PUBLIC REVIEW DRAFT

INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

FOR THE

El CHE GROWERS INDOOR CANNABIS FACILITY

18299 North Jacob Brack Road, Lodi, CA

Development Agreement PA-2200198/Conditional Use Permit PA-2100014

November 7, 2023

Prepared for:

SAN JOAQUIN COUNTY
COMMUNITY DEVELOPMENT DEPARTMENT
1810 E. Hazelton Avenue
Stockton, CA 95205

Prepared by:

BaseCamp Environmental, Inc.
802 W. Lodi Avenue
Lodi, CA 95240

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LIST OF ACRONYMS AND ABBREVIATIONS USED IN THIS DOCUMENT

AB	Assembly Bill
ARB	California Air Resources Board
CalEEMod	California Emissions Estimator Model
Cal Fire	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
dB	decibel
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
IS/MND	Initial Study/Mitigated Negative Declaration
kWh/kg	kilowatt-hours per kilogram
L_{dn}	Day-Night Average Level
L_{eq}	average or equivalent continuous sound level
LOS	Level of Service
MAUCRSA	Medicinal and Adult-Use Cannabis Regulation and Safety Act
MCRSA	Medical Cannabis Regulation and Safety Act
NO_x	nitrogen oxide
PG&E	Pacific Gas and Electric Company
PM_{10}	particulate matter 10 micrometers or less in diameter
$PM_{2.5}$	particulate matter 2.5 micrometers or less in diameter
ROG	reactive organic gas
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SJCOG	San Joaquin Council of Governments
SJMSCP	San Joaquin County Multi-Species Habitat Conservation and Open Space Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
VMT	vehicle miles traveled

MITIGATED NEGATIVE DECLARATION

A. General Project Information

Project Title:	El Che Growers Indoor Cannabis Facility (PA-2100014) and Development Agreement PA-2200198).
Lead Agency Name and Address:	San Joaquin County Community Development Department 1810 E. Hazelton Avenue Stockton, CA 95205
Contact Person and Phone Number:	Jose Eguiluz 209-271-8594
Project Location:	18299 North Jacob Brack Road, Lodi, California The project site is located on the west side of North Jacob Brack Road, 745 feet north of West Turner Road, Lodi.
Land Owner:	Jose Eguiluz
Project Sponsor Name and Address:	El Che Growers 36 E. Harney Lane Lodi, CA 95242
General Plan Designation:	A/G (General Agriculture)
Zoning:	AG-40 – Agriculture, General, 40-acre minimum
Project Description:	The project proposes an indoor commercial cannabis cultivation, processing, and storage facility approximately 4.5 miles west of the city of Lodi. The project would involve the re-use of three existing barns, formerly used as poultry barns, that total approximately 50,400 square feet of floor area, 27,500 square feet of which will be utilized as a grow canopy at full buildout, accessed by a new 25-foot driveway. An existing manufactured house on the site would be converted to office use. The project anticipates 6 full time employees 8 months out of the year and 16 temporary employees during harvesting season for the remaining 4 months. The proposed use is subject to the commercial cannabis

	requirements of the San Joaquin County Code and will require that the County approve a Conditional Use Permit and Development Agreement; the County will also issue a Commercial Cannabis License, subject to obtaining all required State cannabis licenses.
Surrounding Land Uses and Setting:	The project site is surrounded by agricultural activities on the north, south and west sides. North Jacob Brack Road and Interstate 5 are to the east.
Other Public Agencies Whose Approval is Required:	California Department of Cannabis Control (State licenses).
Have California Native American affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, has consultation begun?	No consultation requested.

B. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" prior to mitigation, as indicated by the checklist on the following pages.

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

C. Lead Agency Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

✓ I find that 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.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that 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.

☐ I find that 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.

SAN JOAQUIN COUNTY

11/7/2023

Giuseppe Sanfilippo — Date
Senior Planner, Community Development Department

1.0 INTRODUCTION

1.1 Project Brief

This document is an Initial Study/Mitigated Negative Declaration (IS/MND) for the El Che Growers Indoor Cannabis Facility Project (project). The project is located at 18299 North Jacob Brack Road in central San Joaquin County, California (Figures 1-1 through 1-5). This IS/MND has been prepared in compliance with the requirements of the California Environmental Quality Act (CEQA). For the purposes of CEQA compliance, San Joaquin County (County) is the Lead Agency for the project.

The proposed project would re-use three existing buildings, totaling 50,400 square feet, as a commercial cannabis facility consisting of indoor cultivation, nursery, processing, and distribution. An existing home on the property will be converted for office use. The proposed project is consistent with the current San Joaquin County General Plan designation and zoning of General Agriculture. The proposed use is subject to the requirements of the San Joaquin County cannabis ordinances, including approval of a Conditional Use Permit, a Commercial Cannabis License, and a Commercial Cannabis Development Agreement. County approvals will be subject to issuance of all required State cannabis licenses for the project.

1.2 Purpose of Initial Study

CEQA requires that public agencies document and consider the potential environmental effects of the agency's actions that meet CEQA's definition of a "project." Briefly summarized, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project includes the agency's direct activities as well as activities that involve public agency approvals or funding. Guidelines for an agency's implementation of CEQA are found in the "State CEQA Guidelines" (Title 14, Chapter 3 of the California Code of Regulations).

Provided that a project is not exempt from CEQA, the first step in the agency's consideration of its potential environmental effects is the preparation of an Initial Study. The purpose of an Initial Study is to determine whether the project would involve "significant" environmental effects, as defined by CEQA, and to describe feasible mitigation measures that would avoid or reduce any potentially significant environmental effects to a level that is less than significant. If the Initial Study does not identify significant effects, then the agency prepares a Negative Declaration. If the Initial Study notes potential significant effects and identifies mitigation measures that would reduce these significant effects to a level that is less than significant, then the agency prepares a Mitigated Negative Declaration. If a project would involve significant effects that cannot be readily mitigated, then the agency must prepare an Environmental Impact Report. The agency may also decide to proceed directly with the preparation of an Environmental Impact Report without an Initial Study.

The proposed project is a "project" as defined by CEQA and is not exempt from CEQA consideration. The County has determined that the project may have significant environmental effects and therefore requires preparation of an Initial Study. This Initial Study describes the proposed project and its environmental setting, discusses the potential environmental effects of the project, and identifies feasible mitigation measures that would avoid or eliminate significant environmental effects or reduce them to a level that would be less than significant. The Initial Study considers the project's potential for significant environmental effects in the following subject areas:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Mandatory Findings of Significance (including Cumulative Impacts)

This Initial Study concludes that the project would have potentially significant environmental effects that would be avoided or reduced to a level that would be less than significant with recommended mitigation measures. The project applicant has accepted all the recommended mitigation measures. As a result, the County has prepared a Mitigated Negative Declaration and has issued a Notice of Intent to adopt the IS/MND for the project.

1.3 Project Background

State Regulatory Framework

Until 1996, the cultivation, use, and sale of cannabis, also known as marijuana, was illegal in the State of California for any purpose. In 1996, California voters approved Proposition 215, which allowed seriously ill Californians the right to obtain and use cannabis for medical purposes when recommended by a physician. In 2015, the State Legislature enacted the Medical Cannabis Regulation and Safety Act (MCRSA), which mandated a comprehensive State licensure and regulatory framework for cultivation, manufacturing, distribution, transportation, testing, and dispensing of medical cannabis on a commercial basis.

As the State was drafting regulations in compliance with MCRSA, California voters in 2016 approved Proposition 64, which legalized the use and possession of non-medicinal cannabis products within California by adults aged 21 years and older. In June 2017, the State Legislature passed a budget trailer bill, Senate Bill (SB) 94, that repealed MCRSA and integrated its medicinal licensing requirements with Proposition 64 to create the

Medicinal and Adult-Use Cannabis Regulation and Safety Act (MAUCRSA). MAUCRSA provides the regulatory structure for commercial cannabis activities in California.

MAUCRSA initially assigned responsibility for oversight of cannabis commerce in California to three State agencies: the Bureau of Cannabis Control; CalCannabis Cultivation Licensing, a division of the California Department of Food and Agriculture; and the Manufactured Cannabis Safety Branch of the California Department of Public Health. The functions of the three regulatory entities were re-assigned to a single agency, the California Department of Cannabis Control in 2021. Those regulatory functions included:

- Commercial cannabis licenses for retailers, distributors, testing labs, and microbusinesses involved with medical and adult-use cannabis.
- Commercial cannabis cultivation and management of the State's "track-and-trace" system.
- Commercial cannabis manufacturing.

In accordance with MAUCRSA, the original three agencies adopted emergency regulations related to their respective responsibilities. The emergency regulations were consolidated into a single set of Department of Cannabis Control regulations contained in Title 4, Division 19 of the California Code of Regulations. Permanent regulations have been drafted that are currently undergoing the State rulemaking process.

It is important to note that, although California allows medicinal and adult use, cannabis remains classified as a Schedule 1 controlled substance under the federal Controlled Substances Act of 1970. Individuals engaging in cultivation and other cannabis-related activities risk prosecution under federal law.

Local Conditions

In 2018, the San Joaquin County Board of Supervisors adopted Ordinance No. 4512, which established regulations for a commercial cannabis industry. The ordinance allows for all types of commercial cannabis businesses allowed under state law except outdoor cultivation and cannabis events. However, the ordinance contained a clause stating that the ordinance would not become effective unless or until the cannabis business tax (ultimately known as Measure B) was approved by voters. In November 2018, the voters failed to approve Measure B by the required 66.6%, which meant that the ordinance did not become operational.

In May 2019 the Board of Supervisors removed the section requiring a tax and replaced it with a requirement that commercial cannabis businesses obtain a Development Agreement. That ordinance, No. 4532, became effective June 20, 2019. Under the ordinance, commercial cannabis business types are allowed in the unincorporated areas of the County. Ordinance No. 4352 also specifies the zones in which commercial cannabis activities are allowed and the development standards with which such activities must comply, such as parking, landscaping, fencing, signs, and provision of public services. In September 2019, the Board amended the ordinance to remove the allowance for storefront retail commercial cannabis businesses, although applications for non-storefront retail (delivery) would be accepted.

In 2020, the County enacted Ordinance No. 4555, which expanded upon the regulation of commercial cannabis businesses licensed under MAUCRSA. Under this ordinance, a commercial cannabis license shall not be issued unless and until the applicant has obtained or applied for an Annual State License, has obtained an approved Use Permit and has completed all conditions of approval or alternatively, an approved Improvement Plan and have completed all requirements thereof and obtained a business license. The ordinance sets forth the application process and requirements for a new commercial cannabis license, including submittal of a site plan and a security plan. The provisions of Ordinance No. 4555 have been incorporated within Title 4, Division 10, Chapter 1 of the San Joaquin County Code. Subsequent references to the County Code in this IS/MND are to Title 4, Division 10, Chapter 1, unless otherwise specified.

Project Site

The proposed project site is an agricultural parcel approximately 4.5 miles west of Lodi that contains vineyards, three existing barns, and a manufactured house with ancillary sheds. The barns are currently used for the raising of poultry. The barns, house, and sheds are on approximately 2.82 acres in the northeastern portion of the parcel; the remainder is planted in vineyards and will not be affected by the project.

The project site is in an area that is predominantly agricultural. Two wineries and a dairy farm are existing agricultural in the vicinity. Interstate 5, an interregional freeway, is immediately east of the project site, and the site is northwest of the Interstate 5/Turner Road interchange.

1.4 Environmental Evaluation Checklist Terminology

The project's potential environmental effects are evaluated in the Environmental Evaluation Checklist presented in Chapter 3.0 of this IS/MND. The checklist includes a list of environmental considerations against which the project is evaluated. For each question, the County determines whether the project would involve 1) a Potentially Significant Impact, 2) a Less Than Significant Impact with Mitigation Incorporated, 3) a Less Than Significant Impact, or 4) No Impact.

> A Potentially Significant Impact occurs when there is substantial evidence that the project would involve a substantial adverse change to the physical environment, i.e., the environmental effect may be significant, and mitigation measures have not been defined that would reduce the impact to a level that would be less than significant. If there is a Potentially Significant Impact entry in the Initial Study, then an EIR is required.
>
> An environmental effect that is Less Than Significant with Mitigation Incorporated is a Potentially Significant Impact that can be avoided or reduced to a level that is less than significant with the application of defined mitigation measures.
>
> A Less Than Significant Impact occurs when the project would involve an environmental impact, but the impact would not cause a substantial adverse change to the physical environment that would require mitigation.

A determination of No Impact is self-explanatory.

This IS/MND identifies potentially significant environmental impacts related to the project. Some of these impacts can be mitigated by implementation of existing provisions of law and standards of practice related to environmental protection. Such provisions are considered in the environmental impact analysis, and the degree to which they would reduce potential environmental effects is discussed. Additional mitigation measures are identified when necessary to avoid potential environmental effects or to reduce them to a level that is less than significant.

1.5 Summary of Environmental Effects and Mitigation Measures

Table 1-1, which follows Figures 1-1 through 1-5, summarizes the results of the Environmental Evaluation Checklist and associated narrative discussion in Chapter 3.0 of this IS/MND. The potential environmental impacts of the proposed project are listed in the left-most column of this table. The level of significance of each impact is indicated in the second column. Mitigation measures proposed to avoid or minimize the impacts are shown in the third column, and the significance of the impact after mitigation measures are applied is shown in the fourth column.

As previously noted, all potentially significant environmental effects identified in the IS/MND would be avoided or reduced to a level that would be less than significant with recommended mitigation measures. For all other issues, the project would have no impact or would have impacts that are less than significant.

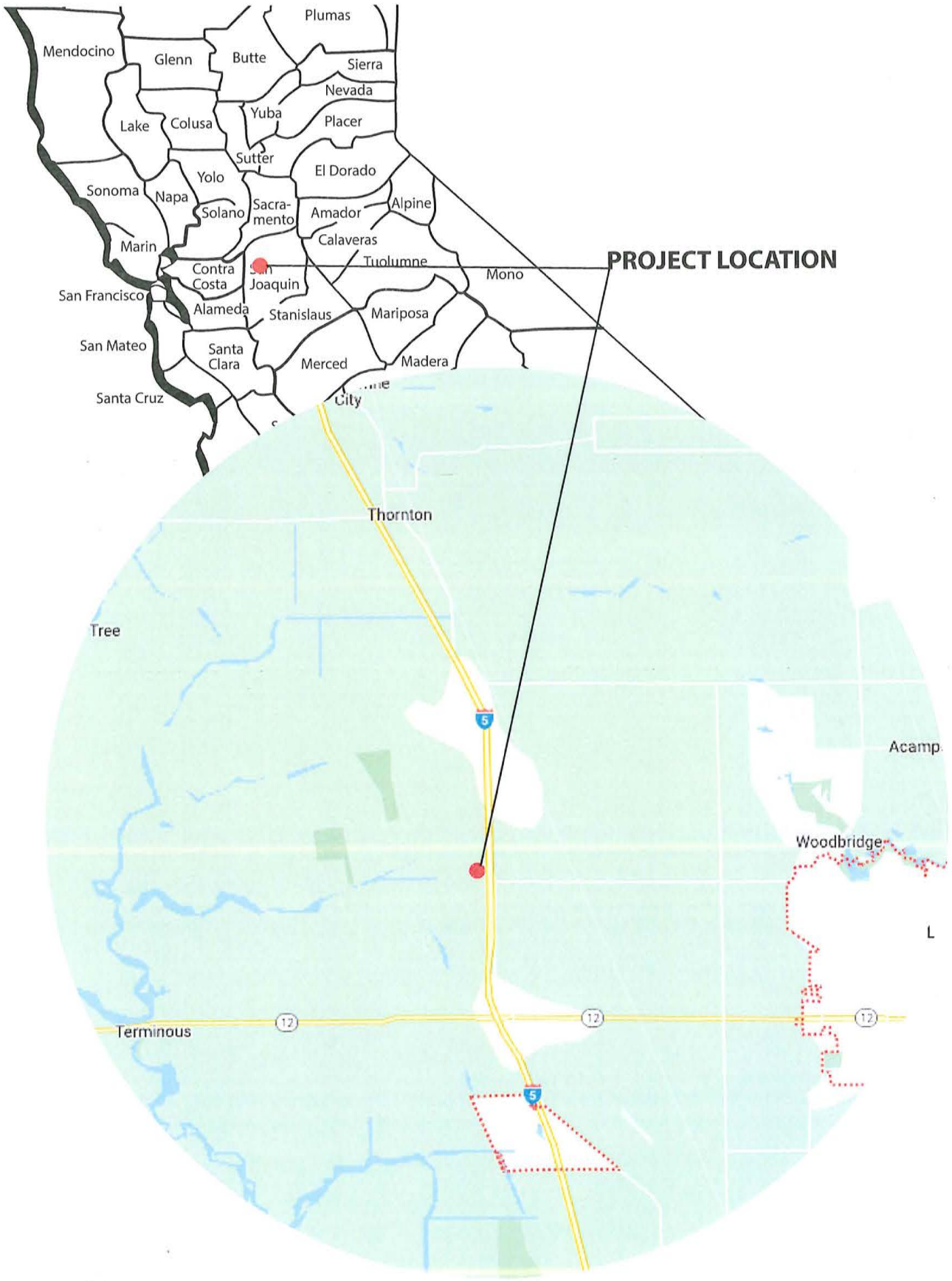
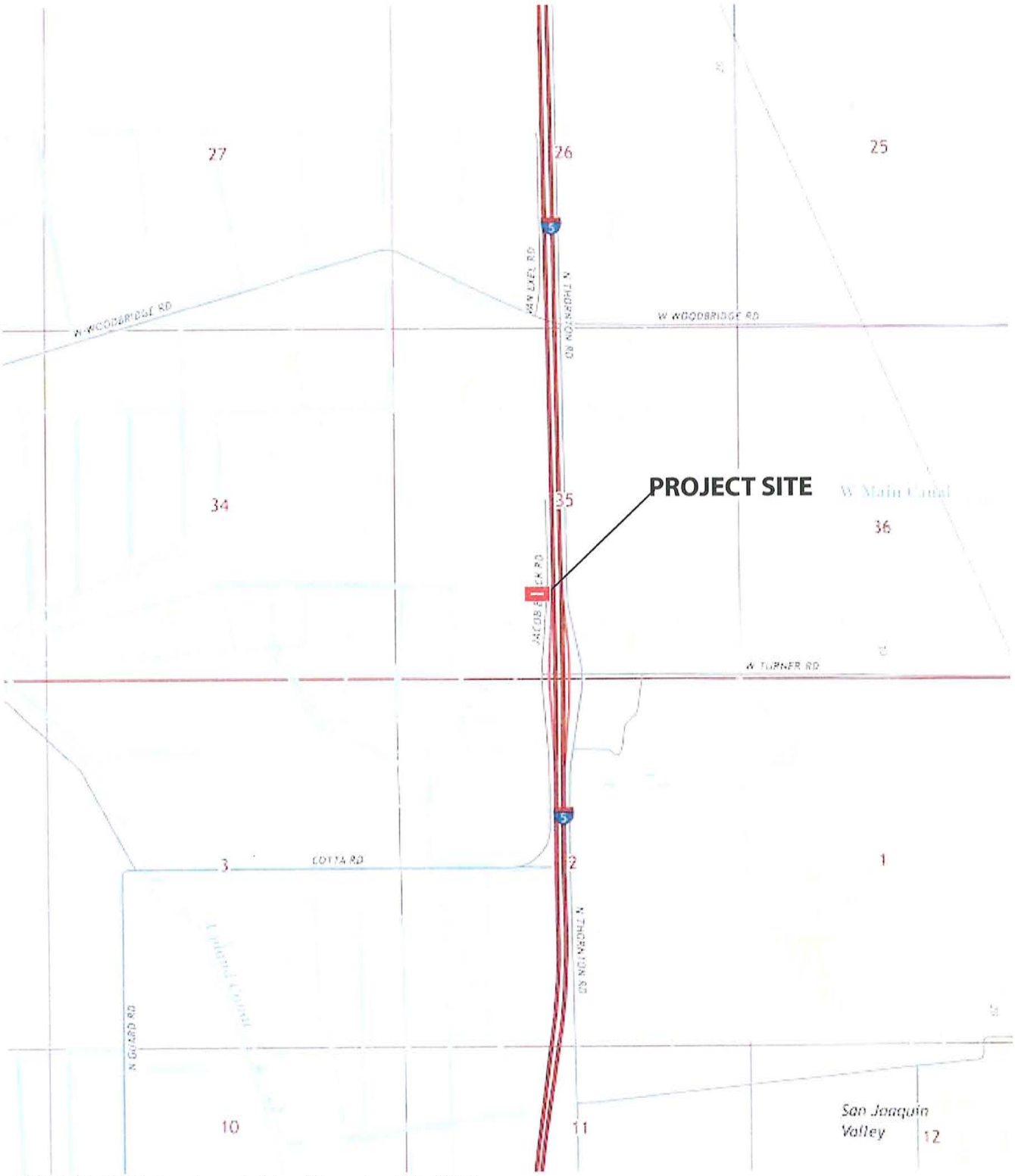


Figure 1-1
REGIONAL LOCATION MAP



SOURCE: Google Maps

Figure 1-2
STREET MAP



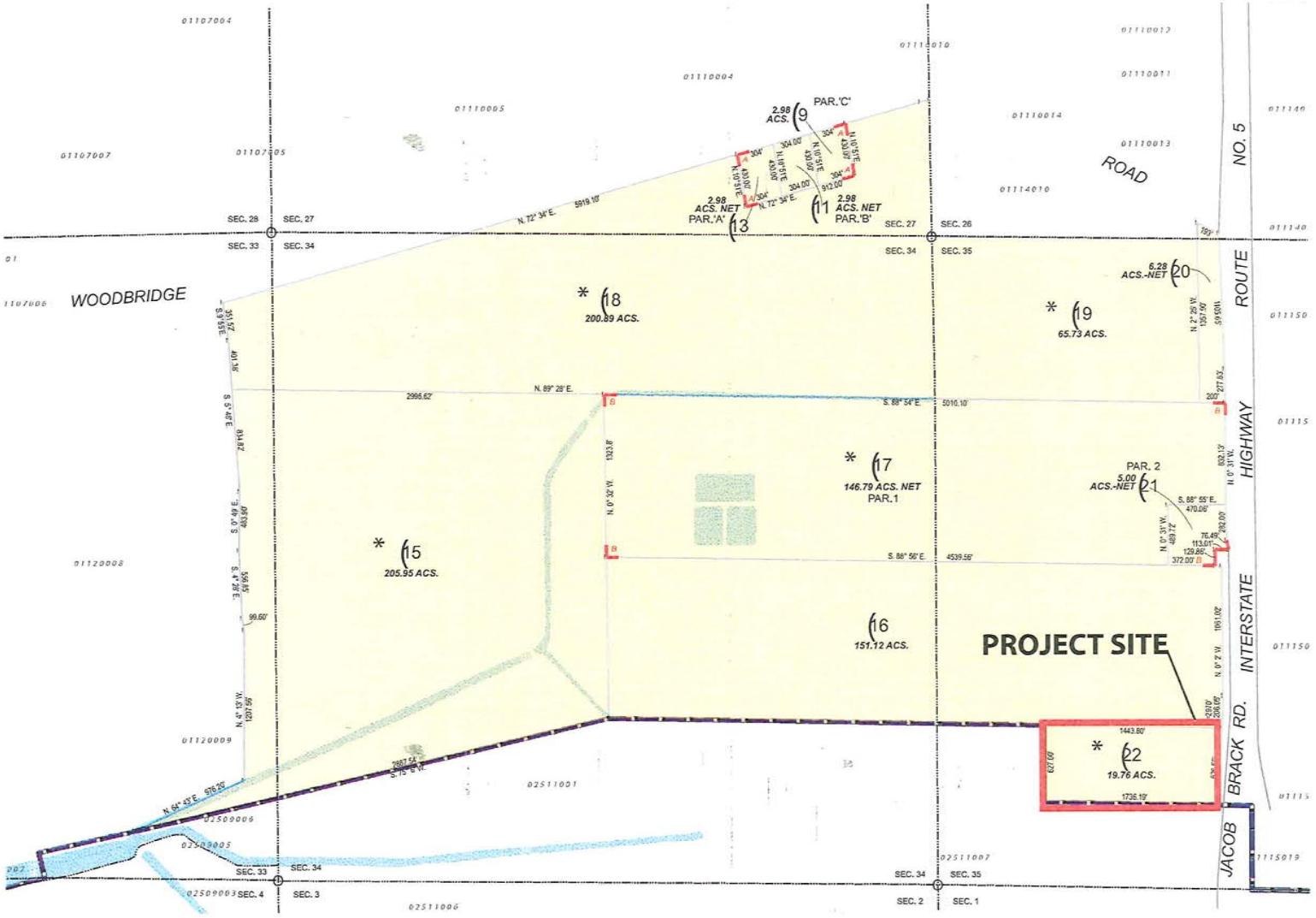
SOURCE: USGS Quadrangle Map, Thornton CA , 2022.

BaseCamp Environmental

Figure 1-3
USGS MAP



SOURCE: Google Earth



SOURCE: San Joaquin County Assessor's Office

BaseCamp Environmental

Figure 1-5
ASSESSOR PARCEL MAP

2.0 PROJECT DESCRIPTION

2.1 Project Location

The project site is located at 18299 N. Jacob Brack Road, just west of Interstate 5 and approximately 4.5 miles west of the City of Lodi in unincorporated San Joaquin County (see Figures 1-1 through 1-5). The project will occupy 2.82 acres of the 20-acre property designated Assessor's Parcel Number 011-090-22 (Figure 1-5). The U.S. Geological Survey Thornton, California, 7.5-minute quadrangle map shows the site as being within Township 4 North, Range 5 East, Section 35. The latitude of the project site is approximately 38° 08′ 56″ North, and the longitude is approximately 121° 24′ .98″ West.

2.2 Project Details

The project proposes to improve existing structures and property on the project site, to secure and accommodate a commercial cannabis facility inclusive of indoor cultivation (Figure 2-1). All work would occur in an area of previous ground disturbance and building. As part of the project application submitted to the County, the project applicant provided a comprehensive description of proposed project activities. This project description is available in full in Appendix A of this document. The following is an edited version of that project description, supplemented by other information.

Building and Site Improvements

Proposed project operations would occur in three existing structures on the project site, which are being used for poultry farming. Table 2-1 lists the structures and their proposed use at the completion of the project, after Phase 2.

TABLE 2-1
PROPOSED PROJECT FACILITY

Building	Proposed Activity	Floor area (sq. ft.)	Grow Canopy (sq. ft.)
Building 1	Cultivation, Processing, Storage	16,800	5,500
Building 2	Cultivation	16,800	11,000
Building 3	Cultivation	16,800	11,000
	Total	**50,400**	**27,500**

Note: Refer to Figure 2-1 for building numbering.

The project proposes to complete the conversion of poultry farming barns to cannabis production and storage as well as in two phases over five years; Phase 1 within 3 years and Phase 2 within 5 years. In addition, the existing residence and two garages on the property would be converted to administrative office and non-cannabis storage. While an architect has not yet been retained for the project's final design, the following description of the proposed structures and their uses, based on similar projects, is provided for analysis of the proposed project in accordance with the California Environmental Quality Act (CEQA).

Cultivation

The primary activity in the operation of the commercial cannabis cultivation business would involve the cultivation of flowering cannabis plants within a number of suites within the converted existing structures. Flowering plants are mature cannabis plants which produce cannabis 'flowers' or 'buds', which would be sold wholesale to state licensed distributors and retailers.

Based on similar projects, there are three stages involved in the cultivation phase: propagation, vegetation, and flowering. During the propagation phase, the plantings would sit under lamps with 18 hours of light and six hours of darkness to take root prior to the vegetation stage. During the vegetation process, the same organic mediums with plantings intact would be placed by cultivation technicians into larger organic mediums where, during a three to four-week period, the immature plants would sit under lamps with 18 hours of light and six hours of darkness as they develop more robust stalks to support themselves prior to the flowering stage.

On-site flowering cultivation operations are proposed in all three buildings (Figures 2-1, 2-2 and 2-3) in two phases. Phase 1 proposes the conversion of Building 1 to three large cultivation rooms, each approximately 3,150 square feet in size; each room would accommodate approximately 2,750 square feet of grow canopy. Phase 1 would accommodate a total of 8,250 square feet of grow canopy.

In Phase 2, Buildings 2 and 3 would be converted to contain four cultivation rooms each, with an approximate cultivation area of 3,150 square feet of floor area per room and 2,750 square feet of canopy area per room. Each of the two buildings would have a total square footage of 12,600 square feet and a total grow canopy of 11,000 square feet for a total of 22,000 square feet of grow canopy for the two buildings combined.

In Phase 2, one of the Phase 1 grow rooms in Building 1 would be converted to processing use, reducing the total grow canopy for Building 1 to 5,500 square feet. The total grow canopy for the project, once all three phases are completed, would be approximately 27,500 square feet.

Each of the three main buildings where cultivation activities would occur would have a corridor leading to the rooms inside the buildings. Each corridor would have approximately 3,720 square feet of floor area and is proposed to have a pesticide and chemical storage area adjacent to each room, for a total of four storage areas in each building except for Building 1. In Building 1, there would be two such storage areas, and they would be adjacent to the processing and storage room. Building 1 would also have a cannabis waste storage area of approximately 20 feet by 5 feet at the end of the corridor adjacent to the

cultivation rooms. At the entry to each corridor would be a gowning room where employees would dress for cultivation and other activities. Each entry and gowning room would have approximately 480 square feet of floor area. All rooms would have a lockable door, and all buildings would have controlled access entryways.

Processing

Based on similar projects, there are four stages involved in the processing phase: harvest, trimming, packaging, and labeling. Once the plants have flowered and are ready for harvest, cultivation technicians would remove the extraneous organic material from the flowered plant stalks, leaving the flowers, then transfer them to a drying/curing room. The harvested flower stalks would hang to cure for a period of five to eight days prior to the trimming stage. Once fully operational, one grow room would be ready for harvest every month.

Once the flowers have cured on the stalk, they would be transferred from the grow rooms to a processing area where cultivation technicians would clip them from their stalks, and hand trim them to remove the finer leaves. This process would take two to three days following each room being harvested. Once fully trimmed, the cannabis flowers would be separated into different batches. Each batch would be placed into an air-sealed package to which a unique identifier would be applied. A label with detailed information would be physically attached to each packaged batch of cannabis stored on the premises.

Building 1 would provide a room for the processing of harvested cannabis plants (see Figure 2-2). The processing room would have a floor area of approximately 3,150 square feet. This room would process cannabis cultivated in Building 1 and would process cannabis from Buildings 2 and 3 as they are put into operation.

Storage

Building 1 is proposed to have a secure storage/administrative hold room where both cannabis products and currency would be kept, and where cannabis goods would be loaded for shipment or received. The storage room would have approximately 3,150 square feet of floor area and have two entry/exit points and no windows. The room will be kept cool and dark at all times. It would be equipped with a door that contains an automated re-locking device to prevent inadvertent exposure upon vacating. All entrances to areas where cannabis products are stored would require a key fob to access, and all access points to such areas would be equipped with video surveillance. All cannabis products would be secured in a vault area which would have a refrigerator or freezer capable of being locked and which has been securely anchored. All currency on the premises would be kept within a safe.

Distribution

The project applicant has indicated that cannabis product from the project may be picked up on site by licensed distributors or transported by the applicant to licensed cultivators, processors, manufacturers, distributors, and retailers, using only one vehicle. The applicant intends to transport from and to cannabis licensees in the Sacramento Valley and Gold Country regions. The applicant may also transport from the above-mentioned regions to

the Bay Area and the Central Coast. The applicant does not currently intend to transport overnight. At this time, it is not known how many distribution trips would be made per time period. However, for the sake of CEQA analysis, and based on a similar project, it is assumed that the project would generate 14 two-way trips per week.

The applicant will transport cannabis goods inside the company's cargo van. The product storage area of the vehicle is a fully enclosed, permanently mounted locking metal cage in the back of the vehicle. Access to the vehicle's cannabis storage area is through the cargo doors in the back. The cargo doors open up to a locked metal cage door. A metal cage partition separates the driver compartment from the product storage area of the vehicle. The storage area of the vehicle is also equipped with a permanently mounted commercial grade drop safe dedicated to currency, checks, and/or receipts relative to cannabis transfers.

The transfer of cannabis goods would occur in the secure storage/administrative hold room. There would be a single manager dedicated to product distribution and intake, with up to two additional managers designated and trained as alternate receiving managers to overcome absences or turnover. Upon arrival of a distributor, the manager shall ensure that no cannabis or currency is within the secure loading area to prevent diversion, theft, and inventory inaccuracies. Unloading will be managed under the direct supervision of the manager and under surveillance. All product and currency will be removed from the secure loading area and secured in the vault prior to opening the roll up door to release the distributor.

Other Project Features

An existing residence at the northeast corner of the project site would be converted for use as an office from which facility operations would be overseen. It would house the records and documentation required to be housed on site by the San Joaquin County Development Title and State law. Two existing sheds west of the proposed office, one approximately 60 feet by 28 feet and the other approximately 64 feet by 36 feet, would be used for storage of items that are not used in cannabis activities.

The facility would be surrounded by two chain link fences approximately 11 feet in height, with razor wires, that are 10 feet apart. The facility would be equipped with a Video Assessment & Surveillance System (VASS), with cameras that record 24 hours per day. These cameras would record any activity happening within 20 feet of any point of entry or exit to the facility premises. It would also be equipped with a burglar alarm, installed in accordance with ANSI/UL Standard 681-2014, following Extent 2 guidelines and monitored by a UL-listed central station. The alarm system would include infrared motion sensors to monitor movement in the facility. All employees with access to the alarm system would be assigned individual alarm codes to arm/disarm the system.

Exterior and perimeter lighting would be at least motion-sensor white lights using LED lamps with full cutoff fixtures to limit glare and light trespass. Lighting would be sufficiently bright enough to allow ready identification of any persons on the property during dark hours. Exterior sides, walkways, alcoves, and passageways would be illuminated to a maintained minimum of 1/3 foot candles per square foot of surface area at

a 6:1 average minimum ratio. Exterior lighting shall be shielded or otherwise designed to avoid spillover illumination to adjacent streets and properties.

Access and Parking

The project site would be accessed directly from Jacob Brack Road, a County road that parallels Interstate 5 on its west side. Access to the three buildings where cannabis activities would be conducted would be via a driveway from Jacob Brack Road with a security gate set back approximately 80 feet from the point of entry. A lock box would be installed adjacent to the security gate. A paved (or all weather surfaced) parking area with 15 stalls adjacent to and east of the three buildings would be available to employees and visitors.

A second driveway off Jacob Brack Road would provide access to the areas that are not specifically involved in cannabis cultivation and processing, including the office and the non-cannabis sheds. Access to this driveway would not be controlled. No paved parking areas are proposed for this portion of the project site.

Utilities

The project would utilize existing on-site utilities to serve project operations. Potable water, cannabis cultivation water supply, and water for fire protection would be provided by an existing private well in the northeastern portion of the project site. A new water tank (or tanks) would be installed adjacent to Building 1, with a potential capacity of 10,000 gallons. The water tank(s) would support the irrigation system to be installed for cultivation. The project applicant estimates that the project would use 15,600 gallons of water per day at full operation, both potable and irrigation.

Wastewater generated at the proposed office building would be collected by an existing on-site septic tank and leach field to the south. Two portable bathroom facilities would be made available west of Building 1 for employees. At this time, the project applicant has no information regarding the collection and disposal of wastewater from project operations. Section 3.19, Utilities and Service Systems, will discuss this issue. The project does not propose any new storm drainage facilities. Runoff would either percolate into the ground or would be collected by an existing drainage ditch along the northern boundary of the project site. Cannabis waste that is stored in Building 1 would be self-hauled to a manned, fully permitted solid waste landfill or transformation facility.

The Pacific Gas and Electric Company (PG&E) would be the provider of electricity to the project. Existing overhead electrical distribution lines are located along the northern boundary of the project site.

Pest Management

The project would employ an Integrated Pest Management Plan to control pest populations and to mitigate the effects of pests on the plants. The project applicant proposes the use of solutions that contain specialized microbes that interrupt the reproductive cycles of a variety of pests. The chemical pesticides the project would use are organically sourced hydrogen peroxide or sulfur, cayenne pepper, citrus oil, or table salt. The project would use

all pesticides and fungicides listed by the Organic Materials Review Institute to combat pests, mildew, and mold.

Odor Control

To address potential odor issues associated with cannabis cultivation and processing, the project would implement an Odor Control Plan. As part of this plan, the project would install an odor mitigating air filtration and exhaust system that would control odors such that they are not detected anywhere on adjacent properties or public rights-of-way. Along with this system, an air filtration system with ceiling-hung air filters and, if necessary, floor-mounted filters with fans would be installed. Also, an exhaust system would be installed that would use laboratory high plume dilution fans. These fans are traditionally used to simulate the effect of a tall exhaust stack, moving exhaust air up and away from the building and above neighboring buildings and residences.

Each building would have an automation system that would monitor, maintain, filter and control air movement and pressure differentiations inside various rooms within the building, resulting in odor reduction. Exhaust fans and dampers would make adjustments to maintain air movement that minimizes and reduces odors while also improving interior air quality.

During the fruiting period for plants, the ceiling-hung air filters would be operating 24 hours per day. During harvest, the exhaust system would be running in the cultivation rooms, and additional floor-mounted air filters would be placed in the hallways outside the cultivation room. After the cannabis plant is harvested, it would be transferred in airtight bins to the processing room, where a check would be made on the efficacy of the exhaust system and the need for additional floor-mounted fans, and subsequently to the secure storage room.

Employment

The project applicant estimates the project would employ six workers on a typical day, all working on one shift. During a harvest week, a maximum of 16 workers would be employed on the project site. A harvest week is anticipated approximately once every three months.

2.3 Permits and Approvals

The project would require State licensing for each of the proposed cannabis activities, along with a Conditional Use Permit, Commercial Cannabis License, and Development Agreement from San Joaquin County. The various proposed cannabis activities would require the State licenses indicated in Table 2-2. All licenses would be issued by the California Department of Cannabis Control.

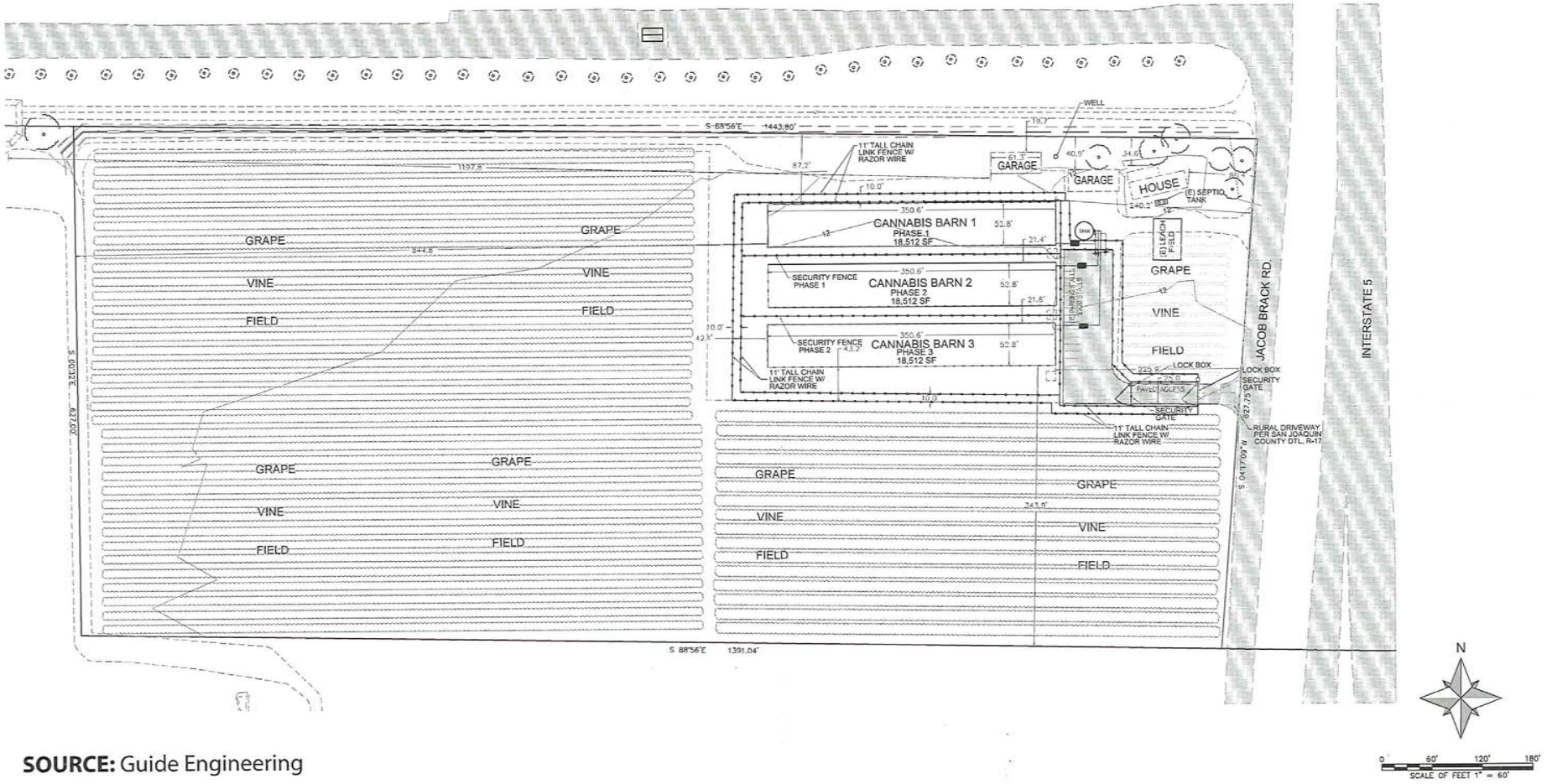
The project site is currently designated A/G (Agriculture, General) by the San Joaquin County General Plan, and it is currently zoned AG-40 – Agriculture, General, 40-acre minimum. The General Plan designation and zoning districts allow for all proposed project activities, subject to issuance of a Conditional Use Permit (CUP). The project would

require approval of a CUP, which must be approved by the County Board of Supervisors with a recommendation by the County Planning Commission. The project also requires County approval of a Commercial Cannabis Development Agreement, which is dependent on approval of the CUP and fulfillment of all its conditions. The Commercial Cannabis Development Agreement would not become effective until all required State licenses are obtained. Upon receipt of State licenses, the project would be issued a Commercial Cannabis License by the County

TABLE 2-2
REQUIRED STATE LICENSES

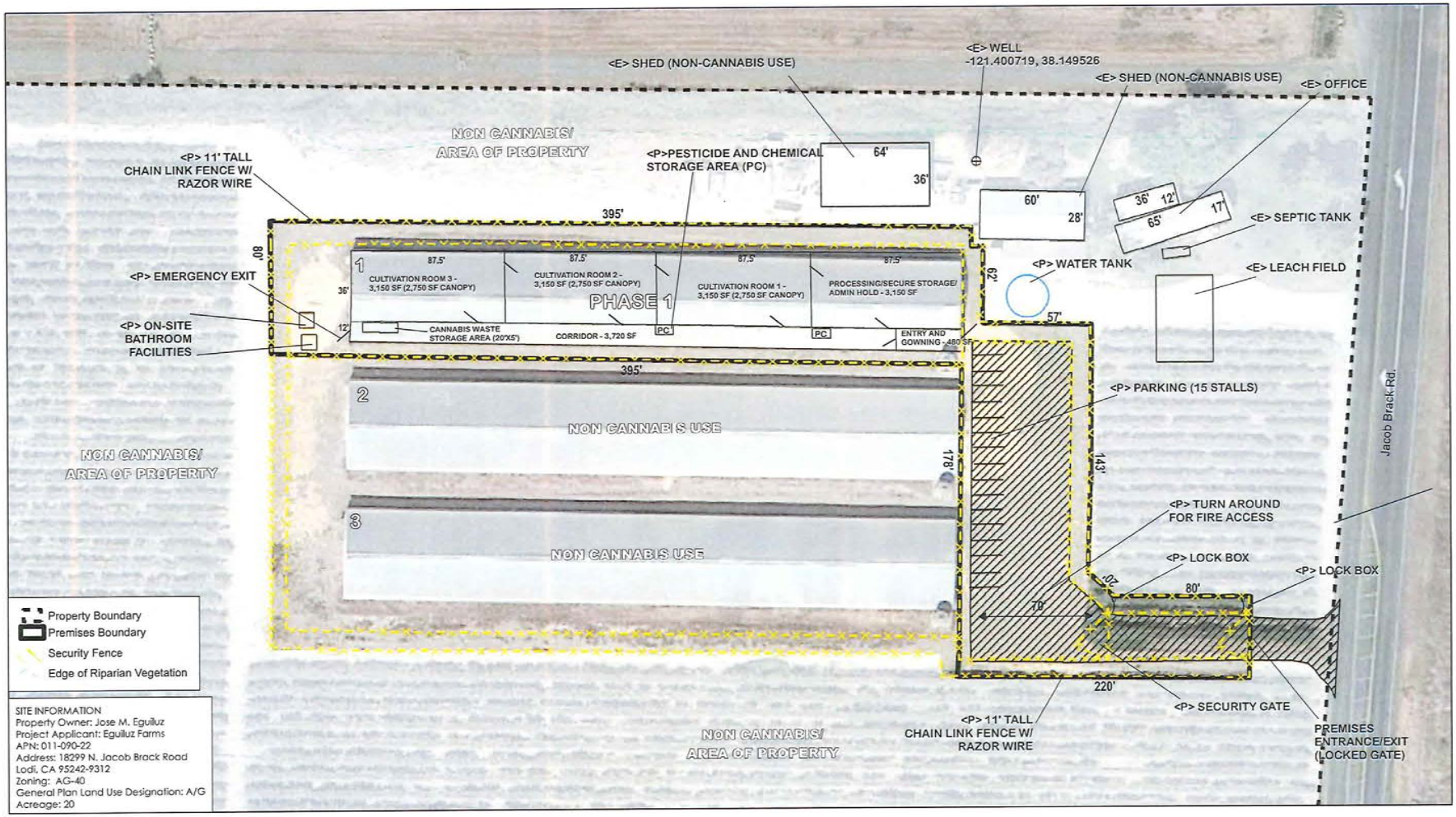
Activity	State License
Cultivation	Type 3A
Processing and Storage	Processor
Distribution	Type 11

Approval would be required from the County Environmental Health Department, in its role as the Certified Unified Program Agency (CUPA), if the project would involve use and storage of specified quantities of hazardous materials. In addition, indoor cannabis cultivation operations and operations that handle cultivated cannabis would be required to obtain an Authority to Construct and a Permit to Operate from the San Joaquin Valley Air Pollution Control District (SJVAPCD) as required by SJVAPCD Rule 2010. SJVAPCD permits for the project would address potential odors as required by SJVAPCD Rule 4102.



SOURCE: Guide Engineering

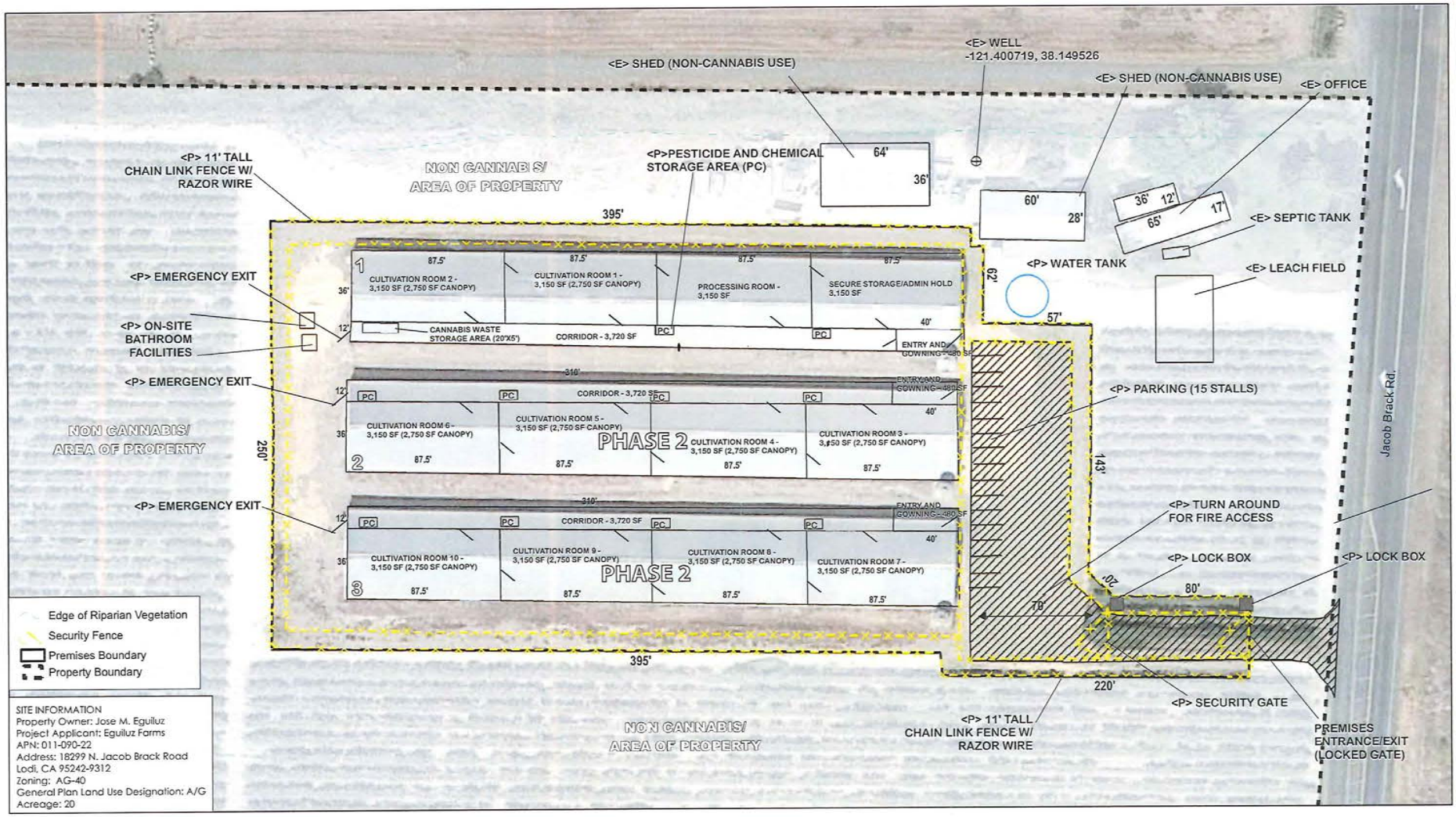
Figure 2-1
SITE PLAN



Phase 1 - Premises Diagram

Eguiluz Farms -
18299 N Jacob Brack Road
San Joaquin County, CA

Figure 2-2
PHASE I



Source Data: Green Valley Planing, LLC
Aerial Source: Google Earth (02/2021)
Map Projection: NAD 83 SP CA Zone II
Map Date: 08/30/2022

Phase 2 - Premises Diagram

Eguiluz Farms -
18299 N Jacob Brack Road
San Joaquin County, CA

GREEN VALLEY PLANNING

BaseCamp Environmental

Figure 2-3
PHASE II

3.0 ENVIRONMENTAL EVALUATION CHECKLIST

The following environmental evaluation considers the potential environmental effects of County approval of the proposed project, as described in Chapter 2.0, Project Description. The format of this evaluation is based on the Environmental Checklist presented in CEQA Guidelines Appendix G.

3.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 a 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?			✓	

NARRATIVE DISCUSSION

Environmental Setting

The project site is within an agricultural area, where crops and buildings associated with agricultural activities are prominent features of the landscape, along with scattered rural residences. The subject site is primarily a vineyard, plus three large poultry barns, a manufactured house and storage barns in the northeast portion of the property. The most prominent non-agricultural feature of the surrounding landscape is the Interstate 5 (I-5) freeway, east of the project site. The I-5 interchange with Turner Road, southeast of the project site, is another prominent non-agricultural visual feature.

California Public Resources Code Section 21099 states that the aesthetic and parking impacts of residential, mixed-use residential, or employment center projects on an infill

site within a transit priority area shall not be considered significant. The project does not meet any of the criteria of Section 21099; therefore, aesthetic impacts shall be analyzed in this document.

Environmental Impacts and Mitigation Measures

a) Scenic Vistas.

Scenic vistas are defined as expansive views of highly valued landscapes from publicly accessible viewpoints. In the vicinity of the project site, potential scenic vistas would be mainly the Coast Ranges to the west and surrounding agricultural lands. Vistas to and from the project site would not change with the project, as it would involve reuse of existing buildings; no new construction or additions to existing structures would occur. The project would have no impact on scenic vistas.

b) Scenic Routes and Resources.

The project site contains no outstanding scenic resources such as rock outcroppings or trees. Existing vineyards on the site would not be removed by the project, except for a small portion of the vineyard east of the barns to accommodate a widening of the existing driveway.

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. According to the Caltrans list of designated scenic highways under the California Scenic Highway Program, there are only two officially designated state scenic highways within San Joaquin County: Interstate 5 from the Stanislaus County Line to Interstate 580, and Interstate 580 from Interstate 5 to the Alameda County Line (Caltrans 2019). The project site is not on or near these highways.

San Joaquin County has designated several roadways as scenic in its General Plan. The segment of I-5 from State Route 4 to the Sacramento County Line has been designated a local scenic route. However, as noted, the project would not change the existing visual landscape - most of the existing vineyards would remain, and the project would involve only reuse of existing buildings. The project would have no impact on scenic resources or highways.

c) Visual Character and Quality.

A recent change to the Environmental Checklist in CEQA Guidelines Appendix G emphasizes aesthetic and visual resource impacts on public views in non-urbanized areas. As defined in Appendix G, "public views" are views that are experienced from publicly accessible vantage points. Although not specifically defined, "publicly accessible vantage points" are assumed to include, though not necessarily limited to, public roads, parks, trails, and vista turnouts. For this project, the main public views would be from I-5. Jacob Brack Road is a County road, but it is used mainly by local land uses; it is not used by passing motorists.

As noted in b) above, the project would not change the existing visual landscape - most of the existing vineyards would remain, and the project would involve only reuse of existing buildings. Neither the buildings nor the existing landscape of the project site would be altered, other than an improved parking area and added fencing and gates for security. Moreover, no outdoor cannabis cultivation is proposed or would be permitted with the project; all cultivation activity would occur indoors. Therefore, there would be no public views of any cannabis cultivation. Project impacts related to visual character and quality would be less than significant.

d) Light and Glare.

Artificial lighting would be used as part of the cultivation operation, however, cultivation would occur indoors, so this lighting would not be visible from neighboring properties. The only visible lighting would likely be exterior security lighting.

San Joaquin County Development Title Section 9-1025.6(b) states that no use shall cause glare above 1.0 footcandles on an adjacent lot developed residentially, zoned for residential use, or shown as residential on the General Plan Map, or cause glare on a street or alley. There are no single-family residences in the vicinity of the site, other than the existing onsite manufactured house that would be converted to office use. The project would not have lighting that would affect any sensitive land uses, particularly residences.

Lighting may cause glare that would be visible from I-5, however, the project would by required to comply with San Joaquin County Development Title Section 9-406.060(m)(3) which states that on-site lighting will be designed to confine direct rays to the premises and prohibit spillover beyond the property lines except onto public roads, as long as the light is does not present a hazard to motorists. As such, adherence to the Title ensures that glare from the project would not be significant. Project impacts related to light and glare would be less than significant.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			✓	
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?				✓

NARRATIVE DISCUSSION

Environmental Setting

Agriculture has been, and continues to be, an important part of the economy in San Joaquin County. Approximately 86.7% of the county's land area was in farms and pasture as of 2017 (U.S. Department of Agriculture 2019). The gross value of agricultural production in the county was $3,193,234,000 in 2021, which represented an increase in value of 5.34% from the 2020 value. The top five agricultural products in 2021 were almonds, milk, grapes, English walnuts, and cherries (San Joaquin County Agricultural Commissioner's Office 2022).

Currently, the property is developed with three barns that are used for the raising of chickens (Stringer Biological Consulting 2022). Vineyards have been planted to the east, south and west of the barns. As noted in Section 3.1, Aesthetics, the project site is within an agricultural area. The project site is bordered by a winery to the north and a dairy to the south.

Information on legal cannabis activities in San Joaquin County is not available, in large part because the County has only recently enacted ordinances specifying conditions under which commercial cannabis activities would be allowed. Nevertheless, cannabis is defined as an agricultural product by the State of California. The current zoning for the project site is AG-40 – General Agriculture, 40-acre minimum. Cannabis cultivation is conditionally permitted in the AG-40 zone with an approved Conditional Use Permit and Development Agreement (Development Title Chapter 9-1090).

Environmental Impacts and Mitigation Measures

a) Agricultural Land Conversion.

The Important Farmland Maps, prepared by the California Department of Conservation as part of the Farmland Mapping and Monitoring Program, designate the viability of lands for farmland use, based on the physical and chemical properties of the soils. Classifications include Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, which are defined as Farmland by CEQA Guidelines Appendix G, along with other agricultural and non-agricultural classifications.

According to the 2018 Important Farmland Map of San Joaquin County, the project site has designations of Vacant or Disturbed Land and Unique Farmland, the latter being Farmland as defined by the CEQA Guidelines. However, the project would involve only minimal conversion of Unique Farmland - existing structures on a developed portion of the project site would be used, and the project would only take approximately 0.05 acre of existing vineyard for the widening of the existing driveway to the facility. Project impacts related to Farmland conversion would be less than significant.

b) Agricultural Zoning and Williamson Act.

As noted, the project site is zoned AG-40, an agricultural zone. Cannabis is defined as an agricultural product by the State of California. The proposed project would be consistent with activities recognized as agricultural by the State and with the land uses allowed by the County in the AG zone.

The Williamson Act is State legislation that preserves agricultural land through a program that permits contracts between landowners and local governments that keep contracted land in agricultural use in exchange for a lower property tax assessment. The project site is not enrolled in a Williamson Act contract and would retain its use for agricultural production. No development is proposed on the project site outside the already developed area. Project impacts related to agricultural zoning and the Williamson Act would be less than significant.

c, d) Forest Land Zoning and Conversion.

The project site is a developed area amid agricultural land. There are no stands of trees that could be used for timber production on or near the site. The project site is not zoned or otherwise designated as timberland. The project would have no impact on forest land zoning or conversion.

e) Indirect Conversion of Farmland and Forest Land.

Land west of the project site has been designated on the Important Farmland Map of San Joaquin County as Prime Farmland, which is defined as Farmland by the CEQA Guidelines. However, the project would utilize existing buildings; no construction or expansion would occur on the Prime Farmland area. The project would involve minor infrastructure upgrading, mainly with existing electrical lines, that would serve the project only. No new infrastructure would be extended to the project site nor beyond the site to the adjacent or nearby agricultural lands. No other lands zoned for agricultural use in the vicinity would be affected by the project. The project would have no impact related to indirect conversion of Farmland. As the project site and vicinity contain no designated forest lands, the project would have no impact on indirect conversion of forest lands.

3.3 AIR QUALITY

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:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable Air Quality Attainment Plan?			✓	
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?			✓	

NARRATIVE DISCUSSION

Environmental Setting

Air Quality Background

The project site is within the San Joaquin Valley Air Basin. The San Joaquin Valley Air Pollution Control District (SJVAPCD), which includes San Joaquin County, has jurisdiction over most air quality matters in the Air Basin; vehicle emissions are the responsibility of the California Air Resources Board (ARB). The SJVAPCD is tasked with developing and implementing plans, programs and regulations that would enable the Air Basin to attain ambient air quality standards set under both the federal and California Clean Air Acts. Under their respective Clean Air Acts, both the State of California and the federal government have established ambient air quality standards for six criteria air pollutants: ozone, particulate matter, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. California has four additional criteria pollutants under its Clean Air Act; none of these pollutants would be generated in the project area.

Table 3-1 shows the current attainment status of the Air Basin relative to the federal and State ambient air quality standards for criteria pollutants. Except for ozone and particulate matter, the Air Basin is in attainment of, or unclassified for, all federal and State ambient air quality standards.

Air Pollutants of Concern

Ozone is not emitted directly into the air but is formed when reactive organic gases (ROG) and nitrogen oxides (NO_x) react in the atmosphere in the presence of sunlight. The

SJVAPCD currently has a 2007 Ozone Plan and a 2013 Plan for the Revoked 1-Hour Ozone Standard for the Air Basin to attain federal ambient air quality standards for ozone.

Particulate matter is a mixture of solid and liquid particles suspended in air, including dust, pollen, soot, smoke, and liquid droplets. In San Joaquin County, particulate matter is generated by a mix of rural and urban sources, including agricultural operations, industrial emissions, dust suspended by vehicle traffic, and secondary aerosols formed by reactions in the atmosphere. Two types of particulate matter are of concern: particulate matter 10 micrometers or less in diameter (PM_{10}), and particulate matter 2.5 micrometers or less in diameter ($PM_{2.5}$). The SJVAPCD currently has a 2015 $PM_{2.5}$ Plan for the 1997 federal $PM_{2.5}$ standard, a 2012 $PM_{2.5}$ Plan for the 2006 federal $PM_{2.5}$ standard, a 2016 Moderate Area Plan for the 2012 federal $PM_{2.5}$ standard, and a 2007 PM_{10} Maintenance Plan to maintain the Air Basin's attainment status of the federal PM_{10} standard.

TABLE 3-1
SAN JOAQUIN VALLEY AIR BASIN ATTAINMENT STATUS

	Designation/Classification	
Criteria Pollutant	**Federal Primary Standards**	**State Standards**
Ozone - One hour	No Federal Standard	Nonattainment/Severe
Ozone - Eight hour	Nonattainment/Extreme	Nonattainment
PM_{10}	Attainment	Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Attainment/Unclassified	Attainment/Unclassified
Nitrogen Dioxide (NO_x)	Attainment/Unclassified	Attainment
Sulfur Dioxide (SO_x)	Attainment/Unclassified	Attainment
Lead	No Designation/Classification	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	[1]

[1] Regulated by the State of California as part of its toxic air contaminant program.
Source: SJVAPCD 2023.

Carbon monoxide (CO) is an odorless, colorless gas that is toxic in high concentrations. It is formed by the incomplete combustion of fuels and is emitted directly into the air, unlike ozone. The main source of CO in the San Joaquin Valley is on-road motor vehicles (SJVAPCD 2015). The San Joaquin Valley Air Basin is in attainment/unclassified status for CO; as such, the SJVAPCD has no CO attainment plans. However, high CO

concentrations may occur in areas of limited geographic size referred to as "hotspots," which are ordinarily associated with heavy traffic volumes and congestion.

In addition to the criteria pollutants, the California Air Resources Board has identified other air pollutants as toxic air contaminants (TACs) - pollutants that are carcinogenic (i.e., cause cancer) or that may cause other adverse short-term or long-term health effects. Diesel particulate matter, considered a carcinogen, is the most common TAC, as it is a product of combustion in diesel engines. It is present at some concentration in all developed areas of the state. Other TACs are less common and are typically associated with industrial operations.

Regulatory Setting

As noted, the SJVAPCD is tasked with implementing regulations designed to attain ambient air quality standards. SJVAPCD rules and regulations that are potentially applicable to the project are summarized below.

Rule 2010 (Permits Required)

This rule requires any person constructing, altering, replacing or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct or a Permit to Operate. Operations that handle cultivated cannabis are required to obtain a Permit to Operate from the SJVAPCD. A Permit to Operate would also be required for cannabis cultivation operations occurring indoors. Both types of activities would require an Authority to Construct from the SJVAPCD prior to start of construction work.

Rule 2201 (New and Modified Stationary Source Review)

This rule applies to all new stationary sources and all modifications to existing stationary sources which are subject to the District permit requirements and after construction emit or may emit one or more federal or State criteria pollutants. It applies several standards related to emissions.

Rule 4101 (Visible Emissions)

This rule prohibits emissions of visible air contaminants to the atmosphere and applies to any source operation that emits or may emit air contaminants.

Rule 4102 (Nuisance)

This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public. Although an exemption applies to odors emanating from agricultural operations in the growing of crops or raising of fowl or animals, this exemption would not apply to this project.

Regulation VIII (Fugitive Dust PM_{10} Prohibitions)

Rules 8011-8081 are designed to reduce PM_{10} emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, landfill operations, etc.

Odors

Odors are potentially an issue with cannabis operations, therefore, cannabis regulations require waste disposal in a manner that minimizes odor development. The SJVAPCD may require odor controls for a project if odor emissions exceed two pounds per day of volatile organic compounds known as terpenes. Under County Development Title provisions, cultivation activities that result in an odor of cannabis detectable outside of the premises are prohibited. An applicant for a new cultivation license shall submit an Odor Control Plan, and cultivation activities shall ensure that the premises has an air filtration, ventilation, or other system(s) sufficient to ensure that any odor from cannabis is not detectable outside the premises.

The project area is agricultural in nature and may be the source of and subject to existing odors from a variety of sources. The existing barns on the project site are currently in use for poultry raising; immediately surrounding lands are mostly in vineyard use, but a large winery is located immediately north of the site, existing dairy farms are located in the vicinity and large tracts of land in the area are in row crop and hay production uses.

Environmental Impacts and Mitigation Measures

a) Air Quality Plan Consistency.

In 2015, the SJVAPCD adopted a revised Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI). The GAMAQI defines an analysis methodology, thresholds of significance, and mitigation measures for the assessment of air quality impacts for land development projects within SJVAPCD's jurisdiction. Table 3-2 shows the CEQA thresholds of significance for pollutant emissions within the SJVAPCD. The significance thresholds apply to emissions from both project construction and project operations.

The California Emissions Estimator Model (CalEEMod) was used to estimate both construction and operational emissions associated with the proposed project. The CalEEMod results are available in Appendix B of this document, and Table 3-2 shows the maximum project construction emissions in a calendar year and the annual operational emissions based on the CalEEMod run. CalEEMod does not explicitly model for cannabis operations; thus, factors used to calculate emissions for an industrial park were used, with adjustments for proposed project use and vehicle trips. Project construction emissions were anticipated to be limited to vehicle trips by construction workers, along with some emissions from architectural coating. Operational emissions would be generated mainly by vehicle trips from employees and distribution activities, with some emissions from area sources such as HVAC and irrigation systems.

TABLE 3-2
SJVAPCD SIGNIFICANCE THRESHOLDS AND
PROJECT AIR POLLUTANT EMISSIONS

	ROG	NO_x	CO	SO_x	PM 10	PM 2.5
Significance Thresholds[1]	**10**	**10**	**100**	**27**	**15**	**15**
Construction Emissions[2]	0.12	0.58	0.64	<0.01	0.05	0.03
Exceeds Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
Operational Emissions[3]	0.30	0.10	0.91	<0.01	0.07	0.01
Exceeds Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

Note: All figures are in tons per year.
[1] Applies to both construction and operational emissions.
[2] Maximum emissions in a calendar year.
[3] Annual emissions.
Sources: CalEEMod Version 2020.4.0, SJVAPCD 2015.

As indicated in Table 3-2, both project construction and operational emissions would be substantially below the significance thresholds established by SJVAPCD for criteria pollutant emissions. As the significance thresholds were established in part to ensure consistency with the objectives of air quality attainment plans adopted by the SJVAPCD, project emissions would be consistent with these plans.

While project emissions would not be significant, the project would still be required to comply with applicable SJVAPCD rules and regulations, which would further reduce potential air quality impacts. As noted, SJVAPCD Regulation VIII contains measures to reduce fugitive dust emissions during construction. Dust control provisions are also routinely included in site improvement plans and specifications, along with construction contracts. In addition, as noted, the project would be required to obtain an Authority to Construct and a Permit to Operate from SJVAPCD. These approvals typically have conditions of approval attached that are designed to reduce emissions. These rules and approvals would further reduce project impacts related to air quality plans that are already less than significant.

b) Cumulative Emissions.

As noted in a) above, project operational emissions would not exceed SJVAPCD significance thresholds. Future attainment of federal and State ambient air quality standards is a function of successful implementation of the SJVAPCD's attainment plans. Consequently, the application of significance thresholds for criteria pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality. Pursuant to the SJVAPCD's guidance, if project-specific emissions would be less than the thresholds of significance for criteria pollutants, the project would not be expected to result in a cumulatively considerable net increase of any

criteria pollutant for which the SJVAPCD is in nonattainment under applicable federal or State ambient air quality standards. As project emissions would not exceed SJVAPCD significance thresholds, the cumulative impacts of these emissions would be less than significant.

c) Exposure of Sensitive Receptors.

As defined in the GAMAQI, "sensitive receptors" include residences, schools, parks and playgrounds, day care centers, nursing homes, and hospitals (SJVAPCD 2015). The project would be within an agricultural area, land uses within which are not considered sensitive. By this definition, there are no sensitive receptors in the project vicinity. The nearest "sensitive receptor" is a residence located approximately 850 feet south of the project site. A manufactured house is on the project site, but the project proposes to convert this structure to an office. As noted, construction emissions are short-term, and exposure to these emissions would be incidental. Operational emissions mainly would come from vehicle traffic, and exposure would likewise be incidental.

In summary, there are no sensitive receptors in the vicinity of the project site that would be exposed to substantial air pollutant emissions from project construction or operations. The project would have no impact on sensitive receptors.

d) Odors and Other Emissions.

Cannabis cultivation and processing could potentially generate objectionable odors, primarily with indoor cultivation and nursery operations. As project operations would occur within an enclosed building, they would not directly emit odors into the local environment. However, venting of indoor air could emit odors that could possibly be detected at nearby land uses if not otherwise treated.

The project proposes to submit and implement an Odor Control Plan as described in Chapter 2.0, Project Description. The licensee shall remain in compliance with its approved Odor Control Plan and ensure that the premises have an air filtration, ventilation, or other system(s) sufficient to ensure cannabis odor is not detectable outside of the premises. The Odor Control Plan details the air filtration and exhaust system, consisting of center-hung Genesis air filters, floor mounted carbon air filters, and high plume dilution fans. The air filters will run 24 hours for filtration and circulation, while the exhaust fans will mitigate odor through the use of high-velocity, bifurcated nozzles, diluting the ambient air by a minimum of 250% before expelling the air above the facility. It is expected that implementing the Odor Control Plan would enable the project to comply with SJVAPCD Rule 4102 odor requirements as a condition of receiving an Authority to Construct and a Permit to Operate under SJVAPCD Rule 2010. Also, as noted, cannabis regulations require waste disposal in a manner that minimizes odor development, which would also be incorporated within the project's Odor Control Plan. Compliance with State and local regulations would ensure that project impacts related to odors would be less than significant.

Other emissions of concern are TACs, specifically diesel particulate matter emissions. The exhaust PM_{10} emissions calculated by CalEEMod provide a reasonable representation of diesel particulate matter emissions, the main source of which is diesel engines. According to the CalEEMod results, the project would generate approximately 0.06 pounds per day of exhaust PM_{10}. This amount is small and expected to dissipate readily.

In summary, potential odors generated by the project would be controlled through implementation of an Odor Control Plan, and potential TAC emissions would not be at a level that poses a potential risk to health. Project impacts related to odors and other emissions are considered less than significant.

3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Adversely impact, either directly or through habitat modifications, any endangered, rare, or threatened species, as listed in Title 14 of the California Code of Regulations (Sections 670.2 or 670.5) or in Title 50, Code of Federal Regulations (Sections 17.11 or 17.12)?				✓
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. 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?				✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?				✓

NARRATIVE DISCUSSION

Information in this section is provided primarily from a Biological Resources Evaluation Report prepared by Stringer Biological Consulting, Inc. The report is available in Appendix C of this document. Biological studies conducted in support of this report included a special-status species evaluation and a biological reconnaissance survey of the study area, which includes the project site and the remainder of the parcel. Other references are cited as necessary.

Environmental Setting

The project site is located in a rural area of central San Joaquin County. The surrounding land is primarily in agricultural and farming uses and much of the surrounding lands are vineyards. There are two land cover types: developed and vineyard. There are no native or naturalized habitats on the project or on the surrounding property. There are no streams or other bodies of water on or adjacent to the project site; the nearest surface water is a canal more than one-half mile to the southwest.

Wildlife species in the developed area are typically limited to a few species tolerant of frequent human presence. The developed area contains sparse weedy plant species growing around the chicken barns such as Bermuda grass, pigweed, hairy fleabane, barnyard grass, cheeseweed, and purslane. Bird species typical of urban areas were observed perching on the chicken barns and grain silos, such as house sparrow and house finch. California ground squirrels and burrows were observed around the edges of the chicken barns. Groundcover in the vineyard consists of species such as Bermuda grass, Dallis grass, and prickly lettuce.

"Special-status species" are species that are listed under the federal or California Endangered Species Acts, including candidates and species proposed for listing. They also include species that are:

- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- Designated a Species of Special Concern by the California Department of Fish and Wildlife (CDFW) or considered by CDFW to be a Watch List species with potential to become a Species of Special Concern;
- Defined as rare or endangered under Section 15380 of CEQA; or
- Have a California Native Plant Society rank of 1A, 1B, 2A, 2B, or 3.

A review of databases maintained by the CDFW and the U.S. Fish and Wildlife Service indicated there are 10 special-status plant species, 21 special-status wildlife species, and three sensitive natural communities that are either documented as occurring or having the potential to occur in the region.

Environmental Impacts and Mitigation Measures

a) Special-Status Species.

As noted, there are 10 special-status plant species and 21 special-status wildlife species in the region. The Evaluation Report evaluated the potential for these species to occur within the study area and/or be impacted by the project, based on the conditions at the time of the biological reconnaissance.

No special-status plant species or suitable habitats for special-status plants were observed in the study area during the biological reconnaissance survey, and there are no reported occurrences of special-status plant species in or adjacent to the study area in the California Natural Diversity Database (CNDDB) maintained by CDFW. Regionally-occurring special-status plant species generally occur in wetlands or other aquatic habitats or within woodland or grassland habitats generally on specialized soils. The study area lacks these habitats.

No special-status wildlife species were observed in the project site during the biological reconnaissance survey, and there are no reported occurrences of special-status wildlife species in or immediately adjacent to the study area in the CNDDB. The majority of the regionally-occurring special-status wildlife species require aquatic habitats such as vernal pools, seasonal wetlands, ponds, marshes, and riverine habitats that do not occur on the site or they occur on large tracts of undeveloped lands such as open grasslands or woodland/forest habitats. These habitats are not present in the study area.

There is a reported occurrence in the CNDDB of western pond turtle, a State Species of Concern, in some constructed ponds approximately 800 feet northwest of the study area. The proposed project would have no impact on these constructed ponds, and any western pond turtle in these ponds would not be expected to leave the ponds and enter the study area as there is no suitable habitat for this species.

Other special-status animal species reported within a two-mile radius of the study area are Swainson's hawk, vernal pool tadpole shrimp, giant garter snake, riparian brush rabbit, and Modesto song sparrow. There is no nesting or foraging habitat for Swainson's hawk in or adjacent to the study area and no reported occurrences within one-half mile of the study area. There is no suitable habitat for vernal pool tadpole shrimp, giant garter snake, riparian brush rabbit, or Modesto song sparrow in or adjacent to the study area and there are no reported occurrences of any of these species within a one-half-mile radius of the study area. All four species require aquatic habitats and/or well-developed riparian habitats with shrubby or emergent vegetation, which is absent in or adjacent to the study area.

In summary the project site is unlikely to contain any special-status species due to lack of suitable habitat. The project would have no impact on special-status species.

b) Riparian and Other Sensitive Habitats.

The project site is not on or adjacent to any streams; therefore, there is no riparian habitat on the site. Three sensitive communities were identified in the region: Coastal and Valley Freshwater Marsh, Great Valley Oak Riparian Forest, and Valley Oak Woodland. None of

these communities were identified within the study area. The nearest Oak Woodlands are located approximately 0.6 miles to the east of the project site, adjacent to and south of Turner Road. The project would have no impact on riparian and other potentially sensitive habitats.

c) State and Federally Protected Wetlands.

Waters of the U.S., including wetlands, are broadly defined under 33 Code of Federal Regulations 328 to include navigable waterways, their tributaries, and adjacent wetlands. "Waters of the State", subject to oversight by the SWRCB and by the RWQCB with jurisdiction over the affected water, include isolated wetlands not covered by federal regulations.

The Evaluation Report stated that no potential wetlands or other Waters of the U.S. or Waters of the State are present in the study area. None were observed in the study area during the biological reconnaissance, and there are no aquatic resources mapped in the National Wetlands Inventory in the study area. A Riverine feature located along the northern boundary of the project site was identified in the National Wetlands Inventory (USFWS 2023). This corresponds to a narrow man-made drainage ditch that was dry at the time of the reconnaissance survey and is highly disturbed. The project would have no impact on state or federally protected wetlands.

d) Fish and Wildlife Movement.

As noted, there are no streams on or near the project site; therefore, the project would not interfere with any fish movement. No bird nests were observed in or adjacent to the study area during the biological reconnaissance, although the survey was conducted outside of the nesting season. However, nesting habitat for migratory birds and other nesting birds is present in and adjacent to the study area. Common bird species such as house sparrow, house finch, or black phoebe could nest on the chicken barns or grain silos in the study area as well as in horticultural trees or other ornamental vegetation adjacent to the study area. Project activities conducted during the typical bird nesting season associated with rehabilitation of the barns or paving activities could lead to destruction of nests, abandonment of eggs or young or forced fledging, which would be a violation of the California Fish and Game Code.

Mitigation described below would avoid the potential impacts of any vegetation clearing or ground disturbing activities during the general nesting season. If activities occur during the general nesting season, a pre-construction survey and actions to protect any active nests would be required. With implementation of the mitigation measure, project impacts on fish and wildlife movement would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-1: Initial vegetation clearing or ground disturbing activities within the project site shall take place outside of the typical avian nesting season (February 15 through August 31), if feasible. If construction needs to

commence between February 15 and August 31, a pre-construction survey for nesting birds shall be conducted within 500 feet of active construction areas within 10 days prior to commencement of construction. If a lapse in project activity occurs for 10 days or more during the bird nesting season, then the nesting bird surveys shall be re-conducted.

If no nesting birds are observed, then nothing further is required. However, if active bird nests are observed during the pre-construction survey, then a buffer zone shall be established around the nest tree(s) until the young have fledged or are no longer dependent on the nest, as determined by a qualified biologist. The dimensions of any required buffer zones shall likewise be determined by a qualified biologist. The buffer zone around a nesting tree shall be demarcated with high visibility orange construction fencing or similar highly visible material, and no construction activities or personnel shall be allowed within the buffer zone.

Significance After Mitigation: Less than significant

e) Local Biological Requirements.

San Joaquin County Development Title Section 9-1505 contains provisions intended to preserve Native Oak Trees and Heritage Oak Trees to the extent feasible. No oak trees were identified on the project site, so this section would not apply to the project. There are no other local biological requirements that have been set by the County. The project would have no impact on local biological requirements.

f) Conflict with Habitat Conservation Plans.

The SJMSCP is a comprehensive plan for assessing and mitigating the biological impacts of converting open space or biologically sensitive lands to urban development in San Joaquin County and its incorporated cities. For the conversion of open space to non-open space uses that affect covered plant, fish, and wildlife species, the SJMSCP provides three compensation methods: preservation of existing sensitive lands, creation of new comparable habitat on the project site, or payment of fees that would be used to secure preserve lands outside the project site. In addition to fee payments, the SJMSCP identifies Incidental Take Minimization Measures - protection measures that avoid direct impacts of development on special-status species - with which projects are required to comply (SJCOG 2000). The San Joaquin Council of Governments (SJCOG) implements the SJMSCP on a project-by-project basis.

The project would not be eligible to participate in the SJMSCP because of the proposed cannabis activities. However, the biological assessment for the project indicated that no significant biological resource impacts would occur other than to nesting migratory birds, for which mitigation has been identified in d) above. Therefore, the project would be consistent with the conservation goals of the SJMSCP. No other habitat conservation plans

apply to the project site. The project would have no impact related to conflict with habitat conservation plans.

3.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?			✓	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		✓		
c) Disturb any human remains, including those interred outside of formal cemeteries?			✓	

NARRATIVE DISCUSSION

Information for this section was drawn primarily from a report from the Central California Information Center at California State University Stanislaus providing the results of a records search of the project area, which includes the entire parcel on which the project is located. The Central California Information Center report is available in Appendix D of this document and is based on searches of various historical resource databases and references. Supplemental information is provided with appropriate citations.

Environmental Setting

The project site appears to be situated in the ethnographic territory of the Miwok (San Joaquin County 2016). Section 3.18, Tribal Cultural Resources, discusses the Miwok in more detail. Based on a records search conducted by the Central California Information Center, no archaeological resources have been recorded within the project area.

The 1854 edition of the General Land Office Survey Plat for T4N R5E refers to "The road from Stockton to Mokelumne City" in the southwest corner of Section 35, T4N R5E, southwest of the project area. Map Number One in *History of San Joaquin County, California with Illustrations* (1879; 1968 reprint) references both J. Dunbach and R. J. Parsons as historical landowners with property on or adjacent to the project area. The 1910 and 1952 editions of the U.S. Geological Survey's New Hope 7.5-minute quadrangle map reference Thornton Road as an established thoroughfare. No other records pertinent to the project area were encountered, and no historical resources have been recorded within the project area.

As noted in Section 3.2, Agriculture and Forestry Resources, the project area is currently used for agricultural production, including poultry and vineyards.

a) Historical Resources.

The Central California Information Center report indicated no historical resources on record within or adjacent to the project site. The report noted that a historical resource is defined as "a building, structure, object, prehistoric or historic archaeological site, or district possessing physical evidence of human activities over 45 years old" (CCIC 2021). It is not known when the existing structures on the project site were constructed. However, the manufactured house and the sheds are considered more recent additions with no historical value. The barns would only be renovated, so their exterior would retain their integrity. Project impacts on historical resources are considered less than significant.

b) Archaeological Resources.

The Central California Information Center report did not indicate the presence of any recorded prehistoric resources within or adjacent to the project site. Given past ground disturbance by agricultural activities and development, it is unlikely that any archaeological resources would be found intact on the project site. Moreover, the project site is already developed, and the project would involve minimal, if any, ground disturbance.

However, it is conceivable that ground disturbance activities associated with the project could unearth archaeological materials of significance that are currently unknown. Procedures to address archaeological discoveries if they should occur are set forth in the mitigation measure below. Implementation of this mitigation would reduce potential impacts on archaeological resources to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-1: If ground disturbance activities associated with the project encounter any subsurface cultural resources, all ground disturbance activities within 50 feet of the encounter shall be halted until a qualified archaeologist can examine these materials, determine their significance and, if significant, recommend further mitigation measures that would reduce potential effects to a level that is less than significant. Recommended measures could include, but are not limited to, 1) preservation in place, 2) incorporation of change in design to ensure no further disturbance of encountered resources, or 3) excavation, recovery, and curation by qualified professionals. The County Community Development Department shall be notified, and the project developer shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts in a written report to the Community Development Department, consistent with the requirements of the CEQA Guidelines.

Significance After Mitigation: Less than significant

c) Human Burials.

It is highly unlikely that project construction would encounter Native American or other burials. Should burials be uncovered during construction, CEQA Guidelines Section 15064.5(e) describes the procedure to be followed when human remains are uncovered in a location outside a dedicated cemetery. Required compliance with CEQA Guidelines Section 15064.5(e) would ensure that any human remains and associated grave goods encountered during project construction would be treated with appropriate dignity. Project impacts on human remains would be less than significant.

3.6 ENERGY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impacts 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?				✓

NARRATIVE DISCUSSION

Environmental Setting

Electricity is a major energy source for residences and businesses in California. In San Joaquin County, based upon the most recent information available, electricity consumption in 2021 totaled approximately 5,608 million kilowatt-hours (kWh), of which approximately 2,125 million kWh were consumed by residential uses and the remainder by non-residential uses (CEC 2023a). In 2021, natural gas consumption in San Joaquin County totaled approximately 186 million therms, of which approximately 90 million therms were consumed by residential uses and the remainder by non-residential uses (CEC 2023b). Motor vehicle trips also account for substantial energy usage. The SJCOG estimated countywide daily vehicle miles traveled (VMT) was 17,868,785 miles in 2015, which led to the consumption of approximately 511 million gallons of gasoline and diesel fuel (SJCOG 2018).

Cannabis cultivation activities consume electricity, mainly for grow lights, dehumidification, and space conditioning. The use of electricity by cannabis production varies according to cultivation methods and extent of activities associated with production. According to one study, electricity demands for cannabis production equate to 2,283 kilowatt-hours per kilogram (kWh/kg) yield for lighting, 1,848 kWh/kg for ventilation and dehumidification, 1,284 kWh/kg for air conditioning, 304 kWh/kg for space heating, 173 kWh/kg for water handling, and 90 kWh/kg for drying (Mills 2012). Motor vehicle travel associated with employee commutes and delivery vehicles consume gasoline and diesel fuels.

California has implemented numerous energy efficiency and conservation programs that have resulted in substantial energy savings. The State has adopted comprehensive energy efficiency standards as part of its Building Standards Code, California Code of Regulations, Title 24. Part 6 of Title 24, known as the California Energy Code, contains energy conservation standards applicable to all residential and non-residential buildings throughout California, including schools and community colleges. These standards are occasionally updated.

Also, in 2009, the California Building Standards Commission adopted a voluntary Green Building Standards Code (CALGreen), which became mandatory effective January 1, 2011. CALGreen sets forth mandatory energy efficiency measures for nonresidential structures, which essentially require compliance with the latest building energy efficiency measures adopted by the State. The County has adopted the 2022 version of CALGreen, which is the current version.

California has adopted a Renewables Portfolio Standard, which requires all electricity retailers in the state to generate 33% of electricity they sell from renewable energy sources (solar, wind, geothermal, etc.) by the end of 2020. Most of the retail sellers report procuring at or above the 33 percent RPS annual target for 2020 (CEC 2021). In 2015, SB 350 was signed into law, which increased the electricity generation requirement from renewable sources to 50% by 2030. In 2018, SB 100 was enacted, which accelerated the schedule for 50% electricity generation from renewable sources to 2026 and set a goal of 60% electrical generation from renewable sources by 2030. It also set the goal that zero-carbon resources will supply 100% of electricity to California by 2045.

Environmental Impacts and Mitigation Measures

a) Project Energy Consumption.

Project construction activities would involve fuel consumption and use of other non-renewable resources. Construction equipment typically runs on diesel fuel or gasoline. The same fuels typically are used for vehicles that transport equipment and workers to and from a construction site. However, construction-related fuel consumption would be finite, short-term, and consistent with construction activities of a similar character. This energy use would not be considered wasteful, inefficient, or unnecessary.

For interior building work, equipment that runs on electricity would also likely be used. It is expected that more electrical construction equipment would be used in the future, as it would generate fewer air pollutant emissions. This electrical consumption would be consistent with construction activities of a similar character; therefore, the use of electricity in construction activities would not be considered wasteful, inefficient, or unnecessary, especially since direct fossil fuel consumption would be reduced.

The project would be required to comply with the building energy efficiency standards of the California Energy Code and of the CALGreen adopted by the County at the time of project approval. Compliance with these standards would reduce energy consumption associated with project operations, although reductions from compliance cannot be readily

quantified. Moreover, indirect consumption of fossil fuels for electricity would be reduced as electricity providers comply with the Renewables Portfolio Standard.

During operation, the project proposes the use of multi-tier, high-output LED lighting utilizing approximately 61,000 Watts per cultivation room, for an aggregate facility energy usage of approximately 825,000 Watts.

Gasoline and diesel fuels would be consumed by employee vehicles and delivery vans and trucks as part of project operations. The fuel consumption would be consistent with the anticipated number of employees and business volume. Excessive fuel consumption is not anticipated, especially since a range of actions at the federal and State level are being taken to improve vehicle fuel economy (Congressional Research Service 2021).

Overall, project construction and operations would not consume energy resources in a manner considered wasteful, inefficient, or unnecessary. Project impacts related to energy consumption are considered less than significant.

b) Consistency with Energy Plans.

The County has no formal plans for renewable energy or energy efficiency. However, County General Plan Policy LU-2.2 promotes an approach to designing and constructing buildings that consume less energy, and Policy LU-6.8 encourages all employment and industrial projects to incorporate sustainable technologies, including energy-efficient practices. As noted in a) above, as permits for site and building permits are obtained, the project would be required to comply with the building energy efficiency standards of the California Energy Code and of CALGreen, which would be consistent with these General Plan policies. The project would have no impact related to consistency with energy plans.

3.7 GEOLOGY AND SOILS

Would the project:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 strata 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, creating substantial direct or indirect risks to life or property?				✓
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?			✓	
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✓	

NARRATIVE DISCUSSION

Environmental Setting

The project site is in the Central Valley, which is a topographically flat, northwest-trending trough about 50 miles wide and 450 miles long. The Geologic Map of the Sacramento Quadrangle (Wagner et al. 1981) designates the underlying geology of the project site as the Modesto Formation. The Modesto Formation, ranging in depth from 10 to 200 feet, consists primarily of sand, silt, and clay seams deposited by rivers (DWR 2014).

Most of the soils in the Central Valley consist of sand, silt, loamy clay alluvium, peat, and other organic sediments. A custom soil survey indicates that the soil underlying the project site consists of Devries sandy loam, drained, 0 to 2 percent slopes. This is a somewhat poorly drained soil formed in alluvium from mixed rock sources. It is moderately deep to a hardpan. Permeability of Devries sandy loam is moderately rapid. Runoff is slow, and the water erosion hazard is slight. This soil has a low expansive (shrink-swell) potential (SCS 1992, NRCS 2023).

There are several faults and potential fault traces located within San Joaquin County, concentrated along its eastern and western margins. No active or potentially active faults have been identified in the vicinity - the nearest active fault is the Greenville Fault, approximately 22 miles west-southwest of Stockton. However, San Joaquin County is in a region that lies between two areas of seismic activity - the San Andreas Fault System of the greater San Francisco Bay Area to the west, and the Foothills Fault System in the Sierra Nevada foothills to the east. Active faults associated with the San Andreas Fault System include the Concord, Calaveras, Hayward, and San Andreas faults, all of which can cause ground shaking that could potentially be felt within the County (San Joaquin County 2016).

Paleontological resources are fossils or groups of fossils that are unique, unusual, rare, uncommon, or important, and that add to an existing body of knowledge in specific areas. A record search of the Museum of Paleontology at the University of California in Berkeley indicated that 97 paleontological finds have been made in the County (UCMP 2020). Most County specimens have been found in rock formations in the foothills of the Diablo Mountain Range. However, remains of extinct animals, such as mammoth, could be found virtually anywhere in the County, especially along watercourses such as the San Joaquin River and its tributaries (San Joaquin County 2016).

Environmental Impacts and Mitigation Measures

a-i) Fault Rupture Hazards.

The project site is not on or near a known earthquake fault. It is not within an Alquist-Priolo Special Studies Zone, nor is it on a seismic hazard zone map prepared under the Seismic Hazards Mapping Act. The project would have no impact related to fault rupture hazards.

a-ii) Seismic Ground Shaking.

As noted, the project site may be subject to ground shaking from earthquakes occurring outside the County. The project proposes to reuse existing structures, which complied with applicable provisions of the California Building Code adopted at this time of their construction. The 2022 California Building Code is the current version adopted by the County. The California Building Code includes seismic safety provisions that minimize ground shaking impacts. Project impacts related to ground shaking would be less than significant.

a-iii) Other Seismic Hazards.

Liquefaction generally occurs in areas where moist, fine-grained, cohesionless sediment or fill materials are subjected to strong seismic ground shaking. Under certain circumstances, seismic ground shaking can temporarily transform an otherwise solid, granular material to a fluid state. Liquefaction is most often triggered by seismic shaking, but it can also be caused by improper grading, landslides, or other factors. According to the most recent available groundwater report, the groundwater level in the vicinity of the project site is between 20 and 30 feet below ground surface (San Joaquin County Flood Control District 2022). The groundwater level is considered too deep for liquefaction to be an issue.

As noted, existing structures have complied with the seismic requirements of the California Building Code in effect at the time of construction, which would reduce potential impacts of other seismic hazards on structures. Project impacts related to other seismic hazards would be less than significant.

a-iv) Landslides.

The project site is within a relatively flat area. There are no slopes that could be subject to landslides on or near the project site. The project would have no impact related to landslide risk.

b) Soil Erosion.

The project site is mostly developed, and most construction work would focus on renovation of existing structures. It is anticipated that project development would involve minimal soil disturbance, mainly for construction of the parking area and the main driveway. These would minimally affect existing drainage patterns. As noted, most project storm drainage would either percolate into the ground or drain into the drainage ditch to the north. The project is not expected to lead to any storm drainage issues that may cause soil erosion. Project impacts related to soil erosion would be less than significant.

c) Unstable Soils.

The project site is a mostly developed area on essentially flat land. There is no evidence of soil instability on the project site. Subsidence is the sinking of a large area of ground surface in which the material is displaced vertically downward, with little or no horizontal movement. The San Joaquin Valley and the Sacramento-San Joaquin Delta are areas that have experienced subsidence. The main cause of subsidence in the Delta region is the compaction of peat deposits through extraction of groundwater, oil and gas, loading, or natural causes. Peat compaction can lead to subsidence and significant damage to structures (San Joaquin County 2014). The project site is within the Delta area, and information indicates that land in the project vicinity has subsided between zero and one foot (San Joaquin County 2016).

As noted, project structures have complied with the California Building Code, which addresses potential seismic and other geotechnical issues. Subsidence in the area has been minimal, so the project is not expected to experience subsidence that could be damaging. Project impacts related to unstable soils would be less than significant.

d) Expansive Soils.

As noted, most of the project site is underlain by Devries sandy loam, which has a low expansive soil potential. As such, the soil is not expected to create expansion issues for the existing structures and for the new project features. The project would have no impact related to expansive soils.

e) Adequacy of Soils for Wastewater Disposal.

The project site contains an existing septic tank and leach field that serves the existing manufactured house. The septic tank was permitted by the County Environmental Health Department, which requires compliance with standards for on-site wastewater treatment systems. These include holding tank capacity and layout and sizing dispersal field requirements that reflect soil constraints. It is expected that this system would be adequate to serve the anticipated users of the manufactured house.

The project proposes the use of portable toilet facilities for employees working in the converted barns. The maintenance and emptying of these facilities shall be conducted in accordance with the applicable provisions of San Joaquin County Development Title 5, Division 6. These facilities would not use on-site wastewater disposal systems. Project impacts related to wastewater disposal would be less than significant.

f) Paleontological Resources and Unique Geologic Features.

The project site has no unique geologic features, and there are no known existing paleontological resources on the project site. The project site is underlain by the Modesto Formation, which has in the past been associated with discovery of paleontological resources. However, as discussed in Section 3.5, Cultural Resources, given past ground disturbance by agricultural activities and development, it is unlikely that any paleontological resources would be found intact on the project site. Moreover, as noted, the project site is already developed, and the project would involve minimal ground disturbance. As such, it is unlikely that any paleontological resources would be encountered during project construction. Project impacts on paleontological resources would be less than significant.

3.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			✓	

NARRATIVE DISCUSSION

Environmental Setting

Background

Greenhouse gases (GHGs) are gases that absorb and emit radiation within the thermal infrared range, trapping heat in the earth's atmosphere. GHGs are both naturally occurring and are emitted by human activity. Increased atmospheric concentrations of GHGs are considered a primary contributor to global climate change, which is a subject of concern for the State of California. Potential climate change impacts occurring in the San Joaquin Valley include more intense and frequent heat waves, higher frequency of catastrophic floods, more intense and frequent drought, and more severe and frequent wildfires (Westerling et al. 2018).

GHG emissions in California in 2020, the most recent year for which data are available, were estimated at approximately 369.2 million metric tons CO_2e – a decrease of approximately 24% from the peak level in 2004. Transportation was the largest contributor to GHG emissions in California, with 37% of total emissions - a smaller share than in recent years, most likely due to reduced traffic volume during the COVID-19 lockdown. Other

significant sources include industrial activities, with approximately 20% of total emissions, and electric power generation, both in-state and imported, with approximately 16% of total emissions (ARB 2022a).

Unlike the criteria air pollutants described in Section 3.3, Air Quality, GHGs have no "attainment" standards established by the federal or State government. In fact, GHGs are not generally thought of as traditional air pollutants, because their impacts are global in nature, while air pollutants mainly affect the general region of their release to the atmosphere. Nevertheless, the U.S. Environmental Protection Agency has found that GHG emissions endanger both the public health and public welfare under Section 202(a) of the Clean Air Act due to their impacts associated with climate change (EPA 2009).

Regulatory Framework

The State of California has implemented GHG emission reduction strategies through Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, which requires total statewide GHG emissions to reach 1990 levels by 2020, or an approximately 29% reduction from 2004 levels. As noted above, total state GHG emissions in 2020 were approximately 369.2 million metric tons CO2e, which was 61.8 million metric tons CO_2e below the AB 32 target (ARB 2022a).

In 2016, Senate Bill (SB) 32 became law. SB 32 extends the GHG reduction objectives of AB 32 by mandating statewide reductions in GHG emissions to levels that are 40% below 1990 levels by the year 2030. To achieve the SB 32 reduction target, the State adopted an updated Scoping Plan that continues many of the programs that were part of the previous Scoping Plans, including the cap-and-trade program, low-carbon fuel standards, renewable energy, and methane reduction strategies. It also addressed for the first time GHG emissions from the natural and working lands of California, including the agriculture and forestry sectors (ARB 2017).

In 2022, ARB adopted an update to the Scoping Plan. The 2022 Scoping Plan assesses progress towards achieving the SB 32 2030 reduction target and lays out a path to achieve carbon neutrality no later than 2045. Proposed strategies to achieve these reductions include rapid movement to zero-emission transportation, phasing out fossil fuel use for heating homes and buildings, restricting use of chemicals and refrigerants that are thousands of times more powerful at trapping heat than carbon dioxide, expanded development of renewable energy sources, increased use of natural and working lands for incorporating and storing carbon, and greater employment of carbon removal technology (ARB 2022b)

The County currently does not have a GHG emission reduction plan, also known as a Climate Action Plan. Policy PHS-6.2 of the County General Plan states that the County shall reduce community GHG emissions by 15% below 2005 levels by 2020 and shall strive to reduce GHG emissions by 40% and 80% below reduced 2020 levels by 2035 and 2050, respectively. These goals are consistent with State reduction goals.

Environmental Impacts and Mitigation Measures

a, b) Project GHG Emissions and Consistency with GHG Reduction Plans.

Estimates of GHG emissions of the project were developed using the CalEEMod program (see Section 3.3, Air Quality). The GHG analysis assumes that the entire floor area would be developed, which would produce a conservative estimate as much of that floor area would be greenhouse and nursery space, which is expected to generate few GHGs. As with air pollutants, most GHG emissions would be from vehicle traffic. Indirect GHG emissions would be generated by project energy use.

Based on the CalEEMod results, the project is estimated to generate approximately 115 metric tons CO_2e of construction GHG emissions during the construction period. Project operational GHG emissions would be approximately 243 metric tons CO_2e annually under unmitigated ("business-as-usual") conditions and approximately 227 metric tons CO_2e under mitigated conditions. "Mitigated emissions" are the result of project compliance with applicable laws, rules, and regulations, along with inclusion of project features that reduce GHG emissions. These include the following:

- SB X7-7, enacted in 2009, sets an overall goal of reducing per capita urban water use by 20% by December 31, 2020. The California Green Building Code mandates a 20% reduction in indoor water use.
- AB 341 establishes the goal of diverting 75% of California's waste stream from landfills by 2020.

Mitigated operational GHG emissions would be approximately 7.0% less than under business-as-usual (unmitigated) conditions.

As the County has no GHG reduction plan, analysis will be based on the 2017 Scoping Plan, especially since County General Plan Policy PHS-6.2 is consistent with the targets the Scoping Plan intends to achieve. The 2017 Scoping Plan proposes various measures to achieve the 2030 target. Most of these are State measures, such as use of the cap-and-trade program, the Short-Lived Climate Pollutant Plan, and achievement of the 50% renewable sources of electricity in the Renewables Portfolio Standard (see Section 3.6, Energy).

Based on estimates in the 2017 Scoping Plan, State actions would account for 89.8% of GHG reductions needed by 2030, with local actions accounting for approximately 9.3% of reductions. Applying this ratio to the percentage reduction for 2030, then approximately 6.0% of the reduction from 2030 business-as-usual levels would be achieved by local measures. A project that can show GHG reductions of at least 6.0% can be said to be consistent with the reduction goals of SB 32. As noted, the project would achieve an approximately 7.0% reduction in GHG emissions from business-as-usual emissions. Therefore, the project would be consistent with the reduction goals of SB 32.

The State of California has the most comprehensive GHG regulatory requirements in the United States, with laws and regulations requiring reductions that affect project emissions. The project is subject to several State regulations applicable to project design, construction, and operation that would reduce GHG emissions, increase energy efficiency, and provide

compliance with the Climate Change Scoping Plan. Legal mandates to reduce GHG emissions from vehicles, for example, would reduce project-related vehicular emissions. Other mandates that would reduce GHG emissions include reducing per capita water consumption and imposing waste management standards to reduce methane and other GHGs from solid wastes.

As discussed in Section 3.6, Energy, the project would be subject to codes promoting energy efficiency. It also would include features that would reduce consumption of electricity generated from fossil fuels, such as a solar roof and use of LED lights. Also, as discussed in Section 3.6, attainment of the targets of the Renewables Portfolio Standard would reduce the amount of electricity generated by fossil fuels. Based on the information provided above, project energy usage is expected to result in a minimal increase in indirect GHG emissions from electrical generation from fossil fuels.

Overall, the project would be consistent with GHG reduction plans of the State and with the County General Plan policy on mitigation of GHG emissions. Project impacts related to GHG emissions and consistency with GHG emission reduction plans would be less than significant.

3.9 HAZARDS AND HAZARDOUS MATERIALS

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

NARRATIVE DISCUSSION

Environmental Setting

The State of California maintains two hazardous material site databases: the EnviroStor database, maintained by the Department of Toxic Substances Control; and the GeoTracker database, maintained by the SWRCB. Neither database had a record of any hazardous material cases on or within one mile of the project site (DTSC 2023, SWRCB 2023). A list of solid waste disposal sites identified by SWRCB that exhibit waste constituent levels outside the waste management unit as being above hazardous waste screening criteria did not contain any locations in the project vicinity (CalEPA 2021a). Likewise, a list by SWRCB containing sites under Cease and Desist Orders and Cleanup and Abatement Orders showed no locations on or near the project site (CalEPA 2021b).

Environmental Impacts and Mitigation Measures

a) Hazardous Materials Transportation, Use and Disposal.

Cannabis cultivation operations, including nursery operations, may involve the use of pesticides, fertilizers, and other agricultural chemicals that may be considered hazardous. Chapter 2.0, Project Description, describes the agricultural chemicals that may be used by the project. Under the CalCannabis Licensing Program, cultivators would be required to store, use, and dispose of hazardous materials in accordance with a broad range of applicable laws and regulations. All use of pesticide products shall comply with State pesticide laws and regulations, enforced by the County Agricultural Commissioner's Office, the County Environmental Health Division, and the California Department of Pesticide Regulation.

The San Joaquin County Development Title requires applicants for a cultivator license to submit a Pesticide Use Plan, which shall include details of the planned pesticide use for all agricultural activities conducted on the applicant's property, including the pesticides to be used. Pesticides are to be stored in an enclosed area with proper warning signs, and workers must be protected from exposure to pesticides. The project applicant will use only Organic Materials Review Institute (OMRI) listed pesticides and fungicides. OMRI approved and listed products are independently analyzed and certified organic by the OMRI and allowed for use in organic operations under the USDA National Organic Program. Along with manually removing pests and planting aromatic companion plants for pest deterrence, chemicals and bacterium that may be used include, but are not limited to: citric acid, sulphur, soybean oil, neem oil, insecticidal soaps and *Bacillius thuringiensis*. All chemicals

will be stored on-site within each cultivation building in designated pesticide and chemical storage areas. Project site activities that would transport, use, or store hazardous materials would be required to do so in compliance with applicable local, State, and federal hazardous material regulations. Compliance with these regulations, along with the requirements of the CalCannabis Licensing Program, would reduce impacts regarding the transport, use, and storage of hazardous materials to a level that would be less than significant.

b) Release of Hazardous Materials by Upset or Accident.

The storage and use of hazardous materials by the project would involve potential for on-site releases of these materials. Employees and other persons could be exposed to hazardous material releases through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. The main concern would be employee exposure; the size of the project site would make it unlikely that any releases of hazardous materials would extend beyond site boundaries.

Recent agricultural practices typically involve the use of pesticides and other chemicals, which may be considered hazardous materials and can contaminate soils and water if not properly applied. The vineyard in front of the existing barns may have been treated with agricultural chemicals, and residual chemicals could be in the soil, with which workers constructing the main driveway could come into contact. However, driveway construction would affect only 0.05 acres of vineyard, and exposure to any residual chemicals would be limited.

As discussed in a) above, project site activities that would transport, use, or store hazardous materials would be required to do so in compliance with applicable local, State, and federal regulations. These regulations are designed to ensure that these materials are properly stored and transported, thereby reducing the likelihood of accidental release. Compliance with these regulations, along with the requirements of the County Development Title discussed in a) above, would reduce project impacts related to potential release of hazardous materials to a level that would be less than significant.

c) Release of Hazardous Materials near Schools.

There are no schools within one-quarter mile of the project site; the nearest schools are in Lodi and Thornton. The project would not involve air toxic emissions. As discussed in b) above, it is unlikely that any potential releases of hazardous materials would extend beyond site boundaries. The project would have no impact related to hazardous material releases near schools.

d) Hazardous Materials Sites.

As noted, neither the GeoTracker nor the EnviroStor databases have any records of hazardous material sites on or within one mile of the project site. CalEPA records also indicate no sites in the vicinity. The project would have no impact related to hazardous material sites.

e) Airport Operations.

There are no public or public-use airports within two miles of the project site. The nearest public airport is Kingdon Airpark, more than four miles to the southeast. Given this distance, the project would not expose employees to potential safety hazards from airport operations. The project would have no impact related to airport hazards.

f) Emergency Response and Evacuation.

The project proposes no changes to Jacob Brack Road, which would be the main road for emergency vehicle access and for emergency evacuation in the vicinity. No obstructions or other alterations that could hinder traffic flow would be installed; all improvements would occur on the project site. The project would have no impact on emergency response and evacuations.

g) Wildland Fire Hazards.

The project is in an area of agricultural land. It is not located adjacent to any significant natural open spaces where wildland fires may occur. Agricultural land, due to its cultivated character and typical irrigation, does not involve an accumulation of fuel or otherwise create a significant fire hazard. The project site itself is mostly developed. As such, the project would have no impact related to wildland fire hazards. Refer to Section 3.20, Wildfire, for more detailed information on wildfires.

3.10 HYDROLOGY AND WATER QUALITY

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 runoff 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?			✓	
iv) Impede or redirect flood flows?				✓
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				✓
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			✓	

NARRATIVE DISCUSSION

Environmental Setting

Surface and Groundwater Hydrology

As noted in Section 3.4, Biological Resources, there are no streams or other surface water bodies on or in the immediate vicinity of the project site. The nearest natural channel is more than one-half mile to the southwest. A man-made drainage ditch occurs along the northern boundary of the project site, but it contains water only during and immediately after storms. It is dry most other times.

The project site overlies the Eastern San Joaquin Subbasin of the San Joaquin Valley Groundwater Basin. Groundwater levels may fluctuate depending on precipitation, aquifer recharge, and pumping demands. As noted in Section 3.7, Geology and Soils, the groundwater level in the vicinity of the project site is between 20 and 30 feet below ground surface (San Joaquin County Flood Control District 2022). The Eastern San Joaquin Subbasin is critically overdrafted, which has led to significant groundwater level depressions developing east of Stockton, west of the community of Linden, and east of the city of Lodi.

In 2014, the California Legislature passed the Sustainable Groundwater Management Act, the purpose of which is to give local agencies greater authority to manage groundwater supplies. The legislation requires the formation of local groundwater sustainability agencies that must assess conditions in their local water basins and adopt locally based management plans. Local groundwater sustainability agencies for High and Medium priority basins were to have been formed by June 30, 2017. Groundwater Sustainability Plans for critically overdrafted basins must be adopted by January 31, 2020.

The Eastern San Joaquin Groundwater Authority, which oversees the Eastern San Joaquin Subbasin, submitted a Groundwater Sustainability Plan for the Subbasin to the California

Department of Water Resources on January 29, 2020, as the Subbasin is classified as a critically overdrafted basin. Achieving sustainability in the Subbasin requires implementation of projects and management actions, including water supply projects that either replace groundwater use or supplement groundwater supplies to attain the current estimated pumping offset and/or recharge need. A final list of 23 potential projects is included in the Groundwater Sustainability Plan, representing a variety of project types, including direct and in-lieu recharge, intra-basin water transfers, demand conservation, water recycling, and stormwater reuse (ESJGA 2019).

Flooding

The Federal Emergency Management Agency (FEMA) prepares maps that delineate areas subject to potential flooding. According to the floodplain map prepared for the project area, the project site is in Zone X, which indicates areas within a 500-year floodplain; that is, the area of occurrence of a flood that is expected once every 500 years on average (FEMA 2009). The 500-year floodplain is not an area of concern under the National Flood Insurance Program. The 100-year floodplain (i.e., the area of occurrence of a flood that is expected once every 100 years on average) is considered a Special Flood Hazard Area that is an area of concern under FEMA's National Flood Insurance Program. No Special Flood Hazard Areas are in the project vicinity.

In 2007, the State of California approved SB 5 and a series of related Senate and Assembly bills known as "the SB 5 Bills;" The SB 5 bills that define the State standard for flood protection in urban areas in the Central Valley as protection from the 200-year flood; the bills establish other requirements for application of the 200-year standard. After July 2, 2016, new development in areas potentially exposed to 200-year flooding more than three feet deep is prohibited, unless the local land use agency certifies that 200-year flood protection has been provided or that "adequate progress" has been made toward provision of 200-year flood protection by 2025. The project site is not in an area that is potentially exposed to 200-year flooding more than three feet deep (DWR 2023). Therefore, SB 5 requirements do not apply.

Water Quality

The Central Valley RWQCB has prepared a Water Quality Control Plan (Basin Plan) for the Sacramento River and San Joaquin River Basins. The Basin Plan identifies water quality standards that are based on identified beneficial uses and water quality objectives based on those uses. Beneficial uses listed for surface water bodies in the vicinity of the project site include municipal and domestic supply, agriculture supply, and industrial process and service supply, among others (RWQCB 2015).

In 2019, the SWRCB issued Order WQ 2019-0001-DWQ, known as the Cannabis Cultivation General Order, which superseded a previous order issued in 2017. The Cannabis Cultivation General Order sets general waste discharge requirements associated with cannabis cultivation activities, which are specified in Attachment A of the order. Among these requirements are restrictions on land disturbance activities and prohibitions of specific discharges to surface waters.

Environmental Impacts and Mitigation Measures

a) Violation of Water Quality Standards.

As noted, the project site is not located on or adjacent to any streams or other surface waters. As noted in Section 3.7, Geology and Soils, the project site is currently served by an onsite septic tank, which received a permit from the County Environmental Health Division. Requirements associated with the permit would ensure that groundwater contamination would not occur with the use of the septic tank.

Wastewater from cannabis cultivation activities would be generated. Depending on how it is disposed of, this wastewater could have a significant impact on water quality. The project applicant has prepared a Wastewater Management Plan for the project that sets forth procedures for the control of any pesticides, fertilizers or any substances used within their cultivation operation, as it relates to potential accidental discharge into the stormwater collection system. It also sets forth procedures to contain the potential overflow of wastewater. Based on the information in the Wastewater Management Plan, no substantial wastewater is anticipated to be generated by the project. The project also must comply with the requirements of the SWRCB's Cannabis Cultivation General Order plus other applicable State and County requirements. Compliance with these plans and requirements would reduce water quality impacts of the project to a level that would be less than significant.

b) Groundwater Supplies and Recharge.

As noted in Chapter 2.0, Project Description, the project proposes to use groundwater from an existing on-site well. As noted in Chapter 2.0, Project Description, water demand from project operations is expected to be a maximum of 15,600 gallons per day, or approximately 17.47 acre-feet per year at maximum. As water use would vary throughout the year, actual groundwater usage would likely be less than the estimated maximum. This is within the general range of groundwater use associated with agriculture in the area. The total fresh groundwater in storage within the Eastern San Joaquin Groundwater Subbasin was estimated at more than 50 million acre-feet in 2015 (ESJGA 2019). Proposed project groundwater usage would have a minimal effect on stored groundwater in the Subbasin.

The project proposes to establish its operations in an existing developed area. It does not propose additional structures or impervious surfaces that prohibit groundwater recharge, other than the proposed parking area in front of the barns. This would only incrementally reduce the amount of the potential recharge area available on the project site and vicinity. Project impacts related to groundwater would be less than significant.

c-i, ii, iii) Drainage Patterns and Runoff.

The project proposes to utilize existing buildings for its operations. No new buildings or additional pavement (or all-weather surfacing) area would be installed other than the parking area and the main driveway. These newly surfaced areas would only minimally affect existing drainage patterns on the project site, and only incremental additional runoff would be generated. Runoff can be accommodated by existing agricultural lands

surrounding the developed area or by the existing drainage ditch to the north. Project impacts on drainage patterns and runoff would be less than significant.

c-iv) Flood Flows.

The Federal Emergency Management Agency (FEMA) delineates for streams the 100-year floodplain, which.is considered a Special Flood Hazard Area. As noted, the project site is not within a Special Flood Hazard Area. As such, it is unlikely that the project would impede or redirect any flood flows. The project would have no impact on this issue.

d) Release of Pollutants in Flood Zone.

As noted in c-iv) above, the project site is not within a Special Flood Hazard Area. It is also not within a SB 5 200-year flood hazard area. The project site is neither near a large body of water nor on the coast, so it would not be subject to any seiche or tsunami hazards. California Government Code Section 65302(g) requires local governments to assess the potential impacts a dam failure might have on their jurisdiction. As part of preparation of the County General Plan, potential dam inundation areas were identified and delineated. The project site is not within any identified dam inundation area (San Joaquin County 2016).

In summary, the project site is unlikely to be inundated by flooding and therefore is unlikely to lead to a release of any pollutants due to flooding. The project would have no impact on this issue.

e) Conflict with Water Quality or Sustainable Groundwater Plans.

As noted, the project would be required to comply with the Cannabis Cultivation General Order, which contains requirements for cannabis operations that are designed to maintain water quality. The project would not conflict with known water quality objectives of the Basin Plan.

As noted, the Eastern San Joaquin Subbasin was identified as critically overdrafted; therefore, a Groundwater Sustainability Plan for the Subbasin is required under the Sustainable Groundwater Management Act. Such a plan has been submitted. To implement this plan, the Eastern San Joaquin Groundwater Sustainability Agency proposes various projects and management actions. None of these projects or actions apply at an individual development project level; however, the project would not interfere with the implementation of these projects and management actions. Project impacts related to water plans would be less than significant.

3.11 LAND USE AND PLANNING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?			✓	

NARRATIVE DISCUSSION

Environmental Setting

As noted, the project site is within an agricultural area, and the parcel on which it is located contains mostly vineyards. Three barns are located on the project site, along with a manufactured house with ancillary sheds. North of the project site is the Trinchero Family Estates and the Sutter Home Winery, both involved in winemaking. South of the project site is the Luiz and Sons Dairy. East of the project site is I-5, beyond which is more agricultural land. Agricultural land is also to the west of the site.

The current San Joaquin County General Plan was adopted in 2016. The County General Plan is a legal document that serves as the County's guide for all future land use, development, preservation, and resource conservation decisions. The horizon year for the General Plan, except for the Housing Element, is 2035, which reflects the 20-year planning period for the General Plan. The County General Plan has designated the project site A/G – General Agriculture.

The San Joaquin County Development Title (Section 9) applies to lands in unincorporated San Joaquin County. The Development Title designates zoning districts that are distinguished by the allowable land uses in each district. It also specifies development standards for each zoning district, along with more generalized standards such as height of structures, yards, and infrastructure standards. The project site is zoned AG-40 – General Agriculture, 40-acre minimum.

The project site is located within the Primary Zone of the San Joaquin Delta. In addition to General Plan requirements in order to approve a project located within the Primary Zone, the project must meet the requirements of both the Delta Protection Commission Land Use and Resource Management Plan and the Delta Stewardship Council Delta Plan.

The following are findings for the Delta Protection Commission Land Use and Resource Management Plan, which can be made in the affirmative.

1. The Development will not result in wetland or riparian loss.

- **This Finding can be made because the project will not result in a loss of riparian habitat on or near the project site. The project proposes utilization of existing buildings and will be required as a Condition of Approval to provide alternative mitigation in an amount and kind equal to that provided in the SJMSCP.**

2. The Development will not result in the degradation of water quality.

- **This Finding can be made because the project will meet the requirements of the Environmental Health Department and the Regional Water Quality Control Board.**

3. The Development will not result in increased non-point source pollution or soil erosion, including subsidence or sedimentation.

- **This Finding can be made because the site will utilize natural storm drainage and will not increase non-point source pollution. There will be no runoff into streams or waterways. The site is level and not subject to erosion. All runoff must remain on site.**

4. The Development will not result in degradation or reduction of Pacific Flyway habitat.

- **This Finding can be made because the project will not significantly reduce Pacific Flyway habitat. The project proposes utilization of existing buildings, and will be required as a Condition of Approval to provide alternative mitigation in an amount and kind equal to that provided in the SJMSCP.**

5. The Development will not result in reduced public access, provided that access does not infringe upon private property rights.

- **This Finding can be made because the entirety of the project will be on private property and will not result in reduced public access.**

6. The Development will not expose the public to increased flood hazards.

- **This Finding can be made because any required grading for parking or driveways will be required to meet the standards of the Flood Control Division of the Public Works Department.**

7. The Development will not adversely impact agricultural lands or increase the potential for vandalism, trespass, or creation of public or private nuisances on public or private land.

- **This Finding can be made because this project is contained entirely within existing buildings on one legal parcel and will not encroach onto adjacent properties. Commercial Cannabis Facilities are required to keep an approved Security Plan on-file with the San Joaquin County Sheriff's office. Therefore, the project will not increase the potential for vandalism, trespass, or the creation of public or private nuisances on public or private land.**

8. The Development will not result in the degradation or impairment of levee integrity.

- **This Finding can be made because the project is not near an existing or proposed levee and no portion of project development will require any changes to levees.**

9. The Development will not adversely impact navigation.

- **This Finding can be made because the project will not impact water navigation because no bridges or waterways will need to be crossed. All site work will be performed on the project applicant's property and not within navigable waters.**

10. The development will not result in any increased requirements or restrictions upon agricultural practices in the primary zone.

- **This Finding can be made because the proposed Cannabis Cultivation proposes no new structures and will be contained entirely on one legal parcel. The surrounding uses are agricultural, and the project will not affect adjacent agricultural uses.**

The project, although not statutory exempt from regulation does not meet the definition of a Covered Action under the Delta Stewardship Council Delta Plan because all four of the following Screening Criteria do not apply, specifically Screening Criteria Number 4:

The plan, program, or project:

1. Is "...a plan, program, or project as defined pursuant to Public Resources Code Section 21065."

- **This Screening Criteria can be met. The proposed project is an activity defined under Public Resources Code Section 21065. The application will require approval from the San Joaquin County Community Development Department and a component of the project is converting existing buildings for cannabis cultivation, which will result in a direct or indirect physical change in the environment.**

2. Will occur, in whole or in part, within the boundaries of the Delta or Suisun Marsh.

- **This Screening Criteria can be met. The location of the project site is within the boundaries of the Delta Primary Zone as defined in the Delta Plan.**

3. Will be carried out, approved, or funded by the State or a local public agency.

- **This Screening Criteria can be met. The proposed project will require approval from the San Joaquin County Community Development Department, San Joaquin County Sheriff's office, San Joaquin County Environmental Health Department, and California Department of Agriculture, CalCannabis Division.**

4. Will have a significant impact on the achievement of one or both of the coequal goals or the implementation of a government-sponsored flood control program to reduce risks to people, property, and State interests in the Delta;

- **This Screening Criteria cannot be met. The project will have no effect on the implementation on a government-sponsored flood control program. Moreover, it will not have a significant negative impact on the Delta ecosystem or the reliability of the water supply. The project will not have a significant impact on the achievement of the coequal goals because it is merely converting existing buildings for cannabis cultivation.**

Because all four Screening Criteria cannot be met, the project, for the purposes of the Delta Plan, it does not meet the definition of a Covered Action. Referrals have been sent to the Delta Protection Commission and Delta Stewardship Council for review.

Environmental Impacts and Mitigation Measures

a) Division of Established Communities.

The project site is within an agricultural area. There are few residences in the vicinity, and no recognized communities. The project would have no impact related to the division of an established community.

b) Conflict with Applicable Plans, Policies and Regulations Avoiding or Mitigating Environmental Effects.

The proposed use is consistent with the existing General Agriculture designation and zoning of the project site. The A/G designation and zoning allow for the proposed cannabis operations. As noted in Section 3.2, Agriculture and Forestry Resources, cannabis cultivation is considered an agricultural activity by the State of California.

This IS/MND analyzes the potential environmental impacts of the proposed project. For all environmental issues, the project would have no environmental impact, an impact that would be less than significant, or an impact that can be mitigated to a level that would be less than significant.

The County Development Title requires a site zoned General Agriculture that is proposed for cannabis cultivation activities to be within 2,000 feet of a major intersection or arterial road. The project site is located within 2,000 feet of the Interstate 5/Turner Road interchange, so it meets this requirement. Overall, the project would not conflict with plans and programs that mitigate environmental effects. Impacts would be less than significant.

3.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓
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?				✓

NARRATIVE DISCUSSION

Environmental Setting

As mandated by the Surface Mining and Reclamation Act, the California Geological Survey has classified mineral resource development potential of lands in counties into an appropriate Mineral Resource Zone, in accordance with the California Mineral Land Classification System. Local agencies are required to use this information when developing land use plans and when making land use decisions. The County has not designated any Mineral Resource Zones in the vicinity of the project site (San Joaquin County 2016). Information from the Division of Oil, Gas, and Geothermal Resources (DOGGR) indicates no oil or natural gas wells on or near the project site (DOGGR 2023).

Environmental Impacts and Mitigation Measures

a, b) Loss of Mineral Resource Availability.

No mineral resources or active mineral resource operations have been identified on or near the project site. No Mineral Resource Zones have been designated on or near the project site, and no oil or gas wells are in the area. Therefore, the project would have no impact on availability of mineral resources.

3.13 NOISE

Would the project result in:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?				✓

NARRATIVE DISCUSSION

Environmental Setting

Assessment of noise impacts focuses on the "ambient" noise level, which is the general noise level in a project area. In the vicinity of the project site, the main source of noise is vehicle traffic on Interstate 5, with a lesser source being agricultural operations.

San Joaquin County Development Title Section 9-1025.9 establishes standards for maximum allowable exposure of noise-sensitive land uses to noise from stationary sources. "Noise-sensitive land uses," as defined by the County in Table 9-1025.9, include residential development, educational services, religious assemblies, lodging, libraries, medical services, and professional services, among others. Table 3-3 shows the maximum allowable noise exposure, as determined at outdoor activity areas or at the property line of the receiving land use.

TABLE 3-3
MAXIMUM ALLOWABLE NOISE EXPOSURE –
STATIONARY NOISE SOURCES

Noise Level Descriptor	Outdoor Activity Areas Daytime (7 a.m. - 10 p.m.)	Outdoor Activity Areas Nighttime (10 p.m. - 7 a.m.)
Hourly equivalent sound level (L_{eq}), dB	50	45
Maximum sound level, dB	70	65

Source: San Joaquin County Development Title, Table 9-1025.9.

Proposed projects that will create new stationary noise sources or expand existing stationary noise sources are required to mitigate the noise levels from these stationary noise sources so as not to exceed the noise level standards specified in Table 3-3. The noise level standards are in terms of decibels (dB) L_{eq}. L_{eq} is the average or equivalent continuous sound level

In addition, private development projects that include the development of new transportation facilities or the expansion of existing transportation facilities shall be required to mitigate the noise levels from these transportation facilities so that the resulting noise levels on noise-sensitive land uses within and adjacent to said development projects do not exceed the standards specified in Table 9-1025.9, Part I. This table indicates that transportation noise sources shall not exceed 65 dB L_{dn} at outdoor activity areas of residential land uses and 45 dB L_{dn} in interior spaces of such uses. L_{dn} is the Day-Night Average Level, which gives additional weighting to noise occurring at night.

Environmental Impacts and Mitigation Measures

a) Increase in Ambient Noise Levels.

The proposed project is an agricultural area that is not sensitive to noise. There are no noise-sensitive land uses in the vicinity other than the existing manufactured house on the project site. The project proposes to convert this house to an office, which would not be a noise-sensitive land use.

The project is expected to generate minor amounts of vehicular traffic from delivery vehicles and from employees commuting to the project site (see Section 3.17, Transportation). It is expected that vehicle traffic would use North Jacob Brack Road to Turner Road, where an interchange to I-5 is located. There are no residences or other noise-sensitive land uses along North Jacob Brack Road, so the anticipated increase in traffic from the project would not have a significant noise impact.

All project activities, other than deliveries, would occur in enclosed buildings per the County Development Title. As such, noise from project operations is unlikely to reach any sensitive receptors at levels that would exceed County noise standards, as set forth in Table

3-3 above. In addition, County Development Title Section 9-1025.9(c)(5) exempts noise sources emanating from any agricultural operation, including activities associated with the processing or transportation of crops when such activities are conducted on agriculturally zoned lands. The project would be exempt from County noise standards, as the project is considered an agricultural activity that would occur in an agricultural zone.

Project construction activities may generate a temporary increase in noise levels in the immediate vicinity of the site. Most construction work would occur indoors, so only incidental noise would be audible beyond the site boundaries. Little work would occur outdoors. As noted, there are no sensitive receptors in the vicinity, other than the manufactured house that would be converted to an office. Use of any construction equipment would be short-term and intermittent during the construction day. Construction noise would cease once work is completed.

In summary, noise generated by project construction or operations would not affect any noise-sensitive land uses. Project impacts related to noise increases would be less than significant.

b) Groundborne Vibration.

Groundborne vibration is not a common environmental problem. Some common sources are trains, buses on rough roads, and construction activities such as blasting, pile driving, and operating heavy earth-moving equipment. Construction vibration impacts include human annoyance and building structural damage. Human annoyance occurs when construction vibration rises significantly above the threshold of perception.

Construction activity on the project site would be primarily indoors and would cease when work is completed. Project construction would not involve any substantial amount of heavy equipment use. Also, as noted, there are no sensitive land uses in the project vicinity. Project operations, including vehicle traffic, are not expected to generate any noticeable groundborne vibrations, particularly in an area with no sensitive land uses. Project impacts related to groundborne vibrations would be less than significant.

c) Exposure to Airport/Airstrip Noise.

As noted in Section 3.9, Hazards and Hazardous Materials, there are no public airports within two miles of the project site; the nearest public airport is more than four miles to the southeast. No private airstrips have been identified within two miles of the project site. The project would have no impact related to airport or airstrip noise.

3.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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)?				✓
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓

NARRATIVE DISCUSSION

Environmental Setting

As of January 1, 2023, the population of unincorporated San Joaquin County was estimated at 157,590 – an increase from the 2010 U.S. Census population of 118,118. An estimated 53,943 housing units were in unincorporated San Joaquin County as of January 1, 2023 – an increase from the 2010 total of 48,231. Total single-family detached units at the beginning of 2023 were 44,937 - approximately 83.3% of total housing units in the unincorporated County (California Department of Finance 2023). There is one dwelling unit on the project site.

Environmental Impacts and Mitigation Measures

a) Population Growth Inducement.

The project proposes cannabis cultivation and distribution activities. As noted in Section 3.13, Land Use and Planning, the proposed project would be consistent with the existing County General Plan designation and zoning. The project does not propose the construction of any residences, so the project would have no direct impact on population growth.

As described in Chapter 2.0, Project Description, it is expected that a maximum of 16 workers would be on the project site daily, and only during harvest periods. While the project is expected to generate additional employment, most employees would likely be drawn from existing residents in San Joaquin County. The project would not create new roads, water or wastewater lines, or other infrastructure; instead, it would make use of the existing infrastructure at and near the site.

Based on the information presented above, the project is not expected to directly induce substantial population growth nor encourage population growth not otherwise planned for in the County General Plan. The project would have no impact related to unplanned population growth.

b) Displacement of Housing and People.

There is a manufactured house on the project site, but the project proposes to convert this structure into an office. As the house is currently owned by the project applicant, it is presumed that there are no permanent residents living in the premises. There are no existing residences in the project vicinity that would be affected by the project. Therefore, the project would not displace housing or people. The project would have no impact related to displacement.

3.15 PUBLIC SERVICES

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:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
i) Fire protection?			✓	
ii) Police protection?			✓	
iii) Schools?				✓
iv) Parks?				✓
v) Other public facilities?				✓

NARRATIVE DISCUSSION

Environmental Setting

The project site is within the Woodbridge Fire District, which serves approximately 197 square miles of unincorporated northern San Joaquin County, along with 500 nautical miles of Delta waterways. The Fire District provides fire protection, prevention and suppression, fire inspection, hazardous materials, water rescue and basic emergency medical service. The Fire District staffs four engine companies 24 hours per day, 7 days per week through the staff of one chief, one administrative officer, three captains, nine lieutenants, five firefighters, and eleven firefighter trainees. The closest Woodbridge Fire District station to the project site is Station 74 at 6365 Capital Avenue in the Flag City development, approximately 2.3 miles to the south. For additional assistance, if necessary, the Fire District has automatic aid agreements with the City of Lodi, City of Stockton, Thornton Rural Fire District, Clements Fire District, Cosumnes Community Services District, Mokelumne Fire District, Liberty Fire District, and River Delta Fire District.

Police protection services in San Joaquin County are provided by the San Joaquin County Sheriff's Department, with its station in the community of French Camp. The Sheriff's Department has more than 800 sworn and support personnel working in eight divisions, including the Field Forces Division that provides patrols. One of the units in the Field Forces Division is the Ordinance Compliance Unit, which ensures that commercial cannabis businesses comply with County titles and ordinances and State law, including applicable provisions of San Joaquin County Development Title Section 4, the Public Safety Code.

The project site is within the boundaries of the Lodi Unified School District. As noted in Section 3.9, Hazards and Hazardous Materials, the closest active schools to the project site are in Lodi, approximately 4.5 miles to the east.

There are no parks in the vicinity of the project site. The nearest parks are in the City of Lodi, which are provided and maintained by the City. Section 3.16, Recreation, provides more information on parks and recreational facilities. There are no other public facilities in the project vicinity.

Environmental Impacts and Mitigation Measures

a-i) Fire Protection.

Cultivation activities have the potential to generate calls for fire protection service, such as the storage and use of flammable materials and the use of power equipment. However, this potential fire risk associated with cultivation and processing would not be substantially different from that posed by other agricultural operations that use similar equipment and practices. Electrical service installations are permitted and inspected by the County, which would reduce potential fire risk from faulty electrical equipment.

The project would be subject to the provisions of the 2022 California Fire Code, adopted by the County. Required fire protection systems will be regulated by California Fire Code Chapter 9 and applicable chapters of the California Building Code and California Electrical Code. Fire apparatus access roads must be provided pursuant to California Fire Code Section 503, portable fire extinguishers must be provided as required by California Fire Code Section 906, and any Knox Box shall be installed according to local fire department's instructions as required by California Fire Code Section 506, among other requirements. Compliance with applicable provisions of the California Fire Code would reduce demand for additional fire protection services that would require new or expanded facilities. Project impacts on fire protection services would be less than significant.

a-ii) Police Protection.

The project has the potential to increase calls for law enforcement services from the project site, as a mostly vacant site becomes more active. In assessing potential impacts on law enforcement, the CalCannabis Licensing Program EIR concluded that, while some crime associated with licensed cannabis cultivation activities is likely to continue, no information has been found that indicates these activities would increase law enforcement needs overall compared to baseline conditions. If anything, demand may decrease due to a larger number

of lawful cultivators and their coordination and cooperation with law enforcement authorities (CDFA 2017).

State licensing, along with the County Development Title, requires preparation of a Security Plan. The County specifies that the Security Plan must include measures that accomplish the following:

- Prevent individuals that are not owners, employees, agents, or business associates from remaining on the premises.
- Limit access to areas with cannabis or cannabis products to authorized personnel.
- Store all cannabis and cannabis products except for live cannabis plants being cultivated within the licensed cultivation facility in a secured and locked room, safe, or vault.
- Prevent diversion, theft, and loss of all cannabis and cannabis products, including live plants.

In addition, the Security Plan must include installation of a designed security system with a professionally installed and maintained alarm system that monitors all perimeter entry points and windows, and 24-hour infrared security surveillance cameras of at least high-definition quality to monitor activity occurring within 20 feet of all entrances and exits to and from the premises, specified interior spaces, and parking lot areas in a manner sufficient to clearly observe facial features and to obtain a clear view of license plates as vehicles enter. As noted, the County Sheriff's Department has an Ordinance Compliance Unit that would ensure the project complies with County Development Titles and ordinances and State law.

Implementation of the State licensing and County Title requirements would likely limit demand on police protection resources. No new or expanded Sheriff's Department facilities that could have a potential environmental impact would be required to meet anticipated demands for law enforcement services. Project impacts on police protection services would be less than significant.

a-iii) Schools.

As described in Section 3.14, Population and Housing, the project is not expected to induce substantial population growth, which is a main factor in demand for school facilities. The project is not expected to generate additional demand for school services or facilities. The project would have no impact on schools.

a-iv) Parks.

The project is not expected to generate additional demand for park services or facilities. The project would have no impact on parks. See also Section 3.16, Recreation.

a-v) Other Public Facilities.

The project is not expected to generate significant additional demand for other public services or facilities, such as libraries and courthouses. The project would have no impact on other public services.

3.16 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?				✓
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?				✓

NARRATIVE DISCUSSION

Environmental Setting

As noted in Section 3.15, Public Services, there are no parks in the project vicinity. The San Joaquin County Parks and Recreation Department manages 11 regional parks that offer a wide range of recreational facilities and activities. The nearest County park to the project site is Westgate Landing Regional Park, approximately 5.25 miles to the southwest. This park offers R.V./tent campsites, a fishing pier, overnight boat docking, and picnic sites. Public parks and recreational facilities are also available in the City of Lodi, approximately 4.5 miles to the east.

Environmental Impacts and Mitigation Measures

a, b) Recreational Facilities.

As described in Section 3.14, Population and Housing, the project is not expected to induce substantial population growth, which is a main factor in demand for recreational facilities. The project is not expected to generate additional demand for recreational services or facilities. The project would have no impact on parks or recreational services.

3.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with an applicable program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?			✓	
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?			✓	
c) Substantially increase hazards 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?				✓

NARRATIVE DISCUSSION

Environmental Setting

Transportation Facilities

Access to the project site is from North Jacob Brack Road, a two-lane, paved County road that runs parallel to the west of I-5 for approximately one mile before turning west. North Jacob Brack Road extends north from Turner Road for approximately one-half mile, passing the project site before ending at Trinchero Family Estates. This roadway provides access to the project site, Trinchero Family Estates, and Sutter Home Winery.

Turner Road is a two-lane, paved County road that extends east from North Jacob Brack Road to the City of Lodi. It serves primarily rural residential and agricultural land uses in the adjoining area before it enters the City of Lodi. Turner Road is classified as a Rural Major Collector east of Thornton Road (San Joaquin County 2016). According to the most recent information available, Turner Road east of Thornton Road had an average daily traffic volume of 4,800 (San Joaquin County 2014).

Interstate 5 is a controlled-access freeway that serves California, Oregon, and Washington from the Canadian border to the Mexican border. Near the project site, Interstate 5 is a four-lane freeway with access provided by an interchange at Turner Road, southeast of the project site. As of 2021, the annual average daily traffic volume on Interstate 5 north of State Route 12 was 63,000 (Caltrans 2021).

No buses or other public transit serves the project site and vicinity. There are no designated bikeways in the area. No sidewalks have been installed along the project site frontage or in the vicinity.

Recently, Section 15064.3 was added to the CEQA Guidelines. Section 15064.3 states that VMT is the preferred metric for evaluating transportation impacts, rather than the Level of Service (LOS) metric commonly used. VMT measures the total miles traveled by vehicles generated by a project. While LOS focuses on motor vehicle traffic, VMT accounts for the total environmental impact of transportation associated with a project, including use of travel modes such as buses or bicycles. Section 15064.3(b) sets forth the criteria for analyzing transportation impacts using the preferred VMT metric.

The Governor's Office of Planning and Research has issued a Technical Advisory on evaluating CEQA transportation impacts using VMT. Included in this Technical Advisory are screening criteria to determine if a project may have a VMT impact that is less than significant. Land use projects generally are presumed to cause a less-than-significant VMT impact if they are within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor. Also, projects that decrease VMT in the project area compared to existing conditions or generate less than 110 daily trips are presumed to have a less-than-significant transportation impact (OPR 2018).

Environmental Impacts and Mitigation Measures

a) Conflict with Transportation Plans, Ordinances, and Policies.

The project is expected to generate traffic from employees and delivery vehicles entering and leaving the project site. As noted in Chapter 2.0, Project Description, the project would employ a maximum of 16 workers during harvest periods on one shift, plus anticipated product transports of 14 two-way trips per week. Based on these assumptions, the project would generate a maximum of approximately 60 daily vehicle trips.

North Jacob Brack Road is a road that serves the existing land uses around it, including the project site. Given the expected traffic volume to be generated by the project, North Jacob Road would be able to accommodate the additional traffic.

The San Joaquin County General Plan states that all County roadways that are not part of the Congestion Management Program shall maintain, at a minimum, a LOS of C. LOS measures the quality of traffic movement on roadways and through intersections. LOS is represented by letter designations from A to F, with A representing the best movement conditions and F representing the worst. For a two-lane, local road, the maximum volume for LOS C is 7,000 daily (San Joaquin County 2016). The projected traffic generated by the project, when added to the most recent traffic volume on Turner Road, would not cause traffic volumes on Turner Road to exceed a volume of 7,000, which would keep Turner Road at a LOS of C. State highways, including Interstate 5, shall maintain a LOS of D at a minimum. Given the existing traffic volume on Interstate 5, the project would not contribute substantially to LOS conditions.

The project would not affect bus routes or stops, since no bus routes extend to the project site. There are no bikeways or sidewalks along the project site frontage, and no such facilities are planned. The project would have no impact related to non-vehicular transportation, including plans relevant to such transportation facilities.

In summary, the project is not expected to conflict with policies and plans related to transportation. Project impacts would be less than significant.

b) Conflict with CEQA Guidelines Section 15064.3(b).

The project site is not within one-half mile of an existing major transit stop or a stop along an existing high-quality transit corridor. The project is not expected to decrease VMT in the project area; in fact, it would add VMT. However, as noted in a) above, the project would generate a maximum of 60 daily trips, which is below the threshold established by OPR of 110 daily trips that may be considered to have a potentially significant VMT impact. Therefore, project impacts related to conflict with CEQA Guidelines Section 15064.3(b) are considered less than significant.

c) Traffic Hazards.

Project construction would involve movement of some light construction equipment onto and from the site, which would be somewhat different in character from existing traffic in the vicinity. This traffic would use existing access roads and paved areas. Construction traffic would be linked to major improvements, when they occur, which would be intermittent and temporary, and then would cease when work is completed. No significant amount of construction traffic is anticipated. The project does not propose any alterations to the adjacent North Jacob Brack Road, other than to connect a proposed paved driveway. The project would not contribute to potential traffic hazards on public roads. The project would have no impact related to traffic safety.

d) Emergency Access.

The site plan indicates that the project site would have two driveways, which would provide adequate access for emergency vehicles. The project would have no impact on emergency access.

3.18 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				
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?			✓	

NARRATIVE DISCUSSION

Environmental Setting

As noted in Section 3.5, Cultural Resources, the project site appears to be within the ethnographic territory of the Miwok. The foothill and mountain reaches of the Mokelumne and Calaveras rivers were occupied by the Northern Sierra Miwok, and part of the Central Valley by the Plains Miwok. Ethnographically documented knowledge of Plains Miwok village locations is confined for the most part merely to lists of villages; often, only the approximate location and estimated population of a village is known. A few villages have been identified as archaeological sites, including four ethnographically known villages located on the lower Mokelumne River (San Joaquin County 2016). As noted in Section 3.5, no archaeological resources have been recorded within the project area.

In 2015, the California Legislature enacted AB 52, which focuses on consultation with Native American tribes to avoid or mitigate potential impacts on tribal cultural resources, which are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe." When a tribe requests consultation with a CEQA lead agency on projects within its traditionally and culturally affiliated geographical area, the lead agency must provide the tribe with notice of a proposed project within 14 days of a project application being deemed complete or when the lead agency decides to undertake the project if it is the agency's own project. The tribe has up to 30 days to respond to the notice and request consultation; if consultation is requested, then the local agency has up to 30 days to initiate consultation.

Matters which may be subjects of AB 52 consultation include the type of CEQA environmental review necessary, the significance of tribal cultural resources, and project alternatives or appropriate measures for preservation or mitigation of the tribal cultural resource that the tribe may recommend to the lead agency. The consultation process ends when either (1) the resource in question is not considered significant, (2) the parties agree to mitigate or avoid a significant effect on a tribal cultural resource, or (3) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. Regardless of the outcome, a lead agency is still obligated under CEQA to mitigate any significant environmental effects, as explicitly noted in AB 52.

The County provided notice of the proposed project to tribes that requested notification. The County received a response from only one tribe - the United Auburn Indian Community, which had no objection to the project.

Environmental Impacts and Mitigation Measures

a-i, ii) Tribal Cultural Resources.

As noted in Section 3.5, the Central California Information Center did not identify any prehistoric resources, including tribal resources, on the project site (CCIC 2021). Given past ground disturbance by agricultural activities and development, it is unlikely that any archaeological resources, including tribal resources, would be found intact on the project site. Moreover, the project site is already developed, and the project would involve minimal, if any, ground disturbance. As such, it is unlikely that any tribal cultural resources would be encountered during project construction. The Central California Information Center report stated that if the current project does not include ground disturbance, further study for archaeological resources is not recommended at this time. The project would involve only limited ground disturbance.

However, the United Auburn Indian Community did recommend that mitigation be in place should any tribal cultural resources be encountered during ground disturbance on the project site. In accordance with this recommendation, mitigation is presented below that sets forth procedures to be observed should any tribal cultural resources be encountered. Implementation of this mitigation measure, along with Mitigation Measure CULT-1 in Section 3.5, Cultural Resources, would reduce potential impacts on tribal cultural resources to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: In addition to Mitigation Measure CULT-1, the following mitigation measure shall be implemented:

TCR-1: If tribal cultural resources are encountered, the County Community Development Department shall be immediately notified of the find, and the Department in turn shall notify the appropriate Native American representatives. A qualified archaeologist and the Native American representative shall examine the materials and determine their uniqueness or significance as tribal cultural resources and shall recommend mitigation measures needed to reduce potential cultural resource effects to a level that is less than significant in a written report to the Community Development Department, with a copy to the Native American representatives involved with the resource. The Community Development Department will be responsible for implementing the report recommendations. Avoidance is the preferred means of disposition of tribal cultural resources.

Significance After Mitigation: Less than significant

Project impacts related to tribal cultural resources are considered less than significant.

3.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment facilities or storm 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 determined 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?			✓	

NARRATIVE DISCUSSION

Environmental Setting

There are no utility service systems serving the project site and vicinity, other than an electrical system by PG&E. Water supply for the project site is provided by groundwater from an existing well. As noted in Section 3.7, Geology and Soils, the depth to groundwater at the project site is 20-30 feet below ground surface. The project site also has an existing on-site septic system with a leach field that serves the existing manufactured house. The only storm drainage facility near the project site is a drainage ditch along the northern boundary that receives runoff mainly from the adjacent road to the Sutter Home Winery facility. Some runoff from the project site may also enter this ditch.

Solid waste collection services for commercial and industrial activities are arranged between customers and private companies. Solid waste collected within the County is

transported and disposed of primarily at three landfills: the North County Landfill on East Harney Lane, with available capacity to the year 2048, and the Foothill Sanitary Landfill on North Waverly Road, with available capacity to 2082 (CalRecycle 2019). The Forward Landfill on Austin Road near Stockton was to have reached its capacity in 2020; however, the County Board of Supervisors recently approved an expansion of Forward Landfill that would extend its life to 2036 (Crunden 2020).

As noted, electricity is provided by PG&E. Existing overhead distribution lines maintained by PG&E are available along the northern boundary of the project site. Telecommunication service is available through existing lines in the area.

Environmental Impacts and Mitigation Measures

a) Construction or Relocation of Infrastructure.

The project does not propose any new or expanded water, wastewater, or storm drainage facilities on the project site, other than the installation of a water storage tank east of and adjacent to Building 1. The new tank would be used to support proposed cannabis operations and would be installed in the developed area. No nearby undeveloped lands would be affected.

The existing septic system would be used for the disposal of domestic wastewater, in accordance with permits issued by the County Environmental Health Department. Portable toilets would be provided for employees working at the barns. As described in Section 3.10, Hydrology and Water Quality, the project applicant has prepared a Wastewater Management Plan for the collection and off-site disposal of wastewater from cannabis cultivation. It is anticipated that this would not require the construction of new infrastructure or the relocation of existing infrastructure.

Existing electrical lines in the vicinity of the project site would be used to provide electricity for project operations. No relocation of existing infrastructure, including infrastructure outside the project site, is anticipated to be needed to support the project. Project impacts related to construction or relocation of infrastructure would be less than significant.

b) Water Supply.

As noted in Chapter 2.0, Project Description, the project proposes to use an existing well to supply water for project operations. As noted in Chapter 2.0, Project Description, the proposes to use a maximum of 15,600 gallons of water per day for both domestic and irrigation. As discussed in Section 3.10, Hydrology and Water Quality, the project is not expected to have an adverse impact on groundwater supplies, as water required for project operations would be a fraction of available groundwater in the basin. Project impacts related to water supply would be less than significant.

c) Wastewater Systems.

Wastewater from domestic sewage would be disposed of by an existing septic system that has been permitted by the County Environmental Health Department, or from portable

toilets that would be emptied by a septic company. As noted, the project applicant has prepared a Wastewater Management Plan for the collection and disposal of wastewater from cannabis cultivation. The project would not connect to any wastewater collection and treatment system. As such, it would not affect the treatment capacity of any such system. The project would have no impact on wastewater treatment systems.

d, e) Solid Waste Services.

Cannabis processing typically generates green waste from trimming of unwanted leaves and plant parts. While there are no official numbers as to how much waste cannabis businesses generate in California, one estimate indicates that a typical, mid-sized manufacturer will produce 250 to 500 pounds of waste a day (Katims 2019). State regulations require that the cultivator develop a cannabis waste disposal plan, which would require that the waste be disposed of at either a solid waste facility that has a permit to operate from the California Department of Resources Recycling and Recovery (CalRecycle), a composting facility that has a permit to operate from CalRecycle, or a designated composting area. Additionally, the County Development Title requires new cannabis operations to develop and implement a Waste Destruction Plan for the disposal of cannabis waste. As noted in Chapter 2.0, Project Description, this waste would be self-hauled to a manned, fully permitted solid waste landfill or transformation facility. It is expected that the proposed disposal method would comply with State and County requirements.

Cannabis operations may generate other solid waste from various materials and containers used and household trash from workers and discarded equipment. It is expected that the operations would dispose of solid waste in accordance with the applicable provisions of San Joaquin County Development Title Section 5, Division 2 - Solid Waste Collection and Disposal, which would minimize impacts of other solid waste. Project impacts related to solid waste would be less than significant.

3.20 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as Very High Fire Hazard Severity Zones, would the project:				
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?				✓
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?				✓

NARRATIVE DISCUSSION

Environmental Setting

Wildland fires are an annual hazard in San Joaquin County. Wildland fires burn natural vegetation on undeveloped lands and include rangeland, brush, and grass fires. Long, hot, and dry summers with temperatures often exceeding 100°F add to the county's fire hazard. Human activities are the major causes of wildland fires, while lightning causes the remaining wildland fires. High hazard areas for wildland fires are the grass-covered areas in the east and the southwest foothills of the county (San Joaquin County 2016). As noted in Section 3.9, Hazards and Hazardous Materials, the project is in an area of agricultural development. It is not located adjacent to any significant natural open spaces where wildland fires may occur.

The California Department of Forestry and Fire Protection's Fire and Resource Assessment Program identifies fire threat based on a combination of two factors: 1) fire frequency, or the likelihood of a given area burning, and 2) potential fire behavior (hazard). These two factors are combined in determining the following Fire Hazard Severity Zones: Moderate, High, Very High, Extreme. These zones are mapped for State Responsibility Areas, where the State of California is financially responsible for the prevention and suppression of wildfires. The project site and surrounding lands are not within a State Responsibility Area and have not been placed in a Fire Hazard Severity Zone (Cal Fire 2023).

Environmental Impacts and Mitigation Measures

a) Emergency Response and Emergency Evacuation Plans.

As discussed in Section 3.9, the project proposes no changes to the adjacent public road, which would be the main road for emergency vehicle access and for evacuations. No obstructions or other alterations that could hinder access would be installed by the project. The project would have no impact on emergency response and evacuations.

b) Exposure of Project Occupants to Pollutants.

The project site is not part of a State Responsibility Area. The project site is in an agricultural area, and agricultural lands are not prone to wildfires. In addition, the site itself is mostly paved. The project would have no impact related to exposure of project occupants to wildfire hazards.

c) Installation and Maintenance of Infrastructure.

As noted, the project site is not in an area prone to wildfires. Infrastructure to serve the project, for the most part, has been installed, so there would be no increase in fire risk due to the installation and maintenance of infrastructure. The project would have no impact on this issue.

d) Risks from Runoff, Post-Fire Slope Instability, or Drainage Changes.

The project site is in a topographically flat area. There are no streams or other channels that cross the site. As such, it is not expected that people or structures would be exposed to significant risks from changes resulting from off-site wildfires including downslope or downstream flooding or landslides. The project would have no impact related to risks from runoff, post-fire slope instability, or drainage changes.

3.21 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?		✓		
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 would cause substantial adverse effects on human beings, either directly or indirectly?			✓	

NARRATIVE DISCUSSION

a) Findings on Biological and Cultural Resources.

The project's potential biological resource and cultural resource impacts were described in Sections 3.4 and 3.5, respectively. A potentially significant environmental effect on biological resources was identified, but implementation of a mitigation measure that would

be incorporated within the project would reduce this effect to a level that would be less than significant. The mitigation measure is described in Section 3.4 and is listed in Table 1-1. No significant impacts on cultural resources were identified.

b) Findings on Cumulatively Considerable Impacts.

According to CEQA Guidelines Section 15130(a)(1), a cumulative impact is created by the combination of a proposed project with other past, present, and probable future projects or programs causing related impacts. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time (CEQA Guidelines Section 15355[b]). Proposed project activities involving cannabis cultivation and nurseries may have impacts that are cumulatively considerable when considering cannabis activities, both legal and illegal, at the state and County levels.

There are few, if any, cannabis projects in the County that are similar to the proposed project. The project, along with any other cannabis businesses, would be subject to the provisions of County Development Title Section 4, Division 10, Chapter 1, which would limit potential impacts of such businesses, thereby limiting their cumulative effect.

Resource topics evaluated in this IS/MND were dismissed from consideration in the analysis of cumulative impacts for one of the following reasons: significant cumulative impacts do not exist, the project would not have the potential to make a considerable contribution to any significant cumulative impacts, or insufficient information exists to reach a conclusion regarding these topics without significant speculation. Environmental issues were considered in this IS/MND and were found to either have no environmental impact or impacts that were less than significant, either on their own or with implementation of described mitigation measures. Under these circumstances, none of the environmental issues are considered to make a considerable contribution to a cumulative impact.

In summary, the project would be required to comply with the County Development Title on commercial cannabis licenses, designed in part to reduce the environmental impacts of cannabis operations, along with State regulations. The project also would be required to implement mitigation measures identified in this IS/MND that would reduce the project's individual contribution to environmental effects. The project would not have an impact on the environment that is cumulatively considerable.

c) Findings on Adverse Effects on Human Beings.

Potential adverse effects on human beings were discussed in Section 3.3, Air Quality (TACs); Section 3.7, Geology and Soils (seismic hazards); Section 3.9, Hazards and Hazardous Materials; Section 3.10, Hydrology and Water Quality (flooding); Section 3.17, Transportation/Traffic (traffic hazards); and Section 3.20, Wildfire. No significant adverse effects were identified in these sections. Project impacts related to potential adverse effects on human beings would be less than significant.

4.0 REFERENCES

4.1 DOCUMENT PREPARERS

This IS/MND was prepared by BaseCamp Environmental, Inc. under the direction of, and for use by, the San Joaquin County Community Development Department. The following persons were involved in preparation of the IS/MND:

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4.2 SOURCES CITED

California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. November 2017.

_____. 2022a. California Greenhouse Gas Emissions for 2000 to 2020: Trends of Emissions and Other Indicators. October 26, 2022.

_____. 2022b. 2022 Scoping Plan for Achieving Carbon Neutrality. November 16, 2022.

California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR). 2023. Well Finder – CalGEM GIS. Available online at https://maps.conservation.ca.gov/doggr/wellfinder/. Accessed April 27, 2023.

California Department of Finance. 2023. Report E-5, Population and Housing Estimates for Cities, Counties, and the State, 2020-2023. Released May 1, 2023.

California Department of Food and Agriculture (CDFA). 2017. CalCannabis Cultivation Licensing, Final Program Environmental Impact Report. Prepared by Horizon Water and Environment, LLC. November 2017.

California Department of Forestry and Fire Protection (CalFire). 2023. State Responsibility Area Fire Hazard Severity Zones, San Joaquin County (map). June 15, 2023.

California Department of Toxic Substances Control (DTSC). 2023. EnviroStor database, www.envirostor.dtsc.ca.gov. Accessed April 28, 2023.

California Department of Transportation (Caltrans). 2019. List of Officially Designated State Scenic Highways. Available online at http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm. August 2019.

_____. 2021. 2019 AADT Data. Available online at https://dot.ca.gov/programs/traffic-operations/census. Accessed April 1, 2021.

California Department of Water Resources (DWR). 2014. Geology of the Northern Sacramento Valley. June 2014, updated September 22, 2014.

_____. 2023. Best Available Map. Available online at gis.bam.water.ca.gov/bam. Accessed April 28, 2023.

California Energy Commission (CEC). 2021. 2021 California Renewables Portfolio Standard Annual Report. November 2021.

_____. 2023a. Electricity Consumption by County – San Joaquin County 2021. Available online at ecdms.energy.ca.gov/elecbycounty.aspx. Accessed April 19, 2023.

_____. 2023b. Gas Consumption by County – San Joaquin County 2021. Available online at ecdms.energy.ca.gov/gasbycounty.aspx. Accessed April 19, 2023.

California Environmental Protection Agency (CalEPA). 2021a. Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit. Available online at http://www.calepa.ca.gov/SiteCleanup/CorteseList/CurrentList.pdf. Accessed January 14, 2021.

_____. 2021b. List of "Active" CDO and CAO from Water Board. Available online at http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm. Accessed January 14, 2021.

Central California Information Center. 2021. Records Search File #: 11902L, Project: APN 011-150-011, Eguiluz Farms, 18299 N. Jacob Brack Road, San Joaquin County. September 14, 2021.

Congressional Research Service. 2021. Vehicle Fuel Economy and Greenhouse Gas Standards: Frequently Asked Questions. Updated June 1, 2021.

Crunden, E.A. 2020. Republic landfill expansion moves ahead in California after failed appeal. Waste Dive, January 10, 2020.

Eastern San Joaquin Groundwater Authority (ESJGA). 2019. Eastern San Joaquin Groundwater Subbasin Groundwater Sustainability Plan. November 2019.

Federal Emergency Management Agency (FEMA). 2009. Flood Insurance Rate Map No. 06077C0145F, San Joaquin County Unincorporated Areas. Effective date October 16, 2009.

Governor's Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Traffic Impacts in CEQA. December 2018.

Katims, Lauren. 2019. Cannabis May Hinder California's Environmental Goals. U.S. News and World Report, February 25, 2019.

Mills, Evan. 2012. The Carbon Footprint of Indoor Cannabis Production. Energy Policy 46 (2012): 58-67.

Regional Water Quality Control Board (RWQCB), Central Valley Region. 2015. The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board Central Valley Region: The Sacramento River Basin and the San Joaquin River Basin. Fourth Edition, Revised June 2015 (with Approved Amendments).

San Joaquin Council of Governments (SJCOG). 2000. San Joaquin County Multi-Species Open Space and Habitat Conservation Plan (SJMSCP). November 14, 2000.

_____. 2018. 2018 Regional Transportation Plan/Sustainable Communities Strategy Draft Programmatic Environmental Impact Report. March 2018.

San Joaquin County. 2014. Draft San Joaquin County 2035 General Plan Environmental Impact Report. Prepared by ESA. October 2014.

_____. 2016. San Joaquin County General Plan Background Report. Prepared by Mintier Harnish. December 2016.

San Joaquin County Agricultural Commissioner's Office. 2022. San Joaquin County 2021 Crop Report.

San Joaquin County Flood Control and Water Conservation District. 2022. Groundwater Report, 2021 Annual. March 2022.

San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI). March 19, 2015.

_____. 2023. Ambient Air Quality Standards and Valley Attainment Status. Available online at http://www.valleyair.org/aqinfo/attainment.htm. Accessed April 27, 2023.

State Water Resources Control Board (SWRCB). 2023. GeoTracker website, www.geotracker.swrcb.ca.gov. Accessed April 28, 2023.

Stringer Biological Consulting. 2022. Biological Resources Evaluation Report for 18299 N. Jacob Brack Road, San Joaquin County, CA. October 17, 2022.

University of California Museum of Paleontology (UCMP). 2020. UC Museum of Paleontology Localities database. Available online at https://ucmpdb.berkeley.edu/cgi/ucmp_query2. Accessed December 30, 2020.

U.S. Department of Agriculture. 2019. 2017 Census of Agriculture. California, State and County Data, Volume 1 – Geographic Area Series, Part 5. Issued April 2019.

U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). 2023. Custom Soil Resource Report for San Joaquin County, California. April 27, 2023.

U.S. Department of Agriculture, Soil Conservation Service (SCS). 1992. Soil Survey of San Joaquin County, California.

U.S. Environmental Protection Agency (EPA). 2009. Endangerment and Cause of Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act. Federal Register Vol. 74, No. 239, pp. 66496-66546. December 15, 2009.

U.S. Fish and Wildlife Service (USFWS). 2023. National Wetlands Inventory. Available online at https://www.fws.gov/program/national-wetlands-inventory/wetlands-mapper. Accessed April 27, 2023.

Wagner, D. L., C.W. Jennings, T.L. Bedrosian and E. J. Bortugno. 1981. Geologic Map of the Sacramento Quadrangle, California, 1:250,000. California Division of Mines and Geology, Regional Geologic Map Series.

Westerling, Leroy, Josue Medellin-Azuara, Joshua Viers. 2018. San Joaquin Valley Summary Report. California's Fourth Climate Change Assessment. Publication number: SUM-CCCA4-2018-003.

4.3 PERSONS CONSULTED

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5.0 NOTES ON EVALUATION OF ENVIRONMENTAL IMPACTS

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [CEQA Guidelines Section 15063(c)(3)(D)]. In this case, a brief discussion should identify the following:

   a) Earlier Analyses Used: Identify and state where they are available for review.

   b) Impacts Adequately Addressed: Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures: For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures, which were

incorporated or refined from the earlier document, and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) The checklist in CEQA Guidelines Appendix G is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and

   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

APPENDIX A
AIR QUALITY MODELING RESULTS

El Che Cannabis Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	El Che Cannabis
Construction Start Date	7/1/2023
Operational Year	2024
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.40
Precipitation (days)	34.0
Location	38.14919779821267, -121.40136128282509
County	San Joaquin
City	Unincorporated
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2118
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.12

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

Industrial Park	50.4	1000sqft	1.16	50,400	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-10-A	Water Exposed Surfaces
Water	W-7	Adopt a Water Conservation Strategy
Waste	S-1/S-2	Implement Waste Reduction Plan

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.17	1.83	17.6	16.9	0.02	0.83	7.17	8.00	0.77	3.44	4.21	—	2,550	2,550	0.10	0.06	1.53	2,560
Mit.	2.17	1.83	17.6	16.9	0.02	0.83	2.85	3.68	0.77	1.36	2.12	—	2,550	2,550	0.10	0.06	1.53	2,560
% Reduced	—	—	—	—	—	—	60%	54%	—	61%	50%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.55	46.9	10.2	11.3	0.02	0.41	0.24	0.65	0.38	0.06	0.44	—	2,227	2,227	0.09	0.06	0.04	2,247
Mit.	1.55	46.9	10.2	11.3	0.02	0.41	0.24	0.65	0.38	0.06	0.44	—	2,227	2,227	0.09	0.06	0.04	2,247
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.48	0.65	3.17	3.50	0.01	0.13	0.14	0.27	0.12	0.05	0.17	—	678	678	0.03	0.02	0.19	684
Mit.	0.48	0.65	3.17	3.50	0.01	0.13	0.10	0.23	0.12	0.03	0.15	—	678	678	0.03	0.02	0.19	684
% Reduced	—	—	—	—	—	—	31%	16%	—	41%	13%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.12	0.58	0.64	< 0.005	0.02	0.03	0.05	0.02	0.01	0.03	—	112	112	< 0.005	< 0.005	0.03	113
Mit.	0.09	0.12	0.58	0.64	< 0.005	0.02	0.02	0.04	0.02	0.01	0.03	—	112	112	< 0.005	< 0.005	0.03	113
% Reduced	—	—	—	—	—	—	31%	16%	—	41%	13%	—	—	—	—	—	—	—

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.17	1.83	17.6	16.9	0.02	0.83	7.17	8.00	0.77	3.44	4.21	—	2,550	2,550	0.10	0.06	1.53	2,560
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.55	1.30	10.2	11.3	0.02	0.41	0.24	0.65	0.38	0.06	0.44	—	2,227	2,227	0.09	0.06	0.04	2,247
2024	0.69	46.9	4.95	7.09	0.01	0.23	0.11	0.34	0.21	0.02	0.24	—	1,099	1,099	0.05	0.01	0.01	1,104
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.48	0.40	3.17	3.50	0.01	0.13	0.14	0.27	0.12	0.05	0.17	—	678	678	0.03	0.02	0.19	684
2024	0.01	0.65	0.06	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.1	13.1	< 0.005	< 0.005	< 0.005	13.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2023	0.09	0.07	0.58	0.64	< 0.005	0.02	0.03	0.05	0.02	0.01	0.03	—	112	112	< 0.005	< 0.005	0.03	113
2024	< 0.005	0.12	0.01	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.17	2.17	< 0.005	< 0.005	< 0.005	2.18

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.17	1.83	17.6	16.9	0.02	0.83	2.85	3.68	0.77	1.36	2.12	—	2,550	2,550	0.10	0.06	1.53	2,560
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.55	1.30	10.2	11.3	0.02	0.41	0.24	0.65	0.38	0.06	0.44	—	2,227	2,227	0.09	0.06	0.04	2,247
2024	0.69	46.9	4.95	7.09	0.01	0.23	0.11	0.34	0.21	0.02	0.24	—	1,099	1,099	0.05	0.01	0.01	1,104
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.48	0.40	3.17	3.50	0.01	0.13	0.10	0.23	0.12	0.03	0.15	—	678	678	0.03	0.02	0.19	684
2024	0.01	0.65	0.06	0.09	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.1	13.1	< 0.005	< 0.005	< 0.005	13.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.09	0.07	0.58	0.64	< 0.005	0.02	0.02	0.04	0.02	0.01	0.03	—	112	112	< 0.005	< 0.005	0.03	113
2024	< 0.005	0.12	0.01	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.17	2.17	< 0.005	< 0.005	< 0.005	2.18

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	0.72	1.80	0.36	5.29	0.01	0.01	0.22	0.23	0.01	0.04	0.05	44.6	1,318	1,362	4.61	0.07	16.0	1,514
Mit.	0.72	1.80	0.36	5.29	0.01	0.01	0.22	0.23	0.01	0.04	0.05	17.1	1,316	1,333	1.86	0.06	16.0	1,414
% Reduced	—	—	—	—	—	—	—	—	—	—	—	62%	< 0.5%	2%	60%	8%	—	7%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.31	1.42	0.39	2.61	0.01	0.01	0.22	0.23	0.01	0.04	0.05	44.6	1,257	1,301	4.61	0.07	13.2	1,451
Mit.	0.31	1.42	0.39	2.61	0.01	0.01	0.22	0.23	0.01	0.04	0.05	17.1	1,255	1,272	1.86	0.07	13.2	1,351
% Reduced	—	—	—	—	—	—	—	—	—	—	—	62%	< 0.5%	2%	60%	7%	—	7%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.50	1.59	0.38	3.72	0.01	0.01	0.22	0.23	0.01	0.04	0.05	44.6	1,273	1,318	4.61	0.07	14.4	1,469
Mit.	0.50	1.59	0.38	3.72	0.01	0.01	0.22	0.23	0.01	0.04	0.05	17.1	1,271	1,288	1.86	0.07	14.4	1,369
% Reduced	—	—	—	—	—	—	—	—	—	—	—	62%	< 0.5%	2%	60%	8%	—	7%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.29	0.07	0.68	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	7.38	211	218	0.76	0.01	2.38	243
Mit.	0.09	0.29	0.07	0.68	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	2.84	210	213	0.31	0.01	2.38	227
% Reduced	—	—	—	—	—	—	—	—	—	—	—	62%	< 0.5%	2%	60%	8%	—	7%

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	0.33	0.30	0.34	3.10	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	709	709	0.03	0.03	2.85	722
Area	0.39	1.50	0.02	2.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	590	590	0.10	0.01	—	595
Water	—	—	—	—	—	—	—	—	—	—	—	10.9	10.4	21.3	1.12	0.03	—	57.3
Waste	—	—	—	—	—	—	—	—	—	—	—	33.7	0.00	33.7	3.37	0.00	—	118
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	0.72	1.80	0.36	5.29	0.01	0.01	0.22	0.23	0.01	0.04	0.05	44.6	1,318	1,362	4.61	0.07	16.0	1,514
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	0.27	0.39	2.61	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	657	657	0.03	0.03	0.07	668
Area	—	1.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	590	590	0.10	0.01	—	595
Water	—	—	—	—	—	—	—	—	—	—	—	10.9	10.4	21.3	1.12	0.03	—	57.3
Waste	—	—	—	—	—	—	—	—	—	—	—	33.7	0.00	33.7	3.37	0.00	—	118
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	0.31	1.42	0.39	2.61	0.01	0.01	0.22	0.23	0.01	0.04	0.05	44.6	1,257	1,301	4.61	0.07	13.2	1,451
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.30	0.28	0.37	2.64	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	669	669	0.03	0.03	1.23	681
Area	0.19	1.32	0.01	1.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.46
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	590	590	0.10	0.01	—	595
Water	—	—	—	—	—	—	—	—	—	—	—	10.9	10.4	21.3	1.12	0.03	—	57.3
Waste	—	—	—	—	—	—	—	—	—	—	—	33.7	0.00	33.7	3.37	0.00	—	118
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	0.50	1.59	0.38	3.72	0.01	0.01	0.22	0.23	0.01	0.04	0.05	44.6	1,273	1,318	4.61	0.07	14.4	1,469
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.06	0.05	0.07	0.48	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	111	111	< 0.005	0.01	0.20	113
Area	0.04	0.24	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.74	0.74	< 0.005	< 0.005	—	0.74

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	97.6	97.6	0.02	< 0.005	—	98.6
Water	—	—	—	—	—	—	—	—	—	—	—	1.81	1.72	3.52	0.19	< 0.005	—	9.48
Waste	—	—	—	—	—	—	—	—	—	—	—	5.58	0.00	5.58	0.56	0.00	—	19.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.17	2.17
Total	0.09	0.29	0.07	0.68	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	7.38	211	218	0.76	0.01	2.38	243

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.33	0.30	0.34	3.10	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	709	709	0.03	0.03	2.85	722
Area	0.39	1.50	0.02	2.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	590	590	0.10	0.01	—	595
Water	—	—	—	—	—	—	—	—	—	—	—	8.73	8.30	17.0	0.90	0.02	—	45.8
Waste	—	—	—	—	—	—	—	—	—	—	—	8.42	0.00	8.42	0.84	0.00	—	29.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	0.72	1.80	0.36	5.29	0.01	0.01	0.22	0.23	0.01	0.04	0.05	17.1	1,316	1,333	1.86	0.06	16.0	1,414
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.31	0.27	0.39	2.61	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	657	657	0.03	0.03	0.07	668
Area	—	1.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	590	590	0.10	0.01	—	595
Water	—	—	—	—	—	—	—	—	—	—	—	8.73	8.30	17.0	0.90	0.02	—	45.8
Waste	—	—	—	—	—	—	—	—	—	—	—	8.42	0.00	8.42	0.84	0.00	—	29.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	0.31	1.42	0.39	2.61	0.01	0.01	0.22	0.23	0.01	0.04	0.05	17.1	1,255	1,272	1.86	0.07	13.2	1,351

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.30	0.28	0.37	2.64	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	669	669	0.03	0.03	1.23	681
Area	0.19	1.32	0.01	1.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.45	4.45	< 0.005	< 0.005	—	4.46
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	590	590	0.10	0.01	—	595
Water	—	—	—	—	—	—	—	—	—	—	—	8.73	8.30	17.0	0.90	0.02	—	45.8
Waste	—	—	—	—	—	—	—	—	—	—	—	8.42	0.00	8.42	0.84	0.00	—	29.5
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	0.50	1.59	0.38	3.72	0.01	0.01	0.22	0.23	0.01	0.04	0.05	17.1	1,271	1,288	1.86	0.07	14.4	1,369
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.06	0.05	0.07	0.48	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	111	111	< 0.005	0.01	0.20	113
Area	0.04	0.24	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.74	0.74	< 0.005	< 0.005	—	0.74
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	97.6	97.6	0.02	< 0.005	—	98.6
Water	—	—	—	—	—	—	—	—	—	—	—	1.45	1.37	2.82	0.15	< 0.005	—	7.59
Waste	—	—	—	—	—	—	—	—	—	—	—	1.39	0.00	1.39	0.14	0.00	—	4.88
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.17	2.17
Total	0.09	0.29	0.07	0.68	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	2.84	210	213	0.31	0.01	2.38	227

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	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	1.84	1.54	15.1	13.7	0.02	0.72	—	0.72	0.66	—	0.66	—	2,063	2,063	0.08	0.02	—	2,070

Dust From Material Movemen:	—	—	—	—	—	—	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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	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 Movemen:	—	—	—	—	—	—	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	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 Movemen:	—	—	—	—	—	—	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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.47	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	72.5	72.5	< 0.005	< 0.005	0.31	73.7
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	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	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.37
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
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	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	0.00	0.00

3.2. Site Preparation (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	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	1.84	1.54	15.1	13.7	0.02	0.72	—	0.72	0.66	—	0.66	—	2,063	2,063	0.08	0.02	—	2,070
Dust From Material Movemen:	—	—	—	—	—	—	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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	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 Movemen:	—	—	—	—	—	—	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	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 Movemen:	—	—	—	—	—	—	< 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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.47	0.00	0.00	0.06	0.06	0.00	0.01	0.01	—	72.5	72.5	< 0.005	< 0.005	0.31	73.7
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	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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.37
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.06	0.06	< 0.005	< 0.005	< 0.005	0.06
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	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	0.00	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	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	2.12	1.78	17.5	16.3	0.02	0.83	—	0.83	0.77	—	0.77	—	2,453	2,453	0.10	0.02	—	2,462
Dust From Material Movemen:	—	—	—	—	—	—	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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5
Dust From Material Movemen:	—	—	—	—	—	—	0.04	0.04	—	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.23	2.23	< 0.005	< 0.005	—	2.23
Dust From Material Movemen:	—	—	—	—	—	—	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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.62	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	96.7	96.7	< 0.005	< 0.005	0.42	98.3
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	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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.50
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.08
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	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	0.00	0.00

3.4. Grading (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	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	2.12	1.78	17.5	16.3	0.02	0.83	—	0.83	0.77	—	0.77	—	2,453	2,453	0.10	0.02	—	2,462
Dust From Material Movemen:	—	—	—	—	—	—	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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.10	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5
Dust From Material Movemen:	—	—	—	—	—	—	0.02	0.02	—	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.23	2.23	< 0.005	< 0.005	—	2.23

Dust From Material Movemen:	—	—	—	—	—	—	< 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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.03	0.62	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	96.7	96.7	< 0.005	< 0.005	0.42	98.3
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	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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.49	0.49	< 0.005	< 0.005	< 0.005	0.50
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.08
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	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	0.00	0.00

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	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	1.43	1.19	9.81	10.2	0.02	0.41	—	0.41	0.38	—	0.38	—	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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.43	1.19	9.81	10.2	0.02	0.41	—	0.41	0.38	—	0.38	—	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	0.35	2.85	2.96	0.01	0.12	—	0.12	0.11	—	0.11	—	523	523	0.02	< 0.005	—	525
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.52	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	86.6	86.6	< 0.005	< 0.005	—	86.9
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.07	1.32	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	205	205	0.01	0.01	0.88	208
Vendor	0.01	0.01	0.32	0.11	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	241	241	< 0.005	0.04	0.64	253
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	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.04	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	185	185	0.01	0.01	0.02	187
Vendor	0.01	0.01	0.34	0.11	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	241	241	< 0.005	0.04	0.02	252
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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.31	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	55.0	55.0	< 0.005	< 0.005	0.11	55.9
Vendor	< 0.005	< 0.005	0.10	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	70.0	70.0	< 0.005	0.01	0.08	73.3
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.11	9.11	< 0.005	< 0.005	0.02	9.25
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.6	11.6	< 0.005	< 0.005	0.01	12.1
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	0.00	0.00

3.6. Building Construction (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	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	1.43	1.19	9.81	10.2	0.02	0.41	—	0.41	0.38	—	0.38	—	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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.43	1.19	9.81	10.2	0.02	0.41	—	0.41	0.38	—	0.38	—	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.42	0.35	2.85	2.96	0.01	0.12	—	0.12	0.11	—	0.11	—	523	523	0.02	< 0.005	—	525
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.52	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	86.6	86.6	< 0.005	< 0.005	—	86.9
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.11	0.07	1.32	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	205	205	0.01	0.01	0.88	208
Vendor	0.01	0.01	0.32	0.11	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	241	241	< 0.005	0.04	0.64	253
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	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	0.10	1.04	0.00	0.00	0.18	0.18	0.00	0.04	0.04	—	185	185	0.01	0.01	0.02	187
Vendor	0.01	0.01	0.34	0.11	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	241	241	< 0.005	0.04	0.02	252
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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.31	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	55.0	55.0	< 0.005	< 0.005	0.11	55.9
Vendor	< 0.005	< 0.005	0.10	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	70.0	70.0	< 0.005	0.01	0.08	73.3

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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	9.11	9.11	< 0.005	< 0.005	0.02	9.25
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.6	11.6	< 0.005	< 0.005	0.01	12.1
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	0.00	0.00

3.7. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	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	0.65	0.55	5.09	6.53	0.01	0.25	—	0.25	0.23	—	0.23	—	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.88	3.88	< 0.005	< 0.005	—	3.90
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.64

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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.61	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	109	109	0.01	< 0.005	0.01	111
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	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.44	0.44	< 0.005	< 0.005	< 0.005	0.44
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.07
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	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	0.00	0.00

3.8. Paving (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	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	0.65	0.55	5.09	6.53	0.01	0.25	—	0.25	0.23	—	0.23	—	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.88	3.88	< 0.005	< 0.005	—	3.90
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.64	0.64	< 0.005	< 0.005	—	0.64
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.06	0.61	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	109	109	0.01	< 0.005	0.01	111
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	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.44	0.44	< 0.005	< 0.005	< 0.005	0.44
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.07	0.07	< 0.005	< 0.005	< 0.005	0.07
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	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	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	TOG	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	0.63	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.71	9.71	< 0.005	< 0.005	—	9.74
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	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.61	1.61	< 0.005	< 0.005	—	1.61
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.56	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	107	107	0.01	< 0.005	0.01	108
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	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.09
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.18
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	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	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	TOG	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	0.63	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.71	9.71	< 0.005	< 0.005	—	9.74
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.61	1.61	< 0.005	< 0.005	—	1.61
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.56	0.00	0.00	0.11	0.11	0.00	0.02	0.02	—	107	107	0.01	< 0.005	0.01	108
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	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.09
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.18	0.18	< 0.005	< 0.005	< 0.005	0.18
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	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	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	TOG	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	0.17	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	—	46.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.83	1.83	< 0.005	< 0.005	—	1.84
Architectural Coatings	—	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.30	0.30	< 0.005	< 0.005	—	0.30
Architectural Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	36.1	36.1	< 0.005	< 0.005	< 0.005	36.7
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	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.52
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.09

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	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	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	TOG	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	0.17	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	—	46.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.83	1.83	< 0.005	< 0.005	—	1.84
Architectural Coatings	—	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.30	0.30	< 0.005	< 0.005	—	0.30

Architect Coatings	—	0.12	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	36.1	36.1	< 0.005	< 0.005	< 0.005	36.7
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	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	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.52
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	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	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.08	0.08	< 0.005	< 0.005	< 0.005	0.09
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	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	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.33	0.30	0.34	3.10	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	709	709	0.03	0.03	2.85	722
Total	0.33	0.30	0.34	3.10	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	709	709	0.03	0.03	2.85	722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.31	0.27	0.39	2.61	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	657	657	0.03	0.03	0.07	668
Total	0.31	0.27	0.39	2.61	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	657	657	0.03	0.03	0.07	668
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.06	0.05	0.07	0.48	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	111	111	< 0.005	0.01	0.20	113
Total	0.06	0.05	0.07	0.48	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	111	111	< 0.005	0.01	0.20	113

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.33	0.30	0.34	3.10	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	709	709	0.03	0.03	2.85	722
Total	0.33	0.30	0.34	3.10	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	709	709	0.03	0.03	2.85	722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Industrial Park	0.31	0.27	0.39	2.61	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	657	657	0.03	0.03	0.07	668
Total	0.31	0.27	0.39	2.61	0.01	0.01	0.22	0.23	0.01	0.04	0.05	—	657	657	0.03	0.03	0.07	668
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.06	0.05	0.07	0.48	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	111	111	< 0.005	0.01	0.20	113
Total	0.06	0.05	0.07	0.48	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	111	111	< 0.005	0.01	0.20	113

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	590	590	0.10	0.01	—	595
Total	—	—	—	—	—	—	—	—	—	—	—	—	590	590	0.10	0.01	—	595
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	590	590	0.10	0.01	—	595
Total	—	—	—	—	—	—	—	—	—	—	—	—	590	590	0.10	0.01	—	595
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	97.6	97.6	0.02	< 0.005	—	98.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	97.6	97.6	0.02	< 0.005	—	98.6

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	590	590	0.10	0.01	—	595
Total	—	—	—	—	—	—	—	—	—	—	—	—	590	590	0.10	0.01	—	595
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	590	590	0.10	0.01	—	595
Total	—	—	—	—	—	—	—	—	—	—	—	—	590	590	0.10	0.01	—	595
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	97.6	97.6	0.02	< 0.005	—	98.6
Total	—	—	—	—	—	—	—	—	—	—	—	—	97.6	97.6	0.02	< 0.005	—	98.6

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.2.4. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	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	—	1.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.39	0.36	0.02	2.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05
Total	0.39	1.50	0.02	2.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	1.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	0.03	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.74	0.74	< 0.005	< 0.005	—	0.74
Total	0.04	0.24	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.74	0.74	< 0.005	< 0.005	—	0.74

4.3.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	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	—	1.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.39	0.36	0.02	2.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05
Total	0.39	1.50	0.02	2.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.01	9.01	< 0.005	< 0.005	—	9.05
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	1.14	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04	0.03	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.74	0.74	< 0.005	< 0.005	—	0.74
Total	0.04	0.24	< 0.005	0.20	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.74	0.74	< 0.005	< 0.005	—	0.74

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	10.9	10.4	21.3	1.12	0.03	—	57.3
Total	—	—	—	—	—	—	—	—	—	—	—	10.9	10.4	21.3	1.12	0.03	—	57.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	10.9	10.4	21.3	1.12	0.03	—	57.3
Total	—	—	—	—	—	—	—	—	—	—	—	10.9	10.4	21.3	1.12	0.03	—	57.3
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	1.81	1.72	3.52	0.19	< 0.005	—	9.48
Total	—	—	—	—	—	—	—	—	—	—	—	1.81	1.72	3.52	0.19	< 0.005	—	9.48

4.4.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	8.73	8.30	17.0	0.90	0.02	—	45.8
Total	—	—	—	—	—	—	—	—	—	—	—	8.73	8.30	17.0	0.90	0.02	—	45.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	8.73	8.30	17.0	0.90	0.02	—	45.8
Total	—	—	—	—	—	—	—	—	—	—	—	8.73	8.30	17.0	0.90	0.02	—	45.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	1.45	1.37	2.82	0.15	< 0.005	—	7.59
Total	—	—	—	—	—	—	—	—	—	—	—	1.45	1.37	2.82	0.15	< 0.005	—	7.59

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	33.7	0.00	33.7	3.37	0.00	—	118
Total	—	—	—	—	—	—	—	—	—	—	—	33.7	0.00	33.7	3.37	0.00	—	118
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	33.7	0.00	33.7	3.37	0.00	—	118
Total	—	—	—	—	—	—	—	—	—	—	—	33.7	0.00	33.7	3.37	0.00	—	118
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	5.58	0.00	5.58	0.56	0.00	—	19.5
Total	—	—	—	—	—	—	—	—	—	—	—	5.58	0.00	5.58	0.56	0.00	—	19.5

4.5.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	8.42	0.00	8.42	0.84	0.00	—	29.5
Total	—	—	—	—	—	—	—	—	—	—	—	8.42	0.00	8.42	0.84	0.00	—	29.5
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	8.42	0.00	8.42	0.84	0.00	—	29.5

Total	—	—	—	—	—	—	—	—	—	—	—	8.42	0.00	8.42	0.84	0.00	—	29.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	1.39	0.00	1.39	0.14	0.00	—	4.88
Total	—	—	—	—	—	—	—	—	—	—	—	1.39	0.00	1.39	0.14	0.00	—	4.88

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.17	2.17
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.17	2.17

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13.1	13.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.17	2.17
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.17	2.17

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	TOG	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	TOG	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	TOG	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	TOG	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	TOG	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)

Equipment Type	TOG	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	TOG	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	TOG	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	TOG	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	TOG	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	TOG	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	TOG	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
Site Preparation	Site Preparation	7/30/2023	8/1/2023	5.00	2.00	—
Grading	Grading	8/2/2023	8/3/2023	5.00	2.00	—
Building Construction	Building Construction	8/4/2023	12/29/2023	5.00	106	—
Paving	Paving	12/30/2023	1/5/2024	5.00	5.00	—
Architectural Coating	Architectural Coating	1/9/2024	1/15/2024	5.00	5.00	—

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
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
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/Backh	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/Backh oes	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/Backh oes	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
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	11.9	LDA,LDT1,LDT2
Site Preparation	Vendor	—	9.10	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	10.0	11.9	LDA,LDT1,LDT2

Grading	Vendor	—	9.10	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	21.2	11.9	LDA,LDT1,LDT2
Building Construction	Vendor	8.26	9.10	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	11.9	LDA,LDT1,LDT2
Paving	Vendor	—	9.10	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.23	11.9	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	9.10	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
Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	11.9	LDA,LDT1,LDT2
Site Preparation	Vendor	—	9.10	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—

Grading	Worker	10.0	11.9	LDA,LDT1,LDT2
Grading	Vendor	—	9.10	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	21.2	11.9	LDA,LDT1,LDT2
Building Construction	Vendor	8.26	9.10	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	11.9	LDA,LDT1,LDT2
Paving	Vendor	—	9.10	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.23	11.9	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	9.10	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	75,600	25,200	—

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 (sq. ft.)	Acres Paved (acres)
Site Preparation	0.00	0.00	1.88	0.00	—
Grading	0.00	0.00	2.00	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
Industrial Park	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
2023	0.00	204	0.03	< 0.005
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

Industrial Park	60.0	60.0	60.0	21,900	786	786	786	286,812

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Industrial Park	60.0	60.0	60.0	21,900	786	786	786	286,812

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	75,600	25,200	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

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)
Industrial Park	1,054,839	204	0.0330	0.0040	0.00

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)
Industrial Park	1,054,839	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Industrial Park	5,694,000	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Industrial Park	4,555,200	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)

Industrial Park	62.5	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Industrial Park	15.6	—

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
Industrial Park	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
Industrial Park	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	22.9	annual days of extreme heat
Extreme Precipitation	2.45	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	0.00	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 ¾ 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	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	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	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	1	1	1	2

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	45.1
AQ-PM	44.2
AQ-DPM	42.9
Drinking Water	98.4
Lead Risk Housing	47.8
Pesticides	86.7
Toxic Releases	16.5
Traffic	54.0
Effect Indicators	—
CleanUp Sites	20.5
Groundwater	84.0
Haz Waste Facilities/Generators	72.6
Impaired Water Bodies	97.5
Solid Waste	52.9

Sensitive Population	—
Asthma	22.4
Cardio-vascular	42.0
Low Birth Weights	74.4
Socioeconomic Factor Indicators	—
Education	82.2
Housing	28.2
Linguistic	75.2
Poverty	90.4
Unemployment	93.1

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	20.47991788
Employed	35.60887976
Median HI	20.67239831
Education	—
Bachelor's or higher	25.84370589
High school enrollment	7.211600154
Preschool enrollment	88.36134993
Transportation	—
Auto Access	73.42486847
Active commuting	67.86860003
Social	—
2-parent households	88.38701399

Voting	77.37713332
Neighborhood	—
Alcohol availability	58.78352368
Park access	2.194276915
Retail density	1.437187219
Supermarket access	12.78070063
Tree canopy	64.51944052
Housing	—
Homeownership	49.62145515
Housing habitability	67.86860003
Low-inc homeowner severe housing cost burden	55.48569229
Low-inc renter severe housing cost burden	75.08020018
Uncrowded housing	50.73784165
Health Outcomes	—
Insured adults	43.44924933
Arthritis	0.0
Asthma ER Admissions	87.8
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	8.4
Cognitively Disabled	41.3
Physically Disabled	33.4
Heart Attack ER Admissions	74.2

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	98.9
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	0.0
SLR Inundation Area	0.0
Children	64.0
Elderly	16.5
English Speaking	25.5
Foreign-born	66.1
Outdoor Workers	2.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	94.8
Traffic Density	52.2
Traffic Access	0.0
Other Indices	—
Hardship	77.9
Other Decision Support	—
2016 Voting	55.8

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	81.0
Healthy Places Index Score for Project Location (b)	39.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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
Construction: Construction Phases	No demolition. Building renovation.
Operations: Vehicle Data	Based on maximum number of daily trips anticipated (60).
Operations: Energy Use	No natural gas use.
Operations: Water and Waste Water	Estimated water usage from project applicant.

APPENDIX B
BIOLOGICAL RESOURCES EVALUATION

BIOLOGICAL RESOURCES EVALUATION REPORT FOR 18299 N. JACOB BRACK ROAD, SAN JOAQUIN COUNTY, CA

PREPARED BY: STRINGER BIOLOGICAL CONSULTING, INC.

INTRODUCTION

Stringer Biological Consulting, Inc. (SBC) has prepared this Biological Resources Evaluation Report (report) to evaluate the development of a proposed indoor cannabis cultivation facility located at 18299 N. Jacob Brack Road in unincorporated San Joaquin County, Ca. The purpose of this report is to document the results of a biological survey as well as to document existing biological resources in the proposed project site and to assess the potential for sensitive biological resources including special-status species, sensitive natural communities, or other protected biological resources such as wetlands or other waters of the U.S. or State to occur in the project site and/ or be impacted by activities on the project site. Recommended project development feature(s) are included to avoid or reduce impacts to sensitive biological resources as a result of project activities.

Project Location, and Description

The proposed project site is located in the northeast portion of the property located at 18299 N. Jacob Brack Road in unincorporated San Joaquin County. For the purposes of this report, the study area refers to the footprint of the proposed project and totals 2.82 acres. The study area is located in Township 04N, Range 05E, Section 35 of the "Thornton, CA" U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (quad). Figure 1 in Attachment A is a Regional Location and Vicinity Map showing the property located at 18299 N. Jacob Brack Road.

The proposed project consists of converting three existing large chicken barns into an indoor cannabis cultivation facility. The proposed project will require rehabilitation of the existing chicken barns, development of a paved driveway and parking areas, and construction of a 10-foot-high security fence, a water tank, and bathroom facilities. The proposed project is entirely within the footprint of the existing chicken barns and surrounding disturbed areas, with the exception of a narrow strip of existing vineyard where the proposed driveway widening would occur. Figure 2 is a premises diagram showing the proposed project activities.

METHODS:

Biological Studies

Biological studies conducted in support of this report included a special-status species evaluation and a biological reconnaissance survey. The special-status species evaluation was conducted in order to assemble a list of regionally-occurring special-status species with the potential to occur in the project region and/or be impacted by proposed projects in the region. The biological reconnaissance survey was conducted to document any potential special-status species or sensitive habitats on the study area and

to determine whether any special-status species or sensitive habitats have the potential to impacted by the proposed project activities.

Special-Status Species Evaluation

Regulations pertaining to the protection of biological resources at the study area are summarized in Attachment B. For the purposes of this report, special-status species are those that fall into one or more of the following categories, including those:

- listed as endangered or threatened under the Federal Endangered Species Act (FESA; including candidates and species proposed for listing);
- listed as endangered or threatened under the California Endangered Species Act (CESA; including candidates and species proposed for listing);
- designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- designated a Species of Special Concern (SSC) by the California Department of Fish and Wildlife (CDFW);
- considered by CDFW to be a Watch List species with potential to become an SSC;
- defined as rare or endangered under Section 15380 of the California Environmental Quality Act (CEQA); or
- having a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, 2B, or 3.

The special-status species evaluation included obtaining lists of special-status species and sensitive natural communities with the potential to occur in the project region from the following sources: the U.S. Fish and Wildlife Service (USFWS 2022a) online list of federally-listed special-status species with the potential to occur in, or be affected by projects in the site and the list of reported occurrences of special-status species in the California Natural Diversity Database (CNDDB) (CDFW 2022) and the California Native Plant Society (CNPS 2022) database for the "Thornton, CA" USGS 7.5-minute topographic quadrangle (quad) and the three adjacent USGS quads (Lodi North, Lodi South, and Terminous). Results of these queries are included in Attachment C. Special status species with the potential to occur in the project vicinity were compared with the habitats on site at the time of the biological reconnaissance and other factors such as soil types on the study area and elevational and geographic ranges of the special-status species to determine if a species has the potential to occur within the study area.

Biological Reconnaissance Survey

SBC Principal Biologist Stephen Stringer, M.S. conducted a biological reconnaissance survey on October 11, 2022, in order to characterize and map the biological habitats/land covers on the study area and document existing biological resources within the study area. The survey was conducted between 8:00 am and 9:00 am. The weather was sunny and mild with a temperature of approximately 60 degrees Fahrenheit. Mr. Stringer holds a B.S. and M.S. in Biological Sciences with a focus in Biological Conservation from California State University, Sacramento and has more than 20 years of experience conducting biological and wetland studies in northern and central California. Mr. Stringer holds a U.S.

Fish and Wildlife Service Section 10(a)(1)(A) Recovery Permit (TE-141359-4) for vernal pool branchiopods and California tiger salamander (Central DPS), a CDFW Rare Plant Voucher Collecting Permit (No. 2081(a)-22-093-V), is an International Society of Arboriculture, Certified Arborist (WE-7129A), and is an instructor for the Wetland Training Institute.

The biological reconnaissance survey area consisted of the footprint of the proposed project and immediately surrounding areas. Surrounding areas outside of the study area were scanned with binoculars from within the study area or from public roads. The study area was searched for the presence of special-status species, habitats for special-status species, and sensitive natural communities and the habitat was documented. A wetland reconnaissance survey was also conducted to search for the presence of potential wetlands or other waters of the U.S. and State. Plant and animal species observed on the study area that were identifiable at the time of the biological reconnaissance survey were documented. Attachment D is a list of species observed on the site during the survey.

Habitat Classification and Plant Nomenclature

Habitat classification in this report is based on the California Wildlife Habitat Relationships System (https://wildlife.ca.gov/Data/CWHR/Wildlife-Habitats). Plant nomenclature is based on the Jepson eFlora available at: https://ucjeps.berkeley.edu/eflora.

RESULTS: ENVIRONMENTAL SETTING

Existing Conditions

The study area is located on the Eguiluz Farms property along the west side of the Interstate 5 (I-5) corridor in a rural area of central San Joaquin County. The surrounding land is primarily in agricultural and farming uses and much of the surrounding lands are vineyards. The City of Lodi is approximately 4.5 miles east of the study area and the community of Thornton is approximately 5 miles north of the study area. The Eguiluz Farms property, which includes the study area, is bordered by Sutter Home Winery to the north, Jacob Brack Road and I-5 to the east, Luiz Dairy to the south, and vineyards to the west.

The study area is a chicken farm and contains three large chicken barns, grain silos, and a dirt parking area. The study area also includes a narrow strip of existing vineyard adjacent to N. Jacob Brack Road that would be removed to construct the proposed driveway. The remainder of the Eguiluz Farms property outside of the study area is comprised of vineyard with a perimeter dirt access road, barns for housing equipment, and a residence with a lawn area. There are no native or naturalized habitats in the study area or elsewhere on the surrounding Eguiluz Farms property.

Topography and Soils

The study area is relatively flat with an elevation range of approximately 13 to 18 feet above mean sea level (amsl). The site generally slopes gently from east to west with the lowest elevation occurring in the western portion of the study area.

One soil type is mapped in the study area: Devries sandy loam, drained, 0 to 2 percent slopes, MLRA 16 (NRCS 2022). This soil type is discussed below.

Devries sandy loam, drained, 0 to 2 percent slopes, MLRA 16, occurs on rims on basin floors between 0 and 90 feet above sea level and consists of coarse-loamy alluvium derived from igneous, metamorphic, and sedimentary rock. This soil map unit is comprised of 85% Devries and similar soils and 15% minor components. A typical profile of this soil type is sandy loam from 0 to 27 inches, cemented sandy loam from 27 to 47 inches, and sandy loam from 47 to 62 inches. This soil type is somewhat poorly drained with a frequency of flooding of "rare" and ponding of "none" and a depth to water table of about 60 inches. Devries soils in this map unit have a hydric rating as well as several of the minor components (Rioblancho, Dello, Guard and unnamed soils) occurring on valley floors, rims, floodplains, and depressions (NRCS 2022).

Habitat Types in the Study Area

There are two biological habitats/land cover types in the study area: developed and vineyard. No native or naturalized habitats are present on the site. Figure 3 in Attachment A is a map of the existing biological habitats/land cover types present. Representative photos of the site are included in Attachment E.

Developed

The majority of the study area is developed land cover (2.72 acres) comprised of the existing chicken farming operation. Developed lands provide little to no wildlife habitat value and wildlife species in developed areas are typically limited to a few species tolerant of frequent human presence. The developed area contains sparse weedy plant species growing around the chicken barns such as Bermuda grass (*Cynodon dactylon*), pigweed (*Amaranthus retroflexus*), hairy fleabane (*Erigeron bonariensis*), barnyard grass (*Echinochloa crus-galli*), cheeseweed (*Malva parviflora*), and purslane (*Portulaca oleracea*). Bird species typical of urban areas were observed perching on the chicken barns and grain silos such as house sparrow (*Passer domesticus*) and house finch (*Haemorhous mexicanus*). California ground squirrels (*Otospermophilus beecheyi*) and ground squirrel burrows were observed around the edges of the chicken barns.

Vineyard

A narrow strip of active vineyard (0.10 acre) is present in the east side of the study area in the location of the proposed driveway. Groundcover in the vineyard consists of species such as Bermuda grass, Dallis grass (*Paspalum dilatatum*), and prickly lettuce (*Lactuca serriola*). The strip of vineyard in the study area is part of a small block of vineyard adjacent to N. Jacob Brack Road, the parking areas for the chicken barns, an existing dirt driveway, and a residence. As such, it provides little to no habitat value for wildlife.

RESULTS: SPECIAL-STATUS SPECIES AND OTHER PROTECTED BIOLOGICAL RESOURCES

Special-Status Species

Based on the results of the background review and database searches, there are a total of 10 special-status plant species, 21 special-status animal species, and three sensitive natural communities as defined in this report that are either documented as occurring or having the potential to occur or be impacted by projects within the "Thornton, Lodi North, Lodi South, and Terminous, CA" USGS quads

(referred to as regionally-occurring special-status species and habitats). All of these regionally-occurring special-status species and habitats were evaluated for the potential to occur within the study area and/or be impacted by the project based on the conditions at the time of the biological reconnaissance. The evaluation was based on factors such as habitat requirements, known elevational and geographic ranges, and soil requirements. Species that were determined to have no potential to occur in the study area and/or be impacted by the project are not discussed further in this document.

Special-Status Plants

No special-status plant species or suitable habitats for special-status plants were observed in the study area during the biological reconnaissance survey and there are no reported occurrences of special-status plant species in or adjacent to the study area in the CNDDB (CDFW 2022). Based on the evaluation of the potential for regionally-occurring special-status plant species to occur in the study area that is described above, no special-status plant species are considered to have the potential to occur in the study area or be impacted by the proposed project. Regionally-occurring special-status plant species generally occur in wetlands or other aquatic habitats or within woodland or grassland habitats generally on specialized soils. The study area lacks any habitat or substrate to support special-status plants.

Special-Status Animals

No special-status animal species were observed in the project site during the biological reconnaissance survey and there are no reported occurrences of special-status animal species in or immediately adjacent to the study area in the CNDDB (CDFW 2022). Based on the evaluation of the potential for special-status animal species to occur in the project site that is described above, no special-status animal species were identified as having the potential to occur in the project site or be impacted by the proposed project. The majority of the regionally-occurring special-status animal species require aquatic habitats such as vernal pools, seasonal wetlands, ponds, marshes, and riverine habitats that do not occur on the site or they occur on large tracts of undeveloped lands such as open grasslands or woodland/forest habitats, which are not present.

There is a reported occurrence of western pond turtle (*Emys marmorata*) in the CNDDB in some constructed ponds approximately 800 feet northwest of the study area (CDFW 2022). The proposed project would have no impact on these ponds and any western pond turtle in these ponds would not be expected to leave the ponds and enter the study area as there is no suitable habitat for this species. Other special-status animal species reported within a two-mile radius of the study area are Swainson's hawk (*Buteo swainsoni*), vernal pool tadpole shrimp (*Lepidurus packardi*), giant gartersnake (*Thamnophis gigas*), riparian brush rabbit (*Sylvilagus bachmani riparius*), and Modesto song sparrow (*Melospiza melodia* pop. 1).

There is no nesting or foraging habitat for Swainson's hawk in or adjacent to the study area and no reported occurrences within 0.5 mile of the study area (CDFW 2022). Project activities involve minor modifications to an existing facility and would not be expected to impact any Swainson's hawk if this species were to nest in the vicinity of the study area. Therefore, no impacts to Swainson's hawk would be expected to occur as a result of the proposed project. There is no suitable habitat for vernal pool tadpole shrimp, giant garter snake, riparian brush rabbit or Modesto song sparrow in or adjacent to the

study area and there are no reported occurrences of any of these species within a 0.5-mile radius of the study area. All of these species require aquatic habitats and/or well-developed riparian habitats with shrubby or emergent vegetation, which is absent in or adjacent to the study area. A narrow drainage ditch/canal occurs adjacent to the north side of the property at 18299 N. Jacob Brack Road, but it was dry at the time of the survey, is highly disturbed, and lacks suitable riparian habitat or sufficient flows to provide habitat for any of these special-status animals.

Raptors, Migratory Birds, and Other Nesting Birds

No bird nests were observed in or adjacent to the study area during the biological reconnaissance, although the survey was conducted outside of the nesting season. However, nesting habitat for migratory birds and other nesting birds is present in and adjacent to the study area. Common bird species such as house sparrow, house finch, or black phoebe (*Sayornis nigricans*) could nest on the chicken barns or grain silos in the study area as well as in horticultural trees or other ornamental vegetation adjacent to the study area. Project activities conducted during the typical bird nesting season (February 1 to August 31) associated with rehabilitation of the barns or paving activities could lead to destruction of nests, abandonment of eggs or young or forced fledging, which would be a violation of Fish and Game Code.

Jurisdictional Waters

No potential wetlands or other waters of the U.S. or waters of the State are present in the study area. None were observed in the study area during the biological reconnaissance and there are no aquatic resources mapped in the National Wetlands Inventory in the study area (USFWS 2022b).

RECOMMENDED PROJECT DEVELOPMENT FEATURE

The following project development feature is recommended for nesting birds.

- Initial vegetation clearing or ground disturbing activities within the project site should take place outside of the typical avian nesting season (e.g., February 15 through August 31), if feasible. If construction needs to commence between February 15 and August 31, a pre-construction survey for nesting birds should be conducted within 500 feet of active construction areas within 10 days prior to commencement of construction. If a lapse in Project activity occurs for 10 days or more during the bird nesting season, then the nesting bird surveys should be re-conducted. If no nesting birds are observed, nothing further is required.
- If active bird nests are observed during the pre-construction survey, a buffer zone should be established around the nest tree(s) until the young have fledged or are no longer dependent on the nest, as determined by a qualified biologist. The radius of the required buffer zone can vary depending on the species, (i.e., 25-100 feet for passerines and 200-300 feet for common raptors), with the dimensions of any required buffer zones to be determined by a qualified biologist. Buffer zones could be reduced if the nest is monitored by a qualified biologist.
- The buffer zone around a nesting tree should be demarcated with high visibility orange construction fencing (or similar highly visible material) and no construction activities or personnel should be allowed within the buffer zone.

SUMMARY/CONCLUSION

SBC prepared this Biological Resources Evaluation Report for the proposed conversion of existing chicken barns and appurtenant structures on the Eguiluz Farms property located at 18299 N. Jacob Brack Road into an indoor cannabis cultivation operation. No potential impacts to special-status species or sensitive biological habitats were identified as a result of the proposed project. A project development feature is recommended during project construction activities.

REFERENCES

California Department of Fish and Wildlife (CDFW). 2022. California Natural Diversity Database RareFind 5/BIOS, Sacramento, CA for the "Thornton, Lodi North, Lodi South, and Terminous, CA" USGS 7.5-minute series quads. Accessed October 2022.

California Native Plant Society (CNPS). 2022. Inventory of Rare and Endangered Plants (online edition, v9-01 1.5) for the "Thornton, Lodi North, Lodi South, and Terminous, CA" USGS 7.5-minute series quads. Accessed October 2022.

Natural Resources Conservation Service (NRCS). 2022. Web Soil Survey. Available online at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed October 2022.

U.S. Fish and Wildlife Service (USFWS). 2022a. Information for Planning and Consultation. Available online at: https://ipac.ecosphere.fws.gov. Accessed October 2022.

2022b. National Wetlands Inventory. Available online at: https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed October 2022.

Attachment A: Figures

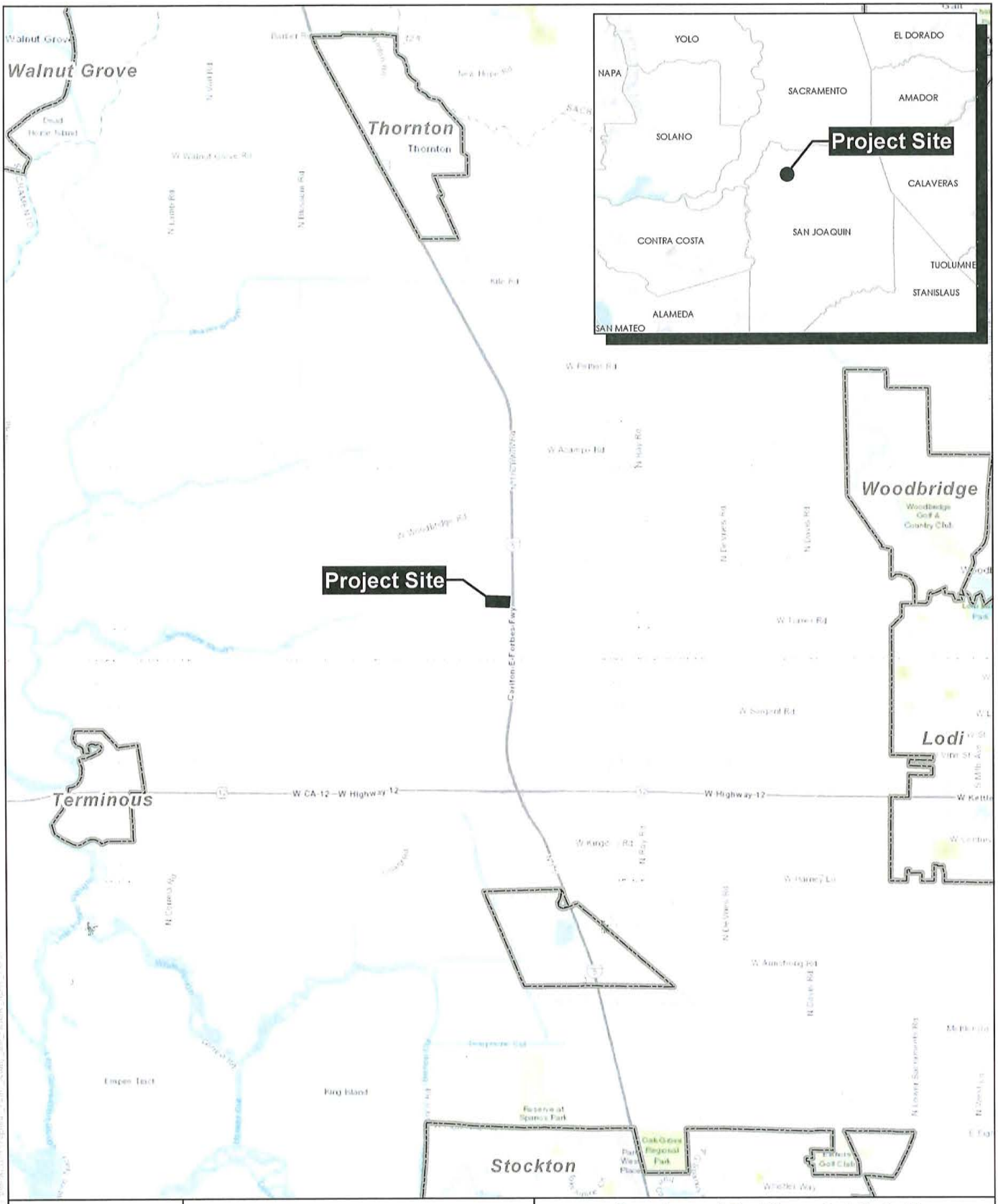


Figure 1

GREEN VALLEY PLANNING

0 1 2 Miles

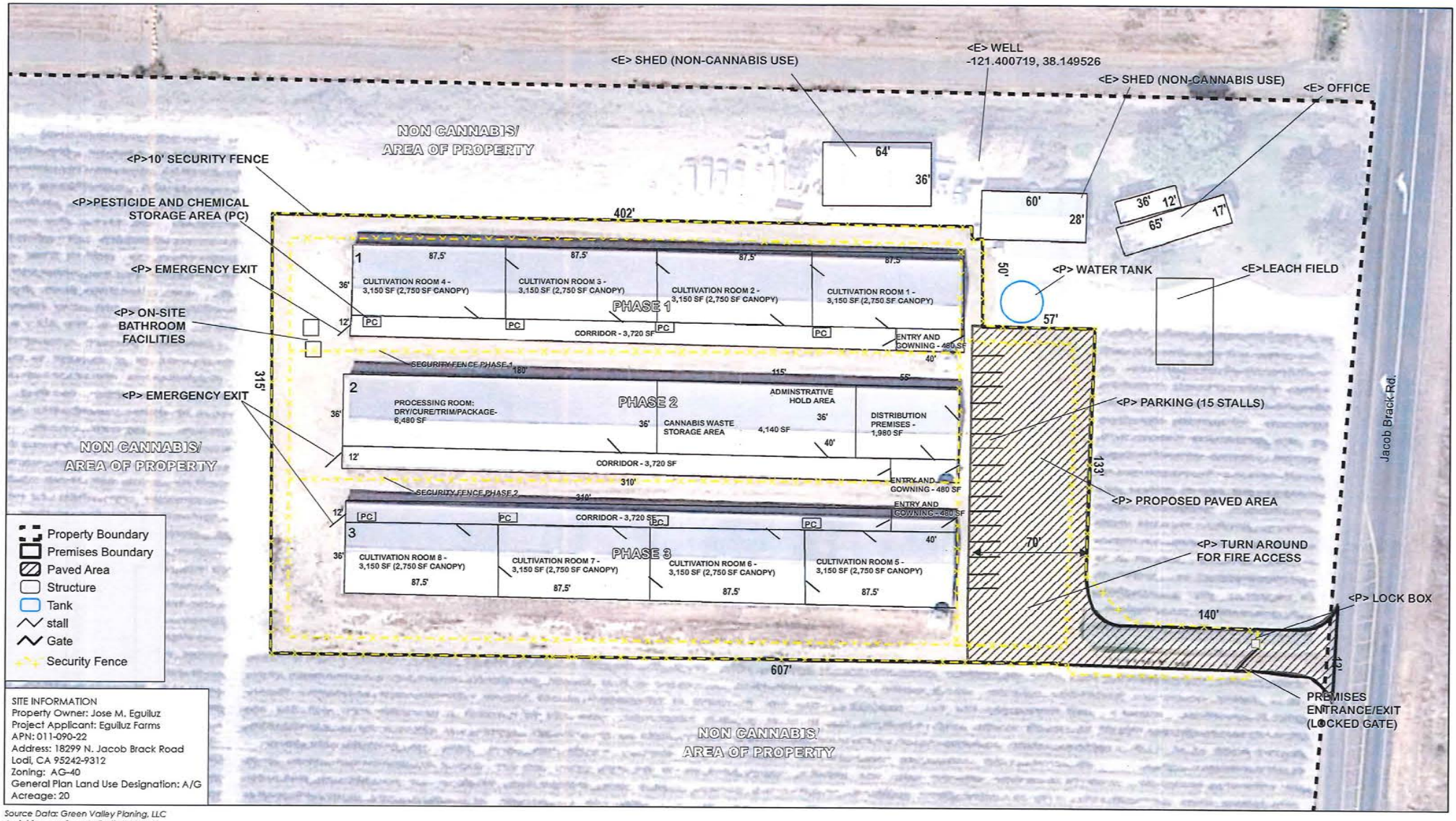
N W E S

Source Layers: (ESRI, USGS, NASA 2021)

Regional Setting & Vicinity

Eguiluz Farms

18299 N Jacob Brack Road, City of Lodi
San Joaquin County, CA



SITE INFORMATION
Property Owner: Jose M. Eguiluz
Project Applicant: Eguiluz Farms
APN: 011-090-22
Address: 18299 N. Jacob Brack Road
Lodi, CA 95242-9312
Zoning: AG-40
General Plan Land Use Designation: A/G
Acreage: 20

Source Data: Green Valley Planing, LLC
Aerial Source: Google Earth (02/2021)
Map Projection: NAD 83 SP CA Zone II
Map Date: 08/18/2022

0 100 200
Feet

N
W E
S

GREEN VALLEY PLANNING

Premises Diagram

Eguiluz Farms - 18299 N Jacob Brack Road

San Joaquin County, CA



Source Data: Stringer Biological Consulting, Inc.
Aerial Source: Google Earth (02/2021)

GREEN VALLEY PLANNING

Figure 3 - Habitat Map

Eguiluz Farms -
18299 N Jacob Brack Road

San Joaquin County, CA

Attachment B: Regulatory Context

Attachment B
Regulatory Context

Regulatory Setting

Policies, regulations, and plans pertaining to the protection of biological resources in the study area are summarized in the following sections.

Federal Regulations

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) enforces the provisions stipulated within the Federal Endangered Species Act of 1973 (FESA; 16 USC 1531 et seq.). Species identified as federally threatened or endangered (50 CFR 17.11, and 17.12) are protected from take, defined as direct or indirect harm, unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally-listed species may be present in the study area and determine whether the proposed project will jeopardize the continued existence of or result in the destruction or adverse modification of critical habitat of such species (16 USC 1536 (a)[3], [4]). Other federal agencies designate species of concern (species that have the potential to become listed), which are evaluated during environmental review under the National Environmental Protection Act (NEPA) or California Environmental Quality Act (CEQA) although they are not otherwise protected under FESA.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all non-native species. Section 16 U.S.C. 703–712 of the Act states "unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill" a migratory bird. A migratory bird is any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the Migratory Bird Treaty Act, of which 58 are legal to hunt.

State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050 to 2097) is similar to the FESA. The California Fish and Wildlife Commission is responsible for maintaining lists of threatened and endangered species under CESA. CESA prohibits the take of listed and candidate (petitioned to be listed) species. "Take" under California law means to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch capture, or kill (California Fish and Game Code, Section 86). The California Department of Fish and Wildlife (CDFW) can authorize take of a state-listed species under Section 2081 of the California Fish and Game Code if the take is incidental to an otherwise lawful activity, the impacts are minimized and fully mitigated, funding is ensured to implement and monitor mitigation measures, and CDFW determines that issuance would not jeopardize the continued existence of the species. A CESA permit must be obtained if a project will result in the "take" of listed species,

either during construction or over the life of the project. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

California Code of Regulations Title 14 and California Fish and Game Code

The official listing of endangered and threatened animals and plants is contained in the California Code of Regulations Title 14 §670.5. A state candidate species is one that the California Fish and Game Code has formally noticed as being under review by CDFW to include in the state list pursuant to Sections 2074.2 and 2075.5 of the California Fish and Game Code.

Legal protection is also provided for wildlife species in California that are identified as "fully protected animals." These species are protected under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species at any time. CDFW is unable to authorize incidental take of fully protected species unless any such take authorization is issued in conjunction with the approval of a Natural Community Conservation Plan that covers the fully protected species (California Fish and Game Code Section 2835).

California Environmental Quality Act

Under the CEQA of 1970 (Public Resources Code Section 21000 et seq.), lead agencies analyze whether projects would have a substantial adverse effect on a candidate, sensitive, or special-status species (Public Resources Code Section 21001(c)). These "special-status" species generally include those listed under FESA and CESA, and species that are not currently protected by statute or regulation, but would be considered rare, threatened, or endangered under the criteria included CEQA Guidelines Section 15380. Therefore, species that are considered rare are addressed under CEQA regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity; plants ranked as 1A, 1B, 2A, 2B, and 3 are generally considered special-status species under CEQA.[1]

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (i.e., candidate species) would occur.

Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code Sections 1900-1913) empowers the Fish and Game Commission to list native plant species, subspecies, or varieties as endangered or rare following a public hearing. To the extent that the location of such plants is known, CDFW must notify property owners that a listed plant is known to occur on their property. Where a property owner has been so notified by CDFW, the owner must notify CDFW at least 10 days in advance

[1] The California Rare Plant Rank system can be found at: < http://www.cnps.org/cnps/rareplants/ranking.php>

of any change in land use (other than changing from one agricultural use to another), in order that CDFW may salvage listed plants that would otherwise be destroyed. Currently, 64 taxa of native plants have been listed as rare under the act.

Nesting Birds

California Fish and Game Code Subsections 3503 and 3800 prohibit the possession, take, or needless destruction of birds, their nests, and eggs, and the salvage of dead nongame birds. California Fish and Game Code Subsection 3503.5 protects all birds in the orders of Falconiformes and Strigiformes (birds of prey). Fish and Game Code Subsection 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act. The Attorney General of California has released an opinion that the Fish and Game Code prohibits incidental take.

Jurisdictional Waters

Federal Jurisdiction

Unless considered an exempt activity under Section 404(f) of the Federal Clean Water Act, any person, firm, or agency planning to alter or work in "waters of the U.S.," including the discharge of dredged or fill material, must first obtain authorization from the USACE under Section 404 of the Clean Water Act (CWA; 33 USC 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from USACE (33 USC 403). Activities exempted under Section 404(f) are not exempted within navigable waters under Section 10.

"Waters of the U.S." are defined as: "All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the ebb and flow of the tide; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, the use, degradation, or destruction of which could affect interstate commerce; impoundments of these waters; tributaries of these waters; the territorial sea; or wetlands adjacent to these waters (33 Code of Federal Regulations [CFR] Part 328)."

Within non-tidal waters that meet the definition cited above and, in the absence of adjacent wetlands, the indicator used by the USACE to determine the lateral extent of its jurisdiction is the ordinary high water mark (OHWM) – the line on the shore established by fluctuations of water and indicated by a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, and/or the presence of litter and debris.

Wetlands are defined under the CFR Part 328.3 as those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

The USACE has determined that not all features which meet the wetland definition are, in fact, considered to be waters of the U.S. Normally, features not considered as waters of the U.S. include (a) non-tidal drainage and irrigation ditches excavated on dry land; (b) artificially irrigated areas which

would revert to upland if the irrigation ceased; (c) artificial lakes or ponds created by excavating and/or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing, (d) artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating and/or diking dry land to retain water for primarily aesthetic reasons, and (e) waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States (see 33 CFR 328.3(a)). Other features may be excluded based on Supreme Court decisions (e.g., SWANCC and Rapanos) or by regulation.

Federal and state regulations pertaining to waters of the U.S., including wetlands, are discussed below.

Clean Water Act (33 USC 1251-1376). The CWA provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. must obtain a state certification that the discharge complies with other provisions of CWA. The Regional Water Quality Control Board (RWQCB) administers the certification program in California and may require State Water Quality Certification before other permits are issued.

Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S.

Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the USEPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there is no practicable alternative that would have less adverse impacts.

State Jurisdiction

Regional Water Quality Control Board

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification. The State of California Water Quality Certification (WQC) Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by Section 401 of the Federal CWA. Although the Clean Water Act is a Federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Boards are the authorities that certify that issuance of a federal license or permit does not violate California's water quality standards (i.e., that they do not violate Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE's permits for fill and dredge discharges within Waters of the United States, and now also implements the State's wetland protection and hydromodification regulation program under the Porter Cologne Water Quality Control Act.

On April 2, 2019, the SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of

California. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review, and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities. The Office of Administrative Law approved the Procedures on August 28, 2019, and the Procedures became effective May 28, 2020.

Under the Procedures and the State Water Code (Water Code §13050(e)), "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to Waters of the State, which includes Waters of the U.S. and non-federal Waters of the State, requires filing of an application under the Procedures.

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 et seq.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, National Pollution Discharge Elimination System (NPDES) permits, Section 401 water quality certifications, or other approvals.

California Department of Fish and Wildlife

The CDFW is a trustee agency that has jurisdiction under Section 1600 et seq. of the California Fish and Game Code. Under Sections 1602 and 1603, a private party must notify CDFW if a proposed project will "substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of streambeds...except when the department has been notified pursuant to Section 1601." Additionally, CDFW asserts jurisdiction over native riparian habitat adjacent to aquatic features, including native trees over four inches in diameter at breast height (DBH). If an existing fish or wildlife resource may be substantially adversely affected by the activity, CDFW may propose reasonable measures that will allow protection of those resources. If these measures are agreeable to the parties involved, they may enter into an agreement with CDFW identifying the approved activities and associated mitigation measures. Generally, CDFW recommends submitting an application for a Streambed Alteration Agreement (SAA) for any work done within the lateral limit of water flow or the edge of riparian vegetation, whichever is greater.

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Attachment C: Results of Database Queries

IPaC resource list

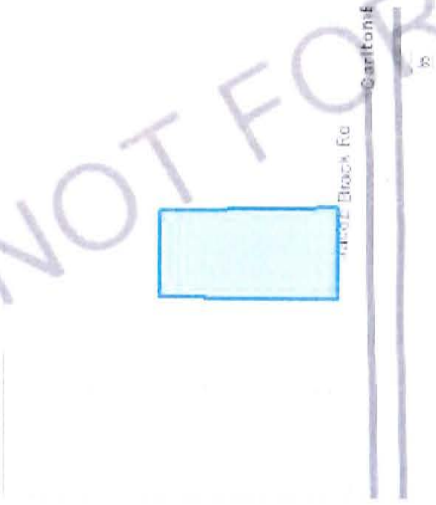
This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

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Location

San Joaquin County, California



Local office

San Francisco Bay-Delta Fish And Wildlife

(916) 930-5603
(916) 930-5654

650 Capitol Mall
Suite 8-300
Sacramento, CA 95814

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Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

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2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME	STATUS
Yellow-billed Cuckoo Coccyzus americanus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/3911	Threatened

Reptiles

NAME	STATUS
Giant Garter Snake Thamnophis gigas Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Tiger Salamander Ambystoma californiense There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt Hypomesus transpacificus Wherever found There is **final** critical habitat for this species. Your location overlaps the critical habitat. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS

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Monarch Butterfly Danaus plexippus — Candidate

Wherever found

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/9743

Valley Elderberry Longhorn Beetle Desmocerus californicus dimorphus — Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/7850

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp Branchinecta lynchi	Threatened

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/498

Vernal Pool Tadpole Shrimp Lepidurus packardi — Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/2246

Flowering Plants

NAME	STATUS
Large-flowered Fiddleneck Amsinckia grandiflora	Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/5558

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

This location overlaps the critical habitat for the following species:

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NAME	TYPE
Delta Smelt Hypomesus transpacificus https://ecos.fws.gov/ecp/species/321#crithab	Final

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern https://www.fws.gov/program/migratory-birds/species
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be

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present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jan 1 to Aug 31
Belding's Savannah Sparrow *Passerculus sandwichensis beldingi* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8	Breeds Apr 1 to Aug 15
Black Swift *Cypseloides niger* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8878	Breeds Jun 15 to Sep 10
Bullock's Oriole *Icterus bullockii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 21 to Jul 25
Clark's Grebe *Aechmophorus clarkii* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
Common Yellowthroat *Geothlypis trichas sinuosa* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/2084	Breeds May 20 to Jul 31
Golden Eagle *Aquila chrysaetos* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31

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Lawrence's Goldfinch Carduelis lawrencei — Breeds Mar 20 to Sep 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9464

Long-eared Owl asio otus — Breeds Mar 1 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Marbled Godwit Limosa fedoa — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9481

Nuttall's Woodpecker Picoides nuttallii — Breeds Apr 1 to Jul 20
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA
https://ecos.fws.gov/ecp/species/9410

Oak Titmouse Baeolophus inornatus — Breeds Mar 15 to Jul 15
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9656

Olive-sided Flycatcher Contopus cooperi — Breeds May 20 to Aug 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3914

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Tricolored Blackbird Agelaius tricolor — Breeds Mar 15 to Aug 10
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3910

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Western Grebe aechmophorus occidentalis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/6743	Breeds Jun 1 to Aug 31
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wrentit Chamaea fasciata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Mar 15 to Aug 10
Yellow-billed Magpie Pica nuttalli This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9726	Breeds Apr 1 to Jul 31

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Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (▪)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum

probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

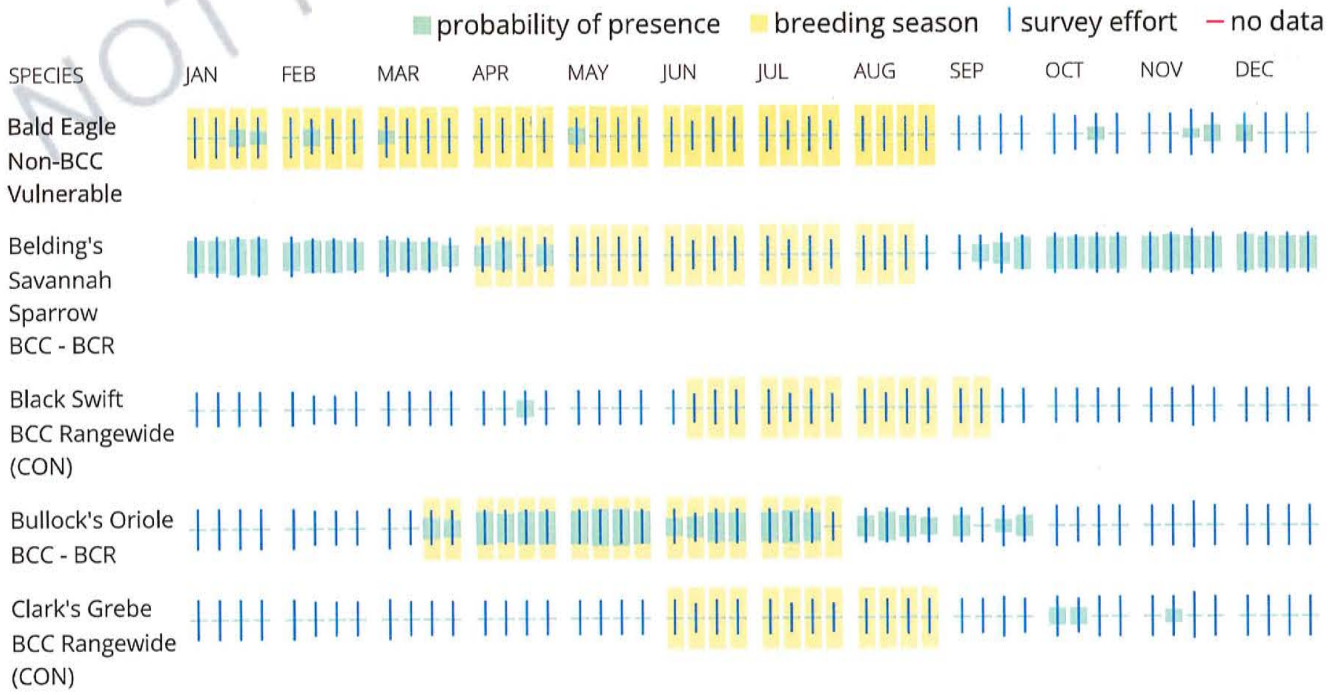
Breeding Season ( )
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

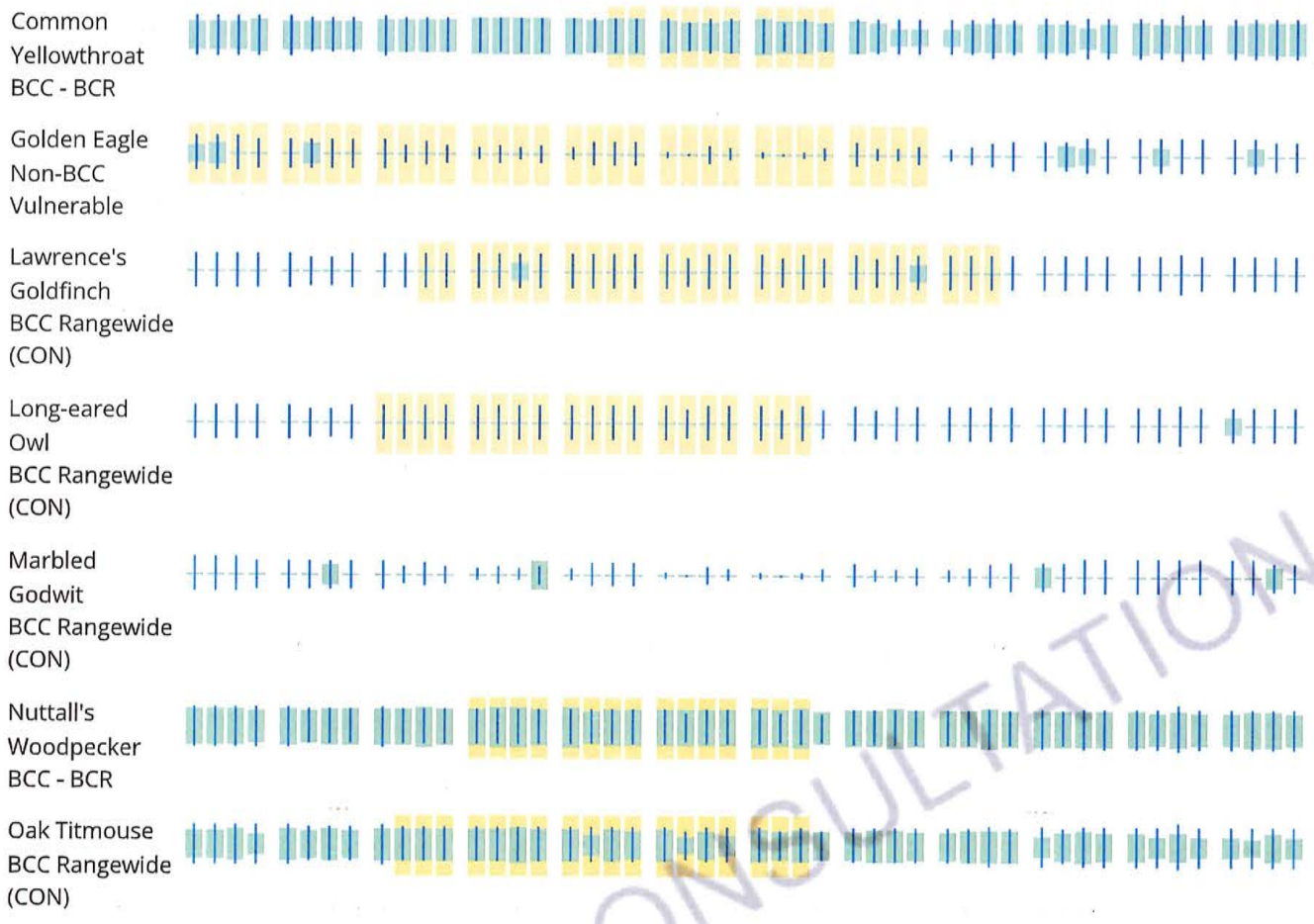
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

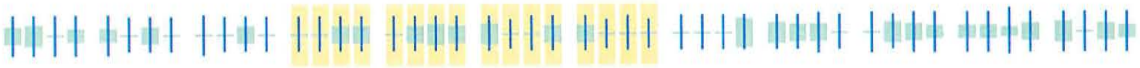


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Yellow-billed Magpie
BCC Rangewide (CON)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the Rapid Avian Information Locator (RAIL) Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering or migrating in my area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the RAIL Tool and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird

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on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black

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vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Coastal Barrier Resources System

Projects within the John H. Chafee Coastal Barrier Resources System (CBRS) may be subject to the restrictions on federal expenditures and financial assistance and the consultation requirements of the Coastal Barrier Resources Act (CBRA) (16 U.S.C. 3501 et seq.). For more information, please contact the local Ecological Services Field Office or visit the CBRA Consultations website. The CBRA website provides tools such as a flow chart to help determine whether consultation is required and a template to facilitate the consultation process.

There are no known coastal barriers at this location.

Data limitations

The CBRS boundaries used in IPaC are representations of the controlling boundaries, which are depicted on the official CBRS maps. The boundaries depicted in this layer are not to be considered authoritative for in/out determinations close to a CBRS boundary (i.e., within the "CBRS Buffer Zone" that appears as a hatched area on either side of the boundary). For projects that are very close to a CBRS boundary but do not clearly intersect a unit, you may contact the Service for an official determination by following the instructions here: https://www.fws.gov/service/coastal-barrier-resources-system-property-documentation

Data exclusions

CBRS units extend seaward out to either the 20- or 30-foot bathymetric contour (depending on the location of the unit). The true seaward extent of the units is not shown in the CBRS data, therefore projects in the offshore areas of units (e.g., dredging, breakwaters, offshore wind energy or oil and gas projects) may be subject to CBRA even if they do not intersect the CBRS data. For additional information, please contact CBRA@fws.gov.

Facilities

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National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

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Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

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Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Thornton (3812124) OR Lodi North (3812123) OR Lodi South (3812113) OR Terminous (3812114))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Bolander's water-hemlock *Cicuta maculata var. bolanderi*	PDAPI0M051	None	None	G5T4T5	S2?	2B.1
burrowing owl *Athene cunicularia*	ABNSB10010	None	None	G4	S3	SSC
California black rail *Laterallus jamaicensis coturniculus*	ABNME03041	None	Threatened	G3T1	S1	FP
California linderiella *Linderiella occidentalis*	ICBRA06010	None	None	G2G3	S2S3	
California tiger salamander - central California DPS *Ambystoma californiense pop. 1*	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Coastal and Valley Freshwater Marsh *Coastal and Valley Freshwater Marsh*	CTT52410CA	None	None	G3	S2.1	
Crotch bumble bee *Bombus crotchii*	IIHYM24480	None	None	G2	S1S2	
Delta mudwort *Limosella australis*	PDSCR10030	None	None	G4G5	S2	2B.1
Delta smelt *Hypomesus transpacificus*	AFCHB01040	Threatened	Endangered	G1	S1	
Delta tule pea *Lathyrus jepsonii var. jepsonii*	PDFAB250D2	None	None	G5T2	S2	1B.2
foothill yellow-legged frog - south Sierra DPS *Rana boylii pop. 5*	AAABH01055	Proposed Endangered	Endangered	G3T2	S2	
giant gartersnake *Thamnophis gigas*	ARADB36150	Threatened	Threatened	G2	S2	
Great Valley Valley Oak Riparian Forest *Great Valley Valley Oak Riparian Forest*	CTT61430CA	None	None	G1	S1.1	
green sturgeon - southern DPS *Acipenser medirostris pop. 1*	AFCAA01031	Threatened	None	G2T1	S1	
legenere *Legenere limosa*	PDCAM0C010	None	None	G2	S2	1B.1
longfin smelt *Spirinchus thaleichthys*	AFCHB03010	Candidate	Threatened	G5	S1	
Mason's lilaeopsis *Lilaeopsis masonii*	PDAPI19030	None	Rare	G2	S2	1B.1
midvalley fairy shrimp *Branchinecta mesovallensis*	ICBRA03150	None	None	G2	S2S3	
riparian brush rabbit *Sylvilagus bachmani riparius*	AMAEB01021	Endangered	Endangered	G5T1	S1	

Selected Elements by Common Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Sacramento splittail *Pogonichthys macrolepidotus*	AFCJB34020	None	None	G3	S3	SSC
Sanford's arrowhead *Sagittaria sanfordii*	PMALI040Q0	None	None	G3	S3	1B.2
side-flowering skullcap *Scutellaria lateriflora*	PDLAM1U0Q0	None	None	G5	S2	2B.2
song sparrow ("Modesto" population) *Melospiza melodia pop. 1*	ABPBXA3013	None	None	G5T3?Q	S3?	SSC
steelhead - Central Valley DPS *Oncorhynchus mykiss irideus pop. 11*	AFCHA0209K	Threatened	None	G5T2Q	S2	
Suisun Marsh aster *Symphyotrichum lentum*	PDASTE8470	None	None	G2	S2	1B.2
Swainson's hawk *Buteo swainsoni*	ABNKC19070	None	Threatened	G5	S3	
tricolored blackbird *Agelaius tricolor*	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	IICOL48011	Threatened	None	G3T2T3	S3	
Valley Oak Woodland *Valley Oak Woodland*	CTT71130CA	None	None	G3	S2.1	
vernal pool fairy shrimp *Branchinecta lynchi*	ICBRA03030	Threatened	None	G3	S3	
vernal pool tadpole shrimp *Lepidurus packardi*	ICBRA10010	Endangered	None	G4	S3S4	
western pond turtle *Emys marmorata*	ARAAD02030	None	None	G3G4	S3	SSC
white-tailed kite *Elanus leucurus*	ABNKC06010	None	None	G5	S3S4	FP
woolly rose-mallow *Hibiscus lasiocarpos var. occidentalis*	PDMAL0H0R3	None	None	G5T3	S3	1B.2

Record Count: 34

CALIFORNIA NATIVE PLANT SOCIETY

Search Results

10 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3812124:3812123:3812113:3812114**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Azolla microphylla	Mexican mosquito fern	Azollaceae	annual/perennial herb	Aug	None	None	G5	S4	4.2	No Photo Available
Cicuta maculata var. *bolanderi*	Bolander's water-hemlock	Apiaceae	perennial herb	Jul-Sep	None	None	G5T4T5	S2?	2B.1	No Photo Available
Hibiscus lasiocarpos var. *occidentalis*	woolly rose-mallow	Malvaceae	perennial rhizomatous herb (emergent)	Jun-Sep	None	None	G5T3	S3	1B.2	 © 2020 Steven Perry
Lathyrus jepsonii var. *jepsonii*	Delta tule pea	Fabaceae	perennial herb	May-Jul(Aug-Sep)	None	None	G5T2	S2	1B.2	 © 2003 Mark Fogiel
Legenere limosa	legenere	Campanulaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.1	 ©2000 John Game
Lilaeopsis masonii	Mason's lilaeopsis	Apiaceae	perennial rhizomatous herb	Apr-Nov	None	CR	G2	S2	1B.1	No Photo Available
Limosella australis	Delta mudwort	Scrophulariaceae	perennial stoloniferous herb	May-Aug	None	None	G4G5	S2	2B.1	 © 2020 Richard Sage
Sagittaria sanfordii	Sanford's arrowhead	Alismataceae	perennial rhizomatous herb (emergent)	May-Oct(Nov)	None	None	G3	S3	1B.2	 ©2013 Debra L. Cook
Scutellaria lateriflora	side-flowering skullcap	Lamiaceae	perennial rhizomatous herb	Jul-Sep	None	None	G5	S2	2B.2	No Photo Available
Symphyotrichum lentum	Suisun Marsh aster	Asteraceae	perennial rhizomatous herb	(Apr)May-Nov	None	None	G2	S2	1B.2	No Photo

Attachment D: Species Observed in the Project Site

Attachment D
Species Observed in the Project Site

Table D-1. Plant Species Observed in the Project Site

Family	Scientific Name	Common Name
Amaranthaceae	*Amaranthus retroflexus*	Redroot pigweed
Asteraceae	*Erigeron bonariensis*	Flax-leaved horseweed
	Erigeron canadensis	Horseweed
	Lactuca serriola	Prickly lettuce
Euphorbiaceae	*Euphorbia prostrata*	Spurge
Malvaceae	*Malva parviflora*	Cheeseweed
Onagraceae	*Epilobium ciliatum*	Annual fireweed
Poaceae	*Cynodon dactylon*	Bermuda grass
	Echinochloa crus-galli	Barnyard grass
	Paspalum dilatatum	Dallis grass
Polygonaceae	*Polygonum aviculare* ssp. *aviculare*	Prostrate knotweed
Portulacaceae	*Portulaca oleracea*	Purslane
Vitaceae	*Vitis* sp.	Cultivated grape

Table D-2. Wildlife Species Observed in the Project Site

Family	Scientific Name	Common Name
Birds		
Fringillidae	*Haemorhous mexicanus*	House finch
Passeridae	*Passer domesticus*	House sparrow
Tyrannidae	*Sayornis nigricans*	Black phoebe
Reptiles		
Phrynosomatidae	*Sceloporus occidentalis*	Western fence lizard
Mammals		
Sciuridae	*Otospermophilus beecheyi*	California ground squirrel

Attachment E: Site Photos

Attachment E. Site Photos

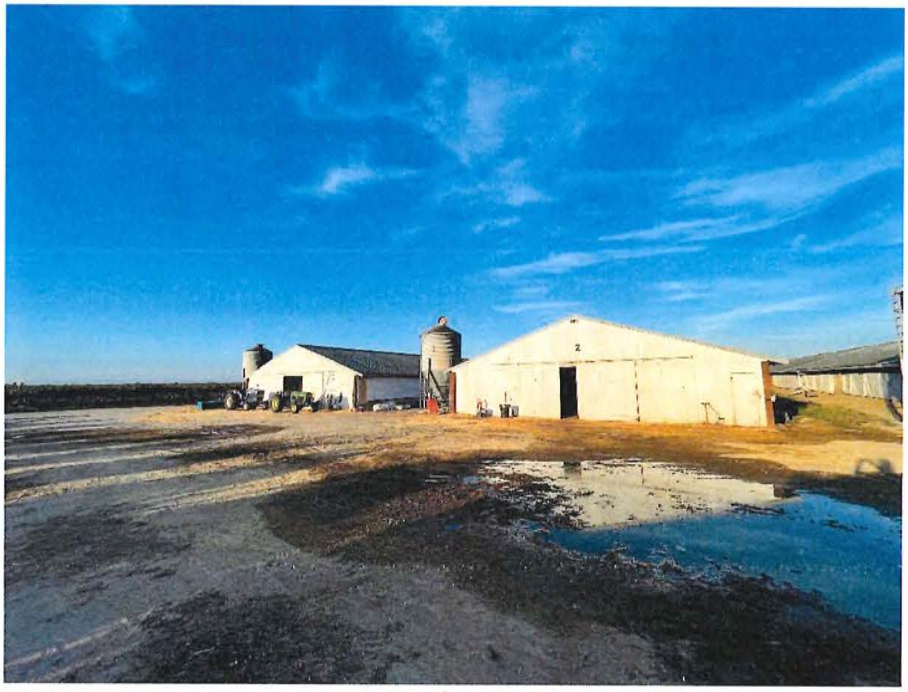


Photo 1. View of the existing chicken barns and grain silos in the study area.



Photo 2. View of the of the disturbed area behind the existing chicken barns and the surrounding vineyard.



Photo 3. View of a dirt parking area in front of the chicken barns with the residence in the background and the vineyard to the right.

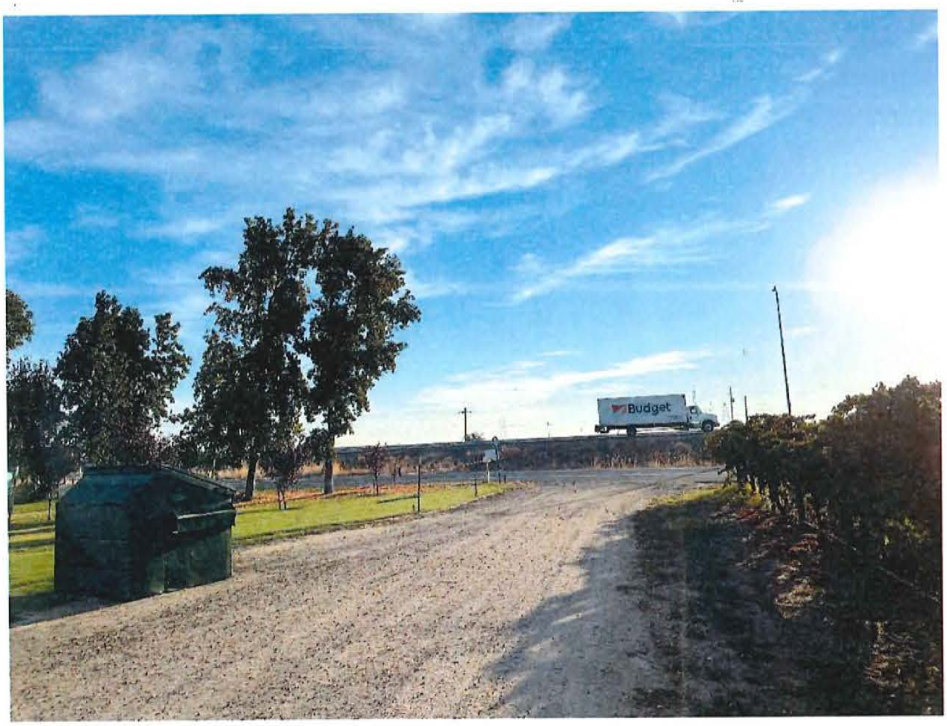


Photo 4. View of an existing driveway and horticultural trees adjacent to the study area. North Jacob Brack Road and Interstate 5 are in the background.

APPENDIX C
CENTRAL CALIFORNIA INFORMATION CENTER REPORT

CENTRAL CALIFORNIA INFORMATION CENTER
California Historical Resources Information System
Department of Anthropology – California State University, Stanislaus
One University Circle, Turlock, California 95382
(209) 667-3307

Alpine, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus & Tuolumne Counties

Date: 9/14/2021

Records Search File#: 11902L
Project: APN 011-150-011
Eguiluz Farms, 18299 N. Jacob Back Road, San Joaquin County

David. W. Claycomb, AICP
Green Valley Planning, LLC
902B Figueroa Street
Folsom, CA 95360
619-992-4117 davec@greenvalleyplanning.com

Dear Mr. Claycomb:

We have conducted a non-confidential extended records search as per your request for the above-referenced project area located on the Thornton (aka New Hope) USGS 7.5-minute quadrangle map in San Joaquin County.

Search of our files includes review of our maps for the specific project area and the immediate vicinity of the project area, and review of the following:

National Register of Historic Places (NRHP)
California Register of Historical Resources (CRHR)
California Inventory of Historic Resources (1976)
California Historical Landmarks
California Points of Historical Interest listing
Office of Historic Preservation Built Environment Resource Directory (BERD) and the Archaeological Determinations of Eligibility (ADOE)
Survey of Surveys (1989)
Caltrans State and Local Bridges Inventory
General Land Office Plats
Other pertinent historic data available at the CCaIC for each specific county

The following details the results of the records search:

Prehistoric or historic resources within the project area:

- There are no formally reported archaeological or historical resources or historic buildings within the project area.

- The 1854 edition of the General Land Office Survey Plat for T4N R5E reference "The road from Stockton to Mokelumne City" in the southwest corner of Section 35, T4N R5E, southwest of the project area.

- Map Number One in *History of San Joaquin County, California with Illustrations* (1879; 1968 reprint) references both J. Dunbach and R. J. Parsons as historical landowners with property on or adjacent to the project area.

- The 1910 and 1952 editions of the New Hope (aka Thornton) USGS 7.5' quadrangles reference Thornton Road as an established thoroughfare.

Prehistoric or historic resources within the immediate vicinity of the project area: None has been formally reported to the Information Center. However, numerous prehistoric and historic resources have been recorded within the boundaries of the Thornton USGS 7.5' quadrangle.

Resources that are known to have value to local cultural groups: None has been formally reported to the Information Center.

Previous investigations within the project area: None has been formally reported to the Information Center.

Recommendations/Comments: Please be advised that a historical resource is defined as a building, structure, object, prehistoric or historic archaeological site, or district possessing physical evidence of human activities over 45 years old. Since the project area has not been subject to previous investigations, there may be unidentified features involved in your project that are 45 years or older and considered as historical resources requiring further study and evaluation by a qualified professional of the appropriate discipline.

<u>If the current project does not include ground disturbance, further study for archaeological resources is not recommended at this time.</u> If ground disturbance is considered a part of the current project, we recommend further review for the possibility of identifying prehistoric or historic-era archaeological resources.

If the proposed project contains buildings or structures that meet the minimum age requirement (45 years in age or older) it is recommended that the resource/s be assessed by a professional familiar with architecture and history of the county. Review of the available historic building/structure data has included only those sources listed above and should not be considered comprehensive

If at any time you might require the services of a qualified professional the Statewide Referral List for Historical Resources Consultants is posted for your use on the internet at http://chrisinfo.org

If archaeological resources are encountered during project-related activities, work should be temporarily halted in the vicinity of the discovered materials and workers should avoid altering the materials and their context until a qualified professional archaeologist has evaluated the situation and provided appropriate recommendations. Project personnel should not collect cultural resources.

If human remains are discovered, California Health and Safety Code Section 7050.5 requires you to protect the discovery and notify the county coroner, who will determine if the find is Native American. If the remains are recognized as Native American, the coroner shall then notify the Native American Heritage Commission (NAHC). California Public Resources Code Section 5097.98 authorizes the NAHC to appoint a Most Likely Descendant (MLD) who will make recommendations for the treatment of the discovery.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the State Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

We thank you for contacting this office regarding historical resource preservation. Please let us know when we can be of further service. Thank you for submitting the **Access Agreement Short Form.**

Note: Billing will be transmitted separately via email from the CSUS Financial Services Office at a later date payable within 60 days of receipt of the invoice.

If you wish to include payment by Credit Card, you must wait to receive the official invoice from Financial Services so that you can reference the CMP # (Invoice Number), and then contact the link below:

https://commerce.cashnet.com/ANTHROPOLOGY

Sincerely,

E. A. Greathouse

E. A. Greathouse, Coordinator
Central California Information Center
California Historical Resources Information System

Invoice to Financial Services

Potential Impact	Significance Before Mitigation Measures	Type of Review / Action Indicating Compliance or Review	Significance after Mitigation Measures	Verification of Compliance or Annual Review of Conditions By	Date	Remarks
3.1 AESTHETICS						
a) Scenic Vistas	NI	None required.	-			
b) Scenic Routes and Resources	NI	None required.	-			
c) Visual Character and Quality	LS	None required.	-			
d) Light and Glare	LS	None required.	-			
3.2 AGRICULTURE AND FORESTRY RESOURCES						
a) Agricultural Land Conversion	LS	None required.	-			
b) Agricultural Zoning and Williamson Act	LS	None required.	-			
c) Forest Land Zoning	NI	None required.	-			
d) Forest Land Conversion	NI	None required.	-			
e) Indirect Conversion of Farmland and Forest Land	NI	None required.	-			
3.3 AIR QUALITY						
a) Air Quality Plan Consistency	LS	None required.	-			
b) Cumulative Emissions	LS	None required.	-			

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

Potential Impact	Significance Before Mitigation Measures	Type of Review	Action Indicating Compliance or Review	Significance after Mitigation Measures	Verification of Compliance or Annual Review of Conditions By	Date	Remarks
c) Exposure of Sensitive Receptors	NI		None required.	-			
d) Odors and Other Emissions	LS		None required.	-			
3.4 BIOLOGICAL RESOURCES							
a) Special-Status Species	NI		None required.	-			
b) Riparian and Other Sensitive Habitats	NI		None required.	-			
c) Wetlands and Waters of the U.S.	NI		None required.	-			
d) Fish and Wildlife Movement	PS		BIO-1: Initial vegetation clearing or ground disturbing activities within the project site shall take place outside of the typical avian nesting season (February 15 through August 31), if feasible. If construction needs to commence between February 15 and August 31, a pre-construction survey for nesting birds shall be conducted within 500 feet of active construction areas within 10 days prior to commencement of construction. If a lapse in project activity occurs for 10 days or more during the bird nesting season, then the nesting bird surveys shall be re-conducted. If no nesting birds are observed, nothing further is required.	LS			

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

Potential Impact	Significance Before Mitigation Measures	Type of Review	Action Indicating Compliance or Review	Significance after Mitigation Measures	Verification of Compliance or Annual Review of Conditions By	Date	Remarks
			However, if active bird nests are observed during the pre-construction survey, a buffer zone shall be established around the nest tree(s) until the young have fledged or are no longer dependent on the nest, as determined by a qualified biologist. The dimensions of any required buffer zones shall likewise be determined by a qualified biologist. The buffer zone around a nesting tree shall be demarcated with high visibility orange construction fencing or similar highly visible material, and no construction activities or personnel shall be allowed within the buffer zone.				
e) Local Biological Requirements	NI		None required.	-			
f) Conflict with Habitat Conservation Plans	NI		None required.	-			
3.5 CULTURAL RESOURCES							
a) Historical Resources	LS		None required.	-			
b) Archaeological Resources	PS		CULT-1: If ground disturbance activities associated with the project encounters any subsurface cultural resources, all ground disturbance activities within 50 feet of the encounter shall be halted until a	LS			

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

Potential Impact	Significance Before Mitigation Measures	Type of Review	Action Indicating Compliance or Review	Significance after Mitigation Measures	Verification of Compliance or Annual Review of Conditions By	Date	Remarks
			qualified archaeologist can examine these materials, determine their significance and, if significant, recommend further mitigation measures that would reduce potential effects to a level that is less than significant. Recommended measures could include, but are not limited to, 1) preservation in place, 2) incorporation of change in design to ensure no further disturbance of encountered resources, or 3) excavation, recovery, and curation by qualified professionals. The County Community Development Department shall be notified, and the project developer shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts in a written report to the Community Development Department, consistent with the requirements of the CEQA Guidelines.				
c) Human Burials	LS		None required.	-			
3.6 ENERGY							
a) Project Energy Consumption	LS		None required.	-			
b) Consistency with Energy Plans	NI		None required.	-			

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

Potential Impact	Significance Before Mitigation Measures	Type of Review	Action Indicating Compliance or Review	Significance after Mitigation Measures	Verification of Compliance or Annual Review of Conditions By	Date	Remarks
3.7 GEOLOGY AND SOILS							
a-i) Fault Rupture Hazards	NI		None required.	-			
a-ii) Seismic Ground Shaking	LS		None required.	-			
a-iii) Other Seismic Hazards	LS		None required.	-			
a-iv) Landslides	NI		None required.	-			
b) Soil Erosion	LS		None required.	-			
c) Unstable Soils	LS		None required.	-			
d) Expansive Soils	NI		None required.	-			
e) Adequacy of Soils for Wastewater Disposal	LS		None required.	-			
f) Paleontological Resources and Unique Geologic Features	LS		None required.	-			
3.8 GREENHOUSE GAS EMISSIONS							
a,b) Project GHG Emissions and Consistency with GHG Reduction Plans	LS		None required.	-			
3.9 HAZARDS AND HAZARDOUS MATERIALS							
a) Hazardous Material Transport, Use and Storage	LS		None required.	-			
b) Release of Hazardous Materials by Upset or Accident	LS		None required.	-			

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

Potential Impact	Significance Before Mitigation Measures	Type of Review	Action Indicating Compliance or Review	Significance after Mitigation Measures	Verification of Compliance or Annual Review of Conditions By	Date	Remarks
c) Hazardous Materials Releases near Schools	NI		None required.	-			
d) Hazardous Materials Sites	NI		None required.	-			
e) Airport Operations	NI		None required.	-			
f) Emergency Response and Evacuation	NI		None required.	-			
g) Wildland Fire Hazards	NI		None required.	-			
3.10 HYDROLOGY AND WATER QUALITY							
a) Violation of Water Quality Standards	LS		None required.	-			
b) Groundwater Supplies and Recharge	LS		None required.	-			
c-i, ii, iii) Drainage Patterns and Runoff	LS		None required.	-			
c-iv) Flood Flows	NI		None required.	-			
d) Release of Pollutants in Flood Zone	NI		None required.	-			
e) Conflict with Water Quality or Sustainable Groundwater Plans	LS		None required.	-			
3.11 LAND USE AND PLANNING							

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

Potential Impact	Significance Before Mitigation Measures	Type of Review	Action Indicating Compliance or Review	Significance after Mitigation Measures	Verification of Compliance or Annual Review of Conditions By	Date	Remarks
a) Division of Established Communities	NI		None required.	-			
b) Conflict with Applicable Plans, Policies and Regulations Avoiding or Mitigating Environmental Effects	LS		None required.	-			
3.12 MINERAL RESOURCES							
a, b) Loss of Mineral Resource Availability	NI		None required.	-			
3.13 NOISE							
a) Increase in Ambient Noise Levels	LS		None required.	-			
b) Groundborne Vibrations	LS		None required.	-			
c) Exposure to Airport/Airstrip Noise	NI		None required.	-			
3.14 POPULATION AND HOUSING							
a) Population Growth Inducement	NI		None required.	-			
b, c) Displacement of Housing and People	NI		None required.	-			
3.15 PUBLIC SERVICES							
a-i) Fire Protection	LS		None required.	-			

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

Potential Impact	Significance Before Mitigation Measures	Type of Review	Action Indicating Compliance or Review	Significance after Mitigation Measures	Verification of Compliance or Annual Review of Conditions By	Date	Remarks
a-ii) Police Protection	LS		None required.	-			
a-iii) Schools	NI		None required.	-			
a-iv) Parks	NI		None required.	-			
a-v) Other Public Facilities	NI		None required.	-			
3.16 RECREATION							
a, b) Recreational Facilities	NI		None required.	-			
3.17 TRANSPORTATION/TRAFFIC							
a) Conflict with Transportation Plans, Ordinances and Policies	LS		None required.	-			
b) Conflict with CEQA Guidelines Section 15064.3(b)	LS		None required.	-			
c) Traffic Hazards	NI		None required.	-			
d) Emergency Access	NI		None required.	-			
3.18 TRIBAL CULTURAL RESOURCES							
a-i, ii) Tribal Cultural Resources	PS		TCR-1: If tribal cultural resources are encountered, the County Community Development Department shall be immediately notified of the find, and the Department in turn shall notify the appropriate Native American representatives. A qualified archaeologist and the Native American representative shall	LS			

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

Potential Impact	Significance Before Mitigation Measures	Type of Review	Action Indicating Compliance or Review	Significance after Mitigation Measures	Verification of Compliance or Annual Review of Conditions By	Date	Remarks
			examine the materials and determine their uniqueness or significance as tribal cultural resources and shall recommend mitigation measures needed to reduce potential cultural resource effects to a level that is less than significant in a written report to the Community Development Department, with a copy to the Native American representatives involved with the resource. The Community Development Department will be responsible for implementing the report recommendations. Avoidance is the preferred means of disposition of tribal cultural resources. In addition, implementation of Mitigation Measure CULT-1.				
3.19 UTILITIES AND SERVICE SYSTEMS							
a) Construction or Relocation of Infrastructure	LS		None required.	-			
b) Water Supply	LS		None required.	-			
c) Wastewater Systems	NI		None required.	-			
d, e) Solid Waste Services	LS		None required.	-			
3.20 WILDFIRE							

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant

Potential Impact	Significance Before Mitigation Measures	Type of Review	Action Indicating Compliance or Review	Significance after Mitigation Measures	Verification of Compliance or Annual Review of Conditions By	Date	Remarks
a) Emergency Response and Emergency Evacuation Plans	NI		None required.	-			
b) Exposure of Project Occupants to Pollutants	NI		None required.	-			
c) Installation and Maintenance of Infrastructure	NI		None required.	-			
d) Risks from Runoff, Post-Fire Slope Instability, or Drainage Changes	NI		None required.	-			
3.21 MANDATORY FINDINGS OF SIGNIFICANCE							
a) Findings on Biological and Cultural Resources	PS		Mitigation measures in Section 3.4.	LS			
b) Findings on Individually Limited but Cumulatively Considerable Impacts	LS		None required.	-			
c) Findings on Adverse Effects on Human Beings	LS		None required.	-			

LEGEND: NI = No Impact; LS = Less Than Significant; PS = Potentially Significant