for the El Pomar sub-area in the North County Area Plan.

As detailed in Section III. Air Quality, the project would not conflict with the SLOAPCD CAP. As detailed in Section VI. Energy, and Section VIII. Greenhouse Gas Emissions, the project would be consistent with applicable plans and policies pertaining to energy efficiency and conservation and GHG emissions reduction with implementation of identified mitigation measures. As discussed in Section XVII. Transportation, construction and operation of the project would not conflict with adopted policies, plans and programs related to circulation. In addition, the project would be required to be consistent with standards set forth by County Fire/CAL FIRE and the County Public Works Department. Upon implementation of identified mitigation measures, the project would not conflict with plans, policies, or regulations adopted for the purpose of avoiding or mitigating environmental effects and impacts would be *less than significant with mitigation*.

Conclusion

The project would not physically divide an established community. Potential impacts related to land use and planning would be less than significant with implementation of the mitigation measures identified below. Therefore, impacts associated with Land Use would be less than significant with mitigation.

Mitigation

Implement Mitigation Measures AQ-1 through AQ-3, BIO-1 through BIO-6, ENG-1 and ENG-2, GEO-1 through GEO-4, HAZ-1 through HAZ-3, WQ-1 and WQ-2, N-1, and N-2.

XII. MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b) Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Setting

The California Surface Mining and Reclamation Act of 1975 (SMARA) requires that the State Geologist classify land into mineral resource zones (MRZs) according to the known or inferred mineral potential of the land (California PRC Sections 2710–2796).

The three MRZs used in the SMARA classification designation process in the San Luis Obispo-Santa Barbara Production-Consumption Region are defined below (California Geological Survey [CGS] 2015):

- **MRZ-1:** Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well-developed lines of reasoning, based upon economic-geologic principles and adequate data, demonstrate that the likelihood for occurrence of significant mineral deposits is high.
- **MRZ-3:** Areas containing known or inferred aggregate resources of undetermined significance.

The LUO provides regulations for development in delineated Energy and Extractive Resource Areas (EX) and Extractive Resource Areas (EX1). The EX combining designation is used to identify areas of the county where:

1. Mineral or petroleum extraction occurs or is proposed to occur;
2. The state geologist has designated a mineral resource area of statewide or regional significance pursuant to California PRC Sections 2710 et seq. (SMARA); and
3. Major public utility electric generation facilities exist or are proposed.

The purpose of this combining designation is to protect significant resource extraction and energy production areas identified by the LUE from encroachment by incompatible land uses that could hinder resource extraction or energy production operations, or land uses that would be adversely affected by extraction or energy production.

Discussion

- (a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*

Based on the CGS Information Warehouse for Mineral Land Classification and County Land use View web tool, the project site is not located within an area that has been evaluated for mineral resources and is not in close proximity to an active mine (CGS 2015; County of San Luis Obispo 2023). The project is not located within a designated mineral resource zone or within an Extractive Resource Area

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combining designation. There are no known mineral resources in the project area; therefore, *no impacts would occur*.

- (b) *Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?*

Based on the CGS Information Warehouse for Mineral Land Classification and County Land Use View web tool, the project site is not located within an area that has been evaluated for mineral resources and is not in close proximity to an active mine (CGS 2015; County of San Luis Obispo 2023). The project is not located within a designated mineral resource zone or within an Extractive Resource Area combining designation. The project would not be located on land that is zoned or designated for mineral extraction; therefore, the project would not result in the loss of availability of a known mineral resource or result in the loss of availability of a locally important mineral resource recovery site, and *no impacts would occur*.

Conclusion

No impacts to mineral resources would occur and no mitigation measures are necessary.

Mitigation

None necessary.

XIII. NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project result in:</i>				
(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒	☐	☐
(b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

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Setting

Noise is typically described as any dissonant, unwanted, or objectionable sound. Sound is technically defined in terms of loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been developed to relate noise to human sensitivity, known as the A-weighted decibel scale (dBA) (York 2023).

The Noise Element of the County of San Luis Obispo General Plan provides a policy framework for addressing potential noise impacts in the planning process. The purpose of the Noise Element is to minimize future noise conflicts. The Noise Element identifies the major noise sources in the county (highways and freeways, primary arterial roadways and major local streets, railroad operations, aircraft and airport operations, local industrial facilities, and other stationary sources) and includes goals, policies, and implementation programs to reduce future noise impacts. Among the most significant policies of the Noise Element are numerical noise standards that limit noise exposure within noise-sensitive land uses and performance standards for new commercial and industrial uses that might adversely impact noise-sensitive land uses.

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Noise sensitive uses that have been identified in the County's Noise Element to include the following:

- Residential development, except temporary dwellings
- Schools (preschool to secondary, college and university, and specialized education and training)
- Health care services (e.g., hospitals, clinics, etc.)
- Nursing and personal care facilities
- Churches
- Public assembly and entertainment
- Libraries and museums
- Hotels and motels
- Bed and breakfast facilities
- Outdoor sports and recreation
- Offices

All sound levels referred to in the Noise Element are expressed in dBA. Energy Equivalent Noise Level (L_{eq}) is another commonly used unit to quantify noise levels that refers to the average noise level. The instantaneous noise levels during a specific time period in dBA are converted to relative energy values and an average energy value is calculated from the sum of the relative energy values.

The LUO establishes acceptable standards for exterior and interior noise levels (see Table 9, below) and describes how noise shall be measured. Exterior noise level standards are applicable when a land use affected by noise is one of the sensitive uses listed in the Noise Element. Exterior noise levels are measured from the property line of the affected noise-sensitive land use.

Table 9. Maximum Allowable Exterior Noise Level Standards¹

Sound Levels	Daytime 7 a.m. to 10 p.m.	Nighttime ²
Hourly Equivalent Sound Level (L_{eq} , dB)	50	45

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Maximum level (dB)	70	65

¹ When the receiving noise-sensitive land use is outdoor sports and recreation, the noise level standards are increased by 10 db.

² Applies only to uses that operate or are occupied during nighttime hours.

In addition to County noise standards, the DCC includes excessive loud noise as one of the potential grounds for discipline for cannabis license holders in CRR Section 17808.

The project is generally surrounded by rural residences and agricultural uses to the west, south, and east and smaller parcels to the north. Consequently, noise levels on the project site and in the vicinity are low and there are no sources of loud noises beyond those associated with home ownership, traffic on South El Pomar Road, and seasonal agriculture operations. Proximate sensitive receptor locations include off-site single-family residences located approximately 430 feet northwest of the project site, 700 feet southwest of the project site, 1,000 feet east of the project site, and 1,425 feet east of the project site. No major existing sources of groundborne vibration are located in the project area. Vehicle traffic on proximate roadways, particularly heavy-duty trucks, can result in increased groundborne vibration. However, groundborne vibration levels associated with vehicle traffic, even heavy-duty trucks, are typically considered minor.

Discussion

- (a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

The County LUO noise standards are subject to a range of exceptions, including noise sources associated with construction, provided such activities do not take place before 7:00 a.m. or after 9:00 p.m. on weekdays, or before 8:00 a.m. or after 5:00 p.m. on Saturday or Sunday. Noise associated with agricultural land uses (as listed in Section 22.06.030), traffic on public roadways, railroad line operations, and aircraft in flight are also exempt.

Construction Impacts

Noise levels generated by the proposed project construction would be higher than ambient noise levels and may result in a temporary increase in ambient noise levels. Project construction activities would involve the use of heavy equipment for demolition, grading, construction, and delivery and movement of materials on the project site. Types of equipment anticipated to be used during project construction and their associated noise-emitting factors are shown in Table 10.

In accordance with the County Noise Element, exterior noise levels are measured from the property line of the affected noise-sensitive land use. The nearest property line of a noise-sensitive use would be the property line of the parcel located west of the project site, approximately 220 feet from the project site. Based on the reference level dBA of construction equipment as shown in Table 10, maximum project equipment noise levels would be 90 dBA. In general, noise naturally attenuates (diminishes) at a rate of 6 dB per doubling of distance (OSHA, 2016). Assuming this noise level is the noise level at 50 feet from the source and a standard noise attenuation of 6 dB per every doubling of distance, noise levels experienced at the property line of the nearest sensitive receptors would be between 72 and 78 dBA. Therefore, while construction-related noise would be temporary and localized, noise generated during these activities would have the potential to exceed exterior noise standards at nearby residential land if they occurred outside of regular daytime hours as detailed in the County LUO. Mitigation Measure N-1 has been identified to limit project site preparation, demolition, and construction activities to daytime hours between 7:00 AM and 9:00 PM on weekdays,

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and from 8:00 AM to 5:00 PM on weekends, to require installation of equipment mufflers and engine shrouds in accordance with manufacturers' recommendations, and location of equipment staging and stationary source noise sources at the furthest distance from noise-sensitive uses as possible to reduce the temporary increase in ambient noise levels in the vicinity of the project during project demolition and construction activities. Upon implementation of N-1, the project would not conflict with the County's Noise Element policies.

In addition, the project was evaluated for consistency with noise standards for construction activities set forth by the Federal Transit Administration (FTA). The FTA Transit Noise and Vibration Impact Assessment provides an 8-hour construction noise level threshold of 80 dBA during daytime at commercial uses. Construction noise levels were modeled to include the existing ambient noise level (35 Leq dBA) and were measured using the distance from the nearest sensitive receptor to the center of the project site where most of the construction equipment are anticipated to be located. Based on the modeled noise levels generated by project construction activities, the anticipated duration of use of equipment, and the 80 CNEL dBA significance threshold, the project's aggregated average construction noise would be well below the 80 dBA FTA noise level threshold at nearby sensitive receptor locations (York 2023).

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Table 10. Project Construction Equipment Noise and Use Factors

Construction Equipment Assumptions			Federal Highway Administration Equipment Type Equivalent	Usage Factor	Ref. Level	Percussive Source
Construction Phase	Equipment Description	Quantity		Percent	dBA	Yes/No
Demolition	Tractors/Loaders/Backhoes	3	Backhoe (with loader)	40%	80	No
	Rubber Tired Dozers	1	Tractor (rubber tire)	40%	84	No
	Concrete/Industrial Saws	1	Concrete Saw	20%	90	No
Site Preparation	Graders	1	Grader	40%	85	No
	Riber Tired Dozers	1	Tractor (rubber tire)	40%	84	No
	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	40%	80	No
Grading	Graders	1	Grader	40%	85	No
	Tractors/Loaders/Backhoes	2	Backhoe (with loader)	40%	80	No
	Rubber Tired Dozers	1	Tractor (rubber tire)	40%	84	No
Paving	Cranes	1	Crane	16%	85	No
	Forklifts	1	Forklift	40%	80	No
	Generator Sets	1	Generator (<25 KVA)	50%	70	No
	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	40%	80	No
	Welders	3	Welding machine (arc welding)	50%	70	No
Agricultural Coating	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	40%	80	No

Source: York 2023

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Based on the analysis provided above, project construction impacts would be *less than significant with mitigation*.

Operational Impacts

During operation, on-site noise would be generated from vehicles driving in and out of the proposed site, heating, ventilation and air conditioning (HVAC) equipment, and the use of wall- or roof-mounted odor mitigation equipment. Noise resulting from project vehicle trips would not result in an increase substantial enough over existing conditions to result in a noticeable difference in ambient noise levels (York 2023).

Exhaust fans could result in noise levels that average between 35 and 50 dBA Leq at 50 feet from the equipment and large HVAC systems could result in noise levels that average between 50 and 65 dBA Leq at 50 feet from the equipment (York 2023). Based on modeled noise levels and the distance from these proposed stationary noise sources to off-site sensitive receptor locations, operational noise levels would be approximately 45 Leq dBA, which would not exceed the 50 dBA daytime or 45 dBA nighttime exterior noise level standard set forth by the County Noise Element (York 2023).

In addition to HVAC systems, operational noise produced by the proposed odor mitigation system(s) would contribute to the increase in ambient noise levels within and around the project site. Based on the noise levels estimated to be produced by the proposed HVAC systems meeting, but not exceeding, the County's 45 dBA nighttime exterior noise level standard set forth by the County Noise Element, it is reasonable to assume that operation of the odor mitigation system(s) would have the potential to result in the exceedance of County nighttime exterior noise level standards when in use. Mitigation Measure N-2 has been identified to require the project to reduce operational noise impacts through siting, use of acoustical enclosures, or other shielding techniques to reduce operational noise levels at the nearest property line to not exceed the County's average hourly equivalent noise level standards. With implementation of this mitigation, impacts would be reduced to less than significant.

Therefore, operational impacts would be *less than significant with mitigation*.

(b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?*

Project construction activities would not require any intense percussive actions (e.g., hard rock-breaking, large pile-driving). Accordingly, no strong ground-borne vibrations are expected to be generated that could affect nearby structures or be noticeable to their occupants (York 2023). Construction equipment has the potential to generate minor groundborne noise and/or vibration, but these activities would be limited in duration and are not likely to be perceptible from adjacent areas. The project does not propose a use that would generate long-term operational groundborne noise or vibration. Therefore, impacts related to exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels would be *less than significant*.

(c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

The project site is located approximately 9 miles south of the Paso Robles Municipal Airport and is not located in any of the airports identified noise contours or located beneath any designated Aircraft Flight Paths; therefore, *no impacts* would occur.

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Conclusion

No significant long-term change in noise levels would occur. Short-term construction-related noise would be limited in nature and duration and would only occur during appropriate daytime hours. Therefore, potential noise impacts would be less than significant, and no mitigation measures are necessary.

Mitigation

- N-1** At the time of application for demolition/building permits, the following construction noise best management practices shall be shown on all construction plans and implemented on-site during project demolition and construction activities:
- Construction activities shall be limited to between the hours of 7:00 a.m. and 9:00 p.m. on weekdays, and between 8:00 a.m. and 5:00 p.m. on weekends.
 - Construction equipment shall be properly maintained and equipped with exhaust mufflers and engine shrouds in accordance with manufacturers' recommendations.
 - To the extent locally available, electrified, or alternatively powered construction equipment shall be used.
 - Construction equipment staging areas shall be located at the furthest distance possible from nearby noise-sensitive land uses.
 - Stationary noise sources such as generators, pumps, and pavement crushers, shall be located at the furthest distance possible from noise-sensitive uses.
- N-2** Prior to commencing permitted activities, the applicant shall demonstrate that noise generated by project air conditioning, ventilation and odor management equipment complies with applicable County standards for nighttime noise levels at the property lines. This shall be accomplished by:
- Locating the equipment so that the building shields the noise from the nearest property line;
 - Constructing an acoustical enclosure around the equipment;
 - Installing insulating ducting and/or installing a muffler on exhaust fans; or
 - Any combination of equipment location, muffling, and shielding that enables the project to meet the standards.

XIV. POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Setting

The County's Housing Element establishes the framework to facilitate housing development and address current and projected housing needs, provides an assessment of housing needs for the unincorporated county, and provides a summary of the County's progress in implementing the programs from the previous Housing Element. The County's Housing Element identifies goals, objectives, policies, and programs to guide County decision-making and focused efforts during the planning period (2020 through 2028).

Discussion

- (a) *Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

The project proposes cannabis activities within a rural area and would employ up to six full-time and up to 7 additional part-time/temporary employees during harvest times for a maximum of 13 total employees. Three of the staff are expected to live onsite, one of which being the property owner. Workers would likely be sourced from the local labor pool and would not require new or additional housing as a result of the proposed project. Based on the general scope and scale of the proposed activities, the project would not directly or indirectly induce substantial population growth in the area and would not result in a need for a significant amount of new housing nor displace any housing in the area. Therefore, impacts associated with substantial unplanned population growth would be *less than significant*.

- (b) *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The project site is located on a parcel that supports an existing single-family residence and a bed and breakfast business, neither of which would be directly impacted by the implementation of the project. The project would not displace existing housing or necessitate the construction of replacement housing elsewhere; therefore, *no impacts would occur*.

Conclusion

No impacts to population and housing would occur and no mitigation measures are necessary.

Mitigation

None necessary.

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XV. PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

Setting

Fire protection services in unincorporated San Luis Obispo County are provided by CAL FIRE, which has been under contract with the County to provide full-service fire protection since 1930. Approximately 180 full-time state employees operate the County Fire Department, supplemented by as many as 100 state seasonal fire fighters, 300 County paid-call and reserve fire fighters, and 120 state inmate fire fighters. CAL FIRE responds to emergencies and other requests for assistance, plans for and takes action to prevent emergencies and reduce their impact, coordinates regional emergency response efforts, and provides public education and training in local communities. CAL FIRE has 24 fire stations located throughout the county, and the nearest station to the project site would be CAL FIRE station #50, located approximately 5.48 miles east of the project site in the community of Creston. Based on the County Land Use View web tool, emergency personnel would be able to reach the site within approximately 10 to 15 minutes of receiving a call (County of San Luis Obispo 2023).

Police protection and emergency services in the unincorporated portions of the county are provided by the San Luis Obispo County Sheriff's Office. The Sheriff's Office Patrol Division responds to calls for service, conducts proactive law enforcement activities, and performs initial investigations of crimes. Patrol personnel are deployed from three stations throughout the county: Coast Station in Los Osos, North Station in Templeton, and South Station in Oceano. The project would be served by the County Sheriff's Office, and the

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nearest sheriff station is located approximately 5.25 miles northwest of the project site in the community of Templeton.

San Luis Obispo County has a total of 12 school districts that currently enroll approximately 34,000 students in over 75 schools. The project site is located within the Templeton Unified School District.

Within the County's unincorporated areas, there are currently 23 parks, three golf courses, four trails/staging areas, and eight Special Areas that include natural areas, coastal access, and historic facilities currently operated and maintained by the County.

Public facilities fees, Quimby fees, and developer conditions are several ways the County currently funds public services. A public facility fee program (i.e., development impact fee program) has been adopted to address impacts related to public facilities (county) and schools (CGC Section 65995 et seq.). The fee amounts are assessed annually by the County based on the type of proposed development and the development's proportional impact and are collected at the time of building permit issuance. Public facility fees are used as needed to finance the construction of and/or improvements to public facilities required to serve new development, including fire protection, law enforcement, schools, parks, and roads.

Discussion

- (a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

Fire protection?

The project would be designed to comply with all fire safety rules and regulations, including the California Fire Code and California PRC. The County Fire Department/CAL FIRE has provided a referral response letter for the project that details required items to be completed prior to final inspection/operation of the project. Based on the referral response letter for this project, a qualified Fire Protection Engineer (FPE) is required to design and/or approve an automatic fire sprinkler system, water storage system, water supply for fire protection, and any underground piping, fire hydrants, and fire pumps for the proposed project. The project is required to implement water storage, fire hydrants/pumps, emergency access, alarms, and a qualified FPE must provide a written technical analysis of the fire protection system prior to final inspection and occupancy (CAL FIRE 2023). The project proposes up to three new 5,000-gallon water storage tanks which is consistent with the referral response letter. Based on the limited amount of development proposed, the project would not create a significant new demand for fire services. In addition, the project would be subject to public facility fees to offset the increased cumulative demand on fire protection services. Therefore, impacts would be *less than significant*. Additional information regarding wildfire hazard impacts is discussed in Section XX, Wildfire.

Police protection?

The applicant has prepared a security plan subject to the review and approval by the County Sheriff's Office. The Security Plan lays out infrastructure and operational guidelines to prevent and deter any foreseeable security breaches, crimes, and/or statute violations. The project would be required to adhere to the security measures and protocols in the Security Plan, as well as with any additional recommendations or requirements provided by the County Sheriff's Office and CDFA. In addition, the project would be subject to public facility fees to offset the project's cumulative contribution to

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demand on law enforcement services. Therefore, impacts related to police services would be *less than significant*.

Schools?

As discussed in Section XIV, Population and Housing, the project would not induce substantial population growth and would not result in the need for additional school services or facilities. The project does not include any new residential buildings or other structures for human habitation. Based on the limited number of full-time and seasonal employees required by the project, the project would not result in a noticeable increase in population of school-age children in the area. In addition, the project would be subject to school impact fees, pursuant to California Education Code Section 17620, to help fund construction or reconstruction of school facilities. Therefore, impacts would be *less than significant*.

Parks?

As discussed in Section XIV, Population and Housing, the project would not induce a substantial increase in population growth and would not result in the need for additional parks or recreational services or facilities to serve new populations; therefore, potential impacts would be *less than significant*.

Other public facilities?

As discussed above, the proposed project would be subject to applicable fees to offset negligible increased demands on public facilities; therefore, impacts related to other public facilities would be *less than significant*.

Conclusion

The project does not propose development that would substantially increase demands on public services and would not induce population growth that would substantially increase demands on public services. The project would be subject to payment of development impact fees to reduce the project's negligible contribution to increased demands on public services and facilities. Therefore, potential impacts related to public services would be less than significant and no mitigation measures are necessary.

Mitigation

None necessary.

XVI. RECREATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Setting

The Parks and Recreation Element of the County of San Luis Obispo General Plan establishes goals, policies, and implementation measures for the management, renovation, and expansion of existing parks and recreation facilities and the development of new parks and recreation facilities in order to meet existing and projected needs and to assure an equitable distribution of parks throughout the county.

Public facilities fees, Quimby fees, and developer conditions are several ways the County currently funds public parks and recreational facilities. Public facility fees are collected upon construction of new residential units and currently provide funding for new community-serving recreation facilities. Quimby Fees are collected when new residential lots are created and can be used to expand, acquire, rehabilitate, or develop community-serving parks. Finally, a discretionary permit issued by the County may condition a project to provide land, amenities, or facilities consistent with the Parks and Recreation Element.

The County Bikeways Plan identifies and prioritizes bikeway facilities throughout the unincorporated area of the county, including bikeways, parking, connections with public transportation, educational programs, and funding (County of San Luis Obispo 2016). The Bikeways Plan is updated every 5 years and was last updated in 2016. The plan identifies goals, policies, and procedures geared towards realizing significant bicycle use as a key component of the transportation options for San Luis Obispo County residents. The plan also includes descriptions of bikeway design and improvement standards, an inventory of the current bicycle circulation network, and a list of current and future bikeway projects within the county.

Discussion

- (a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

The project proposes cannabis activities within a rural area and would employ up to six full-time and up to 7 additional part-time/temporary employees during harvest times for a maximum of 13 total employees. Three of the staff are expected to live onsite, one of which being the property owner. Workers would likely be sourced from the local labor pool and would not result in increased demand on existing or planned recreational facilities in the County. The project is not proposed in a location that would affect any existing trail, park, recreational facility, coastal access, and/or natural area. The project would not induce population growth or create a significant need for additional park or recreational facilities; therefore, potential impacts would be *less than significant*.

- (b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

The project does not include the construction of new recreational facilities and would not result in a substantial increase in demand or use of parks and recreational facilities. Implementation of the

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project would not require the construction or expansion of recreational facilities; therefore, *no impacts* would occur.

Conclusion

The project would not result in the significant increase in use, construction, or expansion of parks or recreational facilities. Therefore, potential impacts related to recreation would be less than significant and no mitigation measures are necessary.

Mitigation

None necessary.

XVII. TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
(b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
(c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
(d) Result in inadequate emergency access?	☐	☐	☒	☐

Setting

The San Luis Obispo Council of Governments (SLOCOG) holds several key roles in transportation planning within the county. As the Regional Transportation Planning Agency (RTPA), SLOCOG is responsible for conducting a comprehensive, coordinated transportation program; preparing a Regional Transportation Plan (RTP); programming state funds for transportation projects; and administering and allocating transportation development act funds required by state statutes. The 2023 RTP, adopted June 7, 2023, is a long-term blueprint of San Luis Obispo County's transportation system. The plan identifies and analyzes transportation needs of the region and creates a framework for project priorities. SLOCOG represents and works with the County as well as the Cities within the county in facilitating the development of the RTP.

In 2013 SB 743 was signed into California State law with the intent to “more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions” and required the Governor’s

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Office of Planning and Research (OPR) to identify new metrics for identifying and mitigating transportation impacts within CEQA. As a result, in December 2018, the California Natural Resources Agency certified and adopted updates to the State CEQA Guidelines. The revisions included new requirements related to the implementation of SB 743 and identified VMT per capita, VMT per employee, and net VMT as new metrics for transportation analysis under CEQA (as detailed in Section 15064.3[b]).

The County of San Luis Obispo has developed a Vehicle Miles Traveled (VMT) Program (Transportation Impact Analysis Guidelines; County of San Luis Obispo Department of Public Works 2020). The program provides interim operating thresholds and includes a screening tool for evaluating VMT impacts. Screening criteria were developed for projects within San Luis Obispo County based on methodology provided in the County of San Luis Obispo VMT Thresholds Study (GHD 2021). The screening maps indicate where residential and work-based projects would generate an average VMT of 15% or less below the VMT baselines and would not require a VMT analysis. It is important to emphasize that if a project is not presumed to be less than significant based on these screening maps, it does not necessarily mean that the project will have a VMT impact, only that a less than significant impact determination cannot be assumed and that a VMT analysis would be necessary to make that determination (GHD 2021).

The County's Framework for Planning (Inland) includes the Land Use and Circulation Elements of the County of San Luis Obispo General Plan. The framework establishes goals and strategies to meet pedestrian circulation needs by providing usable and attractive sidewalks, pathways, and trails to establish maximum access and connectivity between land use designations. Due to the remote location of the project site, there are no pedestrian, bicycle, or public transit facilities within 5 miles of the project site.

The County Department of Public Works maintains updated traffic count data for all County-maintained roadways. In addition, Traffic Circulation Studies have been conducted within several community areas using traffic models to reasonably simulate current traffic flow patterns and forecast future travel demands and traffic flow patterns. These community Traffic Circulation Studies include the South County Circulation Study, Los Osos Circulation Study, Templeton Circulation Study, San Miguel Circulation Study, Avila Circulation Study, and North Coast Circulation Study. The California Department of Transportation (Caltrans) maintains annual traffic data on state highways and interchanges within the county.

Discussion

- (a) *Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

The project does not propose the substantial temporary or long-term alteration of any proximate transportation facilities. Short-term construction-related trips would be temporary, and area roadways are operating at acceptable levels and would be able to accommodate construction-related traffic.

Long-term maintenance and operational trips would not substantially differ from existing onsite vineyard operations. Assuming a maximum of 13 employees on site per day, traffic generated by the project would result in approximately 48 average daily trips, including seven p.m. peak hour trips (OEG 2023). Based on the referral response from the County Department of Public Works dated November 16, 2023, the project's anticipated average daily trips and p.m. peak hour trips would have negligible impacts to County maintained roads (County Department of Public Works 2023). As a result, the proposed project would have a less than significant long-term impact on existing road service or traffic safety levels.

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The project site access driveway was evaluated for consistency with County sight distance standards. Based on field reviews, the required County 2022 sight distance standards as shown in Standard Detail A-5a and 5b are met or exceeded (OEG 2023). Per the County's guidelines A-5c, if the Minimum stopping sight distance per standard A-5a and standard A-5b are met, mitigation is not required. However, the existing driveway access is currently not constructed to meet the County Standard B1-e requirements. Based on the referral response letter received from the County Department of Public Works, improvement of the existing site access driveway to meet this standard would be required as a condition of approval for the project. Therefore, the project would not conflict with adopted policies, plans and programs related to transportation and impacts would be *less than significant*.

(b) *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

The project is anticipated to result in the generation of a total of 48 average daily trips (ADT) with seven p.m. peak hour (between 4:00 p.m. and 6:00 p.m.) trips on a typical weekday (OEG 2023). In addition, approximately one to five ancillary transport vehicle trips are anticipated to occur after each harvest period (up to six times per year) and there would be up to six commercial deliveries to the site per year to supply the proposed operation with soil, nutrients, and farm supplies. Supplies deliveries would be generally consistent with existing supplies deliveries to support the agricultural operations on the property.

County Transportation Impact Analysis Guidelines describe screening criteria for projects consistent with the General Plan presumed to have a less-than-significant impact based on project type, intensity, or location. Projects located within an area identified as having below-threshold VMT are presumed to have a less-than-significant impact. The project site is not located in an area identified as having a less than significant VMT impact for employment uses (County of San Luis Obispo 2023).

County Transportation Impact Analysis Guidelines also state that small projects that are consistent with SLOCOG's SCS or San Luis Obispo County General Plan and generate fewer than 110 daily trips, consistent with trip generation associated with project eligible for a Categorical Exemption under CEQA, are considered to have a less than significant VMT impact (County of San Luis Obispo Department of Public Works 2020). Based on the trip generation analysis conducted for the proposed project, the new vehicle miles travelled generated by the project would fall below the suggested screening threshold of 110 trips/day identified in the County's Transportation Impact Analysis Guidelines and State guidance (Technical Advisory on Evaluating Transportation Impacts in CEQA; Office of Planning & Research, December 2018), and would therefore be assumed to be less than significant. Therefore, potential impacts would be *less than significant*.

(c) *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

The project would not result in any changes to South El Pomar Road and the project would be required to improve the site access driveway to meet County Standard 1B-e requirements. The project site access driveway was evaluated for consistency with County sight distance standards. Based on field reviews, the required County 2022 sight distance standards as shown in Standard Detail A-5a and 5b are met or exceeded (OEG 2023). Therefore, the project would not substantially increase transportation hazards and would have a *less than significant* impact.

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(d) *Result in inadequate emergency access?*

The project would be required to improve the site access driveway to meet County Standard 1B-e requirements, which would likely require a temporary single vehicle lane closure during the implementation of those improvements. Individual access to adjacent properties would be maintained during construction activities and throughout the project area. Project implementation would not affect long-term access through the project area and sufficient alternative access exists to accommodate regional trips.

Access to the site is provided by South El Pomar Road through a locking access gate. The project would be required to design the driveway and internal access areas to accommodate emergency vehicle access on-site. The project was referred to CAL FIRE/County Fire for review and comment. Their response dated July 23, 2019, indicated that all proposed buildings would require final inspection from CAL FIRE/County Fire, the gates must be locked with Knox Corporation key, and the project must meet current commercial standards for address number. Required compliance with relevant County public works standards and fire protection codes would ensure that impacts related to emergency access would be *less than significant*.

Conclusion

Potential impacts related to transportation and circulation would be less than significant, and no mitigation is necessary.

Mitigation

None necessary.

XVIII. TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

Setting

Approved in 2014, AB 52 added tribal cultural resources to the categories of resources that must be evaluated under CEQA. Tribal cultural resources are defined as either of the following:

1. Sites, features, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - a. Included or determined to be eligible for inclusion in the CRHR; or
 - b. Included in a local register of historical resources as defined in California PRC Section 5020.1(k).
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth California PRC Section 5024.1(c).

In applying these criteria for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe.

Recognizing that tribes have expertise with regard to their tribal history and practices, AB 52 requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. If the tribe requests consultation within 30 days upon receipt of the notice, the lead agency must consult with the tribe regarding the potential for adverse impacts on tribal cultural resources as a result of a project. Consultation may include discussing the type of environmental review necessary, the presence and/or significance of tribal cultural resources, the level of significance of a project's impacts on the tribal cultural resources, and available project alternatives and mitigation measures recommended by the tribe to avoid or lessen potential impacts on tribal cultural resources.

In accordance with AB 52 Cultural Resources requirements, County staff provided notices regarding the proposed project to four Native American tribes on October 24, 2018: Northern Salinan, Xolon Salinan, yak tit'vu tit'vu yak tiłhini Northern Chumash, and Northern Chumash Tribal Council (NCTC). A response was received from the NCTC and this correspondence is summarized under the discussion below. No other responses have been received to date (June 21, 2024).

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Discussion

- (a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*
- (a-i) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

In accordance with AB 52 Cultural Resources requirements, County staff provided notices regarding the proposed project to four Native American tribes on October 24, 2018: Northern Salinan, Xolon Salinan, yak tiṭu tiṭu yak tiłhini Northern Chumash, and NCTC. A response was received from Fred Collins of the NCTC on November 13, 2018 which stated that NCTC had no further comments on the proposed project at that time. No further correspondence has been received from NCTC or other California Native American Tribes regarding this project to date (June 21, 2024).

Based on the results of the Phase 1 archaeological resources survey and records search, the project site does not contain any known tribal cultural resources that have been listed or been found eligible for listing in the CRHR or in a local register of historical resources as defined in PRC Section 5020.1 (Heritage Discoveries Inc. 2019). Potential impacts associated with the inadvertent discovery of tribal cultural resources would be subject to LUO Section 22.10.040 (Archaeological Resources), which requires that in the event resources are encountered during project construction, construction activities shall cease, and the County Department of Planning and Building shall be notified of the discovery so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and the disposition of artifacts may be accomplished in accordance with federal and state law. Therefore, impacts related to a substantial adverse change in the significance of tribal cultural resources would be *less than significant*.

- (a-ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

The County has provided notice of the opportunity to consult with appropriate tribes per the requirements of AB 52 and no requests for consultation were received. Based on the results of the Phase 1 archaeological resources survey and records search, the project site does not contain any known resources determined by the County to be a potentially significant tribal cultural resource. Impacts associated with potential inadvertent discovery would be avoided/minimized through compliance with existing standards and regulations (LUO Section 22.10.040). Therefore, potential impacts would be *less than significant*.

Conclusion

No tribal cultural resources are known or expected to occur within or adjacent to the project site. In the event unanticipated sensitive resources are discovered during project activities, adherence with LUO standards and California Health and Safety Code procedures would reduce potential impacts to less than significant; therefore, potential impacts to tribal cultural resources would be less than significant and no mitigation measures are necessary.

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Mitigation

None necessary.

XIX. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐
(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☒	☐	☐
(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
(d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
(e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Setting

The County Department of Public Works provides water and wastewater services for specific County Service Areas (CSAs) that are managed through issuance of water/wastewater "will serve" letters. The County Department of Public Works currently maintains CSAs for the communities of Nipomo, Oak Shores, Cayucos, Avila Beach, Shandon, the San Luis Obispo County Club, and Santa Margarita. Other unincorporated areas in the county rely on on-site wells and individual wastewater systems. Regulatory standards and design criteria for on-site wastewater treatment systems are provided by the Water Quality Control Policy for Siting, Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems (California OWTS Policy).

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Per the County's Stormwater Program, the County Department of Public Works is responsible for ensuring that new construction sites implement BMPs during construction and that site plans incorporate appropriate post-construction stormwater runoff controls. Construction sites that disturb 1 acre or more must obtain coverage under the SWRCB's Construction General Permit.

PG&E is the primary electricity provider and both PG&E and SoCalGas provide natural gas services for urban and rural communities within the county. In addition, on March 21, 2023, the County Board of Supervisors voted to enroll the county in 3CE, a CCA. 3CE is a locally controlled public agency supplying clean and renewable electricity for residents and businesses in Santa Cruz, San Benito, Monterey, and Santa Barbara Counties as well as multiple incorporated cities within these counties. 3CE is based on a CCA model, which means that 3CE partners with the local utility (i.e., PG&E) which continues to provide consolidated billing, electricity transmission and distribution, customer service, and grid maintenance services. 3CE services is anticipated to begin for unincorporated San Luis Obispo County in January 2025 (3CE 2023).

There are three landfills in San Luis Obispo County: Cold Canyon Landfill, located near the city of San Luis Obispo; Chicago Grade Landfill, located near the community of Templeton; and Paso Robles Landfill, located east of the city of Paso Robles.

Discussion

- (a) *Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

As described in the project description, the project site is located in a rural area and would rely on an existing on-site groundwater well for project water demand and would not result in the construction or connection to any existing community water or wastewater facilities. In addition to provision of portable restrooms outside of the proposed greenhouse, the project would include construction and installation of an individual on-site septic system for the restrooms located within Processing Building A and Processing Building B. While the exact location and design of this septic system have not yet been determined, this proposed septic system would be subject to the design and performance standards set forth by the County Onsite Wastewater Treatment Systems LAMP. Environmental impacts associated with construction of this system have been evaluated in this document, including, but not limited to, potential impacts associated with air quality, biological resources, cultural resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, and noise. Mitigation measures have been identified to reduce impacts associated with construction of these facilities, including Mitigation Measures AQ -1 through AQ-3, BIO-1 through BIO-6, GEO-1 through GEO-4, HAZ-1 through HAZ-3, and N-1.

As described in Section X. Hydrology and Water Quality, the project would require the preparation of a SWPPP prior to issuance of grading permits, and stormwater runoff BMPs would be implemented during project grading and construction activities as well as post-construction. The SWPPP would be required include appropriate BMPs for post-construction stormwater management, including measures to slow the rate of stormwater runoff and retaining stormwater flows on-site. Construction-related impacts associated with development of on-site stormwater drainage collection and treatment facilities would be reduced to less than significant upon implementation of the above-referenced mitigation measures.

The project, with incorporation of the recommended mitigation measures, would not result in a substantial increase in energy demand, natural gas, or telecommunications and no new or expanded

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facilities would be required. No utility relocations are proposed. Therefore, impacts would be *less than significant with mitigation*.

- (b) *Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Future water demand associated with the project is quantified in Section X. Hydrology and Water Quality. According to the project application materials, the existing on-site well will be utilized for cannabis cultivation. A 4-hour pump test was completed for the well by Filipponi & Thompson Drilling in July 2018 and concluded that the well produces an average of 30 gallons per minute (Filipponi & Thompson Drilling 2018). The cannabis operation would use one existing 5,000-gallon tank, four existing 2,600-gallon tanks, and one existing 1,400-gallon tank located on a hill to the east of the greenhouse and three new 5,000-gallon water tanks located inside the storage area within the greenhouse to store water for irrigation water storage purposes. A reclamation rate of 23 percent of total water used is anticipated from the greenhouse. This would be achieved by recycling water from various mechanical systems such as dehumidifiers, cooling systems, and heating systems. In addition, water efficient plumbing fixtures (like low-flow water units) would also be used to assist with conserving water consumption.

Regarding long-term water reliability, the project is located within the Paso Robles Groundwater Basin, which is categorized as being in a state of critical overdraft. Per the County Inland LUO, the project applicant would be required to offset proposed cannabis facility water use at a 2:1 ratio via installation of efficient water systems and fixtures and/or participation in an approved water conservation program, as detailed in Mitigation Measures WQ-1 and WQ-2. Offsetting the water demand of the proposed project in accordance with the County Inland LUO would result in a net positive effect on the water supplies of the groundwater basin, therefore, impacts related to water supplies would be *less than significant with mitigation*.

- (c) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

The project facilities would be served by portable restrooms and an individual on-site wastewater system and would not be connected to a community wastewater service provider; therefore, *no impacts* would occur.

- (d) *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

The project would result in generation of solid waste during construction activities as well as during operation. Current California Green Building Code (CALGreen) standards require projects to recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction waste (California Department of Resource Recycling and Recovery [CalRecycle] 2023). The proposed Waste Management Plan includes a proposed 875-square-foot compost area located outside of the greenhouse and processing buildings where cannabis vegetative waste would be disposed of and dumpsters for non-compostable waste storage.

The nearest active landfill to the project site is the Chicago Grade Landfill, located approximately four miles to the north. The Chicago Grade landfill has a maximum permitted capacity of 10,548,980 cubic yards and had a remaining capacity of approximately 4,215,716 cubic yards as of July 2022 (CalRecycle 2022).

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Local landfills currently have adequate permit capacity to serve the project and the project does not propose to generate solid waste in excess of state or local standards or otherwise impair the attainment of solid waste reduction goals. Therefore, potential impacts associated with the generation of solid waste in excess of state or local standards or the capacity of local infrastructure would be *less than significant*.

- (e) *Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Based on the size and scope of proposed project activities, the project would not result in a substantial increase in waste generation during project construction or operation. Construction waste disposal would comply with federal, state, and local management and reduction statutes and regulations related to solid waste; therefore, potential impacts would be *less than significant*.

Conclusion

The project would not result in any potentially significant impacts related to wastewater service provider capacity, solid waste infrastructure capacity, or conflicts with federal, state, or local solid waste regulations. Potential impacts related to construction of utility infrastructure and sufficient available water supplies would be less than significant with implementation of the mitigation measures identified below. Therefore, impacts associated with Utilities and Service Systems would be less than significant with mitigation.

Mitigation

Mitigation Measures AQ -1 through AQ-3, BIO-1 through BIO-6, GEO-1 through GEO-4, HAZ-1 through HAZ-3, WQ-1, WQ-2, and N-1.

XX. WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</i>				
(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Setting

In central California, the fire season usually extends from roughly May through October; however, recent events indicate that wildfire behavior, frequency, and duration of the fire season are changing in California. FHSZs are defined by CAL FIRE based on the presence of fire-prone vegetation, climate, topography, assets at risk (e.g., high population centers), and a fire protection agency's ability to provide service to the area (CAL FIRE 2007). FHSZs throughout the county have been designated as "Very High," "High," or "Moderate." In San Luis Obispo County, most of the area that has been designated as a "Very High Fire Hazard Severity Zone" and is located in the Santa Lucia Mountains, which extend parallel to the coast along the entire length of San Luis Obispo County. The project would be located within the State Responsibility Area in a high FHSZ. Based on County Fire/CAL FIRE's referral response letter, it would take approximately 6 to 7 minutes to respond to a call regarding fire or life safety.

The County Emergency Operations Plan (EOP) addresses several overall policy and coordination functions related to emergency management. The EOP includes the following components:

- Identifies the departments and agencies designated to perform response and recovery activities and specifies tasks they must accomplish;
- Outlines the integration of assistance that is available to local jurisdictions during disaster situations that generate emergency response and recovery needs beyond what the local jurisdiction can satisfy;
- Specifies the direction, control, and communications procedures and systems that will be relied upon to alert, notify, recall, and dispatch emergency response personnel; alert the public; protect residents and property; and request aid/support from other jurisdictions and/or the federal government;
- Identifies key continuity of government operations; and
- Describes the overall logistical support process for planned operations.

Topography influences wildland fire to such an extent that slope conditions can often become a critical wildland fire factor. Conditions such as speed and direction of dominant wind patterns, the length and steepness of slopes, direction of exposure, and/or overall ruggedness of terrain influence the potential intensity and behavior of wildland fires and/or the rates at which they may spread (Barros et al. 2013).

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The Safety Element of the County of San Luis Obispo General Plan establishes goals, policies, and programs to reduce the threat to life, structures, and the environment caused by fire. Policy S-13 identifies that new development should be carefully located, with special attention given to fuel management in higher fire risk areas, and that new development in fire hazard areas should be configured to minimize the potential for added danger. Implementation strategies for this policy include identifying high risk areas, developing and implementing mitigation efforts to reduce the threat of fire, requiring fire resistant material be used for building construction in fire hazard areas, and encouraging applicants applying for subdivisions in fire hazard areas to cluster development to allow for a wildfire protection zone.

The California Fire Code provides minimum standards for many aspects of fire prevention and suppression activities. These standards include provisions for emergency vehicle access, water supply, fire protection systems, and the use of fire-resistant building materials.

The County EOP outlines the emergency measures that are essential for protecting public health and safety. These measures include, but are not limited to, public alert and notifications, emergency public information, and protective actions. The EOP also addresses policy and coordination related to emergency management.

Discussion

(a) *Substantially impair an adopted emergency response plan or emergency evacuation plan?*

The project is located in a High Fire Hazard Severity Zone (County of San Luis Obispo 2023; CAL FIRE 2024). The project would not result in any full road closures and would be designed to accommodate emergency vehicle access. Implementation of the proposed project would not have a permanent impact on any adopted emergency response plans or emergency evacuation plans. Temporary construction activities and staging would not substantially alter existing circulation patterns or trips. Access to adjacent areas would be maintained throughout the duration of the project.

Therefore, the project would not substantially impair an adopted emergency response plan or emergency evacuation plan. Potential impacts would be *less than significant*.

(b) *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*

The project is located in a High Fire Hazard Severity Zone (County of San Luis Obispo 2023). The project site is located in a rural area of the county where small-to-large scale agricultural operations and rural residential uses are the predominant land uses. Topography of the project site is nearly level to moderately sloping and the existing structures are located on nearly level area. Winds in the area vary from 6-8 miles per hour and primarily come from the north (October-April) and west (April-October). Existing vegetation includes non-native grasses and forbs and relatively dense oak and riparian vegetation along two ephemeral creeks.

The project was reviewed by CAL FIRE/County Fire. In their letter of July 23, 2019, CAL FIRE/County Fire recommends fire protection requirements relating to fire sprinklers, vehicular access, water storage, fire pumps and hydrants, emergency access and addressing. Compliance with the recommendations of CAL FIRE/County Fire is expected to reduce potential impacts relating to exacerbation of wildfire risks to a *less than significant* level.

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- (c) *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

The project would be designed to comply with all fire safety rules and regulations, including the California Fire Code and Public Resources Code, which includes improvements to the existing access road/driveway to accommodate emergency vehicle access, vegetation clearing or trimming around all existing and proposed structures, and installation of a water storage tank for fire protection. These infrastructure improvements would reduce fire risk. Therefore, potential impacts would be *less than significant*.

- (d) *Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The cannabis activities would be located on nearly level to moderately sloping topography. Winds in the area vary from 6-8 miles per hour and primarily come from the north (October-April) and west (April-October). As described in Section 6, Geology and Soils, the potential for landslides in the project area is low to moderate, and the project is not proposing disturbance in areas of steep slopes that would be conducive to the formation of debris flows in the nearby existing channels. The project does not include any design elements that would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Therefore, impacts would be *less than significant*.

Conclusion

No significant impacts as a result of wildfire are anticipated, and no mitigation measures are necessary.

Mitigation

None necessary.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒	☐	☐
(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

Discussion

- (a) *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

As discussed in each resource section above, upon implementation of identified mitigation measures, the proposed project would not result in significant impacts to biological, cultural, or paleontological resources and would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, impacts would be *less than significant with mitigation incorporated*.

- (b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

The State CEQA Guidelines define cumulative impacts as "two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts." State CEQA Guidelines Section 15355 further states that individual effects can be various changes related to a single project or the change involved in a number of other closely related past, present, and reasonably foreseeable future projects. The State CEQA Guidelines state that the discussion of cumulative impacts should reflect the severity of the impacts as well as the likelihood of their occurrence. However, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. Furthermore, the discussion should remain practical and reasonable in considering other projects and related cumulatively considerable impacts.

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Existing and Reasonably Foreseeable Cannabis Facilities

Table 11 below provides a summary of the maximum possible cannabis cultivation activities that could be approved through permit applications that have been received by the County to date (October 25, 2023). Each of these proposed activities is considered a reasonably foreseeable future project for the purposes of this cumulative impact analysis. It is important to note, however, that many proposed activities are subject to change during the land use permit process and a portion of these applications may be withdrawn by the applicant or denied by the County approving body. Figure 6 shows the project site along with other approved and proposed cannabis project sites within 5 miles of the proposed project site, including approved and proposed cannabis cultivation areas; nurseries; processing, testing, or manufacturing facilities; and dispensaries.

Table 11. Summary of Approved Cannabis Facilities and Active Cannabis Facility Applications for Unincorporated San Luis Obispo County¹

Proposed Cannabis Activity Type	Total Number of Proposed Cannabis Activities ^{1,2}	Total Proposed Canopy (acres)	Approved Activities
Indoor Cultivation and Indoor Nursery	60	30	27
Outdoor Cultivation		180	
Nursery	60	28.3	27
Processing	11	-	-
Manufacturing	15	-	6
Non-Storefront Dispensary	20	-	15
Commercial Distribution	9	-	4
Commercial Transport	4	-	1
Testing Laboratory	1	-	1
Total	180	238.3	81

¹ As of 2024.

² Total number of all cannabis activities for which an application has been submitted to the County to date. A permit application may include multiple proposed cannabis activities.

For purposes of assessing the cumulative impacts of cannabis cultivation activities, the following assumptions have been made:

All 60 applications for cultivation sites would be approved and developed;

Each cultivation site would be developed with the maximum allowed cultivation uses:

- a. 3 acres of outdoor cultivation;*
- b. 0.5 acres of indoor cultivation;*
- c. 19,000 square feet of ancillary nursery;*
- d. A total of six full-time employees;*
- e. A total of 12 average daily motor vehicle trips; and*
- f. All sites would be served by an on-site well and septic leach field.*

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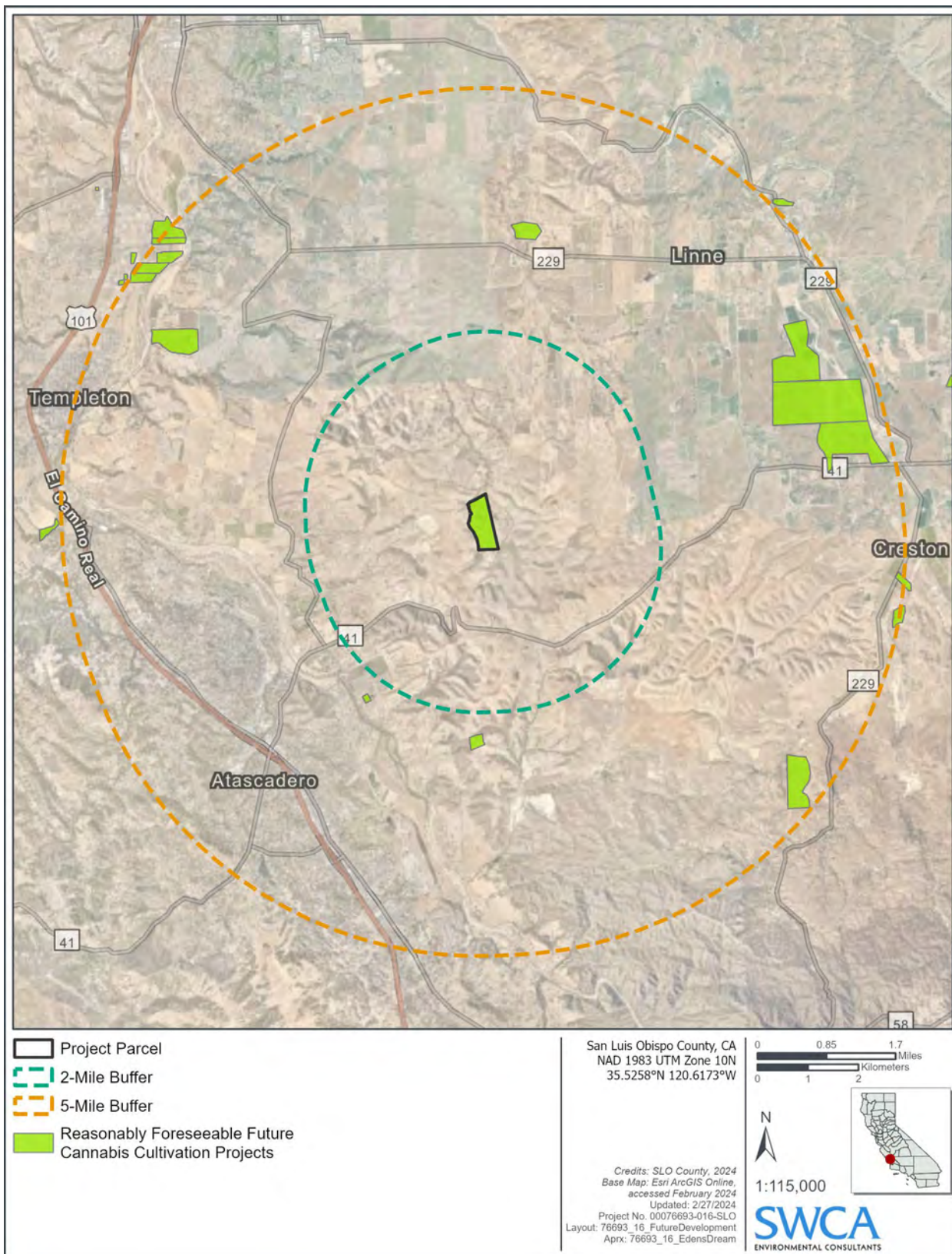


Figure 6. Reasonably Foreseeable Future Cannabis Development Scenario Map.

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Aesthetics

The project is not located within view of a scenic vista and would not result in a substantial change to scenic resources in the area. The project would be consistent with existing policies and standards in the Inland LUO and COSE related to the protection of scenic resources. Potential impacts to aesthetic resources would be less than significant and no mitigation measures are necessary.

Based on the County of San Luis Obispo Land Use View online mapping tool, the project site is in an area with more than 10 approved or potential cannabis facilities within 5 miles (as of February 18, 2024; see Figure 6). Surrounding proposed cannabis cultivation operations would require discretionary permits and would be evaluated for their potential to result in potentially significant environmental effects, including potential impacts to visual resources. Based on the rural and agricultural visual character of the area, newly proposed structures visible from surrounding public roadways would undergo evaluation for consistency with the surrounding visual character and may be required to implement visual screening and/or other measures if County staff identify potential impacts to visual resources. Proposed cannabis cultivation projects, including use of mixed-light growing techniques, would be subject to standard County mitigation measures to eliminate off-site nighttime light overspill.

Based on the less-than-significant aesthetic impacts of the project and discretionary review of surrounding proposed cannabis projects, the impacts to aesthetic and visual resources of this project, when considered with the potential impacts of other reasonably foreseeable development in the area, would be less than cumulatively considerable.

Agriculture and Forestry Resources

The analysis provided in Section II, Agriculture and Forestry Resources, indicates that the project would not result in potentially significant impacts associated with the permanent conversion of Prime Farmland, and no potential impacts to forest land or timberland would occur. The project would not result in a conflict with existing zoning for agricultural use or Williamson Act contract. Therefore, when considered with the potential impacts of other reasonably foreseeable cannabis cultivation projects in the unincorporated county, the contribution of the project's potential impacts to agriculture and forestry resources is considered less than cumulatively considerable.

Air Quality

Based on the analysis provided in Section III, Air Quality, the project has the potential to result in PM₁₀ emissions in exceedance of operational SLOAPCD standards and could adversely affect nearby sensitive receptors. Upon implementation of these measures, project-specific impacts would be less than significant.

The project is one of 60 land use permit applications for cannabis cultivation activities and one of 11 land use permit applications for cannabis processing located within the unincorporated area of the county. All proposed cannabis cultivation operations located within the county would require discretionary permits and would be evaluated for their potential to result in potentially significant environmental effects, including potential impacts to air quality. These proposed cannabis cultivation projects would undergo evaluation for their potential to exceed applicable SLOAPCD thresholds and result in potentially cumulatively considerable contribution to the county's non-attainment status for ozone and/or fugitive dust. Proposed projects with the potential to exceed SLOAPCD thresholds would be subject to standard SLOAPCD mitigation measures to reduce potential air pollutant emissions to a

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less-than-significant level. These measures would also be applied for projects located within close proximity to sensitive receptor locations.

Based on currently approved and active cannabis facility permit applications, there are no approved or proposed cannabis facilities located within 2 miles of the project site (see Figure 6). The analysis provided in Section III, Air Quality, concludes that the project's potential other emissions (such as those leading to odor) would be less than significant based on the proposed use of odor-abating technology, distance of proposed odor-emitting uses from the project property lines, and distance to surrounding receptor locations. Any and all future proposed cannabis development projects in the project vicinity would be required to comply with County LUO cannabis odor control requirements, including preparation of an odor control plan, minimum setback distances, and installation of sufficient ventilation controls on structures to prevent odors from being detected off-site.

Therefore, based on the mitigation measures identified to reduce potential project impacts and LUO odor control requirements for the project and all surrounding proposed cannabis cultivation projects, the contribution of the project's potential impacts to air quality are considered less than cumulatively considerable.

Biological Resources

The analysis provided in Section IV, Biological Resources, concludes that upon implementation of Mitigation Measures BIO-1 through BIO-6, potential impacts to biological resources would be less than significant. All potentially significant impacts identified are associated with project demolition, grading, and construction activities and no long-term operational potentially significant impacts would occur.

All surrounding proposed cannabis development projects would undergo evaluation for potential to impact biological resources. Proposed cannabis projects that are determined to have the potential to impact sensitive species and/or their habitats, sensitive natural communities, federal or state wetlands, migratory corridors, native trees, or conflict with state or local policies or habitat conservation plans would be required to implement mitigation measures to reduce these impacts.

Based on the mitigation measures identified to reduce potential project impacts and discretionary review of surrounding projects, when considered with the potential impacts of other reasonably foreseeable development in the area, project impacts associated with biological resources would be less than cumulatively considerable.

Hydrology and Water Quality

As discussed in Section X. Hydrology and Water Quality, project construction and operation would result in a minimal increase of erosive and polluted runoff that would be minimized by implementation of BMPs and other federal and state regulations. The project is located in a high-priority basin and would require implementation of Mitigation Measures WQ-1 and WQ-2 to offset water demand in accordance with the County Inland LUO standards. With implementation of necessary mitigation measures, project-level impacts associated with hydrology and water quality would be less than significant.

All proposed cannabis cultivation projects located in the county would be subject to standard County requirements for drainage, sedimentation, and erosion control for construction and operation. All potentially hazardous materials (e.g., pesticides, fertilizers, etc.) proposed to be utilized for these projects would be required to comply with the applicable County Department of Environmental Health storage, refilling, and dispensing standards. All cannabis cultivation projects within the county would

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also be required to comply with applicable riparian, wetland, and other waterway setbacks established by the RWQCB.

The project is one of 33 proposed cannabis cultivation projects located within the Paso Robles Groundwater Basin, a high-priority groundwater basin (Level of Severity III) under SGMA (Table 12).

Table 12. Estimated Water Demand from Reasonably Foreseeable Cannabis Cultivation in the Paso Robles Groundwater Basin

Bulletin 118 Groundwater Basin ¹	Number of Reasonably Foreseeable Cultivation Projects	Total Estimated Water Demand From Cannabis Cultivation (AF/Year) ³	Total Basin Storage Capacity (AF)
Paso Robles Groundwater Basin	33 ²	190.09	Approximately 400,000

¹ Source: California Department of Water Resources Bulletin 118.

² Includes 661.21 acres (12 projects) in the Area of Severe Decline.

³ Based on the assumptions for development and water demand outlined above.

All cannabis cultivation projects located within the Paso Robles Groundwater Basin would be required to offset new water use at a 1:1 ratio and projects located in Areas of Severe Decline would be required to offset new water use at a 2:1 ratio. These water offsets would be subject to review, approval, and monitoring by the County to ensure compliance. Therefore, based on recommended mitigation measures and compliance with existing policies and programs, project's individual impacts associated with hydrology and water quality would be *less than cumulatively considerable with mitigation*.

Transportation

As discussed in Section XVII, Transportation, the project would not conflict with any policies addressing circulation, would not result in a potentially significant amount of VMT, and would not result in a hazardous circulation design feature or result in inadequate emergency access. The County's VMT methodology and thresholds are based on a regionally cumulative scale. Based on the project's size and scope of proposed activities, it would not contribute a cumulatively considerable impact associated with transportation.

Other Impact Issue Areas

Based on the project's residual less-than-significant impacts, the distance between the project and other proposed and/or approved cannabis projects, and the discretionary review of all surrounding reasonably foreseeable future cannabis cultivation projects, the project's potential impacts associated with the following issue areas would be less than cumulatively considerable:

- Cultural Resources;
- Energy;
- Geology and Soils;
- Greenhouse Gas Emissions;
- Hazards and Hazardous Materials;
- Land Use Planning;
- Mineral Resources;
- Noise;

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- Population and Housing;
- Public Services;
- Recreation;
- Tribal Cultural Resources;
- Utilities and Service Systems; and
- Wildfire.

- (c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Environmental impacts that may have an adverse effect on human beings, either directly or indirectly, are analyzed in each environmental resource section above. As discussed in the issue area discussions above, implementation of Mitigation Measures AQ-1 through AQ-3, HAZ-1 through HAZ-3, N-1, and N-2 would reduce potential adverse effects on human beings to less than significant; therefore, impacts would be *less than significant with mitigation*.

Conclusion

Potential impacts would be less than significant upon implementation of mitigation measures identified in the resource sections above.

Mitigation

Implement Mitigation Measures AQ-1 through AQ-3, BIO-1 through BIO-6, ENG-1 and ENG-2, GEO-1 through GEO-4, HAZ-1 through HAZ-3, WQ-1 and WQ-2, N-1, and N-2.

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Exhibit A – Initial Study References and Agency Contacts

The County Planning Department has contacted various agencies for their comments on the proposed project. With respect to the subject application, the following have been contacted (marked with an ☑) and when a response was made, it is either attached or in the application file:

Contacted	Agency	Response
☒	County Public Works Department	In File**
☒	County Environmental Health Services	In File**
☒	County Agricultural Commissioner's Office	In File**
☐	County Airport Manager	Not Applicable
☐	Airport Land Use Commission	Not Applicable
☒	Air Pollution Control District	In File**
☒	County Sheriff's Department	None
☒	Regional Water Quality Control Board	None
☐	CA Coastal Commission	Not Applicable
☒	CA Department of Fish and Wildlife	None
☒	CA Department of Forestry (Cal Fire)	In File**
☐	CA Department of Transportation	Not Applicable
☐	Community Services District	Not Applicable
☒	Other Templeton Area Advisory Group (TAAg)	None
☒	Other California Native American Tribes (AB 52)	In File**

** "No comment" or "No concerns"-type responses are usually not attached

The following checked (☑) reference materials have been used in the environmental review for the proposed project and are hereby incorporated by reference into the Initial Study. The following information is available for public review at the County Department of Planning and Building.

☒	Project File for the Subject Application	☐	Design Plan
☐	County Documents	☐	Specific Plan
☐	Coastal Plan Policies	☐	Annual Resource Summary Report
☒	Framework for Planning (Coastal/Inland)	☒	Templeton Circulation Study
☒	General Plan (Inland/Coastal), includes all maps/elements; more pertinent elements:	☒	Other Documents
☒	Agriculture Element	☒	Clean Air Plan/APCD Handbook
☒	Conservation & Open Space Element	☒	Regional Transportation Plan
☐	Economic Element	☒	Uniform Fire Code
☒	Housing Element	☒	Water Quality Control Plan (Central Coast Basin – Region 3)
☒	Noise Element	☐	Archaeological Resources Map
☒	Parks & Recreation Element/Project List	☐	Area of Critical Concerns Map
☒	Safety Element	☐	Special Biological Importance Map
☒	Land Use Ordinance (Inland/Coastal)	☒	CA Natural Species Diversity Database
☒	Building and Construction Ordinance	☒	Fire Hazard Severity Map
☒	Public Facilities Fee Ordinance	☒	Flood Hazard Maps
☐	Real Property Division Ordinance	☒	Natural Resources Conservation Service Soil Survey for SLO County
☐	Affordable Housing Fund	☒	GIS mapping layers (e.g., habitat, streams, contours, etc.)
☐	Airport Land Use Plan	☐	Other
☒	Energy Wise Plan		
☒	North County Area Plan/El Pomar-Estrella SA		

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In addition, the following project-specific information and/or reference materials have been considered as a part of the Initial Study:

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Exhibit B – Other Agency Approvals That May Be Required

California Department of Cannabis Control

In California, all commercial cannabis activity must be licensed by the state. The Department of Cannabis Control (DCC) licenses and regulates commercial cannabis activity. The DCC's responsibilities also include, but are not limited to:

- Engaging with local and state partners to provide environmental, outreach, and natural resource management guidance;
- Partnering with law enforcement at local, state, and federal levels to eliminate illegal operators and criminal enterprises that threaten public and consumer safety;
- Educating licensees on compliance requirements such as track-and-trace, conducting routine inspections and investigations, and helping licensees resolve challenges;
- Requiring all cannabis products to be tested for safety and accuracy before they can be sold; and
- Guide development of cannabis regulations through expert led and DCC funded scientific research around public health, criminal justice, and economic and environmental impacts.

State law also sets forth application requirements, site requirements, and general environmental protection measures for cannabis cultivation in CCR Title 4, Division 19, Chapter 1 through Chapter 13. These measures include (but are not limited to) the following:

Section 15002 – Annual State License Application Requirements

- (p) For all cultivator license types except Processor, evidence of enrollment in an order or waiver of waste discharge requirements with the State Water Resources Control Board or the appropriate Regional Water Quality Control Board. Acceptable documentation for evidence of enrollment can be a Notice of Applicability letter. Acceptable documentation for a Processor that enrollment is not necessary can be a Notice of Non-Applicability;
- (q) Evidence that the applicant has conducted a hazardous materials record search of the EnviroStor database for the proposed premises. If hazardous sites were encountered, the applicant shall provide documentation of protocols implemented to protect employee health and safety;
- (s) For indoor and mixed-light license types, the application shall identify all power sources for cultivation activities, including but not limited to, illumination, heating, cooling, and ventilation;
- (v) Identification of all of the following applicable water sources used for cultivation activities and the applicable supplemental information for each source pursuant to section 8107;
- (w) A copy of any final lake or streambed alteration agreement issued by the California Department of Fish and Wildlife, pursuant to sections 1602 or 1617 of the Fish and Game Code, or written verification from the California Department of Fish and Wildlife that a lake and streambed alteration agreement is not required;
- (dd) If applicable, the applicant shall provide evidence that the proposed premises is not located in whole or in part in a watershed or other geographic area that the State Water Resources Control Board or the Department of Fish and Wildlife has determined to be significantly adversely impacted by cannabis cultivation pursuant to section 8216.

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Section 16304 – General Environmental Protection Measures

- (a) Compliance with section 13149 of the Water Code as implemented by the State Water Resources Control Board, Regional Water Quality Control Boards, or California Department of Fish and Wildlife;
- (b) Compliance with any conditions requested by the California Department of Fish and Wildlife or the State Water Resources Control Board under section 26060.1(b)(1) of the Business and Professions Code;
- (c) All outdoor lighting used for security purposes shall be shielded and downward facing;
- (d) Immediately halt cultivation activities and implement section 7050.5 of the Health and Safety Code if human remains are discovered;
- (e) Requirements for generators pursuant to section 8306 of this chapter;
- (f) Compliance with pesticide laws and regulations pursuant to section 16307 of this chapter;
- (g) Mixed-light license types of all tiers and sizes shall ensure that lights used for cultivation are shielded from sunset to sunrise to avoid nighttime glare.

Section 16305 – Renewable Energy Requirements

- (g) Beginning January 1, 2023, all holders of indoor, tier 2 mixed-light license types of any size, and all holders of nursery licenses using indoor or tier 2 mixed-light techniques shall ensure that electrical power used for commercial cannabis activity meets the average electricity greenhouse gas emissions intensity required by their local utility provider pursuant to the California Renewables Portfolio Standard Program in division 1, part 1, chapter 2.3, article 16 (commencing with section 399.11) of the Public Utilities Code.
- (h) If a licensed cultivator's average weighted greenhouse gas emission intensity, as calculated and reported upon license renewal pursuant to section 15020, is greater than the local utility provider's greenhouse gas emission intensity, the licensee shall obtain carbon offsets to cover the excess in carbon emissions from the previous annual licensed period. The carbon offsets shall be purchased from one or more of the following recognized voluntary carbon registries:
 - 4. American Carbon Registry;
 - 5. Climate Action Reserve; or
 - 6. Verified Carbon Standard.

Section 16306 - Generator Requirements

- (a) For the purposes of this section, "generator" means a stationary or portable compression ignition engine, also known as a diesel engine, as defined in title 17, California Code of Regulations, section 93115.4.
- (b) Licensed cultivators using generators rated at fifty (50) horsepower and greater shall demonstrate compliance with the Airborne Toxic Control Measure for stationary or portable engines, as applicable, established in title 17, California Code of Regulations, sections 93115-93116.5. Compliance shall be demonstrated by providing a copy of one of the following to the Department upon request:
 - 1. For portable engines, a Portable Equipment Registration Certificate provided by the California Air Resources Board; or

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2. For portable or stationary engines, a Permit to Operate or other proof of engine registration, obtained from the Local Air District with jurisdiction over the licensed premises.
- (c) Licensed cultivators using generators rated below fifty (50) horsepower shall comply with the following by 2023:
 1. Either subsection (1)(A) or (1)(B):
 - a. Meet the “emergency” definition for portable engines in title 17, California Code of Regulations, section 93116.2(a)(12), or the “emergency use” definition for stationary engines in title 17, California Code of Regulations, section 93115.4(a)(30); or
 - b. Operate eighty (80) hours or less in a calendar year; and
 2. Either subsection (2)(A) or (2)(B):
 - a. Meet Tier 3 with Level 3 diesel particulate filter requirements in title 13, California Code of Regulations, sections 2700-2711; or
 - b. Meet Tier 4 requirements, or current engine requirements if more stringent, in title 40, Code of Federal Regulations, chapter I, subchapter U, part 1039, subpart B, section 1039.101.
- (d) All generators used by licensed cultivators shall be equipped with non-resettable hour-meters. If a generator does not come equipped with a non-resettable hour-meter, an aftermarket non-resettable hour-meter shall be installed.

Section 16307 – Pesticide Use Requirements

- (a) Licensed cultivators shall comply with all applicable pesticide statutes and regulations enforced by the Department of Pesticide Regulation.
- (b) For all pesticides that are exempt from registration requirements, licensed cultivators shall comply with all applicable pesticide statutes and regulations enforced by the Department of Pesticide Regulation and the following pesticide application and storage protocols:
 1. Comply with all pesticide label directions;
 2. Store chemicals in a secure building or shed to prevent access by wildlife;
 3. Contain any chemical leaks and immediately clean up any spills;
 4. Apply the minimum amount of product necessary to control the target pest;
 5. Prevent offsite drift;
 6. Do not apply pesticides when pollinators are present;
 7. Do not allow drift to flowering plants attractive to pollinators;
 8. Do not spray directly to surface water or allow pesticide product to drift to surface water. Spray only when wind is blowing away from surface water bodies;
 9. Do not apply pesticides when they may reach surface water or groundwater; and
 10. Only use properly labeled pesticides. If no label is available, consult the Department of Pesticide Regulation.

Section 16309 – Cultivation Plan Requirements

- (a) Licensed cultivators shall establish and maintain a cultivation plan that includes all of the following:
 1. A premises diagram drafted in accordance with section 15006.
 2. A cannabis waste management plan developed in accordance with section 17223.

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3. A pest management plan developed in accordance with section 16310.

Section 16311 – Supplemental Water Source Information

The following information shall be provided for each water source identified by the applicant:

- (a) If the water source is a groundwater well, provide the following:
 1. The groundwater well's geographic location coordinates, in either latitude and longitude or the California Coordinate System; and
 2. A copy of the well completion report filed with the Department of Water Resources pursuant to section 13751 of the Water Code. If no well completion report is available, the applicant shall provide evidence from the Department of Water Resources indicating that the Department of Water Resources does not have a record of the well completion report. If no well completion report is available, the State Water Resources Control Board may request additional information about the well.

Section 17223 - Waste Management

- (a) A licensee shall dispose of all waste in accordance with the Public Resources Code and any other applicable state and local laws. It is the responsibility of the licensee to properly evaluate waste to determine if it should be designated and handled as a hazardous waste, as defined in Public Resources Code section 40141.
- (b) A licensee shall establish and implement a written cannabis waste management plan that describes the method or methods by which the licensee will dispose of cannabis waste, as applicable to the licensee's activities. A licensee shall dispose of cannabis waste using only the following methods:
 1. On-premises composting of cannabis waste.
 2. Collection and processing of cannabis waste by a local agency, a waste hauler franchised or contracted by a local agency, or a private waste hauler permitted by a local agency in conjunction with a regular organic waste collection route.
 3. Self-haul cannabis waste to one or more of the following:
 - a. A staffed, fully permitted solid waste landfill or transformation facility;
 - b. A staffed, fully permitted composting facility or staffed composting operation;
 - c. A staffed, fully permitted in-vessel digestion facility or staffed in-vessel digestion operation;
 - d. A staffed, fully permitted transfer/processing facility or staffed transfer/processing operation;
 - e. A staffed, fully permitted chip and grind operation or facility; or
 - f. A recycling center as defined in title 14, California Code of Regulations, section 17402.5(d) that meets the following:
 - i. The cannabis waste received shall contain at least ninety (90) percent inorganic material;
 - ii. The inorganic portion of the cannabis waste is recycled into new, reused, or reconstituted products that meet the quality standards necessary to be used in the marketplace; and
 - iii. The organic portion of the cannabis waste shall be sent to a facility or operation identified in subsections (b)(3)(A)-(E).

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The project may also be subject to other permitting requirements of the federal and state governments, as described below.

Federal Endangered Species Act

The Federal Endangered Species Act (FESA) provides legislation to protect federally listed plant and animal species. Impacts to listed species resulting from the implementation of a project would require the responsible agency or individual to formally consult with the USFWS to determine the extent of impact to a particular species. If the USFWS determines that impacts to a federally listed species would likely occur, alternatives and measures to avoid or reduce impacts must be identified.

State Water Resources Control Board

The project may require issuance of a water rights permit for the diversion of surface water or proof of enrollment in, or an exemption from, either the SWRCB or RWQCB program for water quality protection.

California Department of Fish and Wildlife

Lake or Streambed Alteration

Pursuant to Division 2, Chapter 6, Sections 1600–1602 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. CDFW defines a “stream” (including creeks and rivers) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation.” CDFW’s definition of “lake” includes “natural lakes or man-made reservoirs.” CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife.

If CDFW determines that a project may adversely affect existing fish and wildlife resources, a Lake or Streambed Alteration Agreement (LSAA) is required. An LSAA lists the CDFW conditions of approval relative to the proposed project, and serves as an agreement between an applicant and CDFW for a term of not more than 5 years for the performance of activities subject to this section.

California Endangered Species Act

The California Endangered Species Act (CESA) ensures legal protection for plants listed as rare or endangered, and wildlife species formally listed as endangered or threatened. The state also maintains a list of California Species of Special Concern (SSC). SSC status is assigned to species that have limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, CDFW is empowered to review projects for their potential to impact special-status species and their habitats. Under the CESA, CDFW reserves the right to request the replacement of lost habitat that is considered important to the continued existence of CESA protected species.

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Exhibit C - Mitigation Summary

The applicant has agreed to incorporate the measures identified in this document into the project. These measures become a part of the project description and therefore become a part of the record of action upon which the environmental determination is based. All development activity must occur in strict compliance with the following mitigation measures. These measures shall be perpetual and run with the land. These measures are binding on all successors in interest of the subject property. These measures are detailed in the Developer's Statement attached below.

DATE: November 26, 2024

**DEVELOPER'S STATEMENT & MITIGATION MONITORING PROGRAM FOR
Eden's Dream Minor Use Permit
N-DRC2018-00183 (ED24-135)**

The applicant agrees to incorporate the following measures into the project. These measures become a part of the project description and therefore become a part of the record of action upon which the environmental determination is based. All development activity must occur in strict compliance with the following mitigation measures. These measures shall be perpetual and run with the land. These measures are binding on all successors in interest of the subject property.

Per Public Resources Code Section 21081.6 the following measures also constitute the mitigation monitoring and/or reporting program that will reduce potentially significant impacts to less than significant levels. These measures will become conditions of approval (COAs) should the project be approved. The Lead Agency (County) or other Responsible Agencies, as specified in the following measures, is responsible to verify compliance with these COAs.

Note: The items contained in the boxes labeled "Monitoring" describe the County procedures to be used to ensure compliance with the mitigation measures.

AIR QUALITY (AQ)

AQ-1 Diesel Idling Control Measures. During all construction activities and use of diesel-fueled vehicles, the applicant shall implement the following idling control techniques:

1. Idling Restrictions Near Sensitive Receptors for Both On- and Off-Road Equipment.
 - a. Staging and queuing areas shall not be located within 1,000 feet of sensitive receptors, if feasible. If not feasible, staging and queuing areas shall be located at the maximum distance from sensitive receptors;
 - b. Diesel idling within 1,000 feet of sensitive receptors shall not be permitted;
 - c. Use of alternative-fueled equipment shall be used whenever possible; and
 - d. Signs that specify the no idling requirements shall be posted and enforced at the construction site.

2. California Diesel Idling Regulations. On-road diesel vehicles shall comply with Section 2485 of Title 13 of the California Code of Regulations. This regulation limits idling from diesel-fueled commercial motor vehicles with gross vehicular weight ratings of more than 10,000 pounds and licensed for operation on highways. It applies to California and non-California based vehicles. In general, the regulation specifies that drivers of said vehicles:
 - a. Shall not idle the vehicle's primary diesel engine for greater than 5 minutes at any location, except as noted in Subsection (d) of the regulation.
 - b. Shall not operate a diesel-fueled auxiliary power system (APS) to power a heater, air conditioner, or any ancillary equipment on that vehicle during sleeping or resting in a sleeper berth for greater than 5 minutes at any location when within 1,000 feet of a restricted area, except as noted in Subsection (d) of the regulation.

Signs must be posted in the designated queuing areas and job sites to remind drivers of the 5-minute idling limit. The specific requirements and exceptions in the regulation can be reviewed at the following website:
www.arb.ca.gov/msprog/truck-idling/2485.pdf.

3. These requirements shall be detailed on all project plan sets.

AQ-2

Fugitive Dust Control Measures. The following measures shall be implemented during all project site disturbance, demolition, construction activities to reduce construction generated fugitive dust. These measures shall be shown on grading and building plans:

- a. Reduce the amount of the disturbed area where possible;
- b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site and from exceeding the APCD's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (nonpotable) water should be used whenever possible. When drought conditions exist and water use is a concern, the contractor or builder should consider use of a dust suppressant that is effective for the specific site conditions to reduce the amount of water used for dust control. Please refer to the following link from the San Joaquin Valley Air District for a list of potential dust suppressants: Products Available for Controlling Dust;

- c. All dirt stockpile areas should be sprayed daily and covered with tarps or other dust barriers as needed;
- d. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible, and building pads should be laid as soon as possible after grading unless seeding, soil binders or other dust controls are used;
- e. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) or otherwise comply with California Vehicle Code (CVC) Section 23114;
- f. "Track-Out" is defined as sand or soil that adheres to and/or agglomerates on the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto any highway or street as described in CVC Section 23113 and California Water Code 13304. To prevent 'track out', designate access points and require all employees, subcontractors, and others to use them. Install and operate a 'track-out prevention device' where vehicles enter and exit unpaved roads onto paved streets. The 'track-out prevention device' can be any device or combination of devices that are effective at preventing track out, located at the point of intersection of an unpaved area and a paved road. Rumble strips or steel plate devices need periodic cleaning to be effective. If paved roadways accumulate tracked out soils, the track-out prevention device may need to be modified;
- g. All fugitive dust mitigation measures shall be shown on grading and building plans;
- h. The contractor or builder shall designate a person or persons whose responsibility is to ensure any fugitive dust emissions do not result in a nuisance and to enhance the implementation of the mitigation measures as necessary to minimize dust complaints and reduce visible emissions below the APCD's limit of 20% opacity for greater than 3 minutes in any 60-minute period. Their duties shall include holidays and weekend periods when work may not be in progress (for example, wind-blown dust could be generated on an open dirt lot). The name and telephone number of such persons shall be provided to the APCD Compliance Division prior to the start of any grading, earthwork or demolition (Contact the Compliance Division at 805781-5912).
- i. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented

as soon as possible, following completion of any soil disturbing activities;

- j. Exposed ground areas that are planned to be reworked at dates greater than one month after initial grading should be sown with a fast germinating, non-invasive grass seed and watered until vegetation is established;
- k. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD;
- l. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site;
- m. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers shall be used with reclaimed water where feasible. Roads shall be pre-wetted prior to sweeping when feasible; and
- n. Take additional measures as needed to ensure dust from the project site is not impacting areas outside the project boundary.

AQ-3

Abatement of Asbestos-Containing Materials (ACM). Prior to issuance of demolition permits, the project applicant shall demonstrate full compliance with the requirements stipulated in the National Emission Standard for Hazardous Air Pollutants (40CFR61, Subpart M - asbestos NESHAP). These requirements include, but are not limited to, written notification to the SLOAPCD, completion of an asbestos survey conducted by a Certified Asbestos Inspector, and preparation and implementation of a written work plan detailing the applicable removal and disposal requirements of identified asbestos containing materials. Compliance shall be verified through either submittal of evidence of SLOAPCD determining the project is exempt from NESHAP requirements, asbestos survey results indicating there are no ACM within the project site, or a complete work plan detailing the applicable removal and disposal requirements of identified asbestos containing materials.

Monitoring: Measures shall be shown on relevant site plan sheets at the time of application for demolition, grading, and construction plans. Compliance will be verified by the County Department of Planning and Building and SLOAPCD.

BIOLOGICAL RESOURCES (BIO)

- BIO-1 Site Maintenance and General Operations** The following general measures shall be shown on project plans and implemented during all project demolition, grading, and construction activities to minimize impacts to biological resources:
- a. The use of heavy equipment and vehicles shall be limited to the proposed project limits and defined staging areas/access points. The boundaries of each work area shall be clearly defined and marked with high visibility fencing. No work shall occur outside these limits.
 - b. In the vicinity of sensitive resources and habitats (e.g., unnamed USGS blue line drainages and oak woodlands), signs shall be posted at the boundary of the work area indicating the presence of sensitive resources.
 - c. Staging of equipment and materials shall occur at least 50 feet from aquatic features.
 - d. Secondary containment such as drip pans shall be used to prevent leaks and spills of potential contaminants.
 - e. Washing of concrete, paint, or equipment, and refueling and maintenance of equipment shall occur only in designated areas. Sandbags and/or absorbent pads shall be available to prevent water and/or spilled fuel from leaving the site.
 - f. Any chemicals used shall be prevented from entering the USGS blue line drainages.
 - g. Construction equipment shall be inspected by the operator daily to ensure that equipment is in good working order and no fuel or lubricant leaks are present.
- BIO-2 Oak Tree Protection.** At the time of application for grading or building permits, whichever occurs first, project site plans shall identify all oak trees to be protected. During project site disturbance and construction activities, where project activities are expected to occur within 50 feet of oak trees or oak woodland, tree protection fencing shall be installed as close to the outer limit of the woodland dripline or individual tree critical root zone as practicable. At no time shall any removal or trimming of oak trees equal to or greater than five inches in diameter be allowed.
- BIO-3 Surveys for Special-status Wildlife.** A qualified biologist shall conduct surveys prior to the start of initial project activities to ensure special-status wildlife species are not present within proposed work areas. In the event that special-status wildlife species are found, they shall be allowed to leave

the area on their own volition or relocated (as permitted) to suitable habitat areas located outside the work area(s). If necessary, resource agencies will be contacted for further guidance. All preconstruction survey dates, times, surveyors, and results shall be summarized in survey reports and provided to the County prior to initiation of project activities. Pre-activity surveys shall be conducted as follows:

- a. **Surveys and Avoidance for Crotch's Bumble Bee.** Prior to the start of work, including demolition, a qualified biologist shall conduct three surveys for Crotch's bumble bee during the colony active period (April through August) with each survey occurring at least 2 weeks apart to determine if Crotch's bumble bee is present, in accordance with CDFW's guidance provided in Surveys Considerations for CESA Candidate Bumble Bee Species (CDFW 2023). Surveys shall occur during the day (at least 1 hour after sunrise and at least two hours before sunset). The results of each survey shall be provided to the County prior to initiation of project demolition and construction activities.

If no Crotch bumble bee individuals or nests are observed, project activities may proceed as planned. Because bumble bees move nest sites each year, three surveys during the colony active period shall be conducted each year that project construction activities would occur.

If a Crotch bumble bee nest or individual is identified during surveys, the following measures shall be implemented:

- i. If a Crotch bumble bee nest is observed, no work shall occur within 25 feet of the nest until it is no longer active. If an exclusion buffer is not feasible, the applicant shall contact the County for further guidance. The County will coordinate with appropriate resource agencies for guidance to implement project activities and avoid take or proceed with an Incidental Take Permit, if appropriate.
- ii. If Crotch bumble bee is identified on-site during the active spring and summer period, and work is planned between September 1 and March 31, small mammal burrows and thatched/bunch grasses shall be avoided by a minimum of 50 feet. If potential overwintering habitat cannot be avoided, the County shall be contacted for further guidance. The County will coordinate with appropriate resource agencies for guidance to implement project activities and avoid take or proceed with an Incidental Take Permit, if appropriate.

If, prior to the start of work, the California Fish and Game Commission determines that the conservation status of Crotch bumble bee does not warrant CESA protections or litigation changes the conservation status and the species is removed from the list of candidate species, the applicant shall consult with the County to determine the applicability and/or potential modifications of measures i and ii above.

- b. **Preconstruction Surveys for Townsend's Big-eared Bat.** Prior to the start of work, including demolition, all suitable roosting habitat for Townsend's big-eared bats (e.g., arena structure and mature oaks) within 100 feet of work areas shall be surveyed during the appropriate time of day to determine if bats are utilizing the potential roosts. If bats are detected, a bat exclusion plan shall be developed and submitted to CDFW for approval prior to implementing any exclusion methods. If no bats are detected, the survey report shall be submitted to the County Department of Planning and Building and no further action is required.
- c. **Preconstruction Survey for Sensitive and Nesting Birds.** If work is planned to occur between February 1 and September 15, a qualified biologist shall survey the area for nesting birds within one week prior to activity beginning on site. If nesting birds are located on or near the proposed project site, they shall be avoided until they have successfully fledged or the nest is no longer deemed active. A non-disturbance buffer of 50 feet will be placed around non-listed, passerine species, and a 250-foot buffer will be implemented for raptor species. All activity will remain outside of that buffer until a qualified biologist has determined that the young have fledged or that proposed construction activities would not cause adverse impacts to the nest, adults, eggs, or young. If special-status avian species are identified, no work will begin until an appropriate buffer is determined in consultation with the CDFW, and/or the USFWS.

If special-status avian species (aside from the burrowing owl) are identified and nesting within the work area, no work will begin until an appropriate exclusion zone is determined in consultation with the County and any relevant resource agencies.

The results of the survey shall be provided to the County prior to initial project activities. The results shall detail appropriate fencing or flagging of exclusion zones and include recommendations for additional monitoring requirements. A map of the project site and nest locations shall be included with the results. The qualified

biologist conducting the nesting survey shall have the authority to reduce or increase the recommended exclusion zone depending on site conditions and species (if non-listed).

If two weeks lapse between different phases of project activities (e.g., vegetation trimming and the start of grading), during which no or minimal work activity occurs, the nesting bird survey shall be repeated.

BIO-4 Avoidance of Federal and State Waters. At the time of application for grading and building permits, the 50-foot setback from the top of bank of on-site USGS blue line drainages shall be shown. During all project site preparation, demolition, grading, and construction activities, proposed permanent and/or temporary features shall be located a minimum of 50 feet from the edge of the USGS blue line drainages.

BIO-5 Protection of Federal and State Waters. In addition to Measures BIO-1 and BIO-4, the following measures are provided to further protect the drainage features on site. If work must occur during the rainy season, temporary erosion and sedimentation Best Management Practices (BMPs) shall be implemented, as necessary, to prevent erosion and sedimentation during construction. Acceptable BMPs include the use of weed-free, natural fiber (i. e., non-monofilament) fiber rolls, jute or coir netting, and/or other industry standards. The BMPs shall be installed and maintained until the disturbance areas are stabilized. These measures shall be incorporated into the project erosion control plan and submitted to the County for review at the time of application for grading and construction permits.

BIO-6 Retention of Qualified Biologist. At the time of application for grading or construction permits or establishment of the use, whichever occurs first, the applicant shall provide evidence to the County that they have retained a County-approved qualified biologist. The scope of work shall include preconstruction surveys, training, monitoring, and reporting, as detailed in the mitigation measures listed above.

Monitoring: Required at the time of application for construction or grading permits, prior to any site disturbance, and throughout project construction activities. Compliance will be verified by the County Department of Planning and Building.

Energy (ENG)

- ENG-1 Energy Conservation Plan.** Prior to issuance of building permits, the applicant shall provide to the County Planning and Building Department for review and approval an Energy Conservation Plan with measures that, when implemented, would reduce or offset the project's energy demand to within 20% of the energy use of a generic commercial building of the same size, or 20% less than 21.25 kWh/year-sf. The Energy Conservation Plan shall include the following:
- a. A detailed breakdown of energy demand prepared by a certified energy analyst. The energy breakdown shall include an estimate of total energy demand from all sources associated with all proposed cannabis cultivation activities, including, but not limited to, lighting, odor management, and climate control equipment. Such quantification shall be expressed in total kWh per year and non-electrical sources shall be converted to kWh per year.
 - b. A program for providing a reduction or offset of all energy demand that is 20% or more above a generic commercial building of the same size. Such a program (or programs) may include, but is not limited to, the following:
 - i. Evidence that the project will permanently source project energy demands from renewable energy sources (e.g., solar, wind, hydro). This can include purchasing the project's energy demand from a clean energy source by enrolling PG&E's Solar Choice program or Regional Renewable Choice program or other comparable public or private renewable energy program.
 - ii. Evidence documenting the permanent retrofit or elimination of equipment, buildings, facilities, processes, or other energy-saving strategies to provide a net reduction in electricity demand and/or GHG emissions. Such measures may include the following:
 1. Participating in an annual energy audit.
 2. Upgrading and maintaining efficient heating/cooling/dehumidification systems.
 3. Implement energy efficient lighting, specifically light-emitting diode (LED) over high-intensity discharge (HID) or high-pressure sodium (HPS) lighting.
 4. Implementing automated lighting systems.
 5. Utilizing natural light when possible.

6. Utilizing an efficient circulation system.
 7. Ensuring that energy use is below or in-line with industry benchmarks.
 8. Implementing phase-out plans for the replacement of inefficient equipment.
 9. Adopting all or some elements of CalGreen Tier 1 and 2 measures to increase energy efficiency in greenhouses.
- iii. Construction of a qualified renewable energy source such as wind, solar photovoltaics, biomass, etc., as part of the project. (Note: Inclusion of a renewable energy source shall also be included in the project description and may be subject to environmental review.)
 - iv. Any combination of the above or other qualifying strategies or programs that would achieve a reduction or offset of the project energy demand that is 20% or more above a generic commercial building of the same size.

ENG-2 **Quarterly Energy Compliance Monitoring. At time of quarterly monitoring inspection,** the applicant shall provide to the County Planning and Building Department for review, a current energy use statement from the electricity provider (e.g., PG&E) that demonstrates energy use to date for the year to date. The applicant shall demonstrate continued compliance with ENG-1 (e.g., providing a currently PG&E energy statement showing continuous enrollment in the Solar Choice program or Regional Renewable Choice program, demonstrating energy use is reduced or offset to be 20% or less of the energy demand of a typical commercial building of the same size).

Monitoring: Required prior to issuance of building permits and throughout project operation. Compliance will be verified by the County Department of Planning and Building.

Geology and Soils (GEO)

GEO-1 **Paleontological Resource Monitoring and Treatment Plan.** At the time of application for building permits, a County of San Luis Obispo-approved paleontologist shall be retained to prepare a Paleontological Resource Monitoring and Treatment Plan for the project and submit the Paleontological Monitoring and Treatment Plan to the County of San Luis Obispo Planning and Building Department for review and approval. The Paleontological Monitoring and Treatment Plan shall be consistent with the standards of the Society of Vertebrate Paleontology (SVP) and meet all

regulatory requirements. The County of San Luis Obispo-approved paleontologist shall have a master's degree or Ph.D. in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Paleontological Monitoring and Treatment Plan shall identify construction impact areas of low, moderate, and high sensitivity for encountering potential paleontological resources and the shallowest depths at which those resources may be encountered. The Paleontological Monitoring and Treatment Plan shall detail the criteria to be used to determine whether an encountered resource is significant, and if it should be avoided or recovered for its data potential. The Paleontological Monitoring and Treatment Plan shall also detail methods of recovery, preparation, and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting.

- a. The Paleontological Monitoring and Treatment Plan shall outline a coordination strategy to ensure that a County of San Luis Obispo-approved paleontological monitor will conduct full-time monitoring of earthwork activities that have the potential to impact areas with a moderate or high paleontological sensitivity. The Paleontological Monitoring and Treatment Plan shall incorporate the results of geotechnical or subsurface data to determine the depth threshold for full-time monitoring. If the depth threshold cannot be established, then initial full-time monitoring regardless of depth shall be conducted to determine the depth to the areas with high sensitivity, and monitoring efforts shall be adjusted accordingly.
- b. The Paleontological Monitoring and Treatment Plan shall define specific conditions in which monitoring of earthwork activities could be reduced and/or depth criteria established to trigger monitoring. These factors shall be defined by the project paleontological resource specialist, following examination of sufficient, representative excavations. As specified in the Paleontological Monitoring and Treatment Plan, approved measures shall be implemented during ground-disturbing activities.

GEO-2 **During project earthwork activities,** based on Mitigation Measure GEO-1 above, the applicant shall conduct monitoring by a County of San Luis Obispo-approved paleontological monitor as specified in the Paleontological Monitoring and Treatment Plan. This shall include monitoring during rough grading and trenching in areas determined to have moderate to high paleontological sensitivity and that have the potential to be deep enough to be adversely affected by such earthwork.

Sediments of low, marginal, undetermined sensitivity shall be monitored by a County of San Luis Obispo-approved paleontological monitor on a part-time basis (as determined by the County of San Luis Obispo-approved Paleontologist).

The paleontological monitor shall have a bachelor's degree in Geology, Paleontology, or Biology with relevant coursework in paleontology and a minimum of 1 year of paleontological monitoring experience in local or similar sediments. Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the County of San Luis Obispo-approved Paleontologist.

GEO-3 **During paleontological field evaluations,** if avoidance of significant paleontological resources is not feasible during grading, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the applicant, in accordance with the approved Paleontological Monitoring and Treatment Plan, per Mitigation Measure GEO-1.

GEO-4 **Prior to the Initiation of project ground-disturbing activities,** all construction personnel conducting earthwork activities shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during improvement grading and earthwork activities. The applicant shall complete training for all applicable personnel. Training shall inform all applicable personnel of the procedures to be followed upon the discovery of paleontological materials.

All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on- or off-site by the applicant, its representatives, or employees will not be allowed. Violators shall be subject to prosecution under the appropriate federal and state laws. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

- a. All construction contracts shall include clauses that require grading personnel to attend training so that they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.
- b. A County of San Luis Obispo-approved paleontologist shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of

any potential paleontological resources, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.

- c. Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted until cleared by the project paleontologist. Once the find has been inspected and a preliminary assessment made by the paleontologist, the County of San Luis Obispo will be notified. The applicant shall then proceed with data recovery in accordance with the approved Paleontological Monitoring and Treatment Plan.
- d. Prior to final occupancy, the paleontologist shall prepare a final report to be submitted to the County of San Luis Obispo that summarizes impacts to paleontological resources, describes impact minimization efforts, and provides the results of all data recovery efforts.

Monitoring: Required at the time of application for project grading, building, and construction permits and during construction activities. Compliance will be verified by the County Department of Planning and Building.

Hazards and Hazardous Materials (HAZ)

- HAZ-1** **At the time of application for grading and/or building permits,** whichever occurs first, the contractor shall prepare and submit a Hazardous Materials Response Plan to describe protocols necessary for a prompt and effective response to any accidental spills. Workers shall be informed of the importance of preventing spills, measures to prevent spills, and the appropriate measures to take should a spill occur, as detailed in HAZ-2 and HAZ-3 below. The Hazardous Materials Response Plan shall be reviewed and approved by County staff prior to issuance of grading or building permits.
- HAZ-2** All project-related spills of hazardous materials shall be cleaned-up immediately. Spill prevention and clean-up materials shall be onsite at all times during construction.
- HAZ-3** **During construction activities,** the cleaning and refueling of equipment and vehicles shall occur only within a designated staging area. This staging area shall conform to all applicable Best Management Practices applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles shall be checked and maintained on a daily basis to ensure proper operation and avoid potential leaks or spills.

Monitoring: The Hazardous Materials Response Plan shall be submitted at the time of application for grading and/or building permits, whichever occurs first, and shall be subject to the review and approval of County staff prior to grading or building permit issuance. Compliance will be verified by the County Department of Planning and Building.

Hydrology and Water Quality (WQ)

WQ-1 Water Demand Quantification and Offset. Prior to issuance of a grading permit (or prior to initiation of permitted activities if no grading permits are required), all applicants for cannabis-related activities within the PRGWB shall provide to the County of San Luis Obispo Department of Planning and Building for review and approval a Water Conservation Plan with a package of measures that, when implemented, will achieve the 2:1 water demand offset required by LUO Sections 22.40.050 D.5, 22.40.060 D.5, and 22.94.025 F and Building Ordinance Section 19.07.042(4). The Water Conservation Plan shall include the following:

- a. The quantification of water demand expressed in total acre-feet per year, consistent with the Water Management Plan required by LUO Sections 22.40.050 C.1 and 22.40.060 C.1. Total allowed water demand of the project shall be limited to no more than 3.70 acre-feet per year.
- b. A program for achieving a water demand offset of the quantified water demand as required by LUO Sections 22.40.050 D.5, 22.40.060 D.5, and 22.94.025 F and Building Ordinance Section 19.07.042(4). Such a program may include, but is not limited to, the following:
 - i. Removal of existing irrigated agriculture within the basin. Total water offset by this method shall be verified by County staff.
 - ii. The permanent installation of water facilities and/or infrastructure to improve the efficient use of water on existing irrigated agricultural lands within the basin. Such improvements shall be accompanied by an audit of existing agricultural water demand prepared by an Agricultural Engineer, or other licensed engineer or qualified professional as approved by the Director of Planning and Building. Water efficiency improvements may include, but are not limited to, the following:
 1. Installation of drip irrigation.
 2. Installation of smart controllers, which are irrigation

November 26, 2024

controllers that are climatologically controlled without human intervention, that adjust irrigation based on the amount of moisture lost from soil and plant material since the previous irrigation by utilizing climate data (evapotranspiration rates) broadcast to the controller from the California Irrigation Management Information System and other sources, and that have been tested and certified 100% for irrigation adequacy and schedule shall be installed and maintained on all irrigated and landscaped areas.

3. Installation of float valves on water tanks to prevent tanks from overflowing.
 4. Conversion from using overhead sprinklers to wind machines for frost protection. [Note: The installation of wind machines shall be included in the project description for cannabis activities and subject to environmental review.]
 5. Installation of rainwater catchment systems to reduce demand on groundwater. [Note: The installation of rainwater catchment facilities shall be included in the project description for cannabis activities and subject to environmental review.]
- iii. Participation in an approved water conservation program within the PRGWB that is verifiable, results in a permanent reduction of water demand equal to, or exceeding, the required water demand offset, and has been subject to environmental review.
 - iv. Any combination of the above or other qualifying strategies or programs that would achieve the required water demand offset.

The water demand offset documented by the Water Conservation Plan shall be verifiable and permanent and shall not result in adverse environmental effects beyond those assessed by the CEQA compliance document for the proposed cannabis project.

WQ-2 Water Offset Monitoring. For the life of the project, at the time of quarterly monitoring inspection, the applicant shall provide to the County Department of Planning and Building for review, evidence that the water efficiency improvements associated with the approved Water Conservation Program remain in full effect and are continuing to achieve the required water demand offset associated with the approved cannabis activities.

Monitoring: Required prior to the issuance of grading permits and throughout the duration of project operation. Compliance will be verified by the County Department of Planning and Building.

Noise (N)

- N-1** **At the time of application for demolition/building permits,** the following construction noise best management practices shall be shown on all construction plans and implemented on-site during project demolition and construction activities:
- a. Construction activities shall be limited to between the hours of 7:00 a.m. and 9:00 p.m. on weekdays, and between 8:00 a.m. and 5:00 p.m. on weekends.
 - b. Construction equipment shall be properly maintained and equipped with exhaust mufflers and engine shrouds in accordance with manufacturers' recommendations.
 - c. To the extent locally available, electrified, or alternatively powered construction equipment shall be used.
 - d. Construction equipment staging areas shall be located at the furthest distance possible from nearby noise-sensitive land uses.
 - e. Stationary noise sources such as generators, pumps, and pavement crushers, shall be located at the furthest distance possible from noise-sensitive uses.
- N-2** **Prior to commencing permitted activities,** the applicant shall demonstrate that noise generated by project air conditioning, ventilation and odor management equipment complies with applicable County standards for nighttime noise levels at the property lines. This shall be accomplished by:
- a. Locating the equipment so that the building shields the noise from the nearest property line;
 - b. Constructing an acoustical enclosure around the equipment;
 - c. Installing insulating ducting and/or installing a muffler on exhaust fans; or
 - d. Any combination of equipment location, muffling, and shielding that enables the project to meet the standards.

November 26, 2024

Monitoring: Required at the time of application for demolition/building permits and throughout project construction activities. Compliance will be verified by the County Department of Planning and Building.

The applicant understands that any changes made to the project description subsequent to this environmental determination must be reviewed by the Environmental Coordinator and may require a new environmental determination for the project. By signing this agreement, the owner(s) agrees to and accepts the incorporation of the above measures into the proposed project description.

	Elizabeth Ross	11/27/24
Signature of Applicant	Name (Print)	Date

Initial Study – Environmental Checklist

Appendices

In addition, the following reference documents have been provided as appendices to this document:

Appendix A. Project Plan Set

Appendix B. Access and Sight Distance Evaluation, and Trip Generation Study

Appendix C. Water Demand Analysis

Appendix D. Well Pump Test

Appendix E. Energy Demand Analysis

Appendix F. Air Quality, Greenhouse Gas, and Noise Impacts Study

Appendix G. Odor Control Plan / Water Management Plan

Appendix H. Biological Resources Assessment

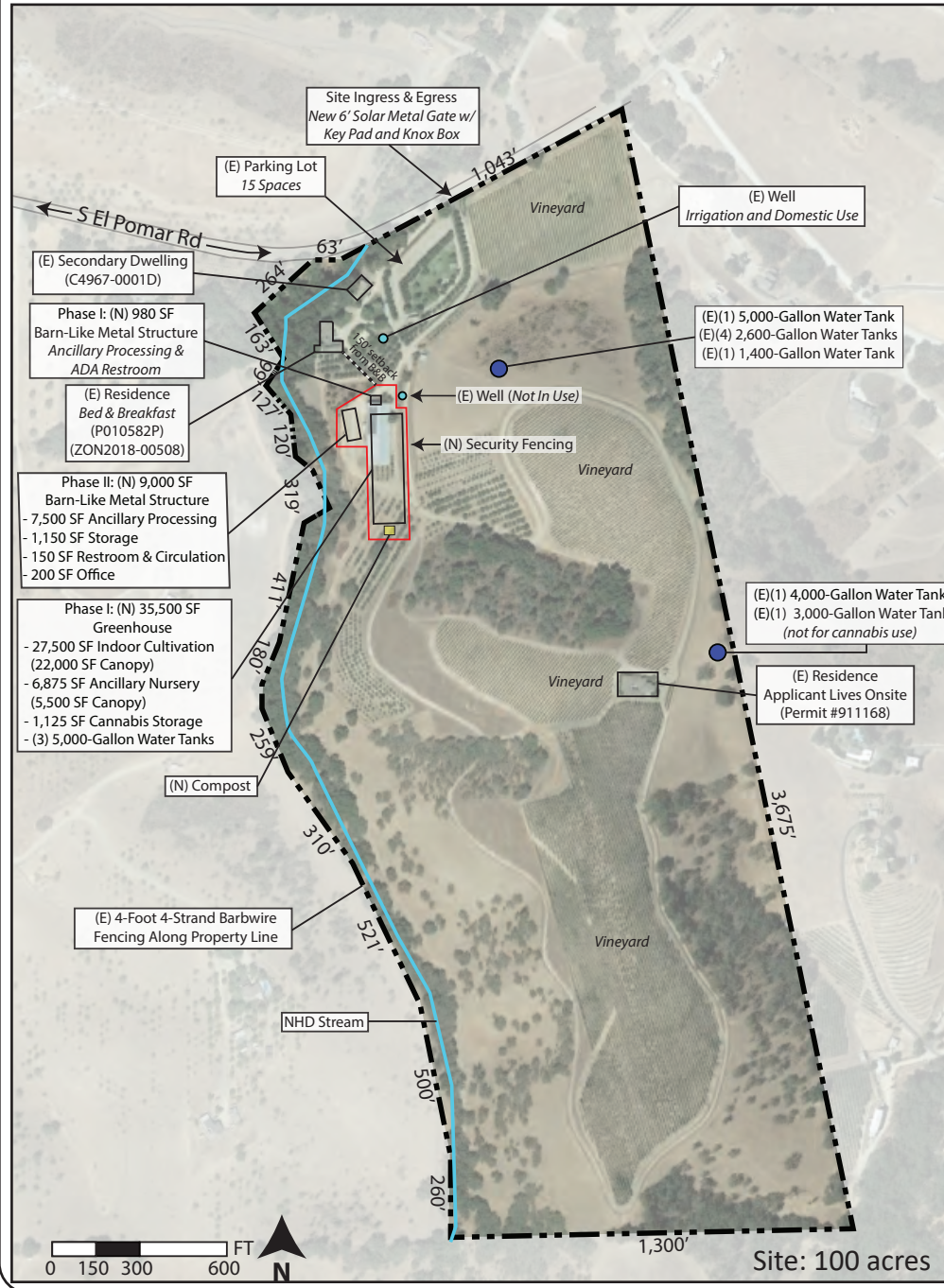
Appendix I. Waste Management Plan

Initial Study – Environmental Checklist

APPENDIX A

Project Plan Set

TITLE SHEET - OVERALL SITE PLAN



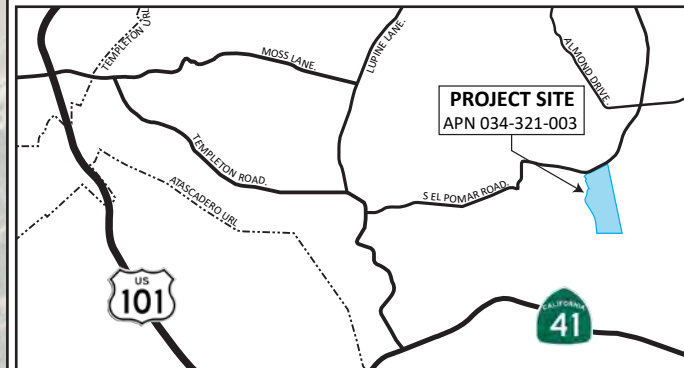
Phase	Proposed Facility	Cannabis Activity	Total SF	Total Acres	Canopy SF	Canopy Acres
I	(N) 35,500 SF Greenhouse	Indoor Cultivation	27,500	0.63	22,000	0.51
		Ancillary Nursery	6,875	0.16	5,500	0.13
		Storage & (3) 5,000-Gallon Water Storage Tanks for Cannabis Irrigation	1,125	0.03		
	(N) 980 SF Metal Barn-Like Structure	Ancillary Processing & ADA Restroom	980	0.02		
	(N) 20' x 35' Compost Area	Compostable Cannabis Waste Storage	875	0.02		
	(N) Dumpsters	Non-Compostable Waste Storage	48	0.00		
	(N) Portable Restrooms	Restrooms	32	0.00		
	(N) 9' x 18' ADA Parking Space	ADA Parking	180	0.00		
	(E)(15) 9' x 18' Parking Spaces	Parking	2,430	0.06		
	(E)(1) 5,000-Gallon Water Storage Tank	Water Storage for Cannabis Irrigation	100	0.00		
II	(E)(4) 2,600-Gallon Water Storage Tanks		200	0.00		
	(E)(1) 1,400-Gallon Water Storage Tank		50	0.00		
	(N) 9,000 SF Metal Barn-Like Structure	Ancillary Processing	7,500	0.17		
		Storage	1,150	0.03		
		Office	200	0.00		
			150	0.00		
			ADA Restroom & Circulation			
			Total Area	49,395	1.13	27,500
			Total New Site Disturbance	46,615	1.07	0.63

(N) = New (E) = Existing

Sheet Index

- 1) Overall Site Plan
- 2) Detailed Site Plan
- 3) Setback Map
- 4) Buffer & Distance to Nearest Offsite Residence Map
- 5) Conceptual Greenhouse Building Floor Plan & Elevation
- 6) Conceptual Processing Building #1 Floor Plan
- 7) Conceptual Processing Building #2 Floor Plan
- 8) Processing Building - Conceptual Solar Panel Plan

Vicinity Map

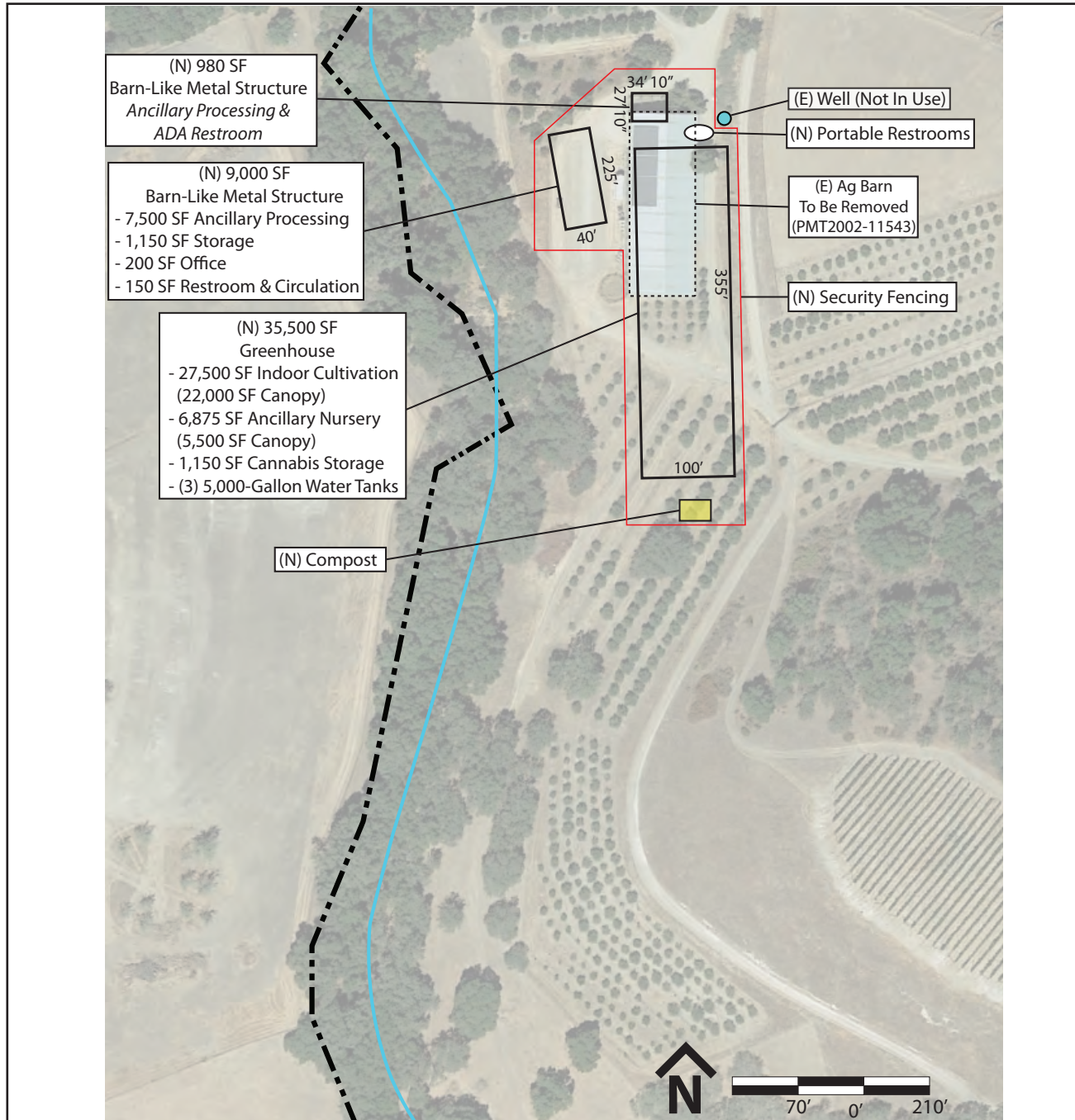


Kirk Consulting

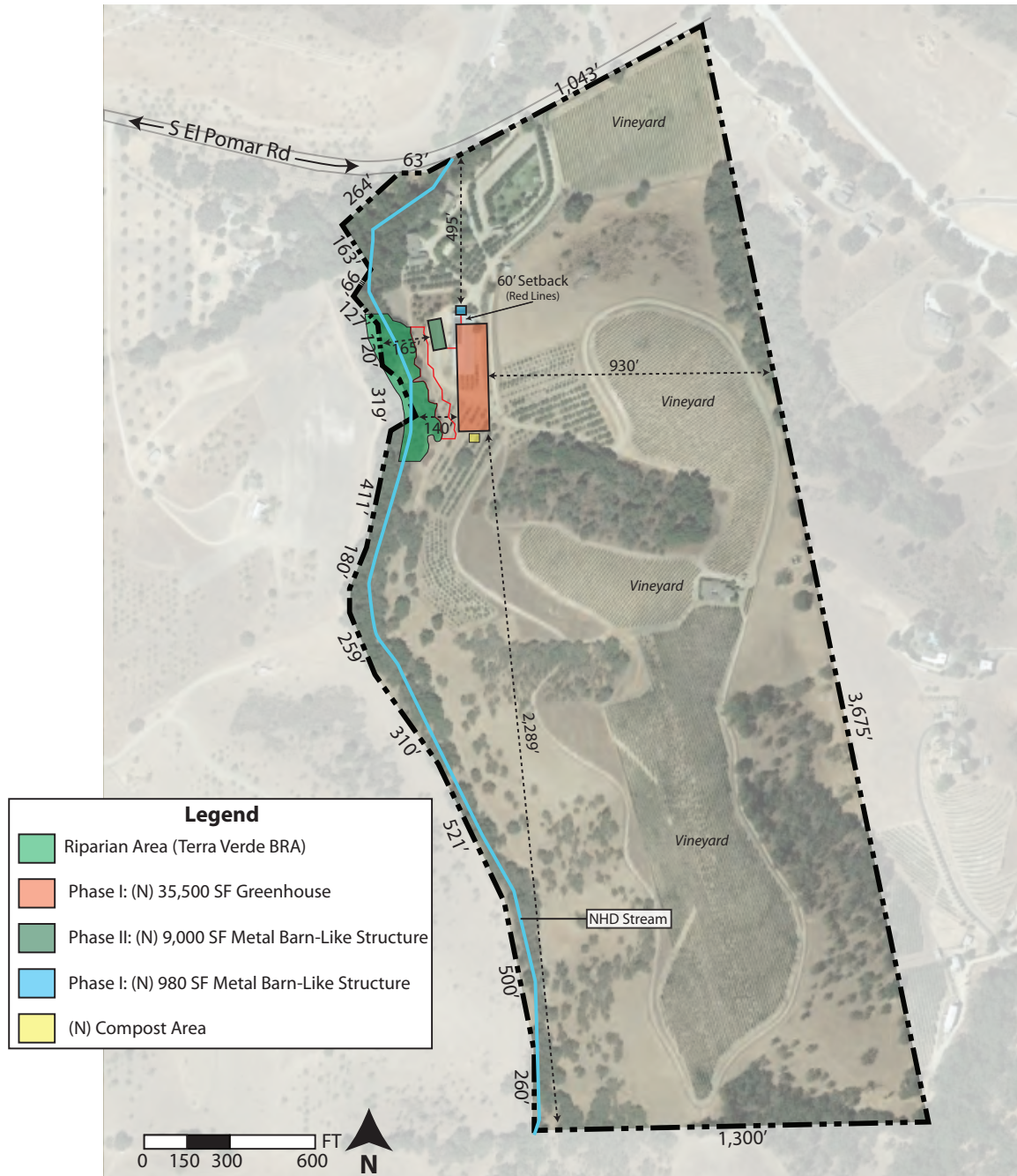
Sheet 1: Title Sheet & Overall Site Plan
Eden's Dream
4339 South El Pomar Road
Templeton, CA
APN: 034-321-003

Date: September 2023	
Eden's Dream	
Sheet	
1 of 8	

DETAILED SITE PLAN



SETBACK MAP

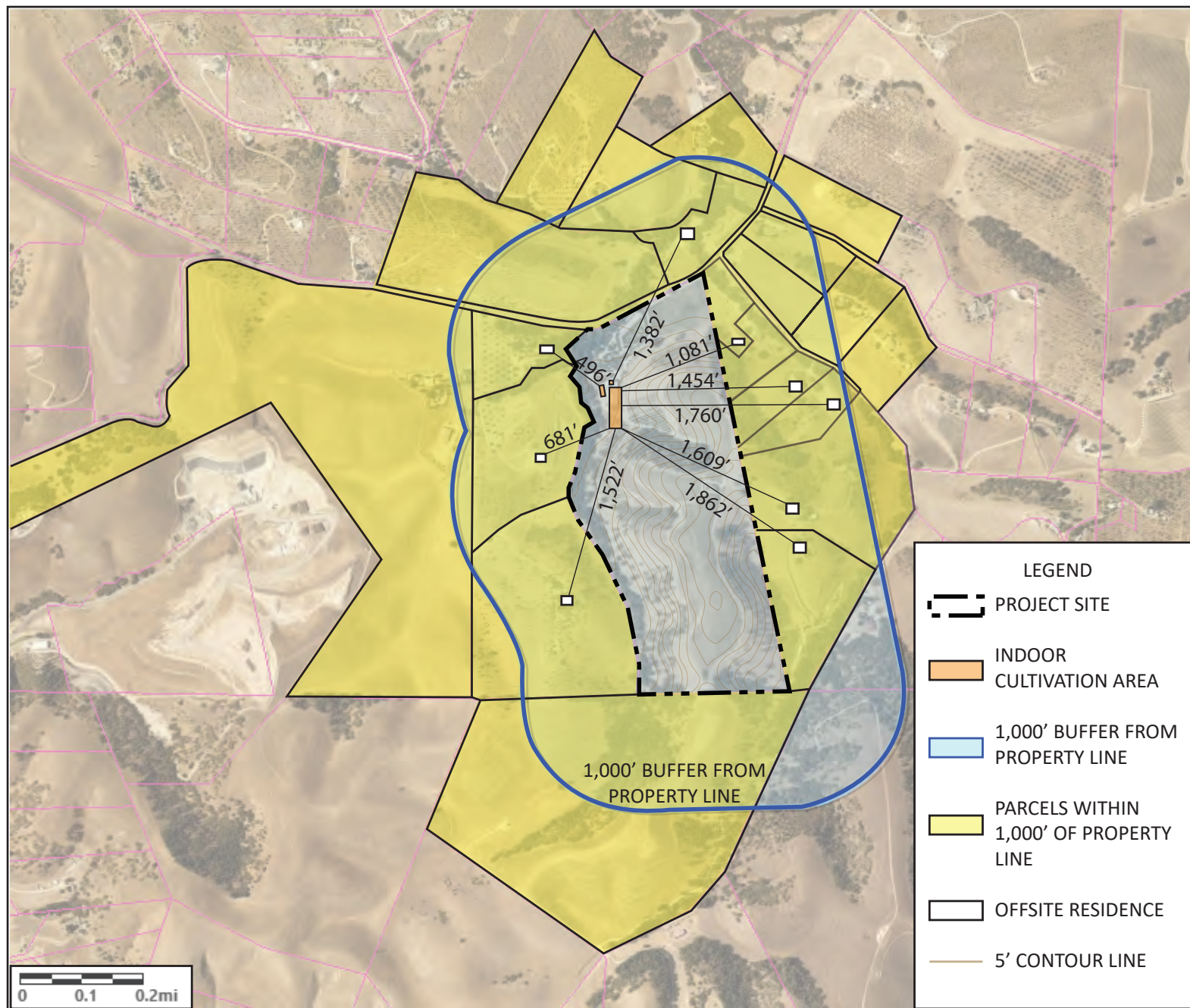


Kirk Consulting

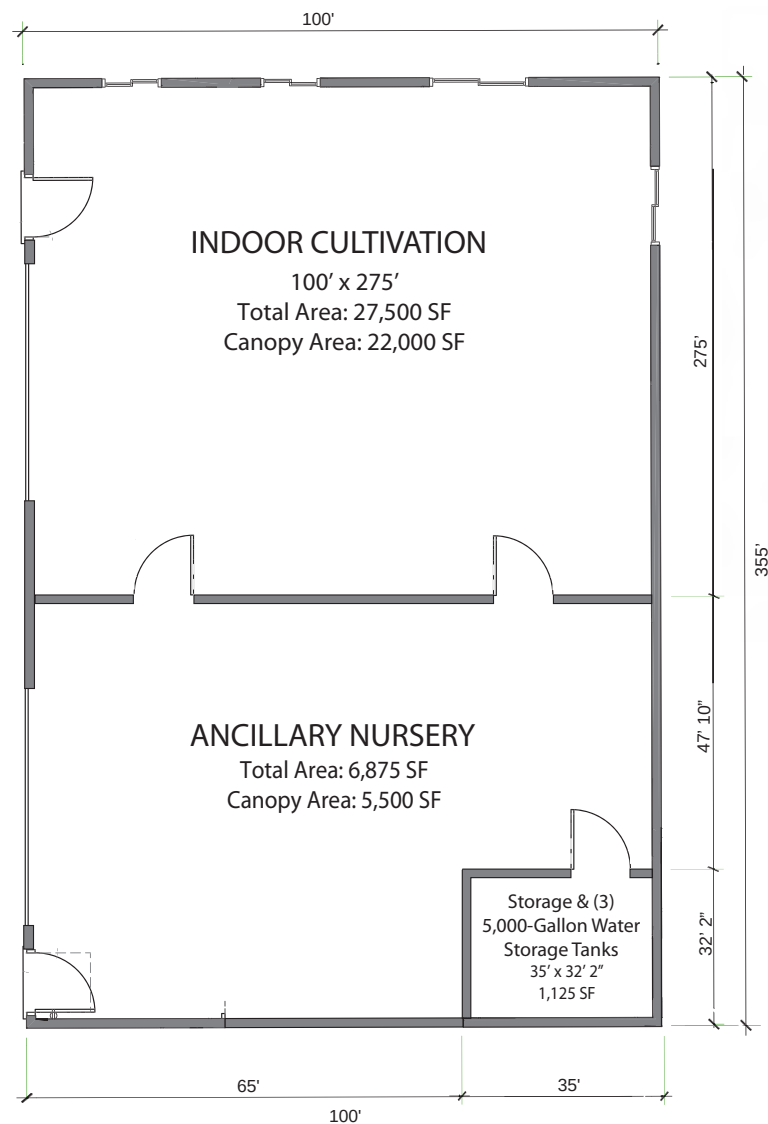
Sheet 1: Setback Map
Eden's Dream
4339 South El Pomar Road
Templeton, CA
APN: 034-321-003

Date: September 2023	
Eden's Dream	
Sheet	
3 of 8	

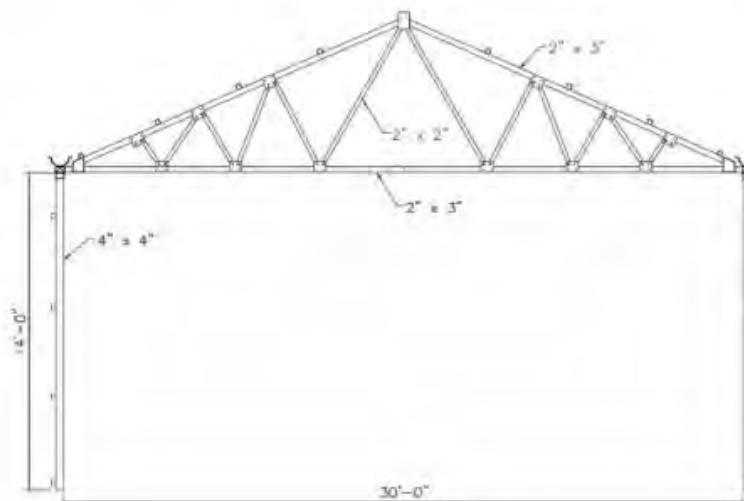
BUFFER & DISTANCE TO NEAREST OFFSITE RESIDENCE MAP



CONCEPTUAL GREENHOUSE BUILDING FLOOR PLAN AND ELEVATION



Floor Plans not to scale. Dimensions may change at time of Construction Permit submittal



Conceptual Greenhouse Front Elevation

Kirk Consulting

Sheet 5: Conceptual Greenhouse Floor Plan & Elevation
Eden's Dream
4339 South El Pomar Road
Templeton, CA
APN: 034-321-003

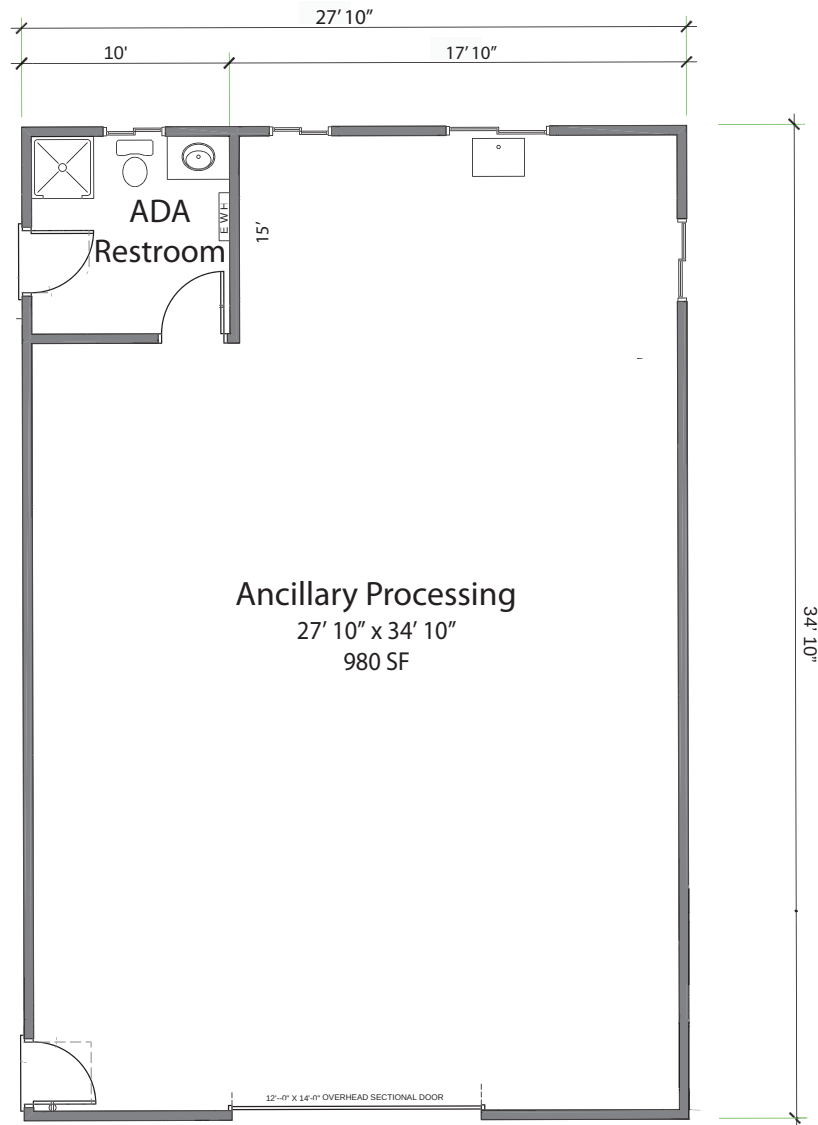
Date: September 2023

Eden's Dream

Sheet

5 of 8

CONCEPTUAL PROCESSING BUILDING #1 FLOOR PLAN



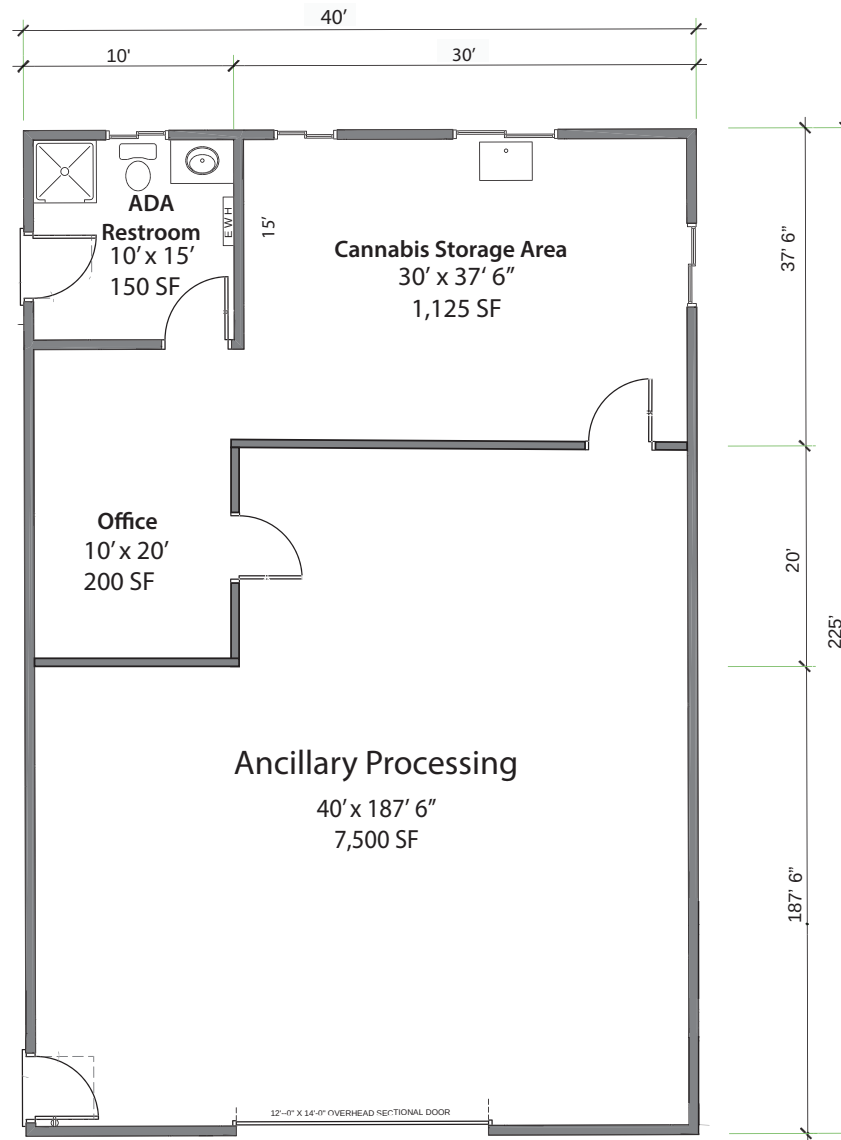
Floor Plans not to scale. Dimensions may change at time of Construction Permit submittal.



Sheet 6: Conceptual Processing Building #1 Floor Plan
 Eden's Dream
 4339 South El Pomar Road
 Tempeleton, CA
 APN: 034-321-003

Date: September 2023	
Eden's Dream	
Sheet	
6 of 8	

CONCEPTUAL PROCESSING BUILDING #2 FLOOR PLAN



Floor Plans not to scale. Dimensions may change at time of Construction Permit submittal.



Sheet 7: Conceptual Processing Building #2 Floor Plan
Eden's Dream
4339 South El Pomar Road
Templeton, CA
APN: 034-321-003

Date: September 2023	
Eden's Dream	
Sheet	
7 of 8	

CONCEPTUAL BUILDING ELEVATION WITH ROOFTOP SOLAR PANELS



Processing Building Max Height: 35' tall
Individual Solar Panel Dimensions (approximate): 48" L x 83" W x 2.1" D

Kirk Consulting

Sheet 8: Processing Building Conceptual Solar Panel Plan
Eden's Dream
4339 South El Pomar Road
Templeton, CA
APN: 034-321-003

Date: September 2023	
Eden's Dream	
Sheet 8 of 8	

Initial Study – Environmental Checklist

APPENDIX B

Access and Sight Distance Evaluation, and Trip Generation Study



July 12, 2021

Ms. Elizabeth Ross
Eden's Dream LLC
4339 South El Pomar Road
Templeton, CA 93465

**Subject: Water Demand Analysis for Cannabis Minor Use Permit Application,
4339 South El Pomar Road, Templeton, California.**

Dear Ms. Ross

As requested, Cleath-Harris Geologists has prepared a water demand analysis for a cannabis Minor Use Permit application as part of the Eden's Dream LLC (Applicant) Supplemental Development Statement, 4339 South El Pomar Road, Templeton (APN 034-321-003). The results of the water demand analysis are summarized herein, including a comparison with other water demand estimates.

Background

The Applicant has proposed a phased cannabis cultivation project totaling 114,600 square feet (sq. ft.) of outdoor cultivation in hoop houses or open canopy, 22,000 sq. ft. of greenhouse flower canopy, and 7,500 sq. ft. of greenhouse nursery canopy, as described in the project description¹. A site vicinity map is shown in Figure 1. The County of San Luis Obispo has required that the Applicant provide a water demand analysis for the proposed project, per County Land Use Ordinance Section 22.40.50-5, and has specified that a professional geologist, certified hydrogeologist, or certified engineering geologist prepare the analysis.

This is a planning level analysis. Cannabis water use is dependent on many factors, some of which may be adjusted by the Applicant based on site specific conditions. The methodology selected for this water demand analysis provides for both local data input and the ability to adjust to different cultivation methods.

There are currently no publicly available datasets on reported cannabis water use for approved projects in San Luis Obispo County. County Planning and Building staff and Code Enforcement staff are in the process of reviewing the cannabis water use data being reported and it is expected that some of this information will be made publicly available for water use comparisons later this year².

¹ Kirk Consulting, Project Description dated November 2020

² Personal communication with County Planning and Building staff June 29, 2021



Methodology

Water demand estimates for cannabis irrigation were developed using a daily soil moisture budget. Soil moisture budget methodology accounts for crop rooting depth, soil moisture holding capacity, irrigation efficiency, local precipitation, crop coefficient, and local reference evapotranspiration³.

The following equation used in the soil moisture budget is modified from the general formula for irrigation water requirements⁴, and was also used for the San Luis Obispo County Master Water Plan⁵:

$$\text{Applied Irrigation Water} = (\text{ETc} - \text{ER}) / (\text{EF})$$

Where:

ETc [Crop evapotranspiration] = ETo [reference evapotranspiration] x Kc [crop coefficient]

ER [effective rainfall] = rainfall stored in soil and available to crop (outdoor grow only)

EF [efficiency factor] = (1-LF[leaching fraction]) x IE [irrigation efficiency]

Several assumptions have been made in applying the equation to the different cannabis cultivation methods being proposed for the project. These assumptions include:

- No water will be used for frost protection.
- Canopy area and crop coefficient varies based on the stage of plant growth. Flowering plants reach a maximum crop coefficient (Kc) of 1 (ETc = ETo).
- Effective precipitation applies only to outdoor open canopy cultivation. Hoop houses and greenhouses are not credited with any rainfall in the soil moisture budget.
- Irrigation schedules will be based on soil moisture monitoring.
- The efficiency factor is 85 percent.
- Climatic conditions inside the greenhouses will be similar to outdoor/hoop houses from May through August, but will be kept warmer from September through April.

Local rainfall and reference evapotranspiration data were used for the soil moisture budget. The sources of data include:

- Daily rainfall from County Precipitation Station 762 (Templeton; Figure 1).
- Daily reference evapotranspiration from the California Irrigated Management Information System (CIMIS) Station 163 (Atascadero; Figure 1).

³ Burt, C.M., Mutziger, A., Howes, D.J., and Solomon, K.H., 2002, Evaporation from Irrigated Agricultural Land in California, ITRC Report R 02-001, January 2002.

⁴ Ibid.

⁵ Carollo Engineers, San Luis Obispo County Master Water Report, Volume III, May 2012.



Soil Moisture Budget

The soil moisture budget uses a daily time-step and data from precipitation Station 762 and CIMIS Station 163 (Figure 1). Average annual rainfall at Station 762 is 12.75 inches, based on a 10-year period of record. The rain gauge was activated in August of 2010 (Attachment A).

CIMIS Station 163 has been in operation since November 2000. Ten years of daily precipitation and ETo were used for the soil moisture budget (2011-2020), over which the average rainfall at that station measured 12.58 inches (similar to Station 172). The subject property is on the west boundary of DWR Climate Zone 16 with an average annual ETo of 62.5 inches⁶ (Figure 1). The average annual ETo for CIMIS Station 163 (in Climate Zone 6) is 50.58 inches (Attachment A).

The temperatures in the greenhouses in the summer months will likely be closer to Climate Zone 6 (cooler, with lower ETo than Climate Zone 16), so no adjustment was made to the CIMIS station ETo for use at the site. Precipitation has been below average over the last 10 years, so using CIMIS Station 163 ETo for the open canopy water use estimates is also appropriate, as the lower rainfall will offset the lower ETo in Climate Zone 6, compared to Climate Zone 16.

Growth Stage Adjustments

Cannabis is an annual flowering plant, and irrigation water will be applied concurrently over a wide range of growth stages, from vegetative clones in the ancillary nursery to full-term plants in the outdoor grow. Both the outdoor grow and the hoop houses will be above-ground and contain raised beds. The outdoor open canopy grow will yield one harvest per year, and the hoop houses will produce up to three cycles of seasonal flower harvests. The greenhouses will also accommodate raised bed cultivation for both multiple flower harvests (six per year) and nursery development.

The crop coefficient in a soil moisture budget is the ratio between the water used by the crop being evaluated and the water used by a reference crop, which in this case is well-maintained turfgrass at CIMIS Station 163 at Chalk Mountain Golf Course in Atascadero. Crop coefficients are typically lowest during the initial growth stage of a crop, peak during the mid-season, and decline from the peak during the end stage. Crop coefficients are available for many different types of crops, but cannabis is not included in standard references⁷.

⁶ DWR Climate Zone Map accessible at https://cimis.water.ca.gov/App_Themes/images/etozonemap.jpg

⁷ e.g., Allen, R.G., Pereira, L.S., Raes, D., and Smith, M., Crop Evapotranspiration, FAO Irrigation and Drainage Paper No. 56, updated February 2006.



Crop coefficients for early stage growth are estimated to average $K_c = 0.5$ for the greenhouse nursery, which includes vegetative clones through the transplant stage. Following transplant, mature plants are assumed to reach a peak $K_c = 1$. Each cannabis cultivation area will have a unique pattern of growth stages, some with multiple cycles of initial, mid-season, and end stage crop coefficients. Table 1 presents the estimated crop coefficients for the various cultivation methods, prior to any canopy development adjustments.

Table 1. Estimated Crop Coefficients (K_c)

Month	Outdoor Flower	Hoop House Flower	Greenhouse Flower	Greenhouse Nursery
JAN			0.75	0.50
FEB			1.00	0.50
MAR			0.75	0.50
APR	0.50	0.50	1.00	0.50
MAY	0.75	0.75	0.75	0.50
JUN	0.75	1.00	1.00	0.50
JUL	1.00	0.75	0.75	0.50
AUG	1.00	1.00	1.00	0.50
SEP	1.00	0.75	0.75	0.50
OCT	0.50	1.00	1.00	0.50
NOV		0.50	0.75	0.50
DEC			1.00	0.50

Harvest months in **bold**

In order to account for the variety of growth stages in the soil moisture budget, individual budgets were prepared for each cultivation type, and both the growth stage and development of the canopy area is considered on a monthly basis. The K_c of the last harvesting period for outdoor flowering crops is reduced to 0.5 in Table 1 to represent both the end stage growth and account for a partial month of irrigation prior to harvest. Following each harvest, younger plants from the greenhouse vegetative nursery are used to begin the next flower growth cycle. Adjustments to the crop coefficient to account for monthly canopy development are described below.

Canopy Development Adjustments

Canopy development for the outdoor and hoop house flowering plants will start at a relatively small fraction of the final canopy area. For example, a 2-foot diameter canopy from a new transplant in the outdoor grow will occupy only 11 percent of a nominal 6-foot



diameter canopy on the full-term plant. A canopy development adjustment is needed because the soil moisture budget results are multiplied by the area of fully developed canopy to estimate water use.

Table 2 below presents the estimated percent of canopy development during the year for the various cultivation methods.

Table 2. Percent of Full Canopy Development

Month	Outdoor Flower	Hoop House Flower	Greenhouse Flower	Greenhouse Nursery
JAN			75	80
FEB			100	80
MAR			75	80
APR	10	20	700	80
MAY	25	50	75	80
JUN	45	100	100	80
JUL	65	50	75	80
AUG	85	100	100	80
SEP	100	50	75	80
OCT	100	100	100	80
NOV		100	75	80
DEC			100	80

Nursery transplants in the hoop house and greenhouse flower operations will reach the maximum canopy area sooner than the outdoor grow because they have smaller and more densely spaced plants. The canopy development for greenhouse nursery is represented as constant but will consist of a mixture of plants from vegetative clones to final transplants with a high plant density.

Effective Precipitation

Rainfall is used to offset some of the water demand in the open canopy outdoor grow. The daily soil moisture budget allows rainfall to accumulate in the soil up to the maximum soil holding capacity for later use by the plants. The amount used is the effective precipitation. Since all water demand in the hoop houses and greenhouses is from applied irrigation, there is no effective precipitation and the soil holding capacity does not affect those water use estimates, although it would affect the irrigation schedule (greater holding capacity needs less frequent watering).



Soil moisture Budget Results

Results of the soil moisture budget are presented in Table 3. An example of the budget calculations is included in Attachment B.

Table 3. Soil Moisture Budget Results

Water use	Canopy Area	Applied Water	
	(square feet)	(feet)	(acre-feet per year)
Outdoor (open canopy)*	114,600-0	1.48	3.89-0
Outdoor (hoop house)*	0-114,600	2.46	0-6.47
Greenhouse flower	22,000	4.61	2.33
Greenhouse nursery	14,412	2.38	0.41
Total			6.6-9.2

*Outdoor may be mixture of open canopy and hoop house with the combined canopy area not to exceed 114,600 square feet.

The total annual water use for cannabis irrigation is estimated at between 6.6 acre-feet and 9.2 acre-feet per year, depending on whether open canopy (lower water use) or hoop houses (higher water use) are used for outdoor cultivation. The applied water per unit of canopy area ranges from 1.48 feet per year for outdoor (open canopy) cultivation to 4.61 feet per year for greenhouse flower cultivation.

Comparison with Other Estimates

2017 Santa Cruz DEIR

Cannabis water use estimates used by the industry and for regulatory planning were summarized in a Draft Environmental Impact Report (DEIR) on commercial cannabis for the County of Santa Cruz⁸. The following excerpt from the DEIR provide values for comparison with this water demand analysis:

For the purposes of analysis in this EIR, water use is estimated based upon a study in Humboldt County by Milewide Nursery that compared outdoor cultivation with a 180-day growing period to a test plot that used a 90-day growing period in a greenhouse.⁹ The study reported that water was used in the greenhouse at a rate of 0.0875 gallons per square foot of canopy per day. In order to account for the fact that some indoor operations will operate at a lower efficiency, the rate used in the analysis in this EIR is rounded up to 0.1 gallons per square foot of canopy per day. For outdoor cultivation, the study reported 0.03 gallons of water used per square foot of canopy per day. This study was selected because it looked at a multi-year average, measured

⁸ County of Santa Cruz, Commercial Cannabis Cultivation and Manufacturing Regulations and Licensing Program, Draft Environmental Impact Report, August 2017.

⁹Humboldt Grower, May 2015 Humboldt County Cannabis Water Use Study, Milewide Nursery.
<https://humboldtgrower.wordpress.com/2015/05/07/may-2015-humboldt-county-cannabis-water-use-study/>



water use for the season per plant, and with study of both indoor and outdoor cultivation. The climate in Humboldt is comparable with many of the microclimates in Santa Cruz County. The study used industry standards (cultivating full-term plants, 6 feet tall, with 99 plants in a garden, with the plants caged and tied vertically) in the outdoor control grow, and applied higher efficiency methods in the indoor test grow.

According to the Milewide Nursery study, 787 gallons were used per plant in the outdoor grow over 180 days, or an average of 4.38 gallons per plant per day (gal/plant-day). The Santa Cruz County DEIR then divided the reported plant water use by the entire 144 square feet of plant growing area (12-foot centers) to calculate a water use of 0.030 gallons per square foot of canopy per day (gal/sfc-day), which is equivalent to 5.4 gallons per square foot of canopy per year (gal/sfc-year) for the 180-day growing season. The DEIR assumed full canopy coverage in the growing area, which the referenced study did not actually report. The study only indicated that 144 square feet of area per plant was needed so the plants did not shade each other. The canopy area would likely be less than the growing area to ensure no shading between plants, which would increase the water use estimate supported by the study. By comparison, the greenhouse water application rate of 0.1 gal/sfc-day would result in up to 36.5 gal/sfc-year for a year-round operation.

2021 Cannabis H₂O Water Use & Sustainability in Cultivation Study

A study on cannabis water use was recently published that reviews three large data sets for water use in greenhouses and outdoor grows¹⁰. The study notes the difficulty of standardizing water use values, especially on a per-plant basis, due to the large variation in cultivation methods. The number of harvests per year, plant sizes, soil conditions, plant density, and scale of production all affect water use.

The three datasets reviewed in the study include a national data set, a California data set, and a Michigan data set. The 2019 Northern California data set contained 618 records covering greenhouses and outdoor farms in Mendocino, Humboldt, Trinity, and Sonoma counties that had received cultivation permits from the state of California. Water use was evaluated for greenhouse flower and outdoor flower on a gal/sfc-year basis for various facility sizes. Table 4 compares the results of the estimated project water demand using the soil moisture budget to the above-referenced industry studies.

¹⁰ New Frontier Data, Resources Innovation Institute, and the Berkeley Cannabis Research Center, 2021, Cannabis H₂O: Water Use & Sustainability in Cultivation.



Table 4. Comparison With Other Water Use Estimates

Cultivation Method	Soil Moisture Budget for Project	2017 Santa Cruz DEIR	2021 Cannabis H ₂ O Study
	Estimated gallons per square foot of canopy area per year (gal/sfc-year)		
Outdoor open canopy	11.0	5.4	6.5 - 20.6
Outdoor hoop house	18.4	--	
Greenhouse flower	34.5	36.5	19.9 - 33
Greenhouse nursery	17.8	--	--

As shown in Table 4, the rate of water use for outdoor/hoop house cultivation for the Eden's Dream LLC project is estimated using the soil moisture budget at 11.0–18.4 gal/sfc-year, compared to 5.4 gal/sfc-year calculated in the Santa Cruz County cannabis program DEIR, and a range of 6.5-20.6 gal/sfc-year reported for the California data set in the Cannabis H₂O study. It should be noted that all of the gal/sfc-year values are dependent on the length of the growing season, and that the growing season for the project is anticipated to range from 200-230 days for outdoor cultivation, and year-round for greenhouse operations.

A greenhouse water use of 34.5 gal/sfc-year estimated for project flower operations using the soil moisture budget is a close match to the Santa Cruz DEIR values (when projected for year-round operations), and slightly higher than the range reported in the Cannabis H₂O study (which may include seasonal greenhouse operations). Overall, the water use numbers developed using the soil moisture budget for Eden's Dream LLC are within the range of other studies.

Summary and Conclusions

A water demand analysis using soil moisture budget methodology with local ETo and rainfall data was performed to estimate the proposed cannabis project applied irrigation water use. Estimated water use will average from 6.6 acre-feet to 9.2 acre-feet per year, depending on the ratio of outdoor open canopy area to outdoor hoop houses (with more hoop houses resulting in greater water use). The estimated rates of water use are in general agreement with prior studies used by the industry.

Respectfully submitted,
CLEATH-HARRIS GEOLOGISTS

Spencer J. Harris, HG 633
Senior Hydrogeologist

attachments



ATTACHMENT A

Rainfall and Evapotranspiration Monthly Averages

San Luis Obispo County Public Works
Recording Rain Station
MONTHLY PRECIPITATION REPORT

Station Name - Templeton # 762

Station Location -

Latitude - 35° 33' 49"

Longitude - 120° 42' 11"

Description - 0

Water Years -

Beginning - 2010-2011

Ending - 2019-2020

Station Statistics -

Month	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average	0.21	0.00	0.01	0.53	1.22	2.05	3.23	2.49	2.68	0.58	0.22	0.04	12.15
Maximum	1.93	0.00	0.04	1.81	4.21	7.87	12.14	7.64	9.06	2.95	0.91	0.35	27.15

Notes -

Record Began 8/25/2010

Monthly Average ETo Report

California Irrigation Management Information System (CIMIS)

Rendered in ENGLISH Units.

Printed on Thursday, July 8, 2021

Average ETo Values by Station

Stn Id	Stn Name	CIMIS Region	Jan (in)	Feb (in)	Mar (in)	Apr (in)	May (in)	Jun (in)	Jul (in)	Aug (in)	Sep (in)	Oct (in)	Nov (in)	Dec (in)	Total (in)
163	Atascadero	CCV	1.74	2.20	3.64	4.82	6.03	6.64	6.94	6.36	4.99	3.60	2.09	1.53	50.58

CIMIS Region Abbreviations		
BIS - Bishop	CCV - Central Coast Valleys	ICV - Imperial/Coachella Valley
LAB - Los Angeles Basin	MBY - Monterey Bay	NCV - North Coast Valleys
NEP - Northeast Plateau	SAV - Sacramento Valley	SBE - San Bernardino
SFB - San Francisco Bay	SJV - San Joaquin Valley	SFH - Sierra Foothill
SCV - South Coast Valleys		



ATTACHMENT B

Example calculations for Soil moisture Budget

Water Holding Capacity (WHC) (in/ft)

3

Active Root Zone Depth (ft)

1.5

WHC of Active Root Zone (in)

4.5

Crop Coefficient (Kc)

Variable

Highlighted rows used for example calculations

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
Day	Month	Reference ET (ETo) CIMIS Sta. 163	Crop Coefficient (Kc)	Crop ET (ETc)	Precipitation+ Irrigation	Water Available from Soil Profile	ETc met by Precipitation + Irrigation	ETc met by Profile	Precip Available for Profile	Soil Moisture Deficit	Monthly Deep Percolation and Runoff	Irrigation Demand	Precip Sta. 762
2016		(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
1	October	0.15	0.50	0.075	0.075	0	0.075	0	0	-4.5	0	0.075	0.00
2		0.14	0.50	0.07	0.07	0	0.07	0	0	-4.5	0	0.07	0.00
3		0.13	0.50	0.065	0.065	0	0.065	0	0	-4.5	0	0.065	0.00
4		0.14	0.50	0.07	0.07	0	0.07	0	0	-4.5	0	0.07	0.00
5		0.13	0.50	0.065	0.065	0	0.065	0	0	-4.5	0	0.065	0.00
6		0.15	0.50	0.075	0.075	0	0.075	0	0	-4.5	0	0.075	0.00
7		0.15	0.50	0.075	0.075	0	0.075	0	0	-4.5	0	0.075	0.00
8		0.14	0.50	0.07	0.07	0	0.07	0	0	-4.5	0	0.07	0.00
9		0.14	0.50	0.07	0.07	0	0.07	0	0	-4.5	0	0.07	0.00
10		0.13	0.50	0.065	0.065	0	0.065	0	0	-4.5	0	0.065	0.00
11		0.11	0.50	0.055	0.055	0	0.055	0	0	-4.5	0	0.055	0.00
12		0.11	0.50	0.055	0.055	0	0.055	0	0	-4.5	0	0.055	0.00
13		0.1	0.50	0.05	0.05	0	0.05	0	0	-4.5	0	0.05	0.00
14		0.1	0.50	0.05	0.05	0	0.05	0	0	-4.5	0	0.05	0.00
15		0.03	0.50	0.015	0.015	0	0.015	0	0	-4.5	0	0.015	0.00
16		0.05	0.50	0.025	0.16	0	0.025	0	0.135	-4.365	0	0	0.16
17		0.09	0.50	0.045	0.35	0.135	0.045	0	0.305	-4.06	0	0	0.35
18		0.12	0.50	0.06	0	0.44	0	0.06	0	-4.12	0	0	0.00
19		0.14	0.50	0.07	0	0.38	0	0.07	0	-4.19	0	0	0.00
20		0.14	0.50	0.07	0	0.31	0	0.07	0	-4.26	0	0	0.00
21		0.12	0.50	0.06	0	0.24	0	0.06	0	-4.32	0	0	0.00
22		0.11	0.50	0.055	0	0.18	0	0.055	0	-4.375	0	0	0.00
23		0.09	0.50	0.045	0	0.125	0	0.045	0	-4.42	0	0	0.00
24		0.09	0.50	0.045	0	0.08	0	0.045	0	-4.465	0	0	0.00
25		0.1	0.50	0.05	0.015	0.035	0.015	0.035	0	-4.5	0	0.015	0.00
26		0.1	0.50	0.05	0.05	0	0.05	0	0	-4.5	0	0.05	0.00
27		0.04	0.50	0.02	0.51	0	0.02	0	0.49	-4.01	0	0	0.51
28		0.05	0.50	0.025	0.56	0.49	0.025	0	0.535	-3.475	0	0	0.56
29		0.09	0.50	0.045	0.23	1.025	0.045	0	0.185	-3.29	0	0	0.23
30		0.04	0.50	0.02	0	1.21	0	0.02	0	-3.31	0	0	0.00
31		0.06	0.50	0.03	0	1.19	0	0.03	0	-3.34	0	0	0.00

Sample Calculations:
Daily Soil-Moisture Budget

NOTE: This is a tool developed to assist with estimating water demand and is not an irrigation schedule.

[A], [B]: Day and month used for sample calculation: **October 15, 2016**

[C]: $ET_o = 0.03$ inches

[D]: $K_c = 0.50$

[E]: $ET_c = ET_o * K_c = 0.015$ inches

[F]: Precipitation + Irrigation = **[N]** + **[M]** = 0 inches + 0.015 inches = 0.015 inches

[G]: Water Available from Soil Profile = WHC of active root zone (4.5 inches) + soil moisture deficit on October 14, 2016 (-4.5 inches) = 0 inches

[H]: ET_c Met by Precipitation + Irrigation = **[E]** OR **[F]**, whichever is smaller. In this case **[E]** = **[F]**, so **[H]** = 0.015 inches

[I]: ET_c Met by Profile = **[G]** OR (**[E]** - **[H]**), whichever is smaller, in this case **[E]** - **[H]** = **[G]** = 0 inches

[J] Precip Available for Profile = **[F]** - **[H]** = 0.015 inches - 0.015 inches = 0 inches

[K] Soil Moisture Deficit = whichever is greater between (a) -WHC (-4.5 inches) and (b) minimum of either (c) 0 inches or (d) October 14 Soil Moisture Deficit (-4.5 inches) - **[I]** (0 inches) + **[J]** (0 inches) = -4.5 inches. In this case (d) is less than (c) and equal to (a), therefore **[K]** = (d) = -4.5 inches

[L] Monthly Deep Percolation and Runoff = whichever is greater between (a) 0 inches and (b) Oct 14 Soil Moisture Deficit (-4.5 inches) + **[J]** (0 inches) = -4.5 inches, therefore **[L]** = 0 inches

[M] Irrigation Demand = **[E]** - **[N]** - **[G]** if greater than zero, otherwise 0 inches. In this case **[M]** = 0.015 inches

[N] Precipitation = 0 inches

A], [B]: Day and month used for sample calculation: **October 25, 2016**

[C]: $ET_o = 0.1$ inches

[D]: $K_c = 0.50$

[E]: $ET_c = ET_o * K_c = 0.05$ inches

[F]: Precipitation + Irrigation = **[N]** + **[M]** = 0 inches + 0.015 inches = 0.015 inches

[G]: Water Available from Soil Profile = WHC of active root zone (4.5 inches) + soil moisture deficit on October 24, 2016 (-4.465 inches) = 0.035 inches

[H]: ET_c Met by Precipitation + Irrigation = **[E]** OR **[F]**, whichever is smaller. In this case **[F]** < **[E]**, so **[H]** = **[F]** = 0.015 inches

[I]: ET_c Met by Profile = **[G]** OR (**[E]** - **[H]**), whichever is smaller, in this case **[G]** = **[E]** - **[H]** = 0.015 inches

[J] Precip Available for Profile = **[F]** - **[H]** = 0.015 inches - 0.015 inches = 0 inches

[K] Soil Moisture Deficit = whichever is greater between (a) -WHC (-4.5 inches) and (b) minimum of either (c) 0 inches or (d) October 24 Soil Moisture Deficit (-4.465 inches) - **[I]** (0.035 inches) + **[J]** (0 inches) = -4.5 inches. In this case (d) is less than (c) and same as (a), therefore **[K]** = (d) = (a) = -4.5 inches

[L] Monthly Deep Percolation and Runoff = whichever is greater between (a) 0 inches and (b) Oct 24 Soil Moisture Deficit (-4.465 inches) + **[J]** (0 inches) = -4.465 inches, therefore **[L]** = 0 inches

[M] Irrigation Demand = **[E]** - **[N]** - **[G]** if greater than zero, otherwise 0 inches. In this case **[M]** = 0.015 inches

[N] Precipitation = 0 inches

Initial Study – Environmental Checklist

APPENDIX C

Water Demand Analysis



July 12, 2021

Ms. Elizabeth Ross
Eden's Dream LLC
4339 South El Pomar Road
Templeton, CA 93465

**Subject: Water Demand Analysis for Cannabis Minor Use Permit Application,
4339 South El Pomar Road, Templeton, California.**

Dear Ms. Ross

As requested, Cleath-Harris Geologists has prepared a water demand analysis for a cannabis Minor Use Permit application as part of the Eden's Dream LLC (Applicant) Supplemental Development Statement, 4339 South El Pomar Road, Templeton (APN 034-321-003). The results of the water demand analysis are summarized herein, including a comparison with other water demand estimates.

Background

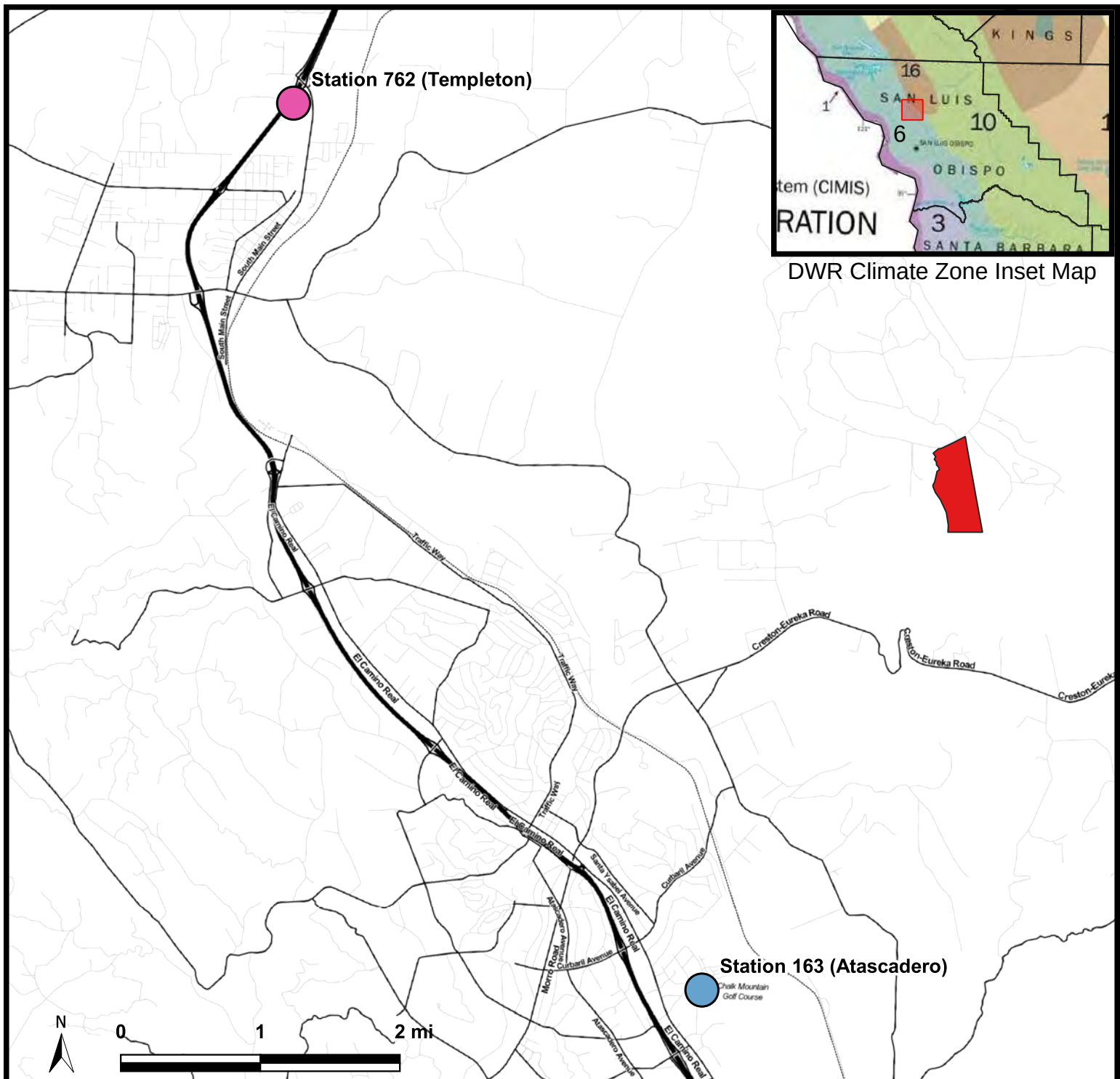
The Applicant has proposed a phased cannabis cultivation project totaling 114,600 square feet (sq. ft.) of outdoor cultivation in hoop houses or open canopy, 22,000 sq. ft. of greenhouse flower canopy, and 7,500 sq. ft. of greenhouse nursery canopy, as described in the project description¹. A site vicinity map is shown in Figure 1. The County of San Luis Obispo has required that the Applicant provide a water demand analysis for the proposed project, per County Land Use Ordinance Section 22.40.50-5, and has specified that a professional geologist, certified hydrogeologist, or certified engineering geologist prepare the analysis.

This is a planning level analysis. Cannabis water use is dependent on many factors, some of which may be adjusted by the Applicant based on site specific conditions. The methodology selected for this water demand analysis provides for both local data input and the ability to adjust to different cultivation methods.

There are currently no publicly available datasets on reported cannabis water use for approved projects in San Luis Obispo County. County Planning and Building staff and Code Enforcement staff are in the process of reviewing the cannabis water use data being reported and it is expected that some of this information will be made publicly available for water use comparisons later this year².

¹ Kirk Consulting, Project Description dated November 2020

² Personal communication with County Planning and Building staff June 29, 2021



Explanation

-  Project Site
 CIMIS Station
 Precip Station

Figure 1 Vicinity Map

Water Demand Analysis

Eden's Dream LLC

CLEATH-HARRIS GEOLOGISTS



Methodology

Water demand estimates for cannabis irrigation were developed using a daily soil moisture budget. Soil moisture budget methodology accounts for crop rooting depth, soil moisture holding capacity, irrigation efficiency, local precipitation, crop coefficient, and local reference evapotranspiration³.

The following equation used in the soil moisture budget is modified from the general formula for irrigation water requirements⁴, and was also used for the San Luis Obispo County Master Water Plan⁵:

$$\text{Applied Irrigation Water} = (\text{ETc} - \text{ER}) / (\text{EF})$$

Where:

ETc [Crop evapotranspiration] = ETo [reference evapotranspiration] x Kc [crop coefficient]

ER [effective rainfall] = rainfall stored in soil and available to crop (outdoor grow only)

EF [efficiency factor] = (1-LF[leaching fraction]) x IE [irrigation efficiency]

Several assumptions have been made in applying the equation to the different cannabis cultivation methods being proposed for the project. These assumptions include:

- No water will be used for frost protection.
- Canopy area and crop coefficient varies based on the stage of plant growth. Flowering plants reach a maximum crop coefficient (Kc) of 1 (ETc = ETo).
- Effective precipitation applies only to outdoor open canopy cultivation. Hoop houses and greenhouses are not credited with any rainfall in the soil moisture budget.
- Irrigation schedules will be based on soil moisture monitoring.
- The efficiency factor is 85 percent.
- Climatic conditions inside the greenhouses will be similar to outdoor/hoop houses from May through August, but will be kept warmer from September through April.

Local rainfall and reference evapotranspiration data were used for the soil moisture budget. The sources of data include:

- Daily rainfall from County Precipitation Station 762 (Templeton; Figure 1).
- Daily reference evapotranspiration from the California Irrigated Management Information System (CIMIS) Station 163 (Atascadero; Figure 1).

³ Burt, C.M., Mutziger, A., Howes, D.J., and Solomon, K.H., 2002, Evaporation from Irrigated Agricultural Land in California, ITRC Report R 02-001, January 2002.

⁴ Ibid.

⁵ Carollo Engineers, San Luis Obispo County Master Water Report, Volume III, May 2012.



Soil Moisture Budget

The soil moisture budget uses a daily time-step and data from precipitation Station 762 and CIMIS Station 163 (Figure 1). Average annual rainfall at Station 762 is 12.75 inches, based on a 10-year period of record. The rain gauge was activated in August of 2010 (Attachment A).

CIMIS Station 163 has been in operation since November 2000. Ten years of daily precipitation and ETo were used for the soil moisture budget (2011-2020), over which the average rainfall at that station measured 12.58 inches (similar to Station 172). The subject property is on the west boundary of DWR Climate Zone 16 with an average annual ETo of 62.5 inches⁶ (Figure 1). The average annual ETo for CIMIS Station 163 (in Climate Zone 6) is 50.58 inches (Attachment A).

The temperatures in the greenhouses in the summer months will likely be closer to Climate Zone 6 (cooler, with lower ETo than Climate Zone 16), so no adjustment was made to the CIMIS station ETo for use at the site. Precipitation has been below average over the last 10 years, so using CIMIS Station 163 ETo for the open canopy water use estimates is also appropriate, as the lower rainfall will offset the lower ETo in Climate Zone 6, compared to Climate Zone 16.

Growth Stage Adjustments

Cannabis is an annual flowering plant, and irrigation water will be applied concurrently over a wide range of growth stages, from vegetative clones in the ancillary nursery to full-term plants in the outdoor grow. Both the outdoor grow and the hoop houses will be above-ground and contain raised beds. The outdoor open canopy grow will yield one harvest per year, and the hoop houses will produce up to three cycles of seasonal flower harvests. The greenhouses will also accommodate raised bed cultivation for both multiple flower harvests (six per year) and nursery development.

The crop coefficient in a soil moisture budget is the ratio between the water used by the crop being evaluated and the water used by a reference crop, which in this case is well-maintained turfgrass at CIMIS Station 163 at Chalk Mountain Golf Course in Atascadero. Crop coefficients are typically lowest during the initial growth stage of a crop, peak during the mid-season, and decline from the peak during the end stage. Crop coefficients are available for many different types of crops, but cannabis is not included in standard references⁷.

⁶ DWR Climate Zone Map accessible at https://cimis.water.ca.gov/App_Themes/images/etozonemap.jpg

⁷ e.g., Allen, R.G., Pereira, L.S., Raes, D., and Smith, M., Crop Evapotranspiration, FAO Irrigation and Drainage Paper No. 56, updated February 2006.



Crop coefficients for early stage growth are estimated to average $K_c = 0.5$ for the greenhouse nursery, which includes vegetative clones through the transplant stage. Following transplant, mature plants are assumed to reach a peak $K_c = 1$. Each cannabis cultivation area will have a unique pattern of growth stages, some with multiple cycles of initial, mid-season, and end stage crop coefficients. Table 1 presents the estimated crop coefficients for the various cultivation methods, prior to any canopy development adjustments.

Table 1. Estimated Crop Coefficients (K_c)

Month	Outdoor Flower	Hoop House Flower	Greenhouse Flower	Greenhouse Nursery
JAN			0.75	0.50
FEB			1.00	0.50
MAR			0.75	0.50
APR	0.50	0.50	1.00	0.50
MAY	0.75	0.75	0.75	0.50
JUN	0.75	1.00	1.00	0.50
JUL	1.00	0.75	0.75	0.50
AUG	1.00	1.00	1.00	0.50
SEP	1.00	0.75	0.75	0.50
OCT	0.50	1.00	1.00	0.50
NOV		0.50	0.75	0.50
DEC			1.00	0.50

Harvest months in **bold**

In order to account for the variety of growth stages in the soil moisture budget, individual budgets were prepared for each cultivation type, and both the growth stage and development of the canopy area is considered on a monthly basis. The K_c of the last harvesting period for outdoor flowering crops is reduced to 0.5 in Table 1 to represent both the end stage growth and account for a partial month of irrigation prior to harvest. Following each harvest, younger plants from the greenhouse vegetative nursery are used to begin the next flower growth cycle. Adjustments to the crop coefficient to account for monthly canopy development are described below.

Canopy Development Adjustments

Canopy development for the outdoor and hoop house flowering plants will start at a relatively small fraction of the final canopy area. For example, a 2-foot diameter canopy from a new transplant in the outdoor grow will occupy only 11 percent of a nominal 6-foot



diameter canopy on the full-term plant. A canopy development adjustment is needed because the soil moisture budget results are multiplied by the area of fully developed canopy to estimate water use.

Table 2 below presents the estimated percent of canopy development during the year for the various cultivation methods.

Table 2. Percent of Full Canopy Development

Month	Outdoor Flower	Hoop House Flower	Greenhouse Flower	Greenhouse Nursery
JAN			75	80
FEB			100	80
MAR			75	80
APR	10	20	700	80
MAY	25	50	75	80
JUN	45	100	100	80
JUL	65	50	75	80
AUG	85	100	100	80
SEP	100	50	75	80
OCT	100	100	100	80
NOV		100	75	80
DEC			100	80

Nursery transplants in the hoop house and greenhouse flower operations will reach the maximum canopy area sooner than the outdoor grow because they have smaller and more densely spaced plants. The canopy development for greenhouse nursery is represented as constant but will consist of a mixture of plants from vegetative clones to final transplants with a high plant density.

Effective Precipitation

Rainfall is used to offset some of the water demand in the open canopy outdoor grow. The daily soil moisture budget allows rainfall to accumulate in the soil up to the maximum soil holding capacity for later use by the plants. The amount used is the effective precipitation. Since all water demand in the hoop houses and greenhouses is from applied irrigation, there is no effective precipitation and the soil holding capacity does not affect those water use estimates, although it would affect the irrigation schedule (greater holding capacity needs less frequent watering).



Soil moisture Budget Results

Results of the soil moisture budget are presented in Table 3. An example of the budget calculations is included in Attachment B.

Table 3. Soil Moisture Budget Results

Water use	Canopy Area	Applied Water	
	(square feet)	(feet)	(acre-feet per year)
Outdoor (open canopy)*	114,600-0	1.48	3.89-0
Outdoor (hoop house)*	0-114,600	2.46	0-6.47
Greenhouse flower	22,000	4.61	2.33
Greenhouse nursery	14,412	2.38	0.41
Total			6.6-9.2

*Outdoor may be mixture of open canopy and hoop house with the combined canopy area not to exceed 114,600 square feet.

The total annual water use for cannabis irrigation is estimated at between 6.6 acre-feet and 9.2 acre-feet per year, depending on whether open canopy (lower water use) or hoop houses (higher water use) are used for outdoor cultivation. The applied water per unit of canopy area ranges from 1.48 feet per year for outdoor (open canopy) cultivation to 4.61 feet per year for greenhouse flower cultivation.

Comparison with Other Estimates

2017 Santa Cruz DEIR

Cannabis water use estimates used by the industry and for regulatory planning were summarized in a Draft Environmental Impact Report (DEIR) on commercial cannabis for the County of Santa Cruz⁸. The following excerpt from the DEIR provide values for comparison with this water demand analysis:

For the purposes of analysis in this EIR, water use is estimated based upon a study in Humboldt County by Milewide Nursery that compared outdoor cultivation with a 180-day growing period to a test plot that used a 90-day growing period in a greenhouse.⁹ The study reported that water was used in the greenhouse at a rate of 0.0875 gallons per square foot of canopy per day. In order to account for the fact that some indoor operations will operate at a lower efficiency, the rate used in the analysis in this EIR is rounded up to 0.1 gallons per square foot of canopy per day. For outdoor cultivation, the study reported 0.03 gallons of water used per square foot of canopy per day. This study was selected because it looked at a multi-year average, measured

⁸ County of Santa Cruz, Commercial Cannabis Cultivation and Manufacturing Regulations and Licensing Program, Draft Environmental Impact Report, August 2017.

⁹Humboldt Grower, May 2015 Humboldt County Cannabis Water Use Study, Milewide Nursery.
<https://humboldtgrower.wordpress.com/2015/05/07/may-2015-humboldt-county-cannabis-water-use-study/>



water use for the season per plant, and with study of both indoor and outdoor cultivation. The climate in Humboldt is comparable with many of the microclimates in Santa Cruz County. The study used industry standards (cultivating full-term plants, 6 feet tall, with 99 plants in a garden, with the plants caged and tied vertically) in the outdoor control grow, and applied higher efficiency methods in the indoor test grow.

According to the Milewide Nursery study, 787 gallons were used per plant in the outdoor grow over 180 days, or an average of 4.38 gallons per plant per day (gal/plant-day). The Santa Cruz County DEIR then divided the reported plant water use by the entire 144 square feet of plant growing area (12-foot centers) to calculate a water use of 0.030 gallons per square foot of canopy per day (gal/sfc-day), which is equivalent to 5.4 gallons per square foot of canopy per year (gal/sfc-year) for the 180-day growing season. The DEIR assumed full canopy coverage in the growing area, which the referenced study did not actually report. The study only indicated that 144 square feet of area per plant was needed so the plants did not shade each other. The canopy area would likely be less than the growing area to ensure no shading between plants, which would increase the water use estimate supported by the study. By comparison, the greenhouse water application rate of 0.1 gal/sfc-day would result in up to 36.5 gal/sfc-year for a year-round operation.

2021 Cannabis H₂O Water Use & Sustainability in Cultivation Study

A study on cannabis water use was recently published that reviews three large data sets for water use in greenhouses and outdoor grows¹⁰. The study notes the difficulty of standardizing water use values, especially on a per-plant basis, due to the large variation in cultivation methods. The number of harvests per year, plant sizes, soil conditions, plant density, and scale of production all affect water use.

The three datasets reviewed in the study include a national data set, a California data set, and a Michigan data set. The 2019 Northern California data set contained 618 records covering greenhouses and outdoor farms in Mendocino, Humboldt, Trinity, and Sonoma counties that had received cultivation permits from the state of California. Water use was evaluated for greenhouse flower and outdoor flower on a gal/sfc-year basis for various facility sizes. Table 4 compares the results of the estimated project water demand using the soil moisture budget to the above-referenced industry studies.

¹⁰ New Frontier Data, Resources Innovation Institute, and the Berkeley Cannabis Research Center, 2021, Cannabis H₂O: Water Use & Sustainability in Cultivation.



Table 4. Comparison With Other Water Use Estimates

Cultivation Method	Soil Moisture Budget for Project	2017 Santa Cruz DEIR	2021 Cannabis H ₂ O Study
	Estimated gallons per square foot of canopy area per year (gal/sfc-year)		
Outdoor open canopy	11.0	5.4	6.5 - 20.6
Outdoor hoop house	18.4	--	
Greenhouse flower	34.5	36.5	19.9 - 33
Greenhouse nursery	17.8	--	--

As shown in Table 4, the rate of water use for outdoor/hoop house cultivation for the Eden's Dream LLC project is estimated using the soil moisture budget at 11.0–18.4 gal/sfc-year, compared to 5.4 gal/sfc-year calculated in the Santa Cruz County cannabis program DEIR, and a range of 6.5-20.6 gal/sfc-year reported for the California data set in the Cannabis H₂O study. It should be noted that all of the gal/sfc-year values are dependent on the length of the growing season, and that the growing season for the project is anticipated to range from 200-230 days for outdoor cultivation, and year-round for greenhouse operations.

A greenhouse water use of 34.5 gal/sfc-year estimated for project flower operations using the soil moisture budget is a close match to the Santa Cruz DEIR values (when projected for year-round operations), and slightly higher than the range reported in the Cannabis H₂O study (which may include seasonal greenhouse operations). Overall, the water use numbers developed using the soil moisture budget for Eden's Dream LLC are within the range of other studies.

Summary and Conclusions

A water demand analysis using soil moisture budget methodology with local ETo and rainfall data was performed to estimate the proposed cannabis project applied irrigation water use. Estimated water use will average from 6.6 acre-feet to 9.2 acre-feet per year, depending on the ratio of outdoor open canopy area to outdoor hoop houses (with more hoop houses resulting in greater water use). The estimated rates of water use are in general agreement with prior studies used by the industry.

Respectfully submitted,
CLEATH-HARRIS GEOLOGISTS

Spencer J. Harris, HG 633
Senior Hydrogeologist

attachments



ATTACHMENT A

Rainfall and Evapotranspiration Monthly Averages

San Luis Obispo County Public Works
Recording Rain Station
MONTHLY PRECIPITATION REPORT

Station Name - Templeton # 762

Station Location -

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Longitude - 120° 42' 11"

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Beginning - 2010-2011

Ending - 2019-2020

Station Statistics -

Month	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
Minimum	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average	0.21	0.00	0.01	0.53	1.22	2.05	3.23	2.49	2.68	0.58	0.22	0.04	12.15
Maximum	1.93	0.00	0.04	1.81	4.21	7.87	12.14	7.64	9.06	2.95	0.91	0.35	27.15

Notes -

Record Began 8/25/2010

Monthly Average ETo Report

California Irrigation Management Information System (CIMIS)

Rendered in ENGLISH Units.

Printed on Thursday, July 8, 2021

Average ETo Values by Station

Stn Id	Stn Name	CIMIS Region	Jan (in)	Feb (in)	Mar (in)	Apr (in)	May (in)	Jun (in)	Jul (in)	Aug (in)	Sep (in)	Oct (in)	Nov (in)	Dec (in)	Total (in)
163	Atascadero	CCV	1.74	2.20	3.64	4.82	6.03	6.64	6.94	6.36	4.99	3.60	2.09	1.53	50.58

CIMIS Region Abbreviations		
BIS - Bishop	CCV - Central Coast Valleys	ICV - Imperial/Coachella Valley
LAB - Los Angeles Basin	MBY - Monterey Bay	NCV - North Coast Valleys
NEP - Northeast Plateau	SAV - Sacramento Valley	SBE - San Bernardino
SFB - San Francisco Bay	SJV - San Joaquin Valley	SFH - Sierra Foothill
SCV - South Coast Valleys		



ATTACHMENT B

Example calculations for Soil moisture Budget

Water Holding Capacity (WHC) (in/ft)

3

Active Root Zone Depth (ft)

1.5

WHC of Active Root Zone (in)

4.5

Crop Coefficient (Kc)

Variable

Highlighted rows used for example calculations

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
Day	Month	Reference ET (ETo) CIMIS Sta. 163	Crop Coefficient (Kc)	Crop ET (ETc)	Precipitation+ Irrigation	Water Available from Soil Profile	ETc met by Precipitation + Irrigation	ETc met by Profile	Precip Available for Profile	Soil Moisture Deficit	Monthly Deep Percolation and Runoff	Irrigation Demand	Precip Sta. 762
2016		(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)	(in)
1	October	0.15	0.50	0.075	0.075	0	0.075	0	0	-4.5	0	0.075	0.00
2		0.14	0.50	0.07	0.07	0	0.07	0	0	-4.5	0	0.07	0.00
3		0.13	0.50	0.065	0.065	0	0.065	0	0	-4.5	0	0.065	0.00
4		0.14	0.50	0.07	0.07	0	0.07	0	0	-4.5	0	0.07	0.00
5		0.13	0.50	0.065	0.065	0	0.065	0	0	-4.5	0	0.065	0.00
6		0.15	0.50	0.075	0.075	0	0.075	0	0	-4.5	0	0.075	0.00
7		0.15	0.50	0.075	0.075	0	0.075	0	0	-4.5	0	0.075	0.00
8		0.14	0.50	0.07	0.07	0	0.07	0	0	-4.5	0	0.07	0.00
9		0.14	0.50	0.07	0.07	0	0.07	0	0	-4.5	0	0.07	0.00
10		0.13	0.50	0.065	0.065	0	0.065	0	0	-4.5	0	0.065	0.00
11		0.11	0.50	0.055	0.055	0	0.055	0	0	-4.5	0	0.055	0.00
12		0.11	0.50	0.055	0.055	0	0.055	0	0	-4.5	0	0.055	0.00
13		0.1	0.50	0.05	0.05	0	0.05	0	0	-4.5	0	0.05	0.00
14		0.1	0.50	0.05	0.05	0	0.05	0	0	-4.5	0	0.05	0.00
15		0.03	0.50	0.015	0.015	0	0.015	0	0	-4.5	0	0.015	0.00
16		0.05	0.50	0.025	0.16	0	0.025	0	0.135	-4.365	0	0	0.16
17		0.09	0.50	0.045	0.35	0.135	0.045	0	0.305	-4.06	0	0	0.35
18		0.12	0.50	0.06	0	0.44	0	0.06	0	-4.12	0	0	0.00
19		0.14	0.50	0.07	0	0.38	0	0.07	0	-4.19	0	0	0.00
20		0.14	0.50	0.07	0	0.31	0	0.07	0	-4.26	0	0	0.00
21		0.12	0.50	0.06	0	0.24	0	0.06	0	-4.32	0	0	0.00
22		0.11	0.50	0.055	0	0.18	0	0.055	0	-4.375	0	0	0.00
23		0.09	0.50	0.045	0	0.125	0	0.045	0	-4.42	0	0	0.00
24		0.09	0.50	0.045	0	0.08	0	0.045	0	-4.465	0	0	0.00
25		0.1	0.50	0.05	0.015	0.035	0.015	0.035	0	-4.5	0	0.015	0.00
26		0.1	0.50	0.05	0.05	0	0.05	0	0	-4.5	0	0.05	0.00
27		0.04	0.50	0.02	0.51	0	0.02	0	0.49	-4.01	0	0	0.51
28		0.05	0.50	0.025	0.56	0.49	0.025	0	0.535	-3.475	0	0	0.56
29		0.09	0.50	0.045	0.23	1.025	0.045	0	0.185	-3.29	0	0	0.23
30		0.04	0.50	0.02	0	1.21	0	0.02	0	-3.31	0	0	0.00
31		0.06	0.50	0.03	0	1.19	0	0.03	0	-3.34	0	0	0.00

Sample Calculations:
Daily Soil-Moisture Budget

NOTE: This is a tool developed to assist with estimating water demand and is not an irrigation schedule.

[A], [B]: Day and month used for sample calculation: **October 15, 2016**

[C]: $ET_o = 0.03$ inches

[D]: $K_c = 0.50$

[E]: $ET_c = ET_o * K_c = 0.015$ inches

[F]: Precipitation + Irrigation = **[N]** + **[M]** = 0 inches + 0.015 inches = 0.015 inches

[G]: Water Available from Soil Profile = WHC of active root zone (4.5 inches) + soil moisture deficit on October 14, 2016 (-4.5 inches) = 0 inches

[H]: ET_c Met by Precipitation + Irrigation = **[E]** OR **[F]**, whichever is smaller. In this case **[E]** = **[F]**, so **[H]** = 0.015 inches

[I]: ET_c Met by Profile = **[G]** OR (**[E]** - **[H]**), whichever is smaller, in this case **[E]** - **[H]** = **[G]** = 0 inches

[J] Precip Available for Profile = **[F]** - **[H]** = 0.015 inches - 0.015 inches = 0 inches

[K] Soil Moisture Deficit = whichever is greater between (a) -WHC (-4.5 inches) and (b) minimum of either (c) 0 inches or (d) October 14 Soil Moisture Deficit (-4.5 inches) - **[I]** (0 inches) + **[J]** (0 inches) = -4.5 inches. In this case (d) is less than (c) and equal to (a), therefore **[K]** = (d) = -4.5 inches

[L] Monthly Deep Percolation and Runoff = whichever is greater between (a) 0 inches and (b) Oct 14 Soil Moisture Deficit (-4.5 inches) + **[J]** (0 inches) = -4.5 inches, therefore **[L]** = 0 inches

[M] Irrigation Demand = **[E]** - **[N]** - **[G]** if greater than zero, otherwise 0 inches. In this case **[M]** = 0.015 inches

[N] Precipitation = 0 inches

A], [B]: Day and month used for sample calculation: **October 25, 2016**

[C]: $ET_o = 0.1$ inches

[D]: $K_c = 0.50$

[E]: $ET_c = ET_o * K_c = 0.05$ inches

[F]: Precipitation + Irrigation = **[N]** + **[M]** = 0 inches + 0.015 inches = 0.015 inches

[G]: Water Available from Soil Profile = WHC of active root zone (4.5 inches) + soil moisture deficit on October 24, 2016 (-4.465 inches) = 0.035 inches

[H]: ET_c Met by Precipitation + Irrigation = **[E]** OR **[F]**, whichever is smaller. In this case **[F]** < **[E]**, so **[H]** = **[F]** = 0.015 inches

[I]: ET_c Met by Profile = **[G]** OR (**[E]** - **[H]**), whichever is smaller, in this case **[G]** = **[E]** - **[H]** = 0.015 inches

[J] Precip Available for Profile = **[F]** - **[H]** = 0.015 inches - 0.015 inches = 0 inches

[K] Soil Moisture Deficit = whichever is greater between (a) -WHC (-4.5 inches) and (b) minimum of either (c) 0 inches or (d) October 24 Soil Moisture Deficit (-4.465 inches) - **[I]** (0.035 inches) + **[J]** (0 inches) = -4.5 inches. In this case (d) is less than (c) and same as (a), therefore **[K]** = (d) = (a) = -4.5 inches

[L] Monthly Deep Percolation and Runoff = whichever is greater between (a) 0 inches and (b) Oct 24 Soil Moisture Deficit (-4.465 inches) + **[J]** (0 inches) = -4.465 inches, therefore **[L]** = 0 inches

[M] Irrigation Demand = **[E]** - **[N]** - **[G]** if greater than zero, otherwise 0 inches. In this case **[M]** = 0.015 inches

[N] Precipitation = 0 inches

Initial Study – Environmental Checklist

APPENDIX D

Well Pump Test



**Filipponi &
Thompson
Drilling Inc.**

State License No. C57 432680
P.O. BOX 845
ATASCADERO, CA 93423
805-466-1271

PUMP INSTALLATION REPORT

Name Carriage Vineyards, LLC / Larry Smyth Date 1/10/2007
Address 4337 So. El Pomar Templeton CA 93465 Code 29
Location 4337 S. El Pomar - Templeton Well # 1 Phone 226-9969

PUMP

Make Grundfos Model # 40S50-15
H.P. 5 Serial # P10637US712 Voltage 220
Pipe size 2" Type Galv + pvc SCH 120 SS COUP Wire size 8/3 Type Twist Stranded
Depth Setting *305' (6/23/15) Well Seal 6x2 Check Valve Top of Pump
Motor Date 06K18-18-1810 Motor Model # 2243035202
Motor Serial # 334517922 Safety Rope No
Booster Pump Make Goulds (2)*** Model # 1.5 HP-CT-35 (6/24/10)
Booster Pump Make ARROW MOTOR Model # CT 35 (VINEYARD BOOSTER)

Misc. *** 5 HP 45HB15 Installed 7/29/14

** Pump lowered to 294' from 252' 6/10/09

*** 200' DROP PIPE PVC SCH 120 SS COUP (6/23/15)- 105' GALV. EXISTING

LARRY'S HOUSE BOOSTER IS IN TANK - 1 HP, 20 GPM, STARITE

CONTROL

Control box 5 HP Make Franklin
Pressure Switch Goulds On 40 Lbs. Off 60 Lbs.
Liquid Level SynCom 77C - 5HP Booster Installed 7/24/09 High
Relief Valve Well Head Make Setting 75#
Pump Panel Make Voltage Mag Size
Heater/Overload Fuses

There is 8500 Gal more 1 put in

Storage

Size (1) 15,000 & (1) 3,000* Galv ☒ Poly ☐ Fiberglass ☐
Pressure Tank Make Size Model
Misc. * 3,000 gallon tank installed 04/18/07 by 29 & Art

WELL

Casing Size 6" Type PVC
Depth To Water 182.7' (5/16/17) To Bottom 327'
G.P.M. @ Tested By

State of California
Well Completion Report
WCR Form Submitted 04/12/2017
WCR2017-001088

Owner's Well Number 2 Date Work Began 04/05/2017 Date Work Ended 04/07/2017
Local Permit Agency San Luis Obispo County Environmental Health Services
Secondary Permit Agency _____ Permit Number 2016-326 Permit Date 11/23/2016

Well Owner (must remain confidential pursuant to Water Code 13752)

Name CARRIAGE VINEYARDS LLC
Mailing Address 4337 SOUTH EL POMAR
City TEMPLETON State CA Zip 93485

Planned Use and Activity

Activity New Well
Planned Use Water Supply Domestic

Well Location

Address 4337 S EL POMAR RD APN 034-321-003
City TEMPLETON Zip 93485 County San Luis Obispo Township _____
Latitude 35 31 41.88 N Longitude -120 37 8.39 W Range _____
Deg. Min. Sec. Deg. Min. Sec. Section _____
Dec. Lat. _____ Dec. Long. _____ Baseline Meridian _____
Vertical Datum _____ Horizontal Datum WGS84 Ground Surface Elevation _____
Location Accuracy _____ Location Determination Method _____ Elevation Accuracy _____
Elevation Determination Method _____

Borehole Information

Orientation Vertical Specify _____
Drilling Method Direct Rotary Drilling Fluid Bentonite
Total Depth of Boring 499 Feet
Total Depth of Completed Well 499 Feet

Water Level and Yield of Completed Well

Depth to first water _____ (Feet below surface)
Depth to Static _____
Water Level 194 (Feet) Date Measured 04/07/2017
Estimated Yield* 80 Test Type Air Lift
Test Length 2 Total Drawdown _____ (Feet)
*May not be representative of a well's long term yield.



**Pacific Gas and
Electric Company**

**PACIFIC GAS AND ELECTRIC COMPANY
ELECTRIC DETAIL OF BILL**
Service Dates: January 04,2018 to February 04,2018



NEMS True-Up
Bill Protection NEM PDP: Dec 2017 to Nov 2018

SMYTH,LARRY D
4337 S EL POMAR RD
TEMPLETON, CA. 93465

Rate Schedule: A1X/NEMS
Account ID: 9268806135
Service ID: 9268806742

PAGE 2

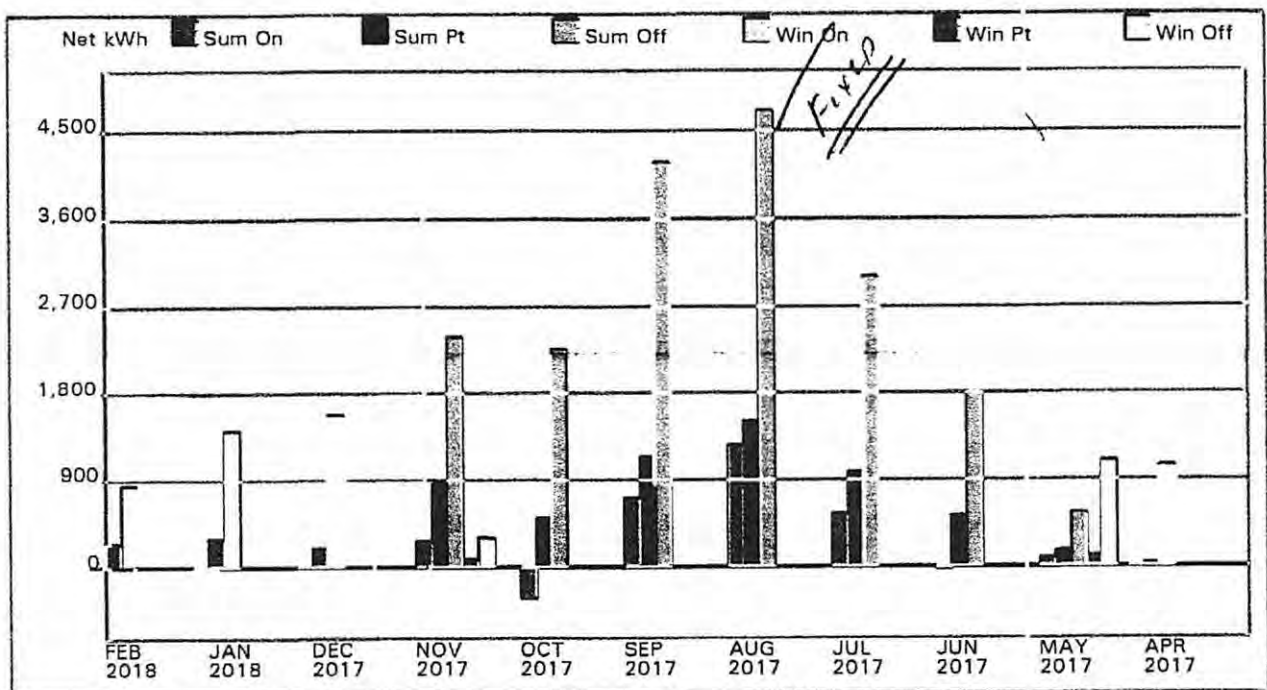
CURRENT MONTH METER INFORMATION

CHANNEL ID	METER BADGE	PRIOR READ DATE	CURRENT READ DATE	PRIOR READ TIME	CURRENT READ TIME	USAGE (kWH)
0161580902A	1009869046	01/04/18	02/04/18	24:00	24:00	1,982
0161580902C	1009869046	01/04/18	02/04/18	24:00	24:00	-894
TOTAL						1,088

ENERGY TRUE-UP HISTORY:

BILLING MONTH	BILL TO DATE	SUMMER ON	SUMMER PART	SUMMER OFF	WINTER PART	WINTER OFF	TOTAL ENERGY	ENERGY CHARGES /CREDITS*
FEB 2018	02/04/18				241	847	1,088	\$223.38
JAN 2018	01/04/18				287	1,409	1,696	\$345.21
DEC 2017	12/05/17				188	1,574	1,762	\$356.07
NOV 2017	11/06/17	262	857	2,399	81	297	3,896	\$860.79
OCT 2017	10/05/17	-328	499	2,267			2,438	\$514.42
SEP 2017	09/06/17	713	1,129	4,175			6,017	\$1,344.41
AUG 2017	08/06/17	1,252	1,498	4,701			7,451	\$1,686.40
JUL 2017	07/06/17	538	972	2,998			4,508	\$1,010.91
JUN 2017	06/06/17	-34	520	1,793			2,279	\$496.23
MAY 2017	05/07/17	85	153	546	104	1,084	1,972	\$414.53
APR 2017	04/05/17				26	1,036	1,062	\$212.78
MAR 2017	03/07/17				222	1,190	1,412	\$282.21
TOTALS							35,581	\$7,747.34

*Energy Charges/Credits (-) include all energy related amounts and taxes.



3/1/18

Initial Study – Environmental Checklist

APPENDIX E

Energy Demand Analysis



1411 Marsh Street, Suite 109
San Luis Obispo, CA 93401
(805) 235-6355

Revised June 8, 2023

~~November 19, 2020~~

C/O Ian McCarville
Kirk Consulting

Elizabeth Ross
4339 El Pomar Road
Templeton, California 93465
elizabethr@edenhouse.com
305-509-2670

RE: Eden's Dream – Energy Demand Analysis

To Whom it May Concern,

This letter is in reference to the proposed cannabis facility to be located at 4339 South El Pomar Road, Templeton, CA 93465.

Estimated energy use for the facility was based on the ownership's program, corresponding conceptual site design, and detailed equipment inventory and use schedule as provided by Kirk Consulting on behalf of the project owner. The energy estimate of the proposed building was compared to a baseline energy use of *a generic commercial building* per the attached guideline (Attachment A); the proposed building is estimated to need more energy than baseline. See below for the results of the comparison.

Table A. Proposed Energy Use Compared to Baseline

	Proposed Energy Use (kWh/yr)	Baseline Energy Use 21.25 kWh/sf (kWh/yr)
	1,379,242	966,450
Estimated Increase	42.7%	



Basis of Calculations

The energy use calculations for this project are based on the indoor facilities designated for cultivation, processing, administration and security – a total area of 45,480 sf. The energy use estimate is based on anticipated equipment and schedules of operation.

The project includes two 280,000btu gas-fired room heaters, assumed to meet the 2019 Title 20 appliance efficiency standards requirement for Warm-Air unit heaters, Gas-Fired of 81% combustion efficiency. The estimated propane consumption input of each heater is 345,600btuh. Applying the supplied use schedule and conversion factor to kWh, the units are estimated to use 107,367kWh annually.

The lighting use schedule is reflective of the ownership's program and takes advantage of industry leading LED fixtures for both working and growing applications. The project has broken out the LED Grow Lights (1,000 watt/fixture) and the typical operational lighting (60 watt/fixture). The operational fixtures are to be operated 6 hours a day year-round, and the grow lights between 2 hours and 1 hour per day depending on the season.

The indoor cultivation & nursery spaces are each conditioned by evaporative coolers, five in each space for a total of ten in the project. The ventilation (including odor control), water pumping and hot water process equipment is assumed to be all electric per ownership program and follows typical operational schedules for a normal year, provided to us by the operations staff.

The project will take advantage of a grid tied solar array, sized to offset 50% of the estimated energy use for the project. At this phase of the project, we estimate that to be a near 400 kWdc system. The remainder of site electricity will be offset by permanently sourcing energy from a clean energy source by enrolling PG&E's Solar Choice program or Regional Renewable Choice program or other comparable public or private program.

See Table B below for a breakdown of predicted energy end-use. The predicted energy use is expected to be well below that of a *generic commercial building(s)*.

Sincerely,



Jennifer Rennick, AIA, CEA NR19-06-10003
Principal
jennifer@inbalancegreen.com

Table B. Estimated Energy Use per Equipment Type and Operational Use Schedule for a Typical Year

Eden's Dream - Annual Estimated Energy Demand Breakdown

			LED Grow Light	In Line Fan	Canarm Exhaust Fan with Aluminum Louver Shutter - 24"	24" Vosterman Circulator Fan	Leader Ecotronic 130, Pump - 1260 GPH	280k BTU Gas Fired Space Heater	Evaporative Through-Wall Cooler	Quest Dual 225 Dehumidifier	Fixture Lamp	
Quantity/Building	(N) 35,500 SF Greenhouse	Indoor Cultivation 27,500 SF	555	12	70	150	14	1	10	40	125	
		Ancillary Nursery 6,875 SF	225	5	20	45	6	1	5	12	25	
		Storage 1,125 SF	0	0	0	0	0	0	0	0	10	
	(N) 9,000 SF Metal Structure	Ancillary Processing 7,500 SF	0	20	0	0	0	0	0	0	15	30
		Storage 1,150 SF	0	2	0	0	0	0	0	0	0	12
		Office 200SF	0	0	0	0	0	0	0	0	0	5
		RR/Circulation 150 SF	0	0	0	0	0	0	0	0	0	4
	(N) 980 SF Metal Structure	Ancillary Processing 980 SF	0	5	0	0	0	0	0	0	2	22
Total Quantity		780	44	90	195	20	2	15	69	233		
Voltage		240	120	230	240	115			240	115		
Amperage		2.6	2.5	2.2	2	13			6.9			
Wattage/device		1000	300	506	250	1250	345600	373	1500	60		
Total Wattage		780000	13200	45540	48750	25000	691200	5595	103500	13980		
Hr/month of usage	Jan		60	700	360	360	5	120	0	240	180	
	Feb		60	700	360	360	5	120	0	240	180	
	Mar		60	700	360	360	5	40	0	240	180	
	Apr		30	700	360	360	5	0	0	240	180	
	May		30	700	360	360	5	0	0	240	180	
	Jun		30	700	360	360	5	0	120	240	180	
	Jul		30	700	360	360	5	0	120	240	180	
	Aug		30	700	360	360	5	0	120	240	180	
	Sep		30	700	360	360	5	0	120	240	180	
	Oct		60	700	360	360	5	10	0	240	180	
	Nov		60	700	360	360	5	120	0	240	180	
	Dec		60	700	360	360	5	120	0	240	180	
kWh/year		421,200	110,880	196,733	210,600	1,500	107,367	2,686	298,080	30,197		
		Total kWh/year									1,379,242	
Source or utility name		Expected kWh drawn annually										
PG&E/Solar		1,379,242										
Total Annual kWh		1,379,242										



May 21, 2020

Memorandum

TO: Eric Hughes, Steve McMasters
FROM: Dave Moran, DLM
SUBJECT: Threshold of Significance for Energy Use

What follows is a brief explanation of the terminology, sources and approach for determining the threshold of significance for energy use.

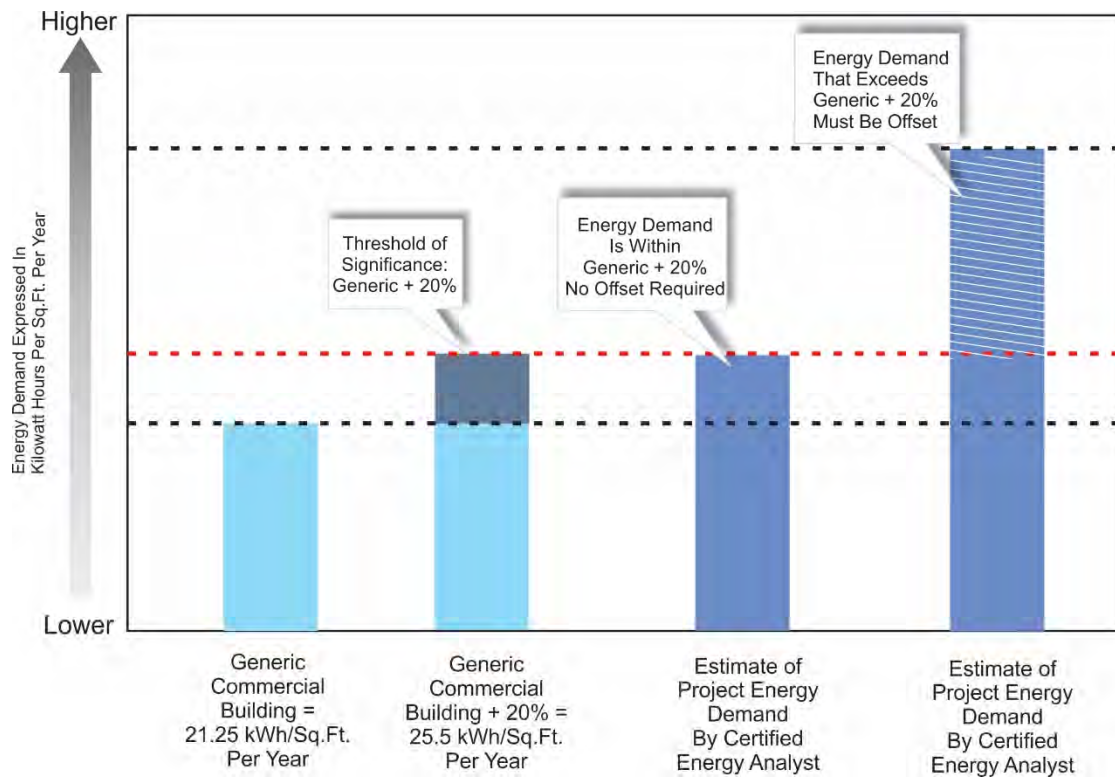
The energy section of the County's Initial Study checklist states the following:

A cannabis project would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during operation if it utilizes significantly more energy (>20%) than a generic commercial building of the same size. Based on the California Energy Commission Report prepared by Itron, Inc, (March 2006), a generic commercial building utilizes 21.25 kWh/sf annually (13.63 kWh from electricity and 7.62 kWh from natural gas).

"Generic commercial building" is essentially shorthand for: *the average energy demand intensity for all commercial uses, measured in kWh/sq.ft./year, reported in the 2006 California Commercial End-Use Survey prepared for the California Energy Commission* (the most recent comprehensive data set we could find for commercial energy use in California). For electricity, this figure is found in Table E-3 and is 13.63 kWh/sq.ft./year. For natural gas the figure is found in Table E-5: 26.00 kBTU/sq.ft./year which translates to about 7.54 kWh/sq.ft./year. Add these two together and you get 21.25 kWh/sq.ft. per year.

Although "generic" may an unfortunate choice of terms, the County uses this factor to define a threshold of significance for CEQA compliance. Specifically, a project that consumes more than 20% of this average ($21.25 \times 1.2 = 25.5$ kWh/sq.ft./year) is deemed to be using energy in a *...wasteful, inefficient or unnecessary manner...* based on the assumption that a "generic commercial building" (in this case, a building that that does not use high intensity grow lights) employs the full range of energy efficiencies required by the California Building Code.

If our preliminary estimate of energy demand indicates project energy use will exceed this threshold, the project is required to prepare and implement a conservation plan prepared by a certified energy analyst to offset or reduce that portion of their energy demand that exceeds this "generic + 20%" threshold. The following graphic illustrates this approach:



Why is the threshold “generic + 20%”? A few reasons:

- The 2006 End User Survey includes a wide range of commercial endeavors with a correspondingly wide range of energy use intensities (the standard deviation is around 11 kWh/sq.ft./year). Not surprisingly, the list does not include indoor cultivation (let alone indoor cannabis cultivation). The “generic + 20%” is a way to account for the wide range of use factors and the absence of a use category that closely corresponds to indoor cultivation.
- It’s quantifiable (ie, 25.5 kWh/sq.ft./year).
- It’s reasonable. If energy use can be reduced to within 20% of the energy use associated with a comparably sized commercial building employing the full range of energy efficiencies, it is arguably not using energy in a wasteful, inefficient, or unnecessary manner.

It should be noted that the data for energy use intensity is over 14 years old and is almost certainly (hopefully?) higher than the average in 2020. Nonetheless, these are the most recent data we have. The higher threshold may be somewhat easier to achieve.

Initial Study – Environmental Checklist

APPENDIX F

Air Quality, Greenhouse Gas, and Noise Impacts Study

October 5, 2023

Ms. Elizabeth Ross
Eden's Dream, LLC
4339 South El Pomar Road
Templeton, CA 93465
Work: (305) 797-0109
E-mail: Elizabeth@EdenHouse.com

Subject: Air Quality, Greenhouse Gas, and Noise Impacts Study for a Cannabis Cultivation Project in Templeton, CA

Dear Ms. Ross:

Yorke Engineering, LLC (Yorke) is pleased to provide this Air Quality (AQ), Greenhouse Gas (GHG), and Noise Impacts Letter Report. This AQ/GHG Letter Report includes CalEEMod emissions estimates, criteria pollutant analysis, GHG analysis, and noise analysis for Cannabis Cultivation Project in the city of Templeton, CA (the City). These evaluations will support a CEQA Categorical Exemption, Initial Study (IS), Negative Declaration (ND), or a Mitigated Negative Declaration (MND), as applicable.

PROJECT DESCRIPTION

Eden's Dream is proposing to develop an indoor cannabis cultivation project located at 4339 South El Pomar Road [Assessor's Parcel Number (APN) 034-321-003] in Templeton, CA, an unincorporated community in San Luis Obispo County (the County), which is within the San Luis Obispo Air Pollution Control District (SLOAPCD). Eden's Dream is proposing to construct a 35,500-square-foot (sq. ft.) indoor cultivation greenhouse consisting of 27,500 sq. ft. of indoor cultivation area (22,000 sq. ft. of canopy), 6,875 sq. ft. of ancillary nursery area (5,500 sq. ft. of canopy), and 1,125 sq. ft. of storage, a 9,000-sq.-ft. metal barn-like structure consisting of 7,500 sq. ft. of ancillary processing, 1,150 sq. ft. of storage, 200 sq. ft. of office, and 150 sq. ft. of restroom/circulation, and a 980-sq.-ft. metal barn-like structure for ancillary processing and Americans with Disabilities Act (ADA) accessible restrooms. The project also proposes the use of a compost area, dumpsters, portable restrooms, water storage tanks, and parking spaces to support the proposed operation. The project will result in approximately 1.07 acres of ground disturbance in pre-disturbed and developed areas.

The project would use approximately 1.38 million kilowatt-hours per year (kWh/yr) of electric power according to the most recent energy demand analysis by In-Balance Green Consulting (June 8, 2023). A trip generation analysis conducted by Orosz Engineering Group (May 25, 2023) estimated that the project would generate approximately 48 daily trips, with seven weekday p.m. peak hour trips comprising two inbound trips and five outbound trips.

DATA SOURCES AND ASSUMPTIONS

The following lists sources of information used in developing the emission estimates for the proposed Project using the California Emissions Estimator Model[®] (CalEEMod). Not all CalEEMod defaults are listed, but some defaults which have a particularly important impact on the project are listed.

- The Applicant defined:
 - Basic project design features including size of the proposed project site;
 - Electricity and Natural Gas usage from Energy Demand Analysis will be used;
 - Low VOC paints will be used; and
 - During construction, any exposed soil will be watered two times a day.
- CalEEMod defaults were used for:
 - Construction equipment count, load factor, and fleet average age; and
 - Architectural coating areas;
 - Operational vehicle fleet mixes; and
 - Average vehicle trip distances.
- Assumptions:
 - All land use will be under “Light Industrial”

LIST OF TABLES

The project analyses and results are summarized in the following tables:

- Table 1: Land Use Data for CalEEMod Input
- Table 2: SLOAPCD CEQA Thresholds of Significance for Construction Emissions
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AIR QUALITY AND GREENHOUSE GAS IMPACTS ANALYSES

In order to evaluate the potential for Air Quality and Greenhouse Gas impacts of a proposed project, quantitative significance criteria established by the local air quality agency, such as the SLOAPCD, may be relied upon to make significance determinations based on mass emissions of criteria pollutants and GHGs, as presented in this report. As shown below, approval of the project would not result in any significant effects relating to air quality or greenhouse gases.

Project Emissions Estimation

The construction and operation analysis were performed using CalEEMod version 2022.1.1.16, the official statewide land use computer model designed to provide a uniform platform for estimating potential criteria pollutant and GHG emissions associated with both construction and operations of land use projects under CEQA. The model quantifies direct emissions from construction and operations (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. The mobile source emission factors used in the model – published by the California Air Resources Board (CARB) – include the Pavley standards and Low Carbon Fuel standards. The model also identifies project design features, regulatory measures, and control measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from the selected measures. CalEEMod was developed by the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the AVAQMD, the South Coast Air Quality Management District (SCAQMD), the Bay Area Air Quality Management District (BAAQMD), the San Joaquin Valley Air Pollution Control District (SJVAPCD), and other California air districts. Default land use data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) were provided by the various California air districts to account for local requirements and conditions. As the official assessment methodology for land use projects in California, CalEEMod is relied upon herein for construction and operational emissions quantification, which forms the basis for the impact analysis.

Based on information received from the Applicant, land use data for CalEEMod input is presented in Table 1. The SLOAPCD quantitative significance thresholds for construction and operation emissions shown in Table 2 and Table 3 were used to evaluate project emissions impacts (SLOAPCD 2023).

Table 1: Land Use Data for CalEEMod Input						
Project Element	CalEEMod Land Use Type	CalEEMod Land Use Subtype	Unit Amount	Size Metric	Lot Acreage (footprint)	Square Feet (est.)
Greenhouse, storage space, and ancillary processing	Industrial	General Light Industry	46.615	1,000 sq. ft.	1.07	46,615
Project Site					1.07	46,615

Source: Applicant 2023, CalEEMod version 2022.1.1.16

Notes:

Electric Utility: Pacific Gas & Electric Company

Gas Utility: Southern California Gas

Table 2: SLOAPCD CEQA Thresholds of Significance for Construction Emissions			
Pollutant	Threshold		
	Daily	Quarterly Tier 1	Quarterly Tier 2
ROG + NO _x (combined)	137 lbs	2.5 tons	6.3 tons
Diesel Particulate Matter (DPM)	7 lbs	0.13 tons	0.32 tons
Fugitive particulate Matter (PM ₁₀), Dust	-	2.5 tons	-
Greenhouse Gases (CO ₂ e)	See Table 3		

Source: SLOAPCD 2023

Table 3: SLOAPCD CEQA Thresholds of Significance for Operation Emissions		
Pollutant	Threshold	
	Daily	Annual
Ozone Precursors (ROG + NO _x)	25 lbs/day	25 tons/year
Diesel Particulate Matter (DPM)	1.25 lbs/day	-
Fugitive particulate Matter (PM ₁₀), Dust	25 lbs/day	25 tons/year
CO	550 lbs/day	-
Greenhouse Gases (CO ₂ e)	880 MT/yr and 4.0 MT/SP/yr (2025) Annual operation + 30-year amortized construction emissions	

Source: SLOAPCD 2023

Mitigation of construction activities is required when the emission thresholds are equaled or exceeded by fugitive and/or combustion emissions.

For exceedances of the Quarterly Tier 1 threshold, Standard Mitigation Measures and Best Available Control Technology (BACT) for construction equipment. Off-site mitigation may be required if feasible mitigation measures are not implemented, or if no mitigation measures are feasible for the project. For exceedances of the Quarterly Tier 2 threshold, Standard Mitigation Measures, BACT, implementation of a Construction Activity Management Plan (CAMP) and off-site mitigation are required.

Criteria Pollutants from Project Construction

A project's construction phase produces many types of emissions, but PM₁₀ (including PM_{2.5}) in fugitive dust and diesel engine exhaust are the pollutants of greatest concern. Fugitive dust emissions can result from a variety of construction activities, including excavation, grading, demolition, vehicle travel on paved and unpaved surfaces, and vehicle exhaust. Construction-related emissions can cause substantial increases in localized concentrations of PM₁₀, as well as affecting PM₁₀ compliance with ambient air quality standards on a regional basis. Particulate emissions from construction activities can lead to adverse health effects as well as nuisance concerns such as reduced visibility and soiling of exposed surfaces. The use of diesel-powered construction equipment emits ozone precursors oxides of nitrogen (NO_x) and reactive organic gases (ROG), and diesel particulate matter (DPM), the latter being a composite of toxic air contaminants (TACs) containing a variety of hazardous substances. Large construction projects using multiple large earthmoving equipment are evaluated to determine if operations may exceed

the District's daily threshold for NO_x emissions and could temporarily expose area residents to hazardous levels of DPM. Use of architectural coatings and other materials associated with finishing buildings may also emit ROG and TACs. CEQA significance thresholds address the impacts of construction activity emissions on local and regional air quality. Thresholds are also provided for other potential impacts related to project construction, such as odors and TACs.

The SLOAPCD's approach to CEQA analyses of fugitive dust impacts is to require implementation of effective and comprehensive dust control measures rather than to require detailed quantification of emissions. PM₁₀ emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors, making quantification difficult. Despite this variability in emissions, experience has shown that there are several feasible control measures that can be reasonably implemented to significantly reduce fugitive dust emissions from construction. For larger projects, the SLOAPCD has determined that compliance with an approved fugitive dust control plan comprising Best Management Practices (BMPs), primarily through frequent water application, constitutes sufficient control to reduce PM₁₀ impacts to a level considered less than significant.

Criteria Pollutants from Project Operation

The term "project operations" refers to the full range of activities that can or may generate criteria pollutant, GHG, and TAC emissions when the project is functioning in its intended use. For projects, such as office parks, shopping centers, apartment buildings, residential subdivisions, and other indirect sources, motor vehicles traveling to and from the project represent the primary source of air pollutant emissions. For industrial projects and some commercial projects, equipment operation and manufacturing processes, i.e., permitted stationary sources, can be of greatest concern from an emissions standpoint. CEQA significance thresholds address the impacts of operational emission sources on local and regional air quality. Thresholds are also provided for other potential impacts related to project operations, such as odors.

Results of Criteria Emissions Analyses

Table 4 shows unmitigated and mitigated criteria emissions for each construction phase.

Table 5 shows unmitigated and mitigated criteria construction emissions and evaluates mitigated emissions against SLOAPCD significance thresholds.

Table 6 shows unmitigated and mitigated criteria operational emissions and evaluates mitigated emissions against SLOAPCD significance thresholds.

As shown in Tables 5 and 6, mass emissions of criteria pollutants from construction and operation are below applicable SLOAPCD significance thresholds.

PROJECTED IMPACT: Less Than Significant (LTS)

Table 4: Construction Emissions by Phase

Construction Phases	CalEEMod Duration (days)	ROG + NOX (combined)				Diesel Particulate Matter (DPM)				Fugitive particulate Matter (PM10), Dust			
		Unmitigated		Mitigated		Unmitigated		Mitigated		Unmitigated		Mitigated	
		Maximum Daily Rate (lbs/day)	Quarterly Emissions (tons/qtr)	Maximum Daily Rate (lbs/day)	Quarterly Emissions (tons/qtr)	Maximum Daily Rate (lbs/day)	Quarterly Emissions (tons/qtr)	Maximum Daily Rate (lbs/day)	Quarterly Emissions (tons/qtr)	Maximum Daily Rate (lbs/day)	Quarterly Emissions (tons/qtr)	Maximum Daily Rate (lbs/day)	Quarterly Emissions (tons/qtr)
Demolition	20	17.28	0.17	17.28	0.17	0.67	0.01	0.67	0.01	0.07	0.001	0.07	0.001
Site Preparation	2	15.17	0.02	15.17	0.02	0.65	0.001	0.65	0.001	6.31	0.01	2.49	0.002
Grading	4	17.61	0.04	17.61	0.04	0.74	0.001	0.74	0.001	7.14	0.01	2.82	0.01
Building Construction	200	10.99	0.49	10.99	0.49	0.37	0.02	0.37	0.02	0.16	0.01	0.16	0.01
Paving	10	5.52	0.03	5.52	0.03	0.23	0.001	0.23	0.001	0.07	0.0004	0.07	0.0004
Architectural Coating	10	109.13	0.55	109.13	0.55	0.03	0.0002	0.03	0.0002	0.02	0.0001	0.02	0.0001

Sources: SLOAPCD 2023, CalEEMod version 2022.1.1.16

Notes:

Mitigation of construction activities is required when the emission thresholds are equaled or exceeded by fugitive and/or combustion emissions
 lbs/day are winter or summer maxima for planned land use

Table 5: Construction Emissions Summary and Significance Evaluation								
Pollutants	Unmitigated		Mitigated		Threshold			Significance
	Daily (lbs/day)	Quarterly (tons/qtr)	Daily (lbs/day)	Quarterly (tons/qtr)	Daily (lbs/day)	Quarterly Tier 1 (tons/qtr)	Quarterly Tier 2 (tons/qtr)	
ROG + NO _x (combined)	109.13	0.55	109.13	0.55	137	2.5	6.3	LTS
Diesel Particulate Matter (DPM)	0.74	0.02	0.74	0.02	7	0.13	0.32	LTS
Fugitive particulate Matter (PM ₁₀), Dust	7.14	0.01	2.82	0.01	-	2.5	-	LTS

Sources: SLOAPCD 2023, CalEEMod version 2022.1.1.16

Notes:

lbs/day are winter or summer maxima for planned land use

LTS - Less Than Significant

Table 6: Operational Emissions Summary and Significance Evaluation							
Pollutants	Unmitigated		Mitigated		Threshold		Significance
	Daily (lbs/day)	Annual (tons/yr)	Daily (lbs/day)	Annual (tons/yr)	Daily (lbs/day)	Annual (tons/yr)	
Ozone Precursors (ROG + NO _x)	2.03	0.37	2.03	0.37	25	25	LTS
Diesel Particulate Matter (DPM)	0.01	0.002	0.01	0.002	1.25	-	LTS
Fugitive particulate Matter (PM ₁₀), Dust	0.13	0.02	0.13	0.02	25	25	LTS
CO	2.95	0.54	2.95	0.54	550	-	LTS

Sources: SLOAPCD 2023, CalEEMod version 2022.1.1.16

Notes:

lbs/day are winter or summer maxima for planned land use

LTS - Less Than Significant

Greenhouse Gas Emissions from Construction and Operation

Greenhouse gases – primarily carbon dioxide (CO₂), methane (CH₄), and nitrous (N₂O) oxide, collectively reported as carbon dioxide equivalents (CO₂e) – are directly emitted from stationary source combustion of natural gas in equipment such as water heaters, boilers, process heaters, and furnaces. GHGs are also emitted from mobile sources such as on-road vehicles and off-road construction equipment burning fuels such as gasoline, diesel, biodiesel, propane, or natural gas (compressed or liquefied). Indirect GHG emissions result from electric power generated elsewhere (i.e., power plants) used to operate process equipment, lighting, and utilities at a facility. Also, included in GHG quantification is electric power used to pump the water supply (e.g., aqueducts, wells, pipelines) and disposal and decomposition of municipal waste in landfills. (CARB 2022)

California's Building Energy Efficiency Standards are updated on an approximately three-year cycle. The 2022 standards improved upon the 2019 standards for new construction of, and

additions and alterations to, residential, commercial, and industrial buildings. The 2022 standards went into effect on January 1, 2023 (CEC 2022).

Since the Title 24 standards require energy conservation features in new construction (e.g., high-efficiency lighting, high-efficiency heating, ventilating, and air-conditioning (HVAC) systems, thermal insulation, double-glazed windows, water conserving plumbing fixtures, etc.), they indirectly regulate and reduce GHG emissions.

Using CalEEMod, direct onsite and offsite GHG emissions were estimated for construction and operation, and indirect offsite GHG emissions were estimated to account for electric power used by the proposed Project, water conveyance, and solid waste disposal.

Results of Greenhouse Gas Emissions Analyses

Table 7 shows unmitigated and mitigated GHG emissions and evaluates mitigated emissions against applicable SLOAPCD significance thresholds for the 2025 operational year. Operational reduction measures incorporate typical code-required water conservation features. Off-site traffic impacts are included in these emissions estimates, along with construction emissions amortized over 30 years.

PROJECTED IMPACT: Less Than Significant (LTS)

Table 7: Greenhouse Gas Emissions Summary and Significance Evaluation				
Greenhouse Gases	Unmitigated (MT/yr)	Mitigated (MT/yr)	Threshold (MT/yr)	Significance
CO ₂	186.02	186.02	—	—
CH ₄	0.89	0.89	—	—
N ₂ O	0.01	0.01	—	—
R	2.06	2.06	—	—
CO ₂ e	214.15	214.15	880	LTS

Sources: SLOAPCD 2023, CalEEMod version 2022.1.1.16

Notes:

Comprises annual operational emissions plus construction emissions amortized over 30 years

LTS - Less Than Significant

NOISE IMPACTS ANALYSES

Noise Analysis Methodology

The screening-level noise analysis for project construction was completed based on methodology developed by the U.S. Department of Transportation Federal Highway Administration (DOT FHWA) at the John A. Volpe National Transportation Systems Center and other technical references consistent with CalEEMod™ outputs (equipment utilization). The DOT FHWA methodology uses actual noise measurement data collected during the Boston “Big Dig” project (1991-2006) as reference levels for a wide variety of construction equipment in common use, such as on the proposed project. This noise analysis did not include field measurements of ambient noise in the vicinity of the project site.

The FHWA noise model provides relatively conservative predictions because it does not account for site-specific geometry, dimensions of nearby structures, and local environmental conditions that can affect sound transmission, reflection, and attenuation. As a result, actual measured sound levels at receptors may vary somewhat from predictions, typically lower. Additionally, the impacts

of noise upon receptors (persons) are subjective because of differences in individual sensitivities and perceptions.

Noise impacts were evaluated against community noise standards contained in the City or County General Plan or other state or federal agency as applicable to the vicinity of the project site. For this Project, the County of San Luis Obispo's General Plan, Noise Element, and the Noise Ordinance, Section 22.10.120, contain the applicable evaluation criteria.

During construction activities, the project would generate noise due to operation of minimal off-road equipment, portable equipment, and vehicles at or near the project site. No significant increase in traffic is expected due to this relatively small project. No strong sources of vibrations are planned to be used during construction activities.

Environmental Setting

Noise Descriptors

Noise is typically described as any dissonant, unwanted, or objectionable sound. Sound is technically described in terms of the loudness (amplitude) and frequency (pitch) of the sound. The standard unit of measurement of the loudness of sound is the decibel (dB). Because the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale has been devised to relate noise to human sensitivity, the A-weighted decibel scale (dBA). Table 7 lists common sources of sound and their intensities in dBA.

Table 7: Typical Sound Level Characteristics		
Pressure	Level	Sound Level Characteristic
N/m ²	dBA	
2000	160	Rocket Launch
600	150	Military Jet Plane Takeoff
200	140	Threshold of Pain
60	130	Commercial Jet Plane Takeoff
20	120	Industrial Chipper or Punch Press
6	110	Loud Automobile Horn
2	100	Passing Diesel Truck – Curb Line
0.6	90	Factory - Heavy Manufacturing
0.2	80	Factory - Light Manufacturing
0.06	70	Open Floor Office - Cubicles
0.02	60	Conversational Speech
0.006	50	Private Office - Walled
0.002	40	Residence in Daytime
0.0006	30	Bedroom at Night
0.0002	20	Recording or Broadcasting Studio
0.00006	10	Threshold of Good Hearing - Adult
0.00002	0	Threshold of Excellent Hearing - Child

Sources: Broch 1971, Plog 1988

Notes:

Reference Level $P_0 = 0.00002 \text{ N/m}^2 = 0.0002 \text{ } \mu\text{bar}$

N/m^2 = Newtons per square meter (the Newton is the unit of force derived in the metric system); it is equal to the amount of net force required to accelerate one kilogram of mass at a rate of one meter per second squared ($1 \text{ kg} \cdot 1 \text{ m/s}^2$) in the direction of the applied force.

In most situations, a 3-dBA change in sound pressure is considered a “just-detectable” difference. A 5-dBA change (either louder or quieter) is readily noticeable, and 10-dBA change is a doubling (if louder) or halving (if quieter) of the subjective loudness. Sound from a small, localized source (a “point” source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (drops off) at a rate of 6 dBA for each doubling of the distance.

The duration of noise and the time period at which it occurs are important factors in determining the impact of noise on sensitive receptors. A single number called the equivalent continuous noise level (L_{eq}) may be used to describe sound that is changing in level. It is also used to describe the acoustic range of the noise source being measured, which is accomplished through the maximum L_{eq} (L_{max}) and minimum L_{eq} (L_{min}) indicators.

In determining the daily measure of community noise, it is important to account for the difference in human response to daytime and nighttime noise. Noise is more disturbing at night than during the day, and noise indices have been developed to account for the varying duration of noise events over time, as well as community response to them. The Community Noise Equivalent Level (CNEL) adds a 5-dB penalty to the “nighttime” hourly noise levels (HNLs) (i.e., 7:00 p.m. to 10:00 p.m.) and the Day-Night Average Level (L_{dn}) adds a 10-dB penalty to the evening HNLs (Caltrans 2020, FTA 2006).

Vibration Descriptors

Vibration is a unique form of noise because its energy is carried through structures and the earth, whereas noise is carried through the air. Thus, vibration is generally felt rather than heard. Typically, ground borne vibration generated by construction activities attenuates rapidly as distance from the source of the vibration increases. Actual human and structural response to different vibration levels is influenced by a combination of factors, including soil type, distance between the source and receptor, duration, and the number of perceived events.

While not a direct health hazard, the energy transmitted through the ground as vibration may result in structural damage, which may be costly to repair and dangerous in the event of structural failure. To assess the potential for structural damage associated with vibration, the vibratory ground motion in the vicinity of the affected structure is measured in terms of point peak velocity/peak particle velocity (PPV) in the vertical and horizontal directions (vector sum). A freight train passing at 100 feet may cause PPVs of 0.1 inch per second, while a strong earthquake may produce PPVs in the range of 10 inches per second. Minor cosmetic damage to buildings may begin in the range of 0.5 inch per second (Caltrans 2020, FTA 2006).

Regulatory Setting

California

The State of California does not promulgate statewide standards for environmental noise but requires each city and county to include a noise element in its general plan [California Government Code Section 65302(f)]. In addition, Title 4 of the CCR has guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. In general, the guidelines require that community noise standards:

- Protect residents from the harmful and annoying effects of exposure to excessive noise;
- Prevent incompatible land uses from encroaching upon existing or programmed land uses likely to create significant noise impacts; and
- Encourage the application of state-of-the-art land use planning methodologies in the area of managing and minimizing potential noise conflicts.

Construction vibration is regulated at the state level in accordance with standards established by the *Transportation and Construction-Induced Vibration Guidance Manual* issued by Caltrans in 2004. Continuous sources include the use of vibratory compaction equipment and other construction equipment that creates vibration other than in single events. Transient sources create a single isolated vibration event, such as blasting. Thresholds for continuous sources are 0.5 and 0.1 inch per second PPV for structural damage and annoyance, respectively. Thresholds for transient sources are 1.0 and 0.9 PPV for structural damage and annoyance, respectively (Caltrans 2020).

County of San Luis Obispo General Plan –Noise Element

The Noise Element of the County of San Luis Obispo General Plan provides a policy framework within which potential noise impacts may be addressed during project review and long range planning. The Noise Element is directed at minimizing future noise conflicts. The noise exposure information developed during the preparation of the Noise Element does not include all conceivable sources of industrial or commercial noise within the county, but rather is a

representative sampling of all conceivable sources. The noise exposure information developed for the sources identified for study should be used only as an indicator of potential noise impacts when other, similar sources are considered.

For industrial, commercial, and other stationary sources identified for study, a combination of source-specific noise level data and accepted calculation procedures is used to characterize noise emissions based upon operational data obtained from source operations.

The noise standards in Table 8 represent maximum acceptable noise levels at noise-sensitive land uses. The Noise Element of the County of San Luis Obispo General Plan is not intended to address situations where noise is produced by stationary noise sources (e.g., power plants, mining operations or other commercial, industrial or agricultural operations), but includes noise standards to address new development of noise-sensitive sources and when to consider implementing mitigation measures.

For new proposed resource extraction, manufacturing or processing noise sources or modifications to those sources which increase noise levels: where such noise sources will expose existing noise-sensitive land uses (which are listed in the Land Use Element as allowable uses within their land use categories) to noise levels which exceed the standards in Table 8, best available control technologies shall be used to minimize noise levels. The noise levels shall in no case exceed the noise level standards in Table 8.

Table 8: San Luis Obispo County Maximum Allowable Noise Exposure – Stationary Noise Sources¹		
Sound Levels	Noise Level (dB)	
	Nighttime² (10 p.m. to 7 a.m.)	Daytime (7 a.m. to 10 p.m.)
Hourly Equivalent Sound Level	45	50
Maximum level	65	70
Maximum level- Impulsive Noise	60	65

1. As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.
2. Applies only where the receiving land use operates or is occupied during nighttime hours.

Source: County of San Luis Obispo General Plan 1992, Table 3-2

**County of San Luis Obispo Code and Ordinances – Title 22, Article 3, Chapter 22.10.120
Noise Standards**

For this Project, the County of San Luis Obispo Code and Ordinances, Section 22.10.120, contains the applicable evaluation criteria, shown in Table 9. This Section establishes standards for acceptable exterior and interior noise levels and describes how noise shall be measured. These standards are intended to protect persons from excessive noise levels, which are detrimental to the public, health, welfare, and safety and contrary to the public interest because they can: interfere with sleep, communication, relaxation and full enjoyment of one's property; contribute to hearing impairment and a wide range of adverse physiological stress conditions; and adversely affect the value of real property.

Table 9: San Luis Obispo County Maximum Allowed Exterior Noise Level Standards		
Sound Levels	Noise Level (dB)	
	Nighttime (10 p.m. to 7 a.m.)	Daytime (7 a.m. to 10 p.m.)
Hourly Equivalent Sound Level	45	50
Maximum level	65	70

Source: County of San Luis Obispo Code and Ordinances, Article 3, Chapter 22.10, Table 1 (San Luis Obispo 2023).

A. Exceptions to noise standards:

(4) Noise sources associated with construction, provided such activities do not take place before 7:00 a.m. or after 9:00 p.m. on any day except Saturday or Sunday, or before 8:00 a.m. or after 5:00 p.m. on Saturday or Sunday.

B. Exterior noise level standards. The exterior noise level standards of this Section are applicable when a land use affected by noise is one of the following noise-sensitive uses: residential uses listed in Section 22.06.030 (Allowable Land Uses and Permit Requirements), except for residential accessory uses and temporary dwellings; health care services (hospitals and similar establishments only); hotels and motels; bed and breakfast facilities; schools (pre-school to secondary, college and university, specialized education and training); churches; libraries and museums; public assembly and entertainment; offices, and outdoor sports and recreation

1. No person shall create any noise or allow the creation of any noise at any location within the unincorporated areas of the county on property owned, leased, occupied or otherwise controlled by the person which causes the exterior noise level when measured at any of the preceding noise-sensitive land uses situated in either the incorporated or unincorporated areas to exceed the noise level standards in the following table. When the receiving noise-sensitive land use is outdoor sports and recreation, the following noise level standards shall be increased by 10 dB.
2. In the event the measured ambient noise level exceeds the applicable exterior noise level standard in Subsection B.1, the applicable standard shall be adjusted so as to equal the ambient noise level plus one dB
3. Each of the exterior noise level standards specified in Subsection B.1 shall be reduced by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises.

4. If the intruding noise source is continuous and cannot reasonably be discontinued or stopped for a time period whereby the ambient noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the exterior noise level standards.

Construction Noise

The proposed Project can be characterized as development of an industrial facility. Most noise would occur during the demolition, site preparation, grading, and building construction when heavy equipment would be operating.

During each of the five construction phases there would be a different mix of equipment operating and cumulative noise levels would vary based on the amount of equipment in operation and the location of each activity at the Project site. In general, use of off-road equipment and portable equipment would generate noise due to engine mechanicals, engine exhaust, driveline mechanicals, shaft-driven devices and accessories, hydraulics operation, ground friction and displacement, and gravity drops (dumping, unloading).

Since no intense percussive actions (e.g., hard rock-breaking, large pile-driving) are planned to occur during the site work, no strong ground-borne vibrations are expected to be generated that could affect nearby structures or be noticeable to their occupants.

Project construction is expected to take approximately one year of planned work activities (i.e., from mobilization to substantial completion) comprising five construction phases:

- 1) Demolition
- 2) Site preparation;
- 3) Grading;
- 4) Paving; and
- 5) Architectural coating.

Types of equipment (FHWA 2006) to be used during the project and noise-emitting characteristics (i.e., usage factors, reference dBA, and percussive source) are shown in Table 10 consistent with CalEEMod outputs (Attachment 1).

Table 10: FHWA Noise Reference Levels and Usage Factors						
CalEEMod Construction Detail			FHWA Equipment Type	Usage Factor	Ref. Level	Percussive Source
Phase Name	Equipment Description	Qty.		percent	dBA	Yes/No
Demolition	Tractors/Loaders/Backhoes	3	Backhoe (with loader)	40%	80	No
	Rubber Tired Dozers	1	Tractor (rubber tire)	40%	84	No
	Concrete/Industrial Saws	1	Concrete Saw	20%	90	No
Site Preparation	Graders	1	Grader	40%	85	No
	Rubber Tired Dozers	1	Tractor (rubber tire)	40%	84	No
	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	40%	80	No
Grading	Graders	1	Grader	40%	85	No
	Tractors/Loaders/Backhoes	2	Backhoe (with loader)	40%	80	No
	Rubber Tired Dozers	1	Tractor (rubber tire)	40%	84	No
Paving	Cranes	1	Crane	16%	85	No
	Forklifts	1	Forklift	40%	80	No
	Generator Sets	1	Generator (<25 KVA quiet design)	50%	70	No
	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	40%	80	No
	Welders	3	Welding Machine (arc welding)	50%	70	No
Architectural Coating	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	40%	80	No

Source: CalEEMod version 2022.1.1.16, FHWA 2006

During construction, equipment will be staged and stored on a centrally located portion of the project site when practical. Nearest sensitive receptors are located approximately 300 meters from the center of the project site. As mentioned above, there is no numerical standard in the Municipal Code for construction activities; however, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment provides an 8-hour construction noise level threshold of 80 dBA Leq during the daytime at residential (noise-sensitive) uses and 85 dBA during the daytime at commercial uses. Therefore, noise impacts for the proposed project are evaluated against the FTA noise standards. Table 11 shows a comparison of FHWA screening-level estimated daytime exterior noise impacts for peak construction activities at nearby receptors with respect to the threshold. If the threshold is not exceeded, then a project should be considered acceptable, i.e., Less Than Significant.

Table 11: Estimated Peak Activity Daytime Noise Impacts - Residential Receptors				
Construction Phases	Normal Acceptance Criteria			
	Modeled Noise Level (Leq dBA)^{a, b}	CalEEMod Duration (days)	Significance Threshold (CNEL dBA)^c	Exceeds Threshold (Yes/No)?
Background	35	-	-	No
Demolition	60	20	80	
Site Preparation	58	2	80	No
Grading	59	4	80	No
Building Construction	56	200	80	No
Paving	62	10	80	No
Architectural Coating	50	10	80	
Long-Term Impact	45	-	45/50	No

Sources: CalEEMod version 2022.1.1.16, FHWA 2006, Broch 1971, Plog 1988

Notes:

^a Modeled noise levels include the existing ambient noise level (Cumulative Impact)

^b Combined noise levels at the nearest sensitive receptors are calculated using the distance from the nearest sensitive receptor to the center of the project site where most of the construction equipment are anticipated to be located.

^c FTA threshold for construction, County General Plan Noise Element and Municipal Code Noise Ordinance threshold for operational phase (long-term)

Noise levels generated by the proposed project construction would be higher than ambient noise levels and may result in a temporary increase in the ambient noise levels. Temporary construction noise would be limited to the County's allowable daytime construction hours and would permanently cease upon completion of construction. As shown in Table 11, the aggregated average construction noise would be well below the 80 dBA FTA noise level threshold at nearby receptors.

Operational Noise

Upon completion of construction, on-site operational noise would be generated mainly by vehicles driving in and out of the proposed site, ventilation, and air conditioning (HVAC) equipment. However, the overall noise levels generated by vehicles are not expected to be substantially greater than the existing ambient noise levels. Exhaust fans could result in noise levels that average between 35 and 50 dBA Leq at 50 feet from the equipment and large HVAC systems could result in noise levels that average between 50 and 65 dBA Leq at 50 feet from the equipment. However, the overall noise levels generated by the new exhaust fans and HVAC equipment are not expected to raise the ambient noise levels significantly. As such, the proposed project would not represent a substantially new type or source of noise in the general vicinity. Thus, no adverse impacts are expected from, and no special noise control measures would be required for, the operation of the proposed Project. Therefore, the operational noise impacts of the proposed Project would be less than significant. As shown in Table 11, the operational noise would be below the 45 dBA and 50 dBA noise level thresholds at nearby receptors at nighttime and daytime hours, respectively.

Analysis of Noise Significance Criteria

This study predicts a less than significant impact in accordance with the County of San Luis Obispo's Noise Regulation and General Plan. Would the project result in:

- a) *Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

No. As shown in the above analysis, temporary construction noise would be limited to the County's allowable daytime construction hours. No construction activities will be performed outside these hours. Construction activities would permanently cease upon completion of construction. Aggregated average construction noise is not expected to exceed 80 dBA FTA noise level thresholds at nearby receptors. Total operational noise levels will be below the 45 dBA limit at nighttime and 50 dBA limit during daytime. Therefore, the operational noise impacts of the proposed Project would be less than significant.

PROJECTED IMPACT: Less Than Significant (LTS)

- b) *Generation of excessive groundborne vibration or groundborne noise levels?*

No. Construction plans do not include intense percussive actions (e.g., hard rock-breaking, large pile-driving). Therefore, no strong ground-borne vibrations are expected to be generated that could affect nearby structures or be noticeable to their occupants.

PROJECTED IMPACT: Less Than Significant (LTS)

- c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

There is no public or private use airport within 2 miles of the project site; therefore, no impact would be expected.

PROJECTED IMPACT: No Impact (NI)

Ms. Elizabeth Ross

October 5, 2023

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CLOSING

Thank you very much for the opportunity to be of assistance to Eden's Dream. Should you have any questions, please contact me at (949) 324-2909 (mobile) or Bradford Boyes at (805) 217-4947 (mobile).

Sincerely,



Ernesto Betancourt II

Engineer

Yorke Engineering, LLC

EBetancourt@YorkeEngr.com

cc: Bradford Boyes, Yorke Engineering, LLC
Tina Darjazanie, Yorke Engineering, LLC

Enclosures:

1. Attachment 1 – CalEEMod Outputs

AIR QUALITY AND GHG REFERENCES

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ATTACHMENT 1 – CALEEMOD OUTPUTS

Eden's Dream - Cannabis Cultivation Project Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Eden's Dream - Cannabis Cultivation Project
Construction Start Date	1/1/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	15.6
Location	4339 S El Pomar Rd, Templeton, CA 93465, USA
County	San Luis Obispo
City	Unincorporated
Air District	San Luis Obispo County APCD
Air Basin	South Central Coast
TAZ	3310
EDFZ	6
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Southern California Gas
App Version	2022.1.1.16

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

General Light Industry	46.6	1000sqft	1.07	46,615	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-12	Sweep Paved Roads

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.22	9.76	10.9	0.02	0.37	0.16	0.53	0.34	0.04	0.38	—	2,097	2,097	0.09	0.05	0.99	2,114
Mit.	1.22	9.76	10.9	0.02	0.37	0.16	0.53	0.34	0.04	0.38	—	2,097	2,097	0.09	0.05	0.99	2,114
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	108	15.9	16.5	0.02	0.74	7.14	7.88	0.68	3.44	4.12	—	2,568	2,568	0.11	0.05	0.03	2,578
Mit.	108	15.9	16.5	0.02	0.74	2.82	3.56	0.68	1.35	2.03	—	2,568	2,568	0.11	0.05	0.03	2,578
% Reduced	—	—	—	—	—	61%	55%	—	61%	51%	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.77	6.62	7.33	0.01	0.26	0.20	0.46	0.24	0.08	0.32	—	1,360	1,360	0.06	0.03	0.25	1,370
Mit.	3.77	6.62	7.33	0.01	0.26	0.14	0.40	0.24	0.04	0.28	—	1,360	1,360	0.06	0.03	0.25	1,370
% Reduced	—	—	—	—	—	33%	15%	—	43%	10%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.69	1.21	1.34	< 0.005	0.05	0.04	0.08	0.04	0.01	0.06	—	225	225	0.01	< 0.005	0.04	227
Mit.	0.69	1.21	1.34	< 0.005	0.05	0.02	0.07	0.04	0.01	0.05	—	225	225	0.01	< 0.005	0.04	227
% Reduced	—	—	—	—	—	33%	15%	—	43%	10%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.22	9.76	10.9	0.02	0.37	0.16	0.53	0.34	0.04	0.38	—	2,097	2,097	0.09	0.05	0.99	2,114
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	108	15.9	16.5	0.02	0.74	7.14	7.88	0.68	3.44	4.12	—	2,568	2,568	0.11	0.05	0.03	2,578
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.77	6.62	7.33	0.01	0.26	0.20	0.46	0.24	0.08	0.32	—	1,360	1,360	0.06	0.03	0.25	1,370
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.69	1.21	1.34	< 0.005	0.05	0.04	0.08	0.04	0.01	0.06	—	225	225	0.01	< 0.005	0.04	227

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.22	9.76	10.9	0.02	0.37	0.16	0.53	0.34	0.04	0.38	—	2,097	2,097	0.09	0.05	0.99	2,114
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	108	15.9	16.5	0.02	0.74	2.82	3.56	0.68	1.35	2.03	—	2,568	2,568	0.11	0.05	0.03	2,578
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.77	6.62	7.33	0.01	0.26	0.14	0.40	0.24	0.04	0.28	—	1,360	1,360	0.06	0.03	0.25	1,370
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.69	1.21	1.34	< 0.005	0.05	0.02	0.07	0.04	0.01	0.05	—	225	225	0.01	< 0.005	0.04	227

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.84	0.19	2.95	< 0.005	0.01	0.13	0.14	0.01	0.03	0.04	51.8	1,031	1,083	5.38	0.08	12.8	1,253
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.51	0.18	0.98	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	51.8	1,018	1,070	5.38	0.08	12.2	1,239
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	1.80	0.19	2.79	< 0.005	0.01	0.13	0.14	0.01	0.03	0.04	51.8	1,026	1,078	5.38	0.08	12.4	1,248
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.33	0.04	0.51	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	8.58	170	179	0.89	0.01	2.05	207

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.22	0.12	0.89	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	161	161	0.01	0.01	0.64	164
Area	1.63	0.02	2.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.34	8.34	< 0.005	< 0.005	—	8.37
Energy	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	830	830	0.13	0.02	—	837
Water	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Waste	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Total	1.84	0.19	2.95	< 0.005	0.01	0.13	0.14	0.01	0.03	0.04	51.8	1,031	1,083	5.38	0.08	12.8	1,253
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.13	0.94	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	156	156	0.01	0.01	0.02	159
Area	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	830	830	0.13	0.02	—	837
Water	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Waste	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Total	1.51	0.18	0.98	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	51.8	1,018	1,070	5.38	0.08	12.2	1,239

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.13	0.91	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	157	157	0.01	0.01	0.28	160
Area	1.59	0.02	1.83	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.54	7.54	< 0.005	< 0.005	—	7.56
Energy	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	830	830	0.13	0.02	—	837
Water	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Waste	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Total	1.80	0.19	2.79	< 0.005	0.01	0.13	0.14	0.01	0.03	0.04	51.8	1,026	1,078	5.38	0.08	12.4	1,248
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.02	0.17	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	26.0	26.0	< 0.005	< 0.005	0.05	26.5
Area	0.29	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.25
Energy	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	137	137	0.02	< 0.005	—	139
Water	—	—	—	—	—	—	—	—	—	—	3.42	5.40	8.82	0.35	0.01	—	20.1
Waste	—	—	—	—	—	—	—	—	—	—	5.16	0.00	5.16	0.52	0.00	—	18.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.01	2.01
Total	0.33	0.04	0.51	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	8.58	170	179	0.89	0.01	2.05	207

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.22	0.12	0.89	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	161	161	0.01	0.01	0.64	164
Area	1.63	0.02	2.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.34	8.34	< 0.005	< 0.005	—	8.37
Energy	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	830	830	0.13	0.02	—	837
Water	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122

Waste	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Total	1.84	0.19	2.95	< 0.005	0.01	0.13	0.14	0.01	0.03	0.04	51.8	1,031	1,083	5.38	0.08	12.8	1,253
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.13	0.94	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	156	156	0.01	0.01	0.02	159
Area	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	830	830	0.13	0.02	—	837
Water	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Waste	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Total	1.51	0.18	0.98	< 0.005	0.01	0.13	0.13	0.01	0.03	0.04	51.8	1,018	1,070	5.38	0.08	12.2	1,239
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.13	0.91	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	157	157	0.01	0.01	0.28	160
Area	1.59	0.02	1.83	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.54	7.54	< 0.005	< 0.005	—	7.56
Energy	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	830	830	0.13	0.02	—	837
Water	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Waste	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Total	1.80	0.19	2.79	< 0.005	0.01	0.13	0.14	0.01	0.03	0.04	51.8	1,026	1,078	5.38	0.08	12.4	1,248
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	0.02	0.17	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	26.0	26.0	< 0.005	< 0.005	0.05	26.5
Area	0.29	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.25
Energy	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	137	137	0.02	< 0.005	—	139
Water	—	—	—	—	—	—	—	—	—	—	3.42	5.40	8.82	0.35	0.01	—	20.1
Waste	—	—	—	—	—	—	—	—	—	—	5.16	0.00	5.16	0.52	0.00	—	18.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.01	2.01

Total	0.33	0.04	0.51	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	8.58	170	179	0.89	0.01	2.05	207

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.61	15.6	16.0	0.02	0.67	—	0.67	0.62	—	0.62	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.85	0.88	< 0.005	0.04	—	0.04	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7

Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.43	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	74.4	74.4	0.01	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.11	4.11	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.2. Demolition (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.61	15.6	16.0	0.02	0.67	—	0.67	0.62	—	0.62	—	2,494	2,494	0.10	0.02	—	2,502
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.85	0.88	< 0.005	0.04	—	0.04	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Demolition	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.05	0.04	0.43	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	74.4	74.4	0.01	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.11	4.11	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.68	0.68	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.43	13.7	12.9	0.02	0.65	—	0.65	0.59	—	0.59	—	2,064	2,064	0.08	0.02	—	2,071
Dust From Material Movement	—	—	—	—	—	6.26	6.26	—	3.00	3.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.3
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.26	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	44.6	44.6	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.4. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.43	13.7	12.9	0.02	0.65	—	0.65	0.59	—	0.59	—	2,064	2,064	0.08	0.02	—	2,071
Dust From Material Movement	—	—	—	—	—	2.44	2.44	—	1.17	1.17	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.3	11.3	< 0.005	< 0.005	—	11.3
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.87	1.87	< 0.005	< 0.005	—	1.88
Dust From Material Movement	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.26	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	44.6	44.6	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.04	0.04	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.65	15.9	15.4	0.02	0.74	—	0.74	0.68	—	0.68	—	2,454	2,454	0.10	0.02	—	2,462
Dust From Material Movement	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Dust From Material Movement	—	—	—	—	—	0.08	0.08	—	0.04	0.04	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.47

Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.34	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	59.5	59.5	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.66	0.66	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.6. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.65	15.9	15.4	0.02	0.74	—	0.74	0.68	—	0.68	—	2,454	2,454	0.10	0.02	—	2,462
Dust From Material Movement	—	—	—	—	—	2.76	2.76	—	1.34	1.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.9	26.9	< 0.005	< 0.005	—	27.0
Dust From Material Movement	—	—	—	—	—	0.03	0.03	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.47
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.34	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	59.5	59.5	< 0.005	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.66	0.66	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	5.17	5.54	0.01	0.20	—	0.20	0.19	—	0.19	—	987	987	0.04	0.01	—	990
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.94	1.01	< 0.005	0.04	—	0.04	0.03	—	0.03	—	163	163	0.01	< 0.005	—	164
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.68	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	122	122	0.01	0.01	0.54	—
Vendor	0.01	0.26	0.11	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	175	175	0.01	0.03	0.45	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.67	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	117	117	0.01	0.01	0.01	—
Vendor	0.01	0.27	0.11	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	175	175	0.01	0.03	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.04	0.03	0.36	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	64.3	64.3	< 0.005	< 0.005	0.13	—
Vendor	< 0.005	0.15	0.06	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	95.7	95.7	< 0.005	0.01	0.11	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.02	—
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	0.02	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.8. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.44	10.1	0.02	0.37	—	0.37	0.34	—	0.34	—	1,801	1,801	0.07	0.01	—	1,807
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	5.17	5.54	0.01	0.20	—	0.20	0.19	—	0.19	—	987	987	0.04	0.01	—	990

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.94	1.01	< 0.005	0.04	—	0.04	0.03	—	0.03	—	163	163	0.01	< 0.005	—	164
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.68	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	122	122	0.01	0.01	0.54	—
Vendor	0.01	0.26	0.11	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	175	175	0.01	0.03	0.45	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.67	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	117	117	0.01	0.01	0.01	—
Vendor	0.01	0.27	0.11	< 0.005	< 0.005	0.04	0.05	< 0.005	0.01	0.01	—	175	175	0.01	0.03	0.01	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.36	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	64.3	64.3	< 0.005	< 0.005	0.13	—
Vendor	< 0.005	0.15	0.06	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	95.7	95.7	< 0.005	0.01	0.11	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.6	10.6	< 0.005	< 0.005	0.02	—
Vendor	< 0.005	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	0.02	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.9. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.90	6.53	0.01	0.23	—	0.23	0.21	—	0.21	—	992	992	0.04	0.01	—	995
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	27.2	27.2	< 0.005	< 0.005	—	27.3
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.50	4.50	< 0.005	< 0.005	—	4.51
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.43	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	74.4	74.4	0.01	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.10. Paving (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.90	6.53	0.01	0.23	—	0.23	0.21	—	0.21	—	992	992	0.04	0.01	—	995
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	27.2	27.2	< 0.005	< 0.005	—	27.3
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.50	4.50	< 0.005	< 0.005	—	4.51
Paving	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.43	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	74.4	74.4	0.01	< 0.005	0.01	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.05	2.05	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.34	0.34	< 0.005	< 0.005	< 0.005	—

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.11. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	108	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	2.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61

Architectu Coatings	0.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.3	23.3	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

3.12. Architectural Coating (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	108	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	2.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	0.54	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	23.3	23.3	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	—
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	—

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.22	0.12	0.89	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	161	161	0.01	0.01	0.64	164
Total	0.22	0.12	0.89	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	161	161	0.01	0.01	0.64	164

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.21	0.13	0.94	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	156	156	0.01	0.01	0.02	159
Total	0.21	0.13	0.94	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	156	156	0.01	0.01	0.02	159
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.04	0.02	0.17	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	26.0	26.0	< 0.005	< 0.005	0.05	26.5
Total	0.04	0.02	0.17	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	26.0	26.0	< 0.005	< 0.005	0.05	26.5

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.22	0.12	0.89	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	161	161	0.01	0.01	0.64	164
Total	0.22	0.12	0.89	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	161	161	0.01	0.01	0.64	164
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	0.21	0.13	0.94	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	156	156	0.01	0.01	0.02	159
Total	0.21	0.13	0.94	< 0.005	< 0.005	0.13	0.13	< 0.005	0.03	0.03	—	156	156	0.01	0.01	0.02	159
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	0.04	0.02	0.17	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	26.0	26.0	< 0.005	< 0.005	0.05	26.5
Total	0.04	0.02	0.17	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	26.0	26.0	< 0.005	< 0.005	0.05	26.5

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	771	771	0.12	0.02	—	778
Total	—	—	—	—	—	—	—	—	—	—	—	771	771	0.12	0.02	—	778
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	771	771	0.12	0.02	—	778
Total	—	—	—	—	—	—	—	—	—	—	—	771	771	0.12	0.02	—	778
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	128	128	0.02	< 0.005	—	129
Total	—	—	—	—	—	—	—	—	—	—	—	128	128	0.02	< 0.005	—	129

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	771	771	0.12	0.02	—	778
Total	—	—	—	—	—	—	—	—	—	—	—	771	771	0.12	0.02	—	778
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	771	771	0.12	0.02	—	778
Total	—	—	—	—	—	—	—	—	—	—	—	771	771	0.12	0.02	—	778
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	128	128	0.02	< 0.005	—	129
Total	—	—	—	—	—	—	—	—	—	—	—	128	128	0.02	< 0.005	—	129

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.7	58.7	0.01	< 0.005	—	58.9
Total	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.7	58.7	0.01	< 0.005	—	58.9

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.7	58.7	0.01	< 0.005	—	58.9
Total	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.7	58.7	0.01	< 0.005	—	58.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.72	9.72	< 0.005	< 0.005	—	9.75
Total	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.72	9.72	< 0.005	< 0.005	—	9.75

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.7	58.7	0.01	< 0.005	—	58.9
Total	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.7	58.7	0.01	< 0.005	—	58.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.7	58.7	0.01	< 0.005	—	58.9
Total	< 0.005	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	58.7	58.7	0.01	< 0.005	—	58.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.72	9.72	< 0.005	< 0.005	—	9.75
Total	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.72	9.72	< 0.005	< 0.005	—	9.75

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscaping Equipment	0.33	0.02	2.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.34	8.34	< 0.005	< 0.005	—	8.37
Total	1.63	0.02	2.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.34	8.34	< 0.005	< 0.005	—	8.37
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.25
Total	0.29	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.25

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.33	0.02	2.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.34	8.34	< 0.005	< 0.005	—	8.37
Total	1.63	0.02	2.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.34	8.34	< 0.005	< 0.005	—	8.37
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	1.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.25
Total	0.29	< 0.005	0.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.25

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Total	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Total	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	3.42	5.40	8.82	0.35	0.01	—	20.1
Total	—	—	—	—	—	—	—	—	—	—	3.42	5.40	8.82	0.35	0.01	—	20.1

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Total	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Total	—	—	—	—	—	—	—	—	—	—	20.7	32.6	53.3	2.12	0.05	—	122
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	3.42	5.40	8.82	0.35	0.01	—	20.1
Total	—	—	—	—	—	—	—	—	—	—	3.42	5.40	8.82	0.35	0.01	—	20.1

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Total	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Total	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	5.16	0.00	5.16	0.52	0.00	—	18.0
Total	—	—	—	—	—	—	—	—	—	—	5.16	0.00	5.16	0.52	0.00	—	18.0

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Total	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Total	—	—	—	—	—	—	—	—	—	—	31.2	0.00	31.2	3.11	0.00	—	109
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	5.16	0.00	5.16	0.52	0.00	—	18.0
Total	—	—	—	—	—	—	—	—	—	—	5.16	0.00	5.16	0.52	0.00	—	18.0

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.01	2.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.01	2.01

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.1	12.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.01	2.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.01	2.01

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipme Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio n	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2024	1/29/2024	5.00	20.0	—
Site Preparation	Site Preparation	1/30/2024	2/1/2024	5.00	2.00	—
Grading	Grading	2/2/2024	2/7/2024	5.00	4.00	—

Building Construction	Building Construction	2/8/2024	11/14/2024	5.00	200	—
Paving	Paving	11/15/2024	11/29/2024	5.00	10.0	—
Architectural Coating	Architectural Coating	11/30/2024	12/14/2024	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42

Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42

Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	8.10	LDA,LDT1,LDT2
Demolition	Vendor	—	6.90	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	8.10	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.90	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	8.10	LDA,LDT1,LDT2
Grading	Vendor	—	6.90	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	19.6	8.10	LDA,LDT1,LDT2
Building Construction	Vendor	7.64	6.90	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	8.10	LDA,LDT1,LDT2
Paving	Vendor	—	6.90	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.92	8.10	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.90	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	8.10	LDA,LDT1,LDT2
Demolition	Vendor	—	6.90	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	8.10	LDA,LDT1,LDT2
Site Preparation	Vendor	—	6.90	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	8.10	LDA,LDT1,LDT2

Grading	Vendor	—	6.90	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	19.6	8.10	LDA,LDT1,LDT2
Building Construction	Vendor	7.64	6.90	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	8.10	LDA,LDT1,LDT2
Paving	Vendor	—	6.90	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.92	8.10	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	6.90	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	69,923	23,308	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	0.00	—
Site Preparation	0.00	0.00	1.88	0.00	—
Grading	0.00	0.00	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Light Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	48.0	48.0	48.0	17,520	181	181	181	65,917

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	48.0	48.0	48.0	17,520	181	181	181	65,917

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	69,923	23,308	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	330

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	330

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	1,379,242	204	0.0330	0.0040	183,168

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	1,379,242	204	0.0330	0.0040	183,168

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	10,779,719	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	10,779,719	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

General Light Industry	57.8	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	57.8	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	22.2	annual days of extreme heat
Extreme Precipitation	8.75	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	36.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	42.6
AQ-PM	4.84
AQ-DPM	11.7
Drinking Water	69.1
Lead Risk Housing	32.8
Pesticides	62.9
Toxic Releases	13.9
Traffic	4.47
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	69.6
Haz Waste Facilities/Generators	3.64
Impaired Water Bodies	51.2
Solid Waste	95.4

Sensitive Population	—
Asthma	23.7
Cardio-vascular	16.2
Low Birth Weights	52.5
Socioeconomic Factor Indicators	—
Education	22.2
Housing	32.3
Linguistic	0.00
Poverty	11.0
Unemployment	13.2

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	55.4471962
Employed	62.92826896
Median HI	64.44244835
Education	—
Bachelor's or higher	56.2042859
High school enrollment	5.787244963
Preschool enrollment	13.80726293
Transportation	—
Auto Access	86.34672142
Active commuting	36.18632106
Social	—
2-parent households	95.57295008

Voting	80.22584371
Neighborhood	—
Alcohol availability	63.91633517
Park access	22.75118696
Retail density	4.940331066
Supermarket access	16.2068523
Tree canopy	69.71641216
Housing	—
Homeownership	69.53676376
Housing habitability	76.79969203
Low-inc homeowner severe housing cost burden	87.20646734
Low-inc renter severe housing cost burden	64.22430386
Uncrowded housing	44.92493263
Health Outcomes	—
Insured adults	33.3504427
Arthritis	0.0
Asthma ER Admissions	72.5
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	31.1
Cognitively Disabled	54.2
Physically Disabled	52.4
Heart Attack ER Admissions	92.9

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	3.2
SLR Inundation Area	0.0
Children	26.6
Elderly	28.7
English Speaking	81.8
Foreign-born	5.4
Outdoor Workers	29.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	92.9
Traffic Density	3.7
Traffic Access	0.0
Other Indices	—
Hardship	37.6
Other Decision Support	—
2016 Voting	80.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	14.0
Healthy Places Index Score for Project Location (b)	53.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Trip rates taken from "New Cannabis Development 4339 S El Pomar Road Access and Sight Distance Evaluation, and Trip Generation Study – Paso Robles Area – APN 034 321 003" developed by Orosz Engineering Group, Inc.
Operations: Energy Use	Electricity and Natural Gas usage outlined in "Eden's Dream – Energy Demand Analysis" by In Balance Green Consulting

Initial Study – Environmental Checklist

APPENDIX G

Odor Control Plan / Water Management Plan

**Eden's Dream Plan to Minimize Environmental Impact of Cultivation
Facility; Odor Control Plan; Water Management Plan:**

The business will reside in a building specifically constructed to exceed the environmental standards of the State of California and the County. The intended use of the property is to produce quality cannabis in the most environmentally conscious manner possible, using solar power and grey water reclamation systems . The business recognizes that indoor cannabis cultivation requires significant environmental and financial resources and seeks to produce cannabis in a manner that uses the least possible energy per unit of product.

i. Environmental and Sustainability Plans:

The business will utilize Lighting, HVAC, and Air Quality/Filtration (odor) controls to ensure that the business's carbon footprint is as low as possible, while reducing any external manifestation of the cultivation operation.

Regarding the business's chosen grow medium, the business shall focus its efforts on a traditional soil-based grow style. Specifically, the business shall employ "soil based" medium materials from HP Pro Mix. The business shall implement Perlite in addition to the natural soil. Perlite is a highly aerated rock giving ample air space within the grow mix. Perlite has excellent drainage properties and can benefit the plant for its full life cycle. Perlites added aeration will create an optimal air to water ratio, which is vital for strong root development. Perlite is very easy to work with and extremely environmentally friendly.

Ultimately, the business's soil-based grow style will help reduce its water needs and maximize its overall plant growth and cultivation of high-quality medicine.

- **Lighting equipment and controls:**

The business will utilize LED light fixtures for both working and growing applications. LED lights provide the greatest lumens produced per watt of electricity expended of all lighting solutions. Further, LEDs allow for production of specific wavelengths of light, allowing the business to ensure the cultivation operation operates with the correct limited spectrum of light, rather than inefficient broad-spectrum light.

The business is currently evaluating a proposal from Heliospectra AB, an industry-leading light manufacturer. At present, the business plans to utilize the LX60 series lamps.

- **HVAC equipment and controls:**

The business's HVAC system will consist of High Efficiency rooftop heat pump DX units with Merv 13 air filters (prefilters and particulate matter air filters). These air conditioning units will be controlled by NEST smart thermostats that automatically control the temperature of the facility based on the user's typical set points and also have remote controllability of the systems.

The HVAC equipment and controls will keep the cultivation facility free from excessive heat, steam, condensation, vapors, obnoxious odors, smoke, and fumes. Additionally, the facility will have adequate ventilation, control over air pressure, microorganisms, dust, humidity, and temperature, as needed.

- Odor controls:

Greenhouses and metal barn-like structures will be used to grow and harvest cannabis plants from seed to adult plant and also to process and package the product for distribution. The cannabis plants from their flowering stages to their final budding states will emit odor that some users regard as sweet and aromatic and others as pungent. Regardless, the main intent of the odor control plan is to mitigate any off-site smells.

To effectively achieve this, the smells within the facility and any exhaust must be reviewed since the odors are more pungent and tend to linger in a cultivation facility that is constantly harvesting its plants. Also, pressurization within the facility must be controlled so that various areas/rooms where cannabis is grown, processed, stored, and packaged must be negative in relation to the corridors and other employee common areas.

The most effective method to reduce the odor within the areas/rooms containing cannabis plants is to provide an air scrubbing system that has carbon filtration. Activated carbon, known as a universal adsorbent is also the most effective adsorbent. Activated carbon has the capacity for vapor containment, adsorbs and retains a wide variety of chemicals, works well under a wide range of temperature and humidity conditions and is inert and safe to handle and use.

All cultivation rooms shall be equipped with a fan/carbon filter system that will provide a minimum of 12 air changes per hour or a 5-minute air change.

This fan/carbon filter system will be used in conjunction with an exhaust system that is also equipped with carbon filtration. This exhaust fan will be interlocked to a pressure controller which will maintain a 15 pascal (.06 in. w.c.) pressure differential between the cultivation areas and corridor and other common areas.

The make/model of the fan/carbon filter system, exhaust system, and air conditioning system will be shown on the businesses construction and details documents.

The air quantities and air changes shown are minimum guidelines and may increase due

to air conditioning cooling load requirements. As a precaution, exhaust fans serving restroom and toilet rooms will be required to exhaust through a carbon filter.

Odor Testing Methodology:

The best method to determine the effectiveness of the odor containment system is to simply have an employee walk around the exterior perimeter of the property and evaluate the smell using a portable olfactometer also known as the Nose Telescope or Nasal Ranger.

These devices will provide a scientific method of quantifying odor strength in terms of “dilution to threshold” (D/T) ratios. To make a D/T measurement, carbon filtered air is mixed with specific volumes of odorous ambient air. The D/T ratio is a measure of the number of dilutions needed to take the odorous air to a threshold that can be detected by the odor evaluator. If the odorous contaminants are detected and exceed the threshold of the 7/1 dilution standard (one volume of odor is detectable within seven or more volumes of non-odorous air), then the facility shall be further examined, and steps shall be taken to minimize any offense odors in the community.

- Water usage:

Water is regarded as one the most precious resources and the business’s cultivation facility has taken several steps to ensure the responsible use and re-use of our water supply. Specifically, the business will educate its employees on water conservation techniques and ensure the crop is grown as efficiently as possible.

As a cultivation facility, the business has a duty to undertake responsible water conservation methods. Water conservation stretches supplies further and also protects the resources of bodies of water that are already in duress. Water conservation helps to reduce the amount of energy that is normally required for water heating.

The business’s current prediction for water usage are as follows:

Water Use	Canopy Area	Applied Water
	(Square feet)	(Acre-feet per year)
Greenhouse Flower	22,000	2.23
Greenhouse Nursery	6,875	0.47
Total	2.7	

The cultivation team shall also monitor all plants for water-borne pathogens, such as Pythium, which ultimately cause root rot. In order to prevent plant infection from water-borne pathogens, the business shall, as needed, increase the frequency of scouting of problem crops; shall remove diseased plants from the system quickly; and shall monitor

pathogen levels of irrigation water. For example, water shall be sampled at different points in the life of the plant to determine pathogen presence and levels. Tests to determine which water pathogens are present shall be conducted at relevant plant disease testing laboratories.

Indoor irrigation scheduling will be controlled electronically on a set schedule and physically monitored by Senior Growers. Irrigation scheduling is a water management strategy that reduces the chance of too much or too little water being applied to the business's plants. To ensure that water is not being wasted, the business shall ensure weekly plant moisture content measurements of the soil surrounding each plant. The goal of the watering system is for the business to continually recycle a large amount of water without having to tap back into a public water source.

The business shall group plants with similar water needs together to improve irrigation efficiency and shall adjust individual sections of the irrigation system to avoid excess watering in some sections.

The general rule of thumb is to apply 10-15% more water than a plant's potting container will hold, which ultimately helps to leach salts at each irrigation. The business shall not allow any water to flow over the top of a given plant's pot. The rate of irrigation shall be low enough to allow the water to percolate through the growing media.

The business shall continually examine the efficiency of its water irrigation system to ensure maximum use of water allocated, quality cannabis, and prevention of needless water waste. The business shall always work towards adapting new irrigation technologies to its cultivation systems to help lower costs of the water and to reduce water waste or runoff.

- Proposed indoor water conservation measures and the equipment to be utilized:

The business's use of water efficient landscape material and utilizing a weather-based irrigation controller will minimize the business's water usage. In addition, water efficient plumbing fixtures (like low-flow water units) will also be used to assist with conserving water consumption.

It is paramount that the business reduces as much as possible its potable water requirements through conservation technologies and reclamation/recycling/reuse strategies that are core elements of the proposed cultivation building.

The business shall undertake the following conservation methods to reduce its potable water use:

System optimization

- a. Utilize water-efficient plumbing fixtures (ultra-low-flow toilets and urinals, waterless urinals, low-flow and censored sinks, low-flow showerheads, and water-efficient dishwashers and washing machines).
- b. Utilize drip Irrigation systems in conjunction with a weather-based irrigation controller that will be utilized for water-efficient scheduling practices and Xeriscape landscaping measures.
- c. Water recycling or reuse measures (gray water and process)
- d. Utilize water efficient HVAC systems.
- e. Implement a water conservation program to train employees on the use of new water-efficient technologies as well as maintenance staff on O and M procedures. This will ensure that the technologies that are being used and maintained are achieving their maximum savings potential:
 - a. Establish hot line or other reporting mechanisms to report leaks and waste.
 - b. Place signs on new equipment on how to use.
 - c. Initiate a suggestion or incentive program for water conservation ideas.
 - d. Develop a display on water management, highlighting the practices in use at the facility (i.e., Xeriscape, ULF toilets, water reuse, etc.) and its resultant savings and benefits and place in a highly visible area of the building.

Initial Study – Environmental Checklist

APPENDIX H

Biological Resources Assessment



BIOLOGICAL RESOURCES ASSESSMENT

**4337 South El Pomar Cannabis Cultivation Project
(APN: 034-321-003)
Templeton, California**

Prepared for:
Elizabeth Ross

Prepared by:
Terra Verde Environmental Consulting, LLC
3765 South Higuera Street, Suite 102
San Luis Obispo, California 93401

September 2018

"As a County-approved biologist, I hereby certify that this Biological Resources Assessment was prepared according to the guidelines established by the County of San Luis Obispo Department of Planning and Building and that the statements furnished in the report and associated maps are true and correct to the best of my knowledge and belief; and I further certify that I was present throughout the site visit(s) associated with this report."

A handwritten signature in black ink, appearing to read "Amy Ray".

Signature line

27 September 2018

Date



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EXECUTIVE SUMMARY

This Biological Resources Assessment report was prepared at the request of Elizabeth Ross (owner) for the proposed development of two cannabis cultivation sites (project) located at 4337 South El Pomar Road near Templeton, San Luis Obispo County (County), California (APN: 034-321-003; 101 acres). Specifically, the proposed project will include the construction of a 22,000 square foot greenhouse structure (Site 1), a 10,000 square foot drying facility (Site 1), an 8,000 square foot storage facility (Site 1), a 5,000 square foot processing facility (Site 1), and approximately three acres of outdoor cultivation (Site 2). Site 1 currently supports an existing open barn structure, which would be torn down or retrofitted to support a greenhouse structure. Site 2 is proposed within existing agricultural use areas (i.e., olive orchard). The total area of disturbance is expected to be approximately four acres.

Terra Verde Environmental Consulting, LLC (Terra Verde) completed a biological survey within the proposed project area on May 10, 2018. The survey included a botanical and wildlife inventory, vegetation community mapping, a habitat assessment focused on the potential for special-status species and sensitive natural communities to occur on site, and a preliminary jurisdictional assessment of hydrologic resources on site.

Suitable habitat for a total of nine special-status botanical species and five special-status wildlife species, as well as nesting birds, is present within the survey area. In addition, individual oak trees and oak woodland are present immediately adjacent to and within existing agricultural areas. Oak trees and oak woodlands are regulated under California Public Resources code 21083.4 and the County Oak Woodland Ordinance No. 3346. No special-status species were observed during the survey. Sensitive habitat on site includes two unnamed U.S. Geological Survey (USGS) blue line streams, located along the western and northern boundary of the survey area.

As currently designed, the potential for impacts to sensitive resources from construction of the greenhouse and outdoor cultivation area is considered low. Indirect impacts to special-status wildlife could result from construction-related disturbances, such as the removal of habitat and/or noise that may deter wildlife from the area. No direct impacts are proposed to the USGS blue line streams, though indirect impacts (e.g., silt, sedimentation, and/ chemical run-off) may occur as a result of upland activities. No direct impacts to sensitive plants or habitats are expected; however, indirect impacts have the potential to occur, particularly during the construction phase. No oak trees are expected to be trimmed or removed as a part of project activities. A series of avoidance and minimization measures have been provided to reduce potential impacts to a less than significant level.



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Appendix A – Project Maps

Figure 1: Project Vicinity Map

Figure 2: Survey Area Map

Figure 3: 5-mile CNDDDB and Critical Habitat Map

Figure 4: Soils Map

Figure 5: Hydrological Resources Map

Figure 6: Vegetation Communities and Sensitive Resources Map

Appendix B – Regionally-occurring Special-Status Species Table

Appendix C – Botanical and Wildlife Species Observed

Appendix D – Representative Site Photographs



1.0 INTRODUCTION

This Biological Resources Assessment was prepared by Terra Verde Environmental Consulting, LLC (Terra Verde) at the request of Elizabeth Ross (owner) for the proposed development of two cannabis cultivation sites (project) located at 4337 South El Pomar Road, Templeton, California (APN: 034-321-003; 101 acres) (see Appendix A – Figure 1: Project Vicinity Map). Specifically, the scope of the project includes the following components:

- 22,000 square foot greenhouse structure (Site 1)
- 10,000 square foot drying facility (Site 1)
- 8,000 square foot storage facility (Site 1)
- 5,000 square foot processing facility (Site 1)
- 3 acres of outdoor cultivation (Site 2)

The proposed greenhouse structure, drying facility, storage facility, and processing facility will be located within 45,000 square feet (1 acre) (Site 1) and the proposed outdoor cultivation will be approximately three acres (Site 2). Site 1 currently supports an existing open barn structure, which would be torn down or retrofitted to support a greenhouse structure, drying facility, storage facility, and processing facility. Site 2 is proposed within existing agricultural use areas (i.e., olive orchard). The total area of disturbance is expected to be approximately four acres.

The entire proposed project is located within previously disturbed areas that are currently utilized for agriculture production or support existing structures such as the barn. All temporary and/or permanent structures are proposed at least 50 feet from the top of creek banks and no oak trees are planned for trimming or removal. The current project design has been modified to avoid and/or minimize impacts to areas of intact, native habitat and sensitive resources.

1.1 Purpose of the Biological Resources Assessment

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



1.2 Existing Conditions

The proposed project (Sites 1 – 2) is located within the Creston U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle. It is situated approximately six miles southeast of the community of Templeton, California. Elevations within the survey area range from approximately 366 to 427 meters (1,200 to 1,400 feet). The majority of the project area is located within existing agricultural use areas that exhibit anthropogenic and disturbed conditions as a result of historic and active agricultural operations (i.e., olive production and infrastructure) (see Appendix A – Figure 2: Survey Area Map).

A review of historical aerial imagery indicates that the existing barn structure within Site 1 has been present since at least 1994, while the surrounding olive orchards that encompass Site 2 were installed from 2004 through 2009 (Google Earth, 1994 – 2017).

The larger surrounding area consists of a mix of land uses, including agriculture, livestock and grazing, as well as rural residential development. Two USGS blue line drainages parallel the survey area along the boundary west of Site 1 and Site 2 and along South El Pomar Road, north of the survey area. The two features originate outside of the survey area and converge with one another north of the survey area before reaching the Salinas River and eventually the traditionally navigable waters of the Pacific Ocean approximately eight miles northwest of the project site (See Appendix A – Figure 2).

2.0 METHODOLOGY

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

- Aerial photographs (Google Earth, 1994-2017) and project site plans
- USGS Creston 7.5-minute topographic quadrangle map
- Online Soil Survey of San Luis Obispo County, California (Natural Resources Conservation Service [NRCS], 2018)
- Consortium of California Herbaria (CCH) online database of plant collections (CCH, 2018)
- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB) list of state and federally listed special-status species documented within the Creston 7.5-minute quadrangle and the surrounding eight quadrangles (Estrella, Shandon, Shedd Canyon, Wilson Corner, Santa Margarita, Atascadero, Templeton, Paso Robles) (CDFW, 2018)
- CNDDDB map of special-status species that have been documented within a 5-mile radius of the project site (CDFW, 2018) (see Appendix A – Figure 3: 5-mile CNDDDB and Critical Habitat Map)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants for the Creston 7.5-minute quadrangle and the surrounding eight quadrangles (CNPS, 2018)
- U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS, 2018a)



- USFWS National Wetland Inventory map (USFWS, 2018b)

A list of regionally-occurring, special-status species was compiled based on records reported in the scientific database queries (see Appendix B – Regionally-occurring Special-status Species Table). This species list was utilized to focus the field surveys efforts as well as to determine appropriate survey periods for special-status plant species with the potential to occur on site.

Following the literature review and desktop analysis, Terra Verde completed a field survey on May 10, 2018, which focused on the identification of sensitive habitats and special-status plant and wildlife species, as well as an assessment of potentially jurisdictional features. The survey area included the entire proposed disturbance footprint, an approximate 100-foot buffer on all sides where access was feasible, and a visual scan of the surrounding habitat features (see Appendix A – Figure 2).

Table 1. Summary of Field Surveys

Date	Survey Type	Biologists	Site Conditions	Survey Area
May 10, 2018	Botanical and wildlife inventory, habitat assessment, preliminary jurisdictional determination	Amy Golub Riley Chestnut	Temp: 60-70 F Wind: 0-10 mph Visibility: Clear	Project site and 100-foot buffer

The survey was pedestrian in nature and lasted approximately four hours. During the survey, all detected plant and wildlife species and their sign were documented (see Appendix C – Botanical and Wildlife Species Observed) and photographs were taken at representative locations (see Appendix D – Representative Site Photographs). Visibility was suitable to detect potentially occurring wildlife species throughout the duration of the survey. Botanical species identifications and taxonomic nomenclature followed *The Jepson Manual: Vascular Plants of California*, 2nd edition (Baldwin et al., 2012), as well as taxonomic updates provided in the Jepson eFlora (Jepson eFlora, 2018). In addition, vegetation communities and land cover types were characterized, and natural communities were classified using the second edition of *A Manual of California Vegetation* (MCV) classification system (Sawyer et al., 2009).

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



2.1 Sufficiency of Biological Data

The field survey that Terra Verde conducted is of sufficient detail and biological expertise, and was appropriately timed to identify potentially occurring special-status plant and wildlife species. Specifically, surveys were timed to coincide with the typical peak blooming and/or fruiting period for potentially occurring special-status plant species. In addition, numerous annual-blooming species were observed in peak identifiable condition at the time of the surveys in May 2018. As such, it is expected that special-status species would have been detectable at the time of the surveys, if present.

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

3.0 RESULTS

This section provides a summary and analysis of the background research and combined field survey results. The discussion includes a description of soils, terrestrial and aquatic habitat types, direct and indirect observations of wildlife and plant species, and a discussion of the potential for special-status species to occur. Any anticipated impacts to migration corridors and habitat connectivity are also discussed.

3.1 Habitats and Resources Observed

The survey area exhibited limited habitat diversity with natural vegetation communities restricted to the margins of the existing vineyard/orchard operations and along the riparian corridor of the unnamed ephemeral blue line drainages. In total, two soil units and two natural vegetation communities were documented within the survey area, in addition to developed areas, ornamental landscaping, and vineyards/orchards. Although a majority of the survey area is highly modified and subjected to regular anthropogenic disturbances, the diversity of surrounding adjacent habitats provide suitable habitat for various common and special-status plant and wildlife species.

3.1.1 Soils

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

Soil Unit 153: Linne-Calodo complex, 30 to 50 percent slopes

The parent material of this soil type is residuum weathered from calcareous shale and/or sandstone. The drainage class of this unit is well drained, and it is composed mostly of channery clay loam. This soil type tends to occur on hills, back slopes, and side slopes at



elevations between 152 and 762 feet. This soil type is not considered prime farmland.

Soil Unit 159: Lockwood-Concepcion complex, 2 to 9 percent slopes

The parent material of this soil type is alluvium derived from sedimentary rock. The drainage class is well drained and primarily composed of channery loam. This soil type occurs on terraces and toe of slopes at elevations between 182 and 457 meters. This soil type is considered farmland of statewide importance.

3.1.2 Hydrologic Features

As mentioned above, two unnamed USGS blue line drainages occur within the survey area and converge with one another before reaching the Salinas River and eventually the traditionally navigable waters of the Pacific Ocean approximately eight miles northwest of the project area (see Appendix A – Figure 5: Hydrologic Resources Map). The drainages were observed with a clearly defined bed and bank and evidence of ordinary high water mark (OHWM) (e.g., debris wracking and shelving). The drainages were dominated by coast live oak (*Quercus agrifolia* subsp. *agrifolia*) with blue oak (*Quercus douglasii*) as an associate and western poison oak (*Toxicodendron diversilobum*) in the understory. No flowing water was present at the time of the survey.

Though the USFWS National Wetland Inventory data depicted on Figure 5 indicates that wetlands are present within the USGS blue line drainages, no wetlands were observed on site.

3.1.3 Vegetation Communities

Vegetation communities and land cover types were assessed and classified based on vegetation composition, structure, and density, with consideration of known land management practices (i.e., agriculture). A majority of the survey area consists of highly modified landscapes including barn structures, olive orchards, ornamental trees, and paved and gravel access roads. Natural vegetation communities and habitats are concentrated along the margins of the survey area, where anthropogenic areas abut natural habitats and include wild oats grassland and blue oak woodland (see Appendix A – Figure 6: Vegetation Communities and Sensitive Resources Map). These communities, as well as other land cover types observed on site, are described in further detail below.

A total of 87 vascular plant species have been identified within the survey area, of which 41 (47 percent) are non-native and 25 (28 percent) are listed on the California Invasive Plant Council's (Cal-IPC) Invasive Plant Inventory (Inventory) (2018). A vast majority of the survey area consists of maintained, anthropogenic landscapes, which is reflected by the large proportion of non-native, invasive, and ornamental taxa observed at the site.

Wild Oats Grassland (3.4 acres)

Wild oats (*Avena* sp.) grassland is present along the margins of access roads, in disturbed fields, and between existing agricultural use areas (Site 1 and Site 2), and the riparian woodland (oak woodland) habitat. These areas varied somewhat in their species composition and cover



throughout the survey area though generally provide the same type and quality of habitat. This community is dominated by oats (*Avena barbata* and *Avena fatua*), ripgut brome (*Bromus diandrus*), burclover (*Medicago minima*), Italian thistle (*Carduus pycnocephalus*), and tocalote (*Centaurea melitensis*), with scattered occurrences of hairy vetch (*Vicia villosa*), common fiddleneck (*Amsinckia menziesii*), and blow wives (*Achyrachaena mollis*). It should be noted that portions of the wild oats grassland showed signs of past and current anthropogenic disturbances including mowing and areas of bare dirt or very sparse cover.

Though this habitat is disturbed within the survey area, the species composition corresponds with the *Avena (barbata, fatua)* Semi-natural Herbaceous Stands (wild oats grasslands) in the MCV classification system. This community occurs throughout California in waste places, rangelands, and openings in woodlands between 10 to 1,500 meters. Wild oats grasslands provide habitat for ground-nesting birds, small mammals, reptiles, and other wildlife.

Coast Live Oak Woodland (2.9 acres)

Coast live oak woodland was observed within the riparian corridor of the unnamed ephemeral drainages as well as in the relatively undisturbed areas surrounding the existing vineyards/orchards. Co-dominant species included blue oak, with blue elderberry (*Sambucus nigra* subsp. *caerulea*), toyon (*Heteromeles arbutifolia*), western poison oak, and Pacific sanicle (*Sanicula crassicaulis*) within the understory and scattered individuals of valley oak (*Quercus agrifolia*) and interior live oak (*Quercus wislizeni* var. *wislizeni*) throughout. These areas are generally characterized by a continuous tree canopy of coast live oak though dominance variably transitioned with blue oak in certain areas.

This species composition was used in determining the vegetation community classification, which most closely corresponds with the *Quercus agrifolia* Woodland Alliance (coast live oak woodland) in the MCV classification system. This community typically occurs in alluvial terraces, canyon bottoms, stream banks, slopes, and flats in deep, sandy or loamy soils at elevations below 1,200 meters. This community provides valuable habitat for nesting birds, small mammals, and other wildlife.

Developed (3.3 acres)

This land cover type occurs throughout Site 1 in association with the man-made structures (i.e., barns, homes, and stables), landscaped areas, and access roads. Herbaceous weedy species were observed in variable cover in roads and surrounding ancillary structures including ripgut brome, wall barley (*Hordeum murinum*), redstem filaree (*Erodium cicutarium*), and California burclover (*Medicago polymorpha*). Landscaped areas were dominated by native and non-native ornamental species including western sycamore (*Platanus racemosa*), rose (*Rosa* sp.), coast redwood (*Sequoia sempervirens*), Mexican feathergrass (*Stipa tenuissima*), and rosemary (*Rosmarinus officinalis*).

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



Active Agriculture (6.1 acres)

This land cover type is concentrated in Site 2 and surrounding developed areas on site. It is characterized by frequent disturbance associated with existing olive orchards. Similar to developed areas, herbaceous weedy species were observed in variable cover between the rows of olives including ripgut brome, wall barley, redstem filaree, hairy vetch, and California burclover.

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

3.1.4 Wildlife

The terrestrial habitat observed within and adjacent to the survey area provide suitable habitat for a variety of common and special-status wildlife species. In particular, oak woodland habitat within and adjacent to the survey area provides highly suitable nesting opportunity for a variety of avian species. Various riparian and woodland habitats provide suitable habitat for several species of woodrat that typically build houses at the base of trees and shrubs. Other wildlife, such as amphibians, that rely on additional resources (e.g., aquatic and riparian corridors) may only be seasonally present and/or are more likely not to be found within the survey area. No perennial aquatic habitat or amphibians dependent upon permanent water sources were observed within the survey area. The wild oats grassland may also provide suitable conditions for birds and other wildlife.

During field surveys, all invertebrate and vertebrate species observed, including those detected by indirect sign (i.e., tracks, scat, skeletal remains, dens, burrows, or vocalizations) were documented. Numerous avian species were observed, including red-shouldered hawk (*Buteo lineatus*) and great horned owl (*Bubo virginianus*). California ground squirrel (*Otospermophilus beecheyi*) and Botta's pocket gopher (*Thomomys bottae*) were also observed in various habitats throughout the survey area. A comprehensive list of all the wildlife species observed within the survey area is included in Appendix B.

3.2 Sensitive Resources

The results of the desktop research of the area surrounding the proposed project site indicated that one sensitive natural community, 49 special-status plant species, and 30 special-status wildlife species occur regionally. A review of the habitat requirements for each of these species in comparison with site conditions narrowed the list to nine sensitive plants and five sensitive wildlife species that have potential to occur within the overall survey area. These resources are discussed further below.

3.2.1 Special-status Plant Species

The survey was completed during the typical blooming period for regionally-occurring special-status species with potential to occur within the overall survey area. Based on this evaluation



and a review of the relevant literature, it was determined that nine special-status plant species have low potential to occur within the overall project and survey area. Additionally, individual oak trees (*Quercus* spp.) and oak woodlands are considered a sensitive resource by the State of California and the County, and impacts must be included in the California Environmental Quality Act (CEQA) project review process. Coast live oak woodland and individual trees are present throughout the survey area and are described as a sensitive plant species below.

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

Douglas' Fiddleneck (*Amsinckia douglasiana*), CRPR 4.2

Douglas' fiddleneck is an annual herb that is only known from the South Coast Ranges to the Western Transverse Ranges of California. This species typically occurs on unstable shaly sedimentary slopes at elevations between 150 to 1,600 meters. The typical blooming period is from March to June (Jepson eFlora, 2018). Documented threats to this species include agriculture (CNPS, 2018). According to CNDDDB records (CDFW, 2018), the nearest documented occurrence is greater than five miles from the project site. Although marginally suitable grassland habitat for this species is present on site, it was not observed during the survey effort. Based on a lack of detection during an appropriately timed botanical survey, this species is not expected to occur.

Dwarf Calycadenia (*Calycadenia villosa*), CRPR 1B.1

Dwarf calycadenia is an annual herb that is endemic to California. It is known to occur along the outer South Coast Ranges. This species typically occurs on dry and rocky hills, ridges, grasslands, and openings in foothill woodland. It has been documented at elevations between 250 to 850 meters. The typical blooming period is May to September (Jepson eFlora, 2017). Documented threats to this species include urbanization, vehicles, grazing, alteration of fire regimes, and non-native plants (CNPS, 2018). According to CNDDDB (CDFW, 2018), the nearest documented occurrence is greater than five miles from the project site. Although marginally suitable habitat for this species is present in the woodland and grassland habitat on site, it was not observed during the survey effort. Based on a lack of detection during an appropriately timed botanical survey, this species is not expected to occur.

Lemmon's Jewelflower (*Caulanthus lemmonii*); CRPR 1B.2

Lemmon's jewelflower is an annual herb that is endemic to California. It is known to occur throughout the Inner and Outer South Coast Ranges and along the western foothills of the San Joaquin Valley, with unconfirmed populations extending east along the Transverse Ranges and into the northwest corner of the Mojave Desert. This species typically occurs in grassland, chaparral, and scrub communities at elevations ranging from 80 to 1,100 meters. The typical blooming period is from March to May (Jepson eFlora, 2018). Documented threats to this species include development, grazing, and vehicles (CNPS, 2018). According to CNDDDB (CDFW, 2018) records, the nearest documented occurrence of this species is greater than five miles



from the survey area. Although marginally suitable habitat for this species is present in the grassland habitat on site, this species was not observed during the survey effort. Based on a lack of detection during an appropriately timed botanical survey, this species is not expected to occur.

Paniculate Tarplant (*Deinandra paniculata*), CRPR 4.2

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

Yellow-flowered Eriastrum (*Eriastrum luteum*); CRPR 1B.2

Yellow-flowered eriastrum is an annual herb that is endemic to California. It is known to occur along the inner South Coast Ranges in San Luis Obispo and Monterey Counties. This species typically occurs on drying slopes in sandy or gravelly soils in association with chaparral and woodland habitats. This species has been documented at elevations up to 1,000 meters. The typical blooming period for this species is from May to June (Jepson eFlora, 2018). Documented threats to this species include vehicles and grazing (CNPS, 2018). According to CNDDDB (CDFW, 2018), the nearest documented occurrence of this species was recorded in 1950 within five miles of the project site. Although marginally suitable habitat is present in the woodland habitat on site, this species was not observed during the survey effort. Based on a lack of detection during an appropriately timed botanical survey, this species is not expected to occur.

Santa Lucia Dwarf Rush (*Juncus luciensis*); CRPR 1B.2

Santa Lucia dwarf rush is an annual herb that is known from several populations along the central and southern coast, as well as areas in the northeast portion of the state from Lake Tahoe to the Modoc Plateau. This species typically occurs in a variety of seasonally and perennially wet habitats, including seeps, meadows, vernal pools, along streams, and in roadside ditches. It is known to occur at elevations ranging from 300 to 1,900 meters. The typical blooming period for this species is from April through August (Jepson eFlora, 2018). Possible threats to this species include development (CNPS, 2018). According to CNDDDB (CDFW, 2018), the nearest documented occurrence of this species was recorded in 1958 approximately 3.5 miles north of the project site. Although marginally suitable habitat is present within the riparian corridor on site, this species was not observed during the survey effort. Based on a lack



of detection during an appropriately timed botanical survey, this species is not expected to occur.

Pale-yellow Layia (*Layia heterotricha*); CRPR 1B.1

Pale-yellow layia is an annual herb that is known from several populations along the Inner South Coast Ranges, as well as the eastern and western foothills of the southern San Joaquin Valley and the western Transverse Range. This species typically occurs in clayey, sandy, and sometimes alkaline soil in a variety of open habitats including woodland, scrub, and grassland. It is known to occur at elevations ranging from 200 to 1,800 meters. The typical blooming period for this species may span from April through June (Jepson eFlora, 2018). Documented threats to this species include agriculture, competition from non-native plants, and potentially road maintenance and wind energy development (CNPS, 2018). According to CNDDB (2018), the nearest documented occurrence is greater than five miles from the project site. Although marginally suitable habitat is present for this species within the oak woodland habitat on site, this species was not observed during the survey effort. Based on a lack of detection during an appropriately timed botanical survey, this species is not expected to occur.

Santa Lucia Bush-mallow (*Malacothamnus palmeri* var. *palmeri*); CRPR 1B.2

Santa Lucia bush-mallow is a perennial herb that is endemic to California and is known to occur along the Central Coast and Outer South Coast Ranges. This species typically occurs in interior valleys and foothills in chaparral and woodland habitat at elevations ranging from 30 to 800 meters. The typical blooming period for this species is from May to July (Jepson eFlora, 2018). Known threats to this species include alteration of fire regimes (CNPS, 2018). According to CNDDB (CDFW, 2018), the nearest documented occurrence of this species is greater than five miles from the project site. Although marginally suitable habitat is present for this species within the oak woodland habitat on site, this species was not observed during the survey effort. Based on a lack of detection during an appropriately timed botanical survey, this species is not expected to occur.

San Gabriel Ragwort (*Senecio astephanus*); CRPR 4.3

San Gabriel ragwort is a perennial herb that is known only from the South Coast Ranges, and Transverse Range. This species typically occurs on steep rocky slopes in chaparral, coastal sage scrub and oak woodland habitat at elevations between 400 to 1,500 meters. The typical blooming period is from April to June (Jepson eFlora, 2018). Threats to this species are not well documented. According to CNDDB records (CDFW, 2018), the nearest documented occurrence of this species is greater than five miles from the project site. Although suitable habitat for this species is present in the woodland habitat on site, it was not observed during the survey effort. Based on a lack of detection during an appropriately timed botanical survey, this species is not expected to occur.

Oak Trees and Woodland (*Quercus agrifolia* and *Quercus douglasii*), Protection under CEQA, County Oak Woodland Ordinance No. 3346, and SB 1334 (Kuehl Bill)



Impacts to or removal of any mature oak species (i.e., greater than five inches in diameter at breast height) are regulated under California Public Resources Code 21083.4 and County Oak Woodland Ordinance No. 3346 (County, 2017). Numerous mature oak trees are present within the survey area, including within the proposed disturbance area (Site 2), and in association with the riparian corridor.

3.2.2 Special-status Wildlife Species

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

Sensitive Mammal Species

Townsend's Big-eared Bat (*Corynorhinus townsendii*), State – CSC

Townsend's big-eared bat require areas containing caves and cave-like roosting habitat including buildings or other man-made structures for roosting and are known to occur in all but subalpine and alpine habitat. This species is extremely sensitive to disturbance of roosting sites. A single visit may result in abandonment of the roost. All known nursery colonies in limestone caves in California apparently have been abandoned (Zeiner et al., 1988-1990a). Because of their extreme sensitivity to disturbance, this species has been in decline in recent years and is a California Species of Special Concern.

According to CNDDDB records (CDFW, 2018), there is a single documented occurrence of this species approximately eight miles south of the project area. Suitable roosting habitat is present within the open barn structure at Site 1. As such, recommended avoidance and minimization measures are provided in Section 4.2 below.

American Badger (*Taxidea taxus*); State – CSC

American badger is a non-migratory species that occurs throughout most of California. This species is highly mobile, can occupy a variety of habitat types, and generally occurs in grasslands, meadows, savannahs, open-canopy, desert scrub, and open chaparral. This species requires friable soils in areas with low to moderate slopes (Zeiner et al., 1988-1990b).

According to CNDDDB records (CDFW, 2018), this species has been documented approximately 5.4 miles northwest of the project site. Suitable habitat, as well as a prey base (e.g., pocket gopher and squirrel), is present for this species within the grassland habitat scattered throughout the survey area, as well as the surrounding areas. As such, there is potential for this species to be encountered on site. Recommended avoidance and minimization measures are provided in Section 4.2 below.

Sensitive Reptile Species

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

Northern California legless lizard is known to occur from the northern end of the San Joaquin Valley, south through the Inner and Outer South Coast Ranges at elevations below 1,800 meters



(Nafis, 2018). This species requires sandy or loose loamy soils within coastal dune scrub, coastal sage scrub, chaparral, woodland, riparian, or forest habitats. It requires cover such as logs, leaf litter, or rocks and will cover itself with loose soil. Relatively little is known about the specific behavior and ecology of this species, but it is thought to be a diurnal species that breeds between the months of March and July. It gives birth to live young in the early fall. Population declines have been attributed to agricultural development, sand mining, use of off-road recreational vehicles, and habitat loss through spread of invasive, non-native vegetation such as freeway iceplant (*Carpobrotus edulis*) (Zeiner et al., 1988-1990c).

According to CNDDDB records (CDFW, 2018), the nearest documented occurrence of this species is approximately four miles southwest of the project site. Leaf litter within oak woodlands and riparian habitat surrounding the project area may provide suitable habitat for this species. As such, there is potential to encounter this species on site. Recommended avoidance and minimization measures are provided in Section 4.2 below.

Migratory Nesting Birds and Sensitive Avian Species

Grasshopper Sparrow (*Ammodramus savannarum*), State – CSC

Grasshopper sparrow habitat typically consists of open grasslands with scattered trees and patches of bare ground. This species forages for grasshoppers and other insects on the ground, locating prey by sight. This species is declining throughout its range due to habitat loss, fragmentation and degradation.

According to CNDDDB records (CDFW, 2018), the nearest documented occurrence is approximately eight miles south of the project area. Suitable habitat is present within the grassland and agricultural fields surrounding the project area. As such, there is potential for this species to be encountered. Recommended avoidance and minimization measures are provided in Section 4.2 below.

White-tailed Kite (*Elanus leucurus*), State Fully Protected

The white-tailed kite is a resident to coastal valleys and lowlands of California where it inhabits herbaceous and open stands of various habitats near agricultural operations. Nest sites are typically placed on the top of a tall tree near or within riparian areas, with adjacent grasslands for foraging. Typical prey items include voles and other small diurnal mammals, but it will occasionally feed on birds, insects, reptiles, and amphibians (Zeiner, et al. 1988-1990d). Nesting occurs within thick, upper canopies of oaks, willows, or other tree stands in close proximity to open foraging area.

According to CNDDDB records (CDFW, 2018), the nearest documented occurrence of this species is approximately 10 miles southwest of the project site. Suitable nesting habitat is present within dense canopies of oak woodlands and mature riparian trees on site. Additionally, white-tailed kite may forage in the project area. As such, recommended avoidance and minimization measures are provided in Section 4.2 below.



Migratory Nesting Birds

In addition to those species protected by the state or federal government, all native avian species are protected by state and federal legislature, most notably the Migratory Bird Treaty Act and the CDFW Fish and Game code. Collectively, these and other international regulations make it unlawful to collect, sell, pursue, hunt, or kill native migratory birds, their eggs, nests, or any parts thereof. The laws were adopted to eliminate the commercial market for migratory bird feathers and parts, especially those of larger raptors and other birds of prey.

Avian species can be expected to occur within the project area during all seasons and throughout construction of the proposed project. The potential to disrupt these species is highest February 1 through September 15, when nests are likely to be active and eggs and young are present. Grassland habitat, mature oaks, and ornamental plantings provide particularly suitable habitat for common passerines and ground nesting birds, while the mature oak trees provide suitable nesting habitat for raptors. Recommended avoidance and minimization measures for the protection of migratory nesting birds are provided in Section 4.2 below.

3.2.3 Sensitive Habitats

Federal and State Waters

As noted above, two USGS blue line drainages occur within the survey area. These drainages exhibited a well-defined bed and bank, evidence of an OHWM, and a significant nexus to traditionally navigable waters of the U.S. (i.e., the Pacific Ocean via the Salinas River). Based on the above, these drainages fall within the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and CDFW. If impacted by project activities, regulatory agency permitting pursuant Section 401/404 of the Clean Water Act and Section 1602 of the Fish and Game Code would be required.

USFWS-designated Critical Habitats

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

3.3 Habitat Connectivity

Maintaining connectivity between areas of suitable habitat is critical for dispersal, migration, foraging, and genetic health of plant and wildlife species. The project site is located in a rural area of San Luis Obispo County, 6.5 miles southeast from the town of Templeton, surrounded by dispersed residences and agriculture operations. Existing barriers to migration to and from non-developed portions of the project site, particularly for wildlife, are influenced by agriculture in the region, which typically correlates with a high frequency of land manipulation, wildlife-exclusion fences, and pest management activities. However, undeveloped portions of land are still present in small pockets surrounding the project area. As such, existing habitat and



movement corridors in the vicinity of the project are somewhat fragmented, but relatively intact.

All new development is currently planned to occur within the disturbed agricultural use areas and existing developed areas, which does not show sign of frequent use by any special-status species. New localized barriers may be created by the conversion of the agricultural field to permanent or semi-permanent structures, which may further impede general wildlife movement through the area; however, no large-scale passage barriers are proposed. The proposed project is not expected to increase the overall level of fragmentation in the region.

4.0 IMPACT ASSESSMENT AND MITIGATION

4.1 *Summary of Potential Impacts*

The proposed project has the potential to directly and/or indirectly impact sensitive habitats, special-status wildlife species, migratory nesting birds, and individual oak trees. Direct impacts to wildlife could result from injury or death via construction-related disturbances such as trampling or crushing from equipment or other construction activities such as grading, vegetation trimming or removal, and excavation. Indirect impacts could result from construction noise, harassment, dust emissions, or other disruption during construction activities.

The total area of disturbance is approximately four acres, which is planned to occur entirely within the existing developed and agricultural areas (orchards) on site.

4.1.1 Impacts to Special-status Plants

Special-status Plants

No special-status plants were observed within the survey area during the site survey completed during the appropriate blooming period for the special-status plant species with potential to occur. As such, no impacts to special-status plants are expected to occur based on the current project design.

Oak Trees

Individual oak trees and oak woodland are present within the riparian corridor, immediately adjacent to the proposed project, and within the proposed project footprint (Site 2). No oak tree trimming or removals are expected during project implementation. Further, no project activities are expected to occur within 50 feet of the existing riparian corridor. As such, no impacts to oak trees are expected as a result of the proposed project.



4.1.2 Impacts to Special-status Wildlife

Townsend's Big-eared Bat

Suitable habitat for Townsend's big-eared bat is present within the barn structure and the cavities of interior live oak trees on site. Direct impacts to this species are most likely to occur from removal of the existing barn structure on site in preparation for the construction of a greenhouse. In addition, increased lighting in the areas adjacent to suitable roosting habitat may deter use of the habitat. Increased short- and long-term anthropogenic activity in the vicinity of roosts may further deter use of the area by bats.

American Badger

As currently designed, no direct impacts to this species are expected to occur as a result of construction related activities. However, if project designs change, and impacts occur within the grassland habitat outside of the existing olive orchard, direct impacts may occur as a result of construction-related activities including crushing, trampling, and/or entombment. Further, increased short- and long-term anthropogenic activity in the vicinity of viable populations located outside of the project area also have a potential to indirectly impact these species by potential primary and secondary exposure to agricultural chemicals including rodenticides.

Northern California Legless Lizard

Suitable habitat for northern California legless lizard is present in the understory of oak woodland and riparian area on site. No direct impacts are proposed within areas of suitable habitat for these species. If project designs change and impacts occur within or immediately adjacent to areas of suitable habitat, direct and indirect impacts may result from construction-related disturbances and alteration or removal of habitat.

Sensitive and Nesting Birds

Direct impacts to bird species are most likely to occur if construction activities take place during the typical avian nesting season, generally February 1 through September 15. Indirect impacts may occur due to habitat loss (e.g., removal of suitable nesting trees) or construction-related disturbances that may deter nesting or cause nests to fail.

4.1.3 Impacts to Sensitive Communities and Habitats

Hydrologic Resources

Two USGS blue line drainages occur within the survey area, immediately adjacent to the proposed project. These drainages are considered waters of the state and waters of the U.S. based on the presence of a well-defined bed and bank, evidence of an OHWM, and a significant nexus to traditionally navigable waters. Currently, no impacts are proposed to the USGS blue line ephemeral drainages.



4.2 Recommended Avoidance and Minimization Measures

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

4.2.1 General Avoidance and Minimization Measures

Measure 1: Site Maintenance and General Operations

The following general measures are recommended to minimize impacts during active construction:

- The use of heavy equipment and vehicles shall be limited to the proposed project limits and defined staging areas/access points. The boundaries of each work area shall be clearly defined and marked with high visibility fencing. No work shall occur outside these limits.
- In the vicinity of sensitive resources and habitats (e.g., unnamed USGS blue line drainages and oak woodlands), signs shall be posted at the boundary of the work area indicating the presence of sensitive resources.
- Staging of equipment and materials shall occur at least 50 feet from aquatic features.
- Secondary containment such as drip pans shall be used to prevent leaks and spills of potential contaminants.
- Washing of concrete, paint, or equipment, and refueling and maintenance of equipment shall occur only in designated areas. Sandbags and/or absorbent pads shall be available to prevent water and/or spilled fuel from leaving the site.
- Any chemicals used shall be prevented from entering the USGS blue line drainages.
- Construction equipment shall be inspected by the operator daily to ensure that equipment is in good working order and no fuel or lubricant leaks are present.

4.2.2 Recommendations for Avoiding Impacts to Oak Trees

Measure 2: Oak Tree Protection

Where project activities are expected to occur within 50 feet of oak trees or oak woodland, tree protection fencing shall be installed as close to the outer limit of the woodland dripline or individual tree critical root zone as practicable. At no time shall any removal or trimming of oak trees equal to or greater than five inches in diameter be allowed.

4.2.3 Recommendations for Avoiding Impacts to Special-status Wildlife

Measure 3: Surveys for Special-status Wildlife

A qualified biologist shall conduct surveys prior to the start of initial project activities to ensure special-status wildlife species are not present within proposed work areas. In the event that special-status wildlife species are found, they shall be allowed to leave the area on their own volition or relocated (as permitted) to suitable habitat areas located outside the work area(s). If necessary, resource agencies will be contacted for further guidance. Pre-activity surveys shall be conducted as follows:



Measure 3A: Preconstruction Surveys for Townsend's Big-eared Bat

Prior to the start of work, all suitable roosting habitat for Townsend's big-eared bats (e.g., barn structure and mature oaks) within 100 feet of work areas shall be surveyed during the appropriate time of day to determine if bats are utilizing the potential roosts. If bats are detected, a bat exclusion plan shall be developed and submitted to CDFW for approval prior to implementing any exclusion methods. If no bats are detected, no further action is required.

Measure 3B: Preconstruction Survey for Sensitive and Nesting Birds

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

4.2.4 Recommendations for Avoiding Impacts to Sensitive Habitats

Measure 4: Avoidance of Federal and State Waters

Proposed permanent and/or temporary features shall be located a minimum of 50 feet from the edge of the USGS blue line drainages.

Measure 5: Protection of Federal and State Waters

In addition to Measures 1 and 4, the following measures are provided to further protect the drainage features on site. If work must occur during the rainy season, temporary erosion and sedimentation Best Management Practices (BMPs) shall be implemented, as necessary, to prevent erosion and sedimentation during construction. Acceptable BMPs include the use of weed-free, natural fiber (i.e., non-monofilament) fiber rolls, jute or coir netting, and/or other industry standards. The BMPs shall be installed and maintained until the disturbance areas are stabilized.

5.0 CONCLUSION

In total, it was determined that suitable habitat exists on site for nine special-status botanical species, individual oaks and oak woodland, and five special-status wildlife species, including two mammals, one reptile, and two bird species, as well as nesting birds. No special-status species were observed during the survey effort. Sensitive habitat identified on site includes two USGS unnamed blue line drainages on the western and northern boundary of the survey area. The project has been designed to avoid impacts to sensitive resources and habitats to the extent feasible. Specifically, all new development is expected to maintain a minimum 50-foot setback



from the blue line drainages and no oak trees are expected to be trimmed or removed as a part of the project. Based on the current project designs, it is expected that implementation of the recommended avoidance and minimization measures will avoid and/or minimize impacts to potentially occurring sensitive resources to a less than significant level.



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APPENDIX A – Project Maps

Figure 1: Project Vicinity Map

Figure 2: Survey Area Map

Figure 3: 5-mile CNDDDB and Critical Habitat Map

Figure 4: Soils Map

Figure 5: Hydrologic Resources Map

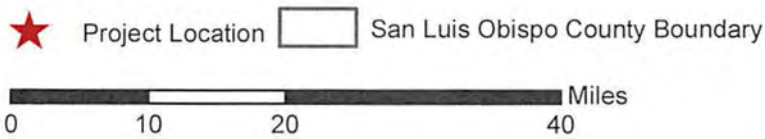
Figure 6: Vegetation Communities and Sensitive Resources Map



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4337 South El Pomar Cannabis Cultivation Project
Figure 1: Project Vicinity Map





4337 South El Pomar Cannabis Cultivation Project
Figure 2: Survey Area Map

— Drainage Feature
□ Survey Area

0 125 250 500 Feet





4337 South El Pomar Cannabis Cultivation Project
Figure 4: Soils Map

- Survey Area
- Linne-calodo Complex, 9-30% Slopes
- Linne-calodo Complex, 30-50% Slopes
- Lockwood-concepcion Complex, 2-9% Slopes

0 125 250 500 Feet

Soils data: U.S. Dept. of Agriculture, Natural Resources Conservation Service, updated 2010; accessed September 2018.





4337 South El Pomar Cannabis Cultivation Project
Figure 5: Hydrological Resources Map



Survey Area



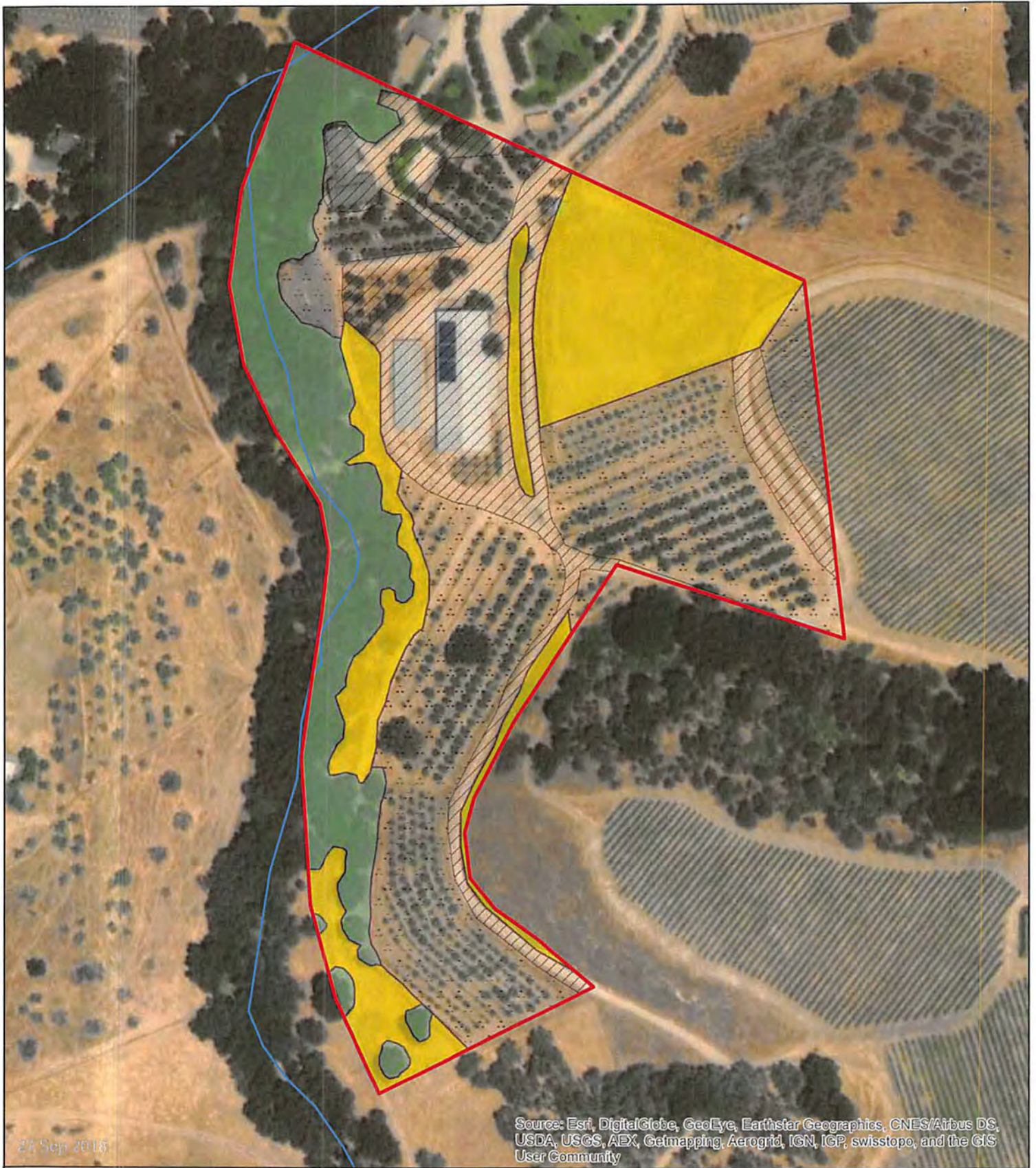
Wetland



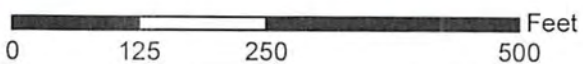
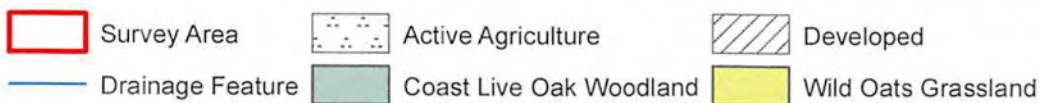
Unnamed Blue Line Drainage

0 125 250 500 Feet





4337 South El Pomar Cannabis Cultivation Project
Figure 6: Vegetation Communities and Sensitive Resources Map



Stream data: County of San Luis Obispo, 2006; accessed September 2018.



APPENDIX B – Regionally-occurring Special-status Species Table



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Regionally occurring special-status species list for the Creston and surrounding 7.5-minute quadrangles: Estrella, Shandon, Shedd Canyon, Wilson Corner, Santa Margarita, Atascadero, Templeton, Paso Robles

SENSITIVE VEGETATION COMMUNITIES AND HABITATS			
Community/ Habitat ¹	Description ²	Observed on Site? ³	Comments / Potential for Occurrence
California Natural Diversity Database (CNDDDB)-designated Sensitive Natural Communities			
Northern Interior Cypress Forest	An open, fire-dependent scrubby forest dominated by <i>Hesperocyparis</i> species with dry, rocky, sterile, often ultramafic soils. Vegetation is usually less than 15 meters tall. Frequently associated with serpentine chaparral.	No	Diagnostic species and substrate are not present on site; this community is not present within the survey area.
NOAA – Designated Critical Habitat for Special-status Species			
Steelhead – South-central California Coast DPS	These fish live in the ocean as adults but migrate to freshwater streams or creeks that have cool, flowing water, access to the ocean, and available food sources, in order to spawn. Critical habitat has been designated within the Salinas River.	No	Designated critical habitat within Salinas River, not within the overall survey and project area.

¹List of sensitive vegetation communities and habitats obtained from CNDDDB and USFWS Critical Habitat Portal (CNDDDB, 2018; USFWS, 2018a).

²Community and habitat descriptions acquired from CNDDDB (2018)

³Communities/habitats observed during field survey indicated with **bold** font and gray highlight, and are discussed further in the report.

SPECIAL-STATUS BOTANICAL SPECIES					
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/Habitat Present? ⁴	Comments / Potential for Occurrence
<i>Amsinckia douglasiana</i> Douglas' fiddleneck	CRPR 4.2	March – June	Unstable, shaly, sedimentary slopes. Elevation: 100 – 1,600 meters.	No / Yes	Suitable substrate, elevation, or known range are present on site; not detected during appropriately timed survey.
<i>Antirrhinum ovatum</i> Oval-leaved snapdragon	CRPR 4.2	May – July	Heavy, adobe-clay soils on gentle, open slopes, also disturbed areas. Elevation: < 200 – 1,400 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Arctostaphylos luciana</i> Santa Lucia manzanita	CRPR 1B.2	January – March	Shale outcrops, slopes, and upland chaparral near the coast. Elevation: 100 – 800 meters.	No / No	No suitable substrate, elevation, or known range are present on site; not detected during appropriately timed survey.
<i>Arctostaphylos obispoensis</i> Bishop manzanita	CRPR 4.3	February – March	Rocky, generally serpentine soils, chaparral, open closed-cone forest near coast. Elevation: 60 – 95 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Arctostaphylos pilosula</i> Santa Margarita manzanita	CRPR 1B.2	December – March	Shale outcrops, slopes, chaparral. Elevation: 30 – 1,250 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Astragalus didymocarpus</i> var. <i>milesianus</i> Miles' milk-vetch	CRPR 1B.2	March – May	Grassy areas near the coast, clay soils in coastal scrub. Elevation: < 400 meters.	No / No	No suitable substrate on site; not detected during appropriately timed survey.
<i>Astragalus macradon</i> Salinas milk-vetch	CRPR 4.3	All year	Eroded pale shales or sandstone, serpentine alluvium. Elevation: < 200 – 1,550 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Calochortus obispoensis</i> San Luis mariposa lily	CRPR 1B.2	May – June	Dry serpentine, generally open chaparral. Elevation: 100 – 500 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.

SPECIAL-STATUS BOTANICAL SPECIES					
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/Habitat Present? ⁴	Comments / Potential for Occurrence
<i>Calochortus simulans</i> La Panza mariposa lily	CRPR 1B.3	May – July	Sand (often granitic), grassland, and yellow pine forest. Elevation: < 1,100 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Calycadenia villosa</i> Dwarf calycadenia	CRPR 1B.1	May – September	Dry, rocky hills, ridges, grassland, openings in foothill woodland. Elevation: 250 – 850 meters.	No / No	Suitable grassland habitat on site; not detected during appropriately timed survey.
<i>Calystegia subacaulis</i> subsp. <i>episcopalis</i> Cambria morning-glory	CRPR 4.2	April – June	Dry, open scrub and woodland, chaparral, coastal prairie, grassland; usually in clay soil. Elevation: < 500 meters.	No / No	No suitable substrate on site; not detected during appropriately timed survey.
<i>Camissoniopsis hardhamiae</i> Hardham's evening primrose	CRPR 1B.2	March – May	Sandy soil, limestone; disturbed or burned areas in oak woodland. Elevation: 60 – 600 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Carex obispoensis</i> San Luis Obispo sedge	CRPR 1B.2	March – June	Springs and stream sides in chaparral, generally on serpentine. Elevation: < 800 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Castilleja densiflora</i> subsp. <i>obispoensis</i> San Luis Obispo owl's-clover	CRPR 1B.2	March – June	Coastal grassland. Elevation: < 400 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Caulanthus lemmonii</i> Lemmon's jewelflower	CRPR 1B.2	March – May	Grassland, chaparral, scrub. Elevation: 80 – 1,100 meters.	No / Yes	Suitable grassland habitat on site, not detected during appropriately timed survey.

SPECIAL-STATUS BOTANICAL SPECIES

Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/ Habitat Present? ⁴	Comments / Potential for Occurrence
<i>Ceanothus cuneatus</i> var. <i>fascicularis</i> Lompoc ceanothus	CRPR 4.2	February – May	Sandy substrates in coastal chaparral. Elevation: < 275 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Charizantha breweri</i> Brewer's spineflower	CRPR 1B.3	March – July	Gravel or rocks, typically on serpentine soil. Elevation: < 60 – 800 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Charizantha douglasii</i> Douglas's spineflower	CRPR 4.3	April – July	Sand or gravel. Elevation: 200 – 1,600 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Charizantha palmeri</i> Palmer's spineflower	CRPR 4.2	May – August	Serpentine. Elevation: 60 - 700 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Charizantha rectispina</i> Straight-awned spineflower	CRPR 1B.3	May – July	Sand or gravel. Elevation: 200 – 600 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Cirsium fontinale</i> var. <i>obispoense</i> San Luis Obispo fountain thistle	Fed: Endangered State: Endangered CRPR 1B.2	April – October	Serpentine seeps and streams. Elevation: < 350 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Cirsium occidentale</i> var. <i>lucianum</i> Cuesta Ridge thistle	CRPR 1B.2	April – July	Chaparral, woodland or forest openings, and often on serpentine. Elevation: 500 – 750 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Convolvulus simulans</i> Small-flowered morning-glory	CRPR 4.2	April – June	Clay substrates, occasionally serpentine, annual grassland, coastal-sage scrub, chaparral. Elevation: 30 – 875 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.

SPECIAL-STATUS BOTANICAL SPECIES					
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/Habitat Present? ⁴	Comments / Potential for Occurrence
<i>Deinandra halliana</i> Hall's tarplant	CRPR 1B.1	April – May	Grasslands, opens slopes, sink edges, vertic clay, rarely serpentine in the San Joaquin Valley and South Coast Inner Ranges. Elevation: 300 – 1,000 meters.	No / Yes	No suitable habitat on site; outside species typical distribution. Not detected during appropriately timed survey.
<i>Deinandra paniculata</i> Paniculate tarplant	CRPR 4.2	May – November	Grassland, open chaparral and woodland, disturbed areas, often in sandy soils. Elevation: < 1,320 meters.	No / Yes	Suitable grassland habitat on site; not detected during appropriately timed survey.
<i>Delphinium parryi</i> subsp. <i>blochmaniae</i> Dune larkspur	CRPR 1B.2	April – May	Coastal chaparral, coastal dunes, sand. Elevation: < 200 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Delphinium parryi</i> subsp. <i>eastwoodiae</i> Eastwood's larkspur	CRPR 1B.2	March – May	Coastal chaparral and grassland on serpentine. Elevation: 100 – 500 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Dudleya abramsii</i> subsp. <i>murina</i> Mouse-gray dudleya	CRPR 1B.3	May – June	Serpentine outcrops. Elevation: 120 – 300 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Eleocharis parvula</i> Small spikerush	CRPR 4.3	Winter – Fall	Brackish wet soil, coastal. Elevation: < 50 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Eriastrum luteum</i> Yellow-flowered eriastrum	CRPR 1B.2	May – June	Drying slopes, sandy or gravelly soil, typically in association with chaparral or woodland. Elevation: < 1,000 m.	No / Yes	Suitable habitat on site; not detected during appropriately timed survey.
<i>Eriogonum temblorense</i> Temblor buckwheat	CRPR 1B.2	May – September	Sand, clay, or sandstone in valley and foothill grassland. Elevation: 300 – 900 m.	No / No	No suitable habitat on site; not detected during early fall survey.

SPECIAL-STATUS BOTANICAL SPECIES					
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/Habitat Present? ⁴	Comments / Potential for Occurrence
<i>Fritillaria ojaiensis</i> Ojai fritillary	CRPR 1B.2	February – May	Rocky slopes and river basins. Elevation: 300 – 500 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Horkelia cuneata</i> var. <i>puberula</i> Mesa horkelia	CRPR 1B.1	March – July	Dry, sandy, coastal chaparral. Elevation: 70 – 870 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Horkelia cuneata</i> var. <i>sericea</i> Kellogg's horkelia	CRPR 1B.1	April – August	Old dunes, coastal sand hills. Elevation: < 200 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Juncus luciensis</i> Santa Lucia dwarf rush	CRPR 1B.2	April – August	Wet, sandy soils of seeps, meadows, vernal pools, streams, roadsides. Elevation: 300 – 1,900 m.	No / Yes	Suitable stream habitat on site; not detected during appropriately timed survey.
<i>Layia heterotricha</i> Pale-yellow layia	CRPR 1B.1	April – June	Open clayey or sandy soil, sometimes +/- alkaline, in scrub, woodland, or grassland habitat. Elevation: 200 – 1,800 m.	No / Yes	Suitable grassland habitat on site; not detected during appropriately timed survey.
<i>Lepidium jaredii</i> Jared's pepper grass	CRPR 1B.2	March – April	Alkali bottoms, slopes, washes, dry hillsides, in vertic clay, acidic, gypsiferous soil. Elevation: 500 – 700 m.	No / No	No suitable habitat present on site; not detected during appropriately timed survey.
<i>Malacothamnus jonesii</i> Jones' bush-mallow	CRPR 4.3	May – July	Open chaparral in foothill woodland. Elevation: 250 – 830 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Malacothamnus palmeri</i> var. <i>involucratulus</i> Carmel Valley bush-mallow	CRPR 1B.2	May – July	Valleys, chaparral. Elevation: 30 – 800 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.

SPECIAL-STATUS BOTANICAL SPECIES					
Scientific/Common Name ¹	Listing Status ²	Blooming Period ³	Habitat Type ³	Observed/Habitat Present? ⁴	Comments / Potential for Occurrence
<i>Malacothamnus palmeri</i> var. <i>palmeri</i> Santa Lucia bush-mallow	CRPR 1B.2	May – July	Interior valleys foothills. Elevation: 30 – 800 meters.	No / Yes	Suitable habitat on site; not detected during appropriately timed survey.
<i>Monardella palmeri</i> Palmer's monardella	CRPR 1B.2	June – August	Chaparral and forest on serpentine. Elevation: 200 – 800 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Monolopia gracilis</i> Woodland woollythreads	CRPR 1B.2	March – July	Serpentine in grassland, open chaparral, oak woodland. Elevation: 100 – 1,200 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Navarretia fossalis</i> Spreading navarretia	Fed: Threatened CRPR 1B.1	April – June	Vernal pools, ditches. Elevation: 30 – 1,300 m.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Navarretia nigelliformis</i> subsp. <i>radians</i> Shining navarretia	CRPR 1B.2	May – July	Vernal pools, clay depressions. Elevation: 150 – 1,000 m.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Plagiobothrys uncinatus</i> Hooked popcornflower	CRPR 1B.2	April – May	Chaparral, canyon sides, and rocky outcrops; ± fire follower. Elevation: 300 – 600 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Senecio aphanactis</i> Chaparral ragwort	CRPR 2B.2	February – May	Alkaline flats, dry open rocky areas. Elevation: 10 – 800 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.
<i>Senecio astephanus</i> San Gabriel ragwort	CRPR 4.3	April – June	Steep, rocky slopes in chaparral/ coastal sage scrub and oak woodland. Elevation: 400 – 1,500 m.	No / Yes	Suitable woodland habitat on site; not detected during appropriately timed survey.
<i>Sidalcea hickmanii</i> subsp. <i>anomala</i> Cuesta Pass checkerbloom	State: Rare CRPR 1B.2	May – June	Closed-cone coniferous forest, generally serpentine. Elevation: 600 – 800 meters.	No / No	No suitable habitat on site; not detected during appropriately timed survey.

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

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

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

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

SPECIAL-STATUS WILDLIFE SPECIES					
Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence
<i>Actinemys marmorata</i> Western pond turtle	State: CSC	April – August	Riparian areas such as ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with either a rocky or muddy bottom. Prefers shallow pools with logs or rocks for basking. Can enter brackish or even seawater.	No / No	No suitable habitat on site; not expected to occur.
<i>Agelaius tricolor</i> Tricolored blackbird	State: CSC	Spring – Fall	Nests near water sources such as marshes, grassland, and wetlands. Requires access to substrates, usually aquatic, to build nests. Forages for insects and plant matter on agricultural sites and grasslands. Very colonial.	No / No	No suitable habitat on site; not expected to occur.
<i>Ammodramus savannarum</i> Grasshopper sparrow	State: CSC	April – July	Grasslands with few trees, including meadows, pastures, grassy roadsides, sedge wetlands, and cultivated fields planted with cover crops like alfalfa.	No / Yes	Marginally suitable habitat present within grassland and agricultural fields.
<i>Ammospermophilus nelsoni</i> Nelson's antelope squirrel	State: Threatened	January – April	Flat to moderate sloping grasslands and dry washes with widely scattered shrubs and sandy loam soils.	No / No	No suitable habitat on site; not expected to occur.
<i>Anniella pulchra</i> Northern California legless lizard	State: CSC	March – July; live birth September – November	Moist warm loose soil with plant cover and under leaf litter. Found in beach dunes, chaparral, foothill woodlands, desert scrub, sandy washes, and stream terraces.	No / Yes	Suitable habitat present within oak woodlands on site.

SPECIAL-STATUS WILDLIFE SPECIES

Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence
<i>Aquila chrysaetos</i> Golden eagle	State: Fully Protected	January – August	Open to semi-open grassland, forest, shrubland or oak woodland. Require steep cliffs or large trees in open areas for nesting.	No / No	Marginally suitable foraging habitat present within grassland. Lack of suitable nesting habitat; not expected to occur.
<i>Ardea herodias</i> Great blue heron	State: Special Animal	February – August	Saltwater and freshwater habitats along open coast lines, marshes, sloughs, river banks, and ponds.	No / No	No suitable habitat on site; not expected to occur.
<i>Arizona elegans occidentalis</i> California glossy snake	State: CSC	June – October	Aris scrub, rocky washes, grasslands or chaparral. Prefers open areas with soil loose enough for burrowing.	No / No	No suitable habitat on site; not expected to occur.
<i>Batrachoseps minor</i> Lesser slender salamander	State: CSC	Spring	Moist locations in mixed oak forests, sycamore, and laurel above 400 meters. Found only in southern Santa Lucia Mountains of San Luis Obispo County.	No / No	No suitable habitat on site; not expected to occur.
<i>Branchinecta lynchi</i> Vernal pool fairy shrimp	Fed: Threatened	Rainy season	Vernal pools and depressions in grasslands.	No / No	No suitable habitat on site; not expected to occur.
<i>Buteo regalis</i> Ferruginous hawk	State: Watch List	February – July	Lowlands, plateaus, rolling hills of grasslands, ranches and agricultural fields. Primarily nest in trees.	No / No	Outside of nesting range. May forage or overwinter; not observed during survey.
<i>Buteo swainsoni</i> Swainson's hawk	State: Threatened	March – September	Prairie and grassland habitat for foraging. Also utilize converted agricultural land. Require scattered stands of trees near grassland or agricultural fields for nesting.	No / No	Marginally suitable foraging habitat present within grassland and agricultural fields. Lack of suitable nesting habitat on site; not expected to occur.

SPECIAL-STATUS WILDLIFE SPECIES					
Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	State: CSC	November – May	Montane forests including pine, fir, and aspens surrounded by shrub and grasslands. Colonies roosts in caves, mines, tunnels, buildings, and human made structures.	No / Yes	Suitable roosting habitat present within open barn structure on site.
<i>Coturnicops noveboracensis</i> Yellow rail	State: CSC	May – August	Shallow marshes and wet meadows.	No / No	No suitable habitat on site; not expected to occur.
<i>Elanus leucurus</i> White-tailed kite	State: Fully Protected	March – August	Savanna, open woodlands, marshes, desert, grassland. Prefer partially cleared fields such as ranches and cultivated fields. They build nests on top of old ones of other species in trees.	No / Yes	Suitable habitat present within oak woodlands, grassland and agricultural fields.

SPECIAL-STATUS WILDLIFE SPECIES					
Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence
<i>Falco mexicanus</i> Prairie falcon	State: Watch List	February – July	Primarily inhabits dry grasslands, woodlands, savannahs, cultivated fields, lake shores, and rangelands. Primarily nests on cliffs, canyons, and rock outcrops.	No / No	No suitable nesting habitat; may forage through project area.
<i>Linderiella occidentalis</i> California fairy shrimp	State: Special Animal	Rainy Season	Seasonal pools in unplowed grasslands with alluvial soils.	No / No	No suitable habitat on site; not expected to occur.
<i>Onychomys torridus tularensis</i> Tulare grasshopper mouse	State: Special Animal	April – August	Arid shrubland communities in arid grasslands.	No / No	No suitable habitat on site; not expected to occur.
<i>Perognathus inornatus</i> San Joaquin pocket mouse	State: Special Animal	March – July	Dry, open, grassy or weedy ground, and arid annual grasslands, savanna, and desert-shrub associations with sandy washes or finely textured soil.	No / No	No suitable habitat on site; not expected to occur.
<i>Perognathus inornatus psammophilus</i> Salinas pocket mouse	State: CSC	March – July	Open grassland and desert-shrub communities on alluvial sandy and wind drifted sands.	No / No	No suitable habitat on site; not expected to occur.
<i>Polyphylla nubila</i> Atascadero June beetle	State: Special Animal	Early Summer – June	Known only from sand dunes in Atascadero and San Luis Obispo.	No / No	No suitable habitat on site; not expected to occur.
<i>Progne subis</i> Purple martin	State: CSC	May – June	Woodlands in close proximity to water bodies and open fields for foraging. Will live close to humans and are very attracted to bird feeders. Nest in cavities.	No / No	No suitable water habitat on site or nearby; not expected to occur.
<i>Rana boylei</i> Foothill yellow-legged frog	State: CSC	April – July	Rocky streams and rivers with rocky substrate. Found in woodlands, chaparral and forests with open sunny banks.	No / No	No suitable habitat on site; not expected to occur.

SPECIAL-STATUS WILDLIFE SPECIES					
Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence
<i>Rana draytonii</i> California red-legged frog	Fed: Threatened State: CSC	January – July	Most common in ponds of woodlands and grasslands. Found in habitats adjacent to streams or water access.	No / No	No suitable habitat on site; not expected to occur.
<i>Riparia riparia</i> Bank swallow	State: Threatened	April – July	Low areas along rivers, streams, ocean coasts or reservoirs. Nest on vertical cliffs or banks with colonies of 10 to 2,000 nests.	No / No	No suitable habitat on site; not expected to occur.
<i>Spea hammondi</i> Western spadefoot	State: CSC	Rainy Season	Persist in upland refugium (i.e., underground burrows with sandy or gravelly soils) for the majority of the year and emerge during periods of rainfall to breed in temporary pools or pools in intermittent streams.	No / No	No suitable habitat on site; not expected to occur.
<i>Taricha torosa</i> California newt	State: CSC	December – April	Slow moving streams, ponds, and lakes with surrounding evergreen/oak forests along coast. Aquatic when breeding.	No / No	No suitable habitat on site; not expected to occur.
<i>Taxidea taxus</i> American badger	State: CSC	Late Summer – Early Fall	Dry, open fields with friable soil for tunneling and foraging.	No / Yes	Suitable habitat present within grassland; not observed during survey.
<i>Vireo bellii pusillus</i> Least Bell's vireo	Fed: Endangered State: Endangered	March – September	Dense, low, shrubby vegetation, generally early successional stages in riparian areas. Associated with ponded water or moist conditions.	No / No	No suitable nesting habitat on site; not expected to occur.

SPECIAL-STATUS WILDLIFE SPECIES					
Scientific/Common Name ¹	Listing Status ¹	Nesting/ Breeding Period ²	Habitat Type ²	Observed/ Habitat Present? ³	Comments / Potential for Occurrence
<i>Vulpes macrotis mutica</i> San Joaquin kit fox	Fed: Endangered State: Threatened	December – July	Generally flat to moderate topography grasslands with friable soils and small mammal activity.	No / No	No suitable habitat on site; not expected to occur.

¹List of regionally-occurring special-status species and listing status acquired from CNDDDB (CNDDDB, 2018) and local expert knowledge.

²Life history information obtained from multiple sources, including Cornell Lab of Ornithology Online (Cornell, 2018), CaliforniaHerps.com (Nafis, 2018), and USFWS Environmental Conservation Online System (ECOS) (USFWS, 2018c).

³Species observed during field survey indicated with **bold** font; species determined to have suitable habitat present on the site, even marginally suitable habitat, indicated with gray highlight. Species highlighted gray are discussed further in the report.



APPENDIX C – Botanical and Wildlife Species Observed



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List of Botanical Species Observed at the 4337 S. El Pomar Development Project Site
May 10, 2018

Family	Scientific Name	Common Name	Cal-IPC Status ¹	Origin
Adoxaceae (Muskroot Family)	<i>Sambucus nigra</i> subsp. <i>caerulea</i>	Blue elderberry	--	Native
Agavaceae (Century Plant Family)	<i>Chlorogalum pomeridianum</i>	Soap plant	--	Native
Anacardiaceae (Sumac Family)	<i>Toxicodendron diversilobum</i>	Western poison oak	--	Native
Apiaceae (Carrot Family)	<i>Anthriscus caucalis</i>	Bur-chervil	--	Naturalized
	<i>Conium maculatum</i>	Poison hemlock	Mod	Naturalized
	<i>Lomatium caruifolium</i>	Caraway leaved lomatium	--	Native
	<i>Sanicula bipinnata</i>	Poison sanicle	--	Native
	<i>Sanicula crassicaulis</i>	Pacific sanicle	--	Native
	<i>Torilis nodosa</i>	Short sock-destroyer	--	Naturalized
Apocynaceae (Dogbane Family)	<i>Asclepias eriocarpa</i>	Kotolo	--	Native
Asteraceae (Sunflower Family)	<i>Achillea millefolium</i>	Yarrow	--	Native
	<i>Achyrrachaena mollis</i>	Blow wives	--	Native
	<i>Agoseris grandiflora</i>	Giant mountain dandelion	--	Native
	<i>Agoseris heterophylla</i>	Mountain dandelion	--	Native
	<i>Baccharis pilularis</i>	Coyote brush	--	Native
	<i>Carduus pycnocephalus</i>	Italian thistle	Mod	Naturalized
	<i>Centaurea melitensis</i>	Tocalote	Mod	Naturalized
	<i>Centaurea solstitialis</i>	Yellow star-thistle	High	Naturalized
	<i>Hypochaeris glabra</i>	Smooth cat's ear	Lim	Naturalized
	<i>Lactuca serriola</i>	Prickly lettuce	--	Naturalized
	<i>Lagophylla ramosissima</i>	Common hareleaf	--	Native
	<i>Matricaria discoidea</i>	Pineapple weed	--	Naturalized
	<i>Microseris douglasii</i>	Douglas' microseris	--	Native
	<i>Pseudognaphalium luteoalbum</i>	Jersey cudweed	--	Naturalized
	<i>Silybum marianum</i>	Milk thistle	Lim	Naturalized
	<i>Sonchus asper</i> subsp. <i>asper</i>	Prickly sow thistle	--	Naturalized
Brassicaceae	<i>Brassica nigra</i>	Black mustard	Mod	Naturalized

Family	Scientific Name	Common Name	Cal-IPC Status ¹	Origin
(Mustard Family)	<i>Capsella bursa-pastoris</i>	Shepherd's purse	--	Naturalized
	<i>Lobularia maritima</i>	Sweet alyssum	Lim	Naturalized
	<i>Hirschfeldia incana</i>	Mediterranean hoary mustard	Mod	Naturalized
	<i>Sisymbrium altissimum</i>	Tumble mustard	--	Naturalized
Boraginaceae (Borage Family)	<i>Amsinckia menziesii</i>	Common fiddleneck	--	Native
	<i>Amsinckia tessellata</i>	Devil's lettuce	--	Native
Caryophyllaceae (Pink Family)	<i>Stellaria media</i>	Common chickweed	--	Naturalized
Cupressaceae (Cypress Family)	<i>Sequoia sempervirens</i>	Coast redwood	--	Native / Ornamental
Fabaceae (Legume Family)	<i>Acemisson brachycarpus</i>	Short podded lotus	--	Native
	<i>Lupinus bicolor</i>	Miniature lupine	--	Native
	<i>Lupinus microcarpus</i>	Chick lupine	--	Native
	<i>Medicago minima</i>	Burclover	--	Naturalized
	<i>Medicago polymorpha</i>	California burclover	Lim	Naturalized
	<i>Melilotus indicus</i>	Sourclover	--	Naturalized
	<i>Vicia sativa</i>	Spring vetch	--	Naturalized
	<i>Vicia villosa</i>	Hairy vetch	--	Naturalized
Fagaceae (Oak Family)	<i>Quercus agrifolia</i> var. <i>agrifolia</i>	Coast live oak	--	Native
	<i>Quercus douglasii</i>	Blue oak	--	Native
	<i>Quercus lobata</i>	Valley oak	--	Native
	<i>Quercus wislizeni</i> var. <i>wislizeni</i>	Interior live oak	--	Native
Geraniaceae (Geranium Family)	<i>Erodium cicutarium</i>	Redstem filaree	Lim	Naturalized
(Iris Family)	<i>Sisyrinchium bellum</i>	Western blue-eyed-grass	--	Native
Lamiaceae (Mint Family)	<i>Lamium amplexicaule</i>	Henbit	--	Naturalized
	<i>Marrubium vulgare</i>	White horehound	Lim	Naturalized
	<i>Rosmarinus officinalis</i>	Rosemary	--	Ornamental
Malvaceae (Mallow Family)	<i>Malva nicaeensis</i>	Bull mallow	--	Naturalized
Montiaceae (Miner's Lettuce Family)	<i>Claytonia perfoliata</i>	Miner's lettuce	--	Native

Family	Scientific Name	Common Name	Cal-IPC Status ¹	Origin
Oleaceae (Olive Family)	<i>Olea europaea</i>	Olive	--	Naturalized
Onagraceae (Evening-primrose Family)	<i>Clarkia bottae</i>	Punchbowl godetia	--	Native
	<i>Clarkia purpurea</i> subsp. <i>quadrivulnera</i>	Four-spot	--	Native
	<i>Clarkia unguiculata</i>	Woodland clarkia	--	Native
Orobanchaceae (Broomrape Family)	<i>Castilleja exserta</i>	Purple owl's-clover	--	Native
Oxalidaceae (Oxalis Family)	<i>Oxalis pes-caprae</i>	Bermuda buttercup	Mod	Naturalized
Papaveraceae (Poppy Family)	<i>Romneya trichocalyx</i>	Hairy matilija poppy	--	Native / Ornamental
Pinaceae (Pine Family)	<i>Pinus</i> sp.	Pine	--	Ornamental
Plantaginaceae (Plantain Family)	<i>Plantago lanceolata</i>	English plantain	Lim	Naturalized
Platanaceae (Sycamore Family)	<i>Platanus racemosa</i>	Western sycamore	--	Native / Ornamental
Poaceae (Grass Family)	<i>Avena barbata</i>	Slender wild oat	Mod	Naturalized
	<i>Avena fatua</i>	Wild oat	Mod	Naturalized
	<i>Bromus diandrus</i>	Ripgut grass	Mod	Naturalized
	<i>Bromus hordeaceus</i>	Soft chess	Lim	Naturalized
	<i>Bromus madritensis</i> subsp. <i>rubens</i>	Red brome	High	Naturalized
	<i>Elymus glaucus</i>	Blue wild-rye	--	Native
	<i>Festuca microstachys</i>	Small fescue	--	Native
	<i>Festuca myuros</i>	Rattail sixweeks grass	Mod	Naturalized
	<i>Festuca perennis</i>	Rye grass	Mod	Naturalized
	<i>Hordeum marinum</i> subsp. <i>gussoneanum</i>	Mediterranean barley	Mod	Naturalized
	<i>Hordeum murinum</i>	Wall barley	Mod	Naturalized
	<i>Hordeum vulgare</i>	Cultivated barley	--	Naturalized
	<i>Phalaris aquatica</i>	Harding grass	Mod	Naturalized
	<i>Poa secunda</i>	Nevada blue grass	--	Native
	<i>Stipa tenuissima</i>	Mexican feathergrass	Watch	Naturalized
Polygonaceae (Buckwheat Family)	<i>Polygonum aviculare</i>	Knotweed	--	Naturalized
Rosaceae (Rose Family)	<i>Heteromeles arbutifolia</i>	Toyon	--	Native / Ornamental
	<i>Prunus ilicifolia</i>	Holly leaf cherry	--	Native



Family	Scientific Name	Common Name	Cal-IPC Status ¹	Origin
	<i>Rosa</i> sp.	Rose	--	Ornamental
Salicaceae (Willow Family)	<i>Populus fremontii</i> subsp. <i>fremontii</i>	Fremont cottonwood	--	Native
	<i>Salix lasiolepis</i>	Arroyo willow	--	Native
Verbenaceae (Vervain Family)	<i>Verbena lasiostachys</i>	Western vervain	--	Native
Vitaceae (Grape Family)	<i>Vitus</i> sp.	Cultivated grape	--	Naturalized

¹Taxa included on the California Invasive Plant Council (Cal-IPC) Invasive Plant Inventory (Cal-IPC, 2018) are indicated above with the listing rank. Cal-IPC rankings included on this list are defined as:

- **Limited (Lim):** invasive but with minor statewide ecological impacts, or insufficient information to justify a higher score.
- **Moderate (Mod):** substantial and apparent, but generally not severe ecological impacts on physical processes, plant and animal communities, and vegetation structure.
- **High:** severe ecological impacts on physical processes, plant and animal communities, and vegetation structure.
- **Watch:** species that pose a high risk of becoming invasive in the future in California.

²California Native Plant Society (CNPS) list 4.2 ranking.



List of Wildlife Species List Observed at the 4337 S, El Pomar Development Project Site
May 11, 2018

Family	Scientific Name	Common Name	*Listing Status Federal/State
Birds	<i>Aphelocoma californica</i>	California scrub jay	--
	<i>Bubo virginianus</i>	Great horned owl	--
	<i>Buteo jamaicensis</i>	Red-tailed hawk	--
	<i>Buteo lineatus</i>	Red-shouldered hawk	--
	<i>Callipepla californica</i>	California quail	--
	<i>Calypte anna</i>	Anna's hummingbird	--
	<i>Cathartes aura</i>	Turkey vulture	--
	<i>Corvus brachyrhynchos</i>	American crow	--
	<i>Haemorphous mexicanus</i>	House finch	--
	<i>Icterus bullockii</i>	Bullock's oriole	--
	<i>Melanerpes formicivorus</i>	Acorn woodpecker	--
	<i>Melospiza crissalis</i>	California towhee	--
	<i>Picoides nuttallii</i>	Nuttall's woodpecker	--
	<i>Picoides villosus</i>	Hairy woodpecker	--
	<i>Pipilo maculatus</i>	Spotted towhee	--
	<i>Psaltiriparus minimus</i>	Bushtit	--
	<i>Sayornis nigricans</i>	Black phoebe	--
	<i>Sitta carolinensis</i>	White-breasted nuthatch	--
	<i>Spinus psaltria</i>	Lesser goldfinch	--
	<i>Sturnus vulgaris</i>	European starling	Non-native
	<i>Tachycineta bicolor</i>	Tree swallow	--
	<i>Zenaidura macroura</i>	Mourning dove	--
Reptiles	<i>Sceloporus occidentalis</i>	Coast range fence lizard	--

* No special-status species observed on site.



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APPENDIX D – Representative Site Photographs



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Photo 1. View of proposed Site 1, where existing barn structure to be replaced or retrofitted to support a greenhouse for indoor cannabis cultivation, view east. (May 10, 2018).

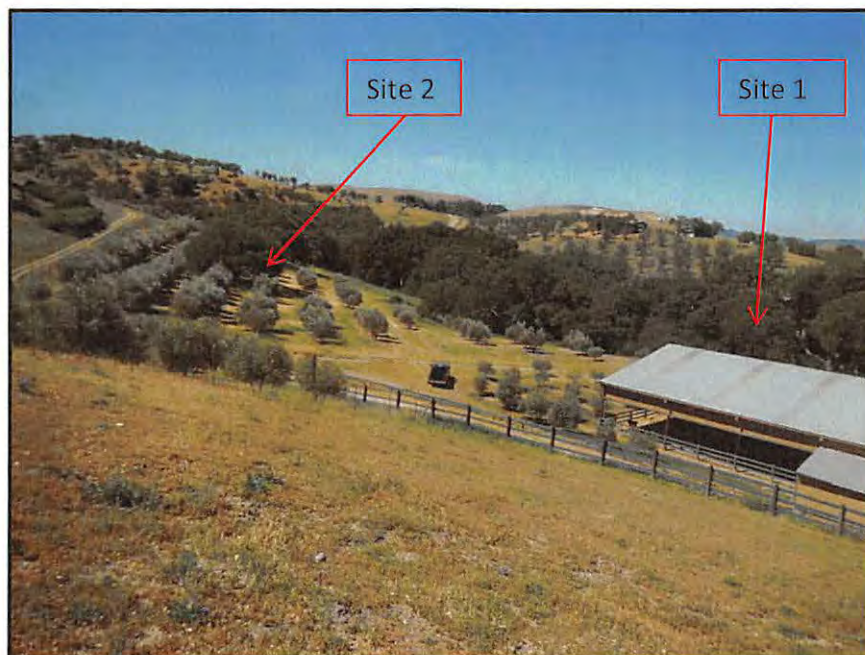


Photo 2. Overview of proposed Site 1 and 2. Note oak trees present within existing olive orchards and will be protected during project activities, view southwest (May 10, 2018).



Photo 3. View of wild oats grassland between riparian corridor and existing developed areas, west of proposed Site 1 (May 10, 2018).



Photo 4. View of coast live oak woodland community associated with the USGS blue line drainage west of Site 1 and Site 2 (May 10, 2018).



Photo 5. View of typical olive orchard rows with limited herbaceous weedy vegetation observed in the understory (May 10, 2018).



Photo 6. View of main access road to proposed project site from South El Pomar Road. No road improvement proposed as a part of the project (May 10, 2018).

Initial Study – Environmental Checklist

APPENDIX I

Waste Management Plan

Waste Management Plan

The business anticipates generating liquid or solid waste from its cultivation efforts. Upon expiration of any and all of its medical marijuana, or in the event of unforeseeable tainted or contaminated marijuana ("expired products"), designated employees and/or agents of the business shall immediately remove those expired products from the business's inventory and shall place them in quarantine in a secured, locked storage area within the premises in preparation for destruction and final disposal.

i. Description of the documentation to track and verify destruction:

All expired products shall be hand-labeled by employees as "EXPIRED" prior to placement in the destruction quarantine area. All employees must execute the PRODUCT AND INVENTORY INSPECTION AND DESTRUCTION FORM prior to inspection and destruction, and must execute the EXPIRED PRODUCTS DISPOSITION FORM to verify the destruction and final disposition of all expired products. All expired products shall be managed and stored in the business's secured quarantine room, and remain under video surveillance (in quarantine) until destruction.

In addition to the retention of the foregoing forms by the business, the inspection, identification, destruction, and final disposition of all expired products shall be entered into the business's seed-to-sale traceability software tracking and inventory control system to ensure that the State maintains oversight over the business's waste materials in order to prevent any theft or improper or inadvertent diversion of any marijuana products into the surrounding community.

ii. Methods of rendering product non-viable:

All destruction of expired products will take place on-site in a secured, surveilled, locked room inside the premises. The destruction room shall be entirely and completely separate from any cultivation and/or packaging and labeling rooms. Designated employees shall render all expired products non-viable by grinding and incorporating the expired products with other ground materials so the resulting mixture is at least fifty percent (50%) non-cannabis waste by volume.

The materials the business shall use to grind with the cannabis fall into two categories: compostable waste and non-compostable waste.

For the compostable mixed waste: cannabis waste to be disposed of by the business as compost feedstock or in another organic waste method (for example, anaerobic digester) shall be mixed with the following types of waste materials:

- (i) Food waste;*
- (ii) Yard waste;*
- (iii) Vegetable based grease or oils; or*
- (iv) Other wastes as approved by the State.*

For non-compostable mixed waste: marijuana waste to be disposed of by the business in a landfill or another disposal method (for example, incinerator) shall be mixed with the following types of waste materials:

(i) Paper waste;

(ii) Cardboard waste;

(iii) Plastic waste;

(iv) Soil; or

(v) Other wastes as approved by the State.

iii. Final destination of the non-viable product:

Disposal of the marijuana waste rendered non-viable by the business shall be delivered to a permitted solid waste facility for final disposition by employees of the business in accordance with State and local laws. To avoid security risks, no marijuana waste whatsoever shall be deposited in any dumpsters or trash receptacles within any proximity to the business.

Depending upon whether the business's marijuana waste is compostable or non-compostable, the business shall dispose of the marijuana waste as follows:

(i) Compostable mixed waste: Compost, anaerobic digester, or other facility with approval of the State's health department.

(ii) Non-compostable mixed waste: Landfill, incinerator, or other facility with approval of the State's health department.

Designated employees of the business shall generate a written and electronic record of the destruction and final destination of marijuana waste rendered non-viable, including product name and identification number, weight, date of destruction, and batch number. This information shall be entered into the business's seed-to-sale traceability and inventory control system for State access.

iv. Transportation of non-viable expired products:

Upon transporting any expired products, the business shall notify the State of the type and amount and/or weight of expired products being transported, the name of transporter, information about the transporting vehicle, times of departure and expected time of disposition. This information shall be reported in the business's electronic traceability and inventory control system.

A complete printed TRANSPORTATION MANIFEST containing all expired products' inspection, identification, destruction, and disposition information shall be kept with all expired products to

be transported at all times.

Records of all transportation of expired products shall be kept for a minimum of five years at the business and in the business's traceability and inventory control system.

Transportation of all expired products shall meet the following criteria:

- (a) Only the business's supervisors or its employees shall transport the expired products for final disposition, but they shall be accompanied by armed security guards from Security Agent 1;*
- (b) Expired products shall be contained in heat-sealed packages or containers.*
- (c) Sealed packages or containers shall not be opened during transport;*
- (d) Expired products shall be kept in a locked, safe, and secure storage compartment that is secured to the inside body/compartments of the vehicle transporting the expired products;*
- (e) Any business vehicle that is transporting expired products shall travel directly from the storefront to the final disposition site, and shall not make any unnecessary stops in between.*

v. Frequency of destruction:

Designated employees shall inspect all medical marijuana and inventory on a daily basis to determine whether or not that medical marijuana and inventory constitute expired products. Destruction shall take place on a weekly basis or as-needed depending on the age and/or fitness audit of products and inventory.