

Initial Study

prepared by

City of Lompoc

Planning Division, Community Development Department
100 Civic Center Plaza
Lompoc, California 93436
Contact: Brian Halvorson, Planning Manager

prepared with the assistance of

Rincon Consultants, Inc.

1530 Monterey Street, Suite D San Luis Obispo, California 93401

December 2023



Table of Contents

Initi	al Study	/	1
	1.	Project Title	1
	2.	Lead Agency Name and Address	1
	3.	Contact Person and Phone Number	1
	4.	Project Location	1
	5.	General Plan Designation	1
	6.	Zoning	1
	7.	Description of Project	4
	8.	Surrounding Land Uses and Setting	10
	9.	Other Public Agencies Whose Approval is Required	11
	10.	Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?	11
	11.	Response to Comments	11
		ntal Factors Potentially Affected	
Det	erminat	ion	13
Envi	ironmer	ntal Checklist	15
	1	Aesthetics	15
	2	Agriculture and Forestry Resources	17
	3	Air Quality	19
	4	Biological Resources	31
	5	Cultural Resources	35
	6	Energy	
	7	Geology and Soils	39
	8	Greenhouse Gas Emissions	43
	9	Hazards and Hazardous Materials	49
	10	Hydrology and Water Quality	53
	11	Land Use and Planning	57
	12	Mineral Resources	59
	13	Noise	61
	14	Population and Housing	69
	15	Public Services	71
	16	Recreation	75
	17	Transportation	77
	18	Tribal Cultural Resources	81
	19	Utilities and Service Systems	83

City of Lompoc Babylon Gardens Indoor Cultivation Facility Project

20	Wildfire	87
21	Mandatory Findings of Significance	89
References	5	91
Biblio	graphy	91
List of	Preparers	93
Tables		
Table 1	Project Summary	4
Table 2	Proposed Mechanical Equipment	
Table 3	Surrounding Land Use Designation	
Table 4	Health Effects Associated with Non-Attainment Criteria Pollutants	
Table 5	Ambient Air Quality Data	21
Table 6	SBCAG Population and Job Forecast in Lompoc	24
Table 7	Project Construction Emissions	26
Table 8	Project Operational Emissions	26
Table 9	Estimated Energy Use	38
Table 10	Santa Barbara County GHG Emissions Thresholds	44
Table 11	Combined Annual Emissions of Greenhouse Gases	46
Table 12	General Plan Land Use Element Consistency	58
Table 13	Operational Noise Levels	65
Table 14	Vibration Levels Measured during Construction Activities	66
Table 15	AASHTO Maximum Vibration Levels for Preventing Damage	66
Figures		
Figure 1	Regional Project Location	2
Figure 2	Project Location	3
Figure 3	Site Plan	5
Figure 4	Building A Floor Plan	6
Figure 5	Building B Floor Plan	7
Append	ices	
Appendix A		
Appendix E	· · · · · · · · · · · · · · · · · · ·	
Appendix (C Response to Comments	

Initial Study

1. Project Title

Babylon Gardens Indoor Cultivation Facility (CCU 22-02 & ER 23-01)

2. Lead Agency Name and Address

Babylon Gardens, LLC 133 E. De La Guerra St. #193 Santa Barbara, CA 93101

Contact Person and Phone Number

Brian Halvorson, Planning Manager Email: b_halvorson@ci.lompoc.ca.us (805) 875-8228

4. Project Location

The project site is located at 1601 W. Central Avenue in the City of Lompoc, California. The project site is approximately two and a half acres and is identified with Assessor Parcel Number (APN) 093-040-036. There are currently three buildings on the site: building A which is 7000 square feet and in the southwest corner of the site, building B which is 17,800 square feet and in the southeast corner of the site, building C which is 10,000 square feet and in the northern portion of the site. Only buildings A and B are is a part of the proposed project. Figure 1 shows the regional location of the project and Figure 2 shows an aerial view of the project site and the surrounding neighborhood setting.

5. General Plan Designation

Industrial

6. Zoning

Industrial

Figure 1 Regional Project Location

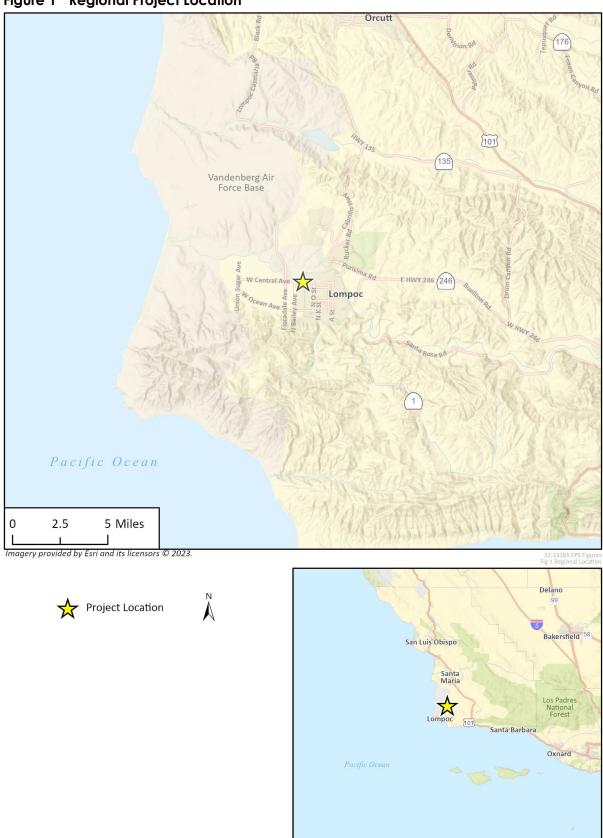
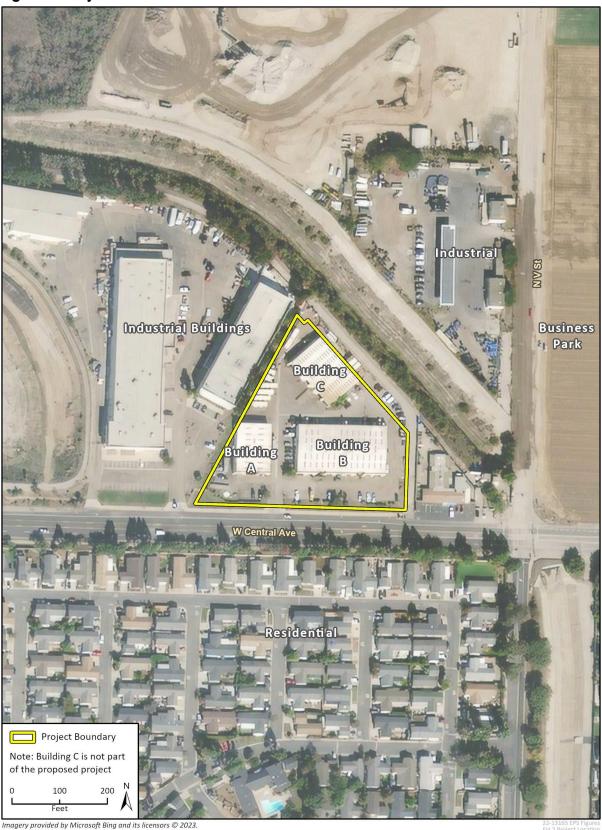


Figure 2 Project Location



7. Description of Project

Babylon Gardens, LLC. Proposes to complete improvements and reengineering to portions of <u>one</u> two of the existing industrial buildings for an indoor cannabis cultivation and processing facility. Previously, the <u>The</u> three existing buildings were <u>are</u> used as a Tire and Auto Repair shop called Rolling Tire and Auto Repair, <u>wine storage</u>, and a welding shop. Currently the structures are vacant. The cannabis cultivation facility would occur within all of building A and portions of building B and would total approximately <u>7,000</u> 20,370 square feet. The growing facility would typically operate from 6:30am to 4:30pm Monday through Saturday and would require approximately <u>19</u> employees.

All 7,000 square feet of building A would be dedicated to flowering plant cultivation as shown in Figure 4. 13,370 square feet of Building B would be part of the proposed project. In Building B, 9,000 square feet would be used for cultivating mother/clone plants and flowering plants. The remaining 4,370 square feet would be used for water tank storage, freeze rooms, a cannabis trimming and dying area, and general office uses such as offices, breakroom, restrooms. Figure 5 shows the proposed floor plan of building B. The facility would only sell cannabis products to State licensed facilities on a wholesale basis and there would be no retail sales on-site. As such, the proposed facility would not be open to the public and visitors would be permitted only with a specific business purpose. Table 1 below provides a summary of the project components.

Table 1 Project Summary

Building Use and	Area
Building A	7,000 square feet of plant cultivation
Building B	13,370 square feet (4,370 square feet of office uses and 9,000 square feet of plant cultivation)
Total	<u>7,000</u> 20,370 square feet

Figure 3 Site Plan

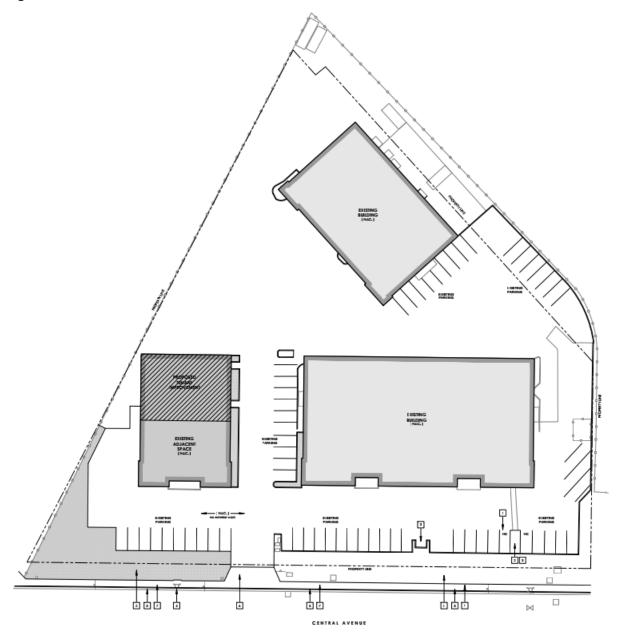


Figure 4 Building A Floor Plan

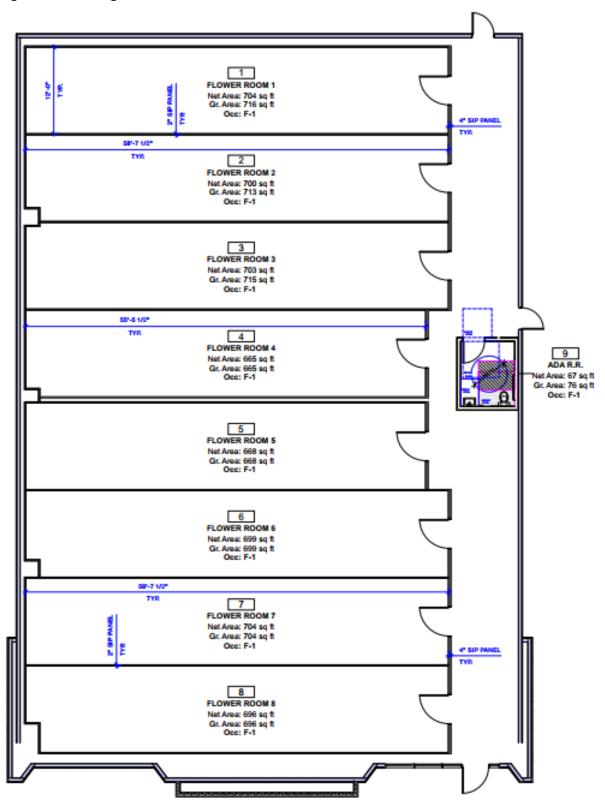
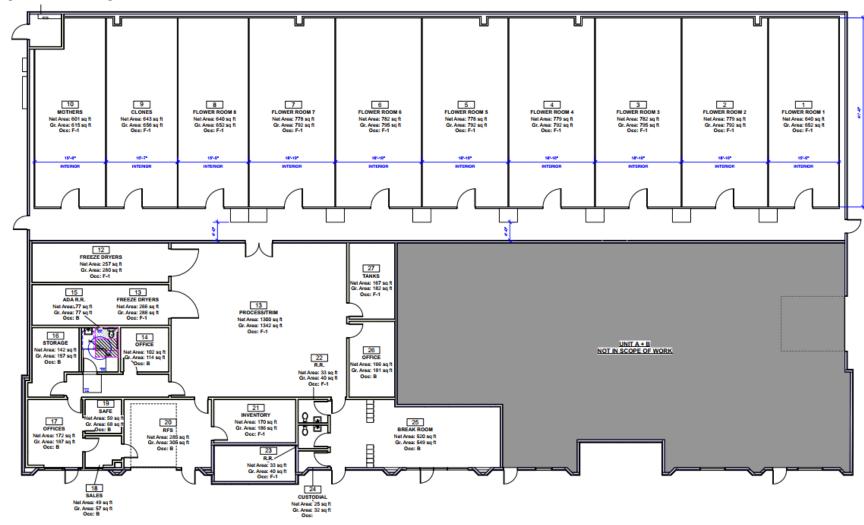


Figure 5 Building B Floor Plan



BUILDING B FLOOR PLAN - PHASE 2

SCALE: 1/8" = 1'-0"

Access and Parking

Site access would be provided via an existing driveway off W. Central Avenue.

The project would provide 51 on-site parking spaces in stalls along the perimeter of the project site. Three of the parking spaces would be Americans with Disabilities Act (ADA) designated.

Mechanical Equipment

Mechanical equipment proposed for the project would include <u>9</u> <u>18</u> ground mounted air conditioning and handling units and three natural gas microturbines which would generate electricity for the proposed cultivation facility. The equipment details are shown in Table 2. The exterior pad mounted air conditioner unit would be located at the northwest corner of the building. The project does <u>include</u> <u>a Tier 4 backup emergency generator which would be diesel-fueled</u>. Not include any diesel powered generators.

Table 2 Proposed Mechanical Equipment

Туре	Quantity	Make/Model	
Air Conditioner/Handling Unit	<u>8</u> 11	Inspire 2 5-ton	
Air Conditioner/Handling Unit	<u>1</u> 8	Inspire <u>2035-</u> ton	
Emergency Generator	<u>1</u>	Tier 4 JCB model G625RS	
Natural gas microturbine	3	Capstone C1000S	

Storm Water

There would be no change to impervious surfaces on the project site as there would be no native ground disturbance, nor any significant changes to the landscaping of the property.

Odor Control

The proposed project would implement an odor abatement plan which includes the implementation of two independent air-filtration technologies and the installation of air purification devices which would be used to eliminate air-borne pathogens and odors both inside and outside of the cultivation facility.

High Efficiency Particulate Air (HEPA) Filters

The proposed project would utilize High-Efficiency Particulate Air (HEPA) filters in allthe cultivation buildings. HEPA filters are efficient at removing particles that are larger or smaller than 0.3 microns. All mechanical air-handling units in the cultivation facility would be outfitted with commercial HEPA filters. Ultraviolet light emitters would also be installed ahead of these HEPA filters to aid in the control of cannabis odors. Filters would be replaced in accordance with the manufacturer's recommendations.

Active Carbon Filters

Active Carbon filters remove contaminants, impurities, and odors through chemical absorption. All air would be passed through the active carbon filters prior to discharge from the building. These filters would act to remove odors before air is released from the facility into the atmosphere and they would be installed at all air exhaust points from the cultivation facility.

Stationary Ozone Generator

Stationary ozone generator units would be installed in non-accessible and non-occupied areas on the perimeter of the building A and B. Ozone generators produce Ozone which is attaches to odors, mold, mildew, bacteria, microorganisms and other pollutants and oxidizes them. Any Ozone particles not used in the oxidation process convert back to Oxygen after about an hour. Ozone generators would be set between 0.03 ppm and 0.10 ppm to ensure safe levels of ozone are maintained at all times and will be maintained in accordance with the manufacturer's recommendation.

Energy and Water Use

The indoor cultivation component of the project would require electricity for lighting, air circulation, and dehumidification. and natural gas to create chilled and hot water for air cooling, condensing, and operating the three microturbine generators. The project would utilize purpose-built HVAC systems that are a higher efficiency than standard HVAC equipment and close canopy air circulation which would reduce the size and speed of fans used for circulation in order to use less energy. The close canopy design would also allow for lower wattage LED lighting that is used for cultivation. The project would require up to 4,725 13,000 kilowatt hour (kWh) of electricity per day. In addition to the indoor cultivation, typical office energy needs would also require electricity. The three on site natural gas microturbine generators would generate on-site electricity to be used to run the proposed cultivation facility. The microturbine generators would run 24-hours per day and would generate enough electricity to power the full cultivation facility.

The cultivation areas would also require water for irrigation, which would use spray nozzles mounted inside the grow towers and plumbed to water storage tanks outside the growing rooms. The project would use an aeroponic growing system which typically requires 90 percent less water than other indoor growing systems. In addition, the water used in irrigation would be reused in the system for greater efficiency. Based on an average indoor cannabis cultivation water use rate of 209 gallons per square feet per year, the project would require approximately 4,008 9,161 gallons per day of water.

Security

Babylon Gardens, LLC would install video surveillance systems on the property to prevent unauthorized access to limited-access areas and prevent the diversion of cannabis products. These surveillance systems would operate 24 hours per day and seven day per week. Cameras would cover limited-access areas, security rooms, areas containing surveillance system storage devices, the interior and exterior of all entrances and exits, areas where cannabis or cannabis products are handled, common use areas, and designated areas. Additionally, there would be an alarm system installed and maintained by a licensed alarm company.

Doors and access to the facility would be locked and access permitted using key cards and access codes. The facility would not be open to the public and would require any approved visitors to signin and sign-out on a visitor access log.

Hazardous Materials and Waste

Hazardous materials used on site would be stored in designated, sealed, and locked containers in secure areas in accordance with OSHA safety requirements. Liquid and dry fertilizers and pesticides, consisting of biological and natural insecticides and mineral oil fungicide, would be stored on-site. These substances would be stored in designated areas in accordance with the manufacturer's label.

The project would generate organic cannabis waste consisting of unfit flowers, trimmed materials, leaves, stems, and seeds, dead or contaminated cannabis plants, and non-hazardous liquid concentrate waste or liquid extract waste. The non-hazardous waste would be stored in a locked trash can that would be either kept in a secure location outside.

Anything designated hazardous waste (ignitable, corrosive, toxic, or infections) would be securely stored until a permitted private waste hauler transfers it to a fully permitted facility.

Utilities Providers

The City of Lompoc would provide water, sewer, storm sewer, electricity, and solid waste services to the project site. The City would also provide any electricity needed beyond what is produced from the on-site microturbine generators. The Southern California Gas Company (SoCalGas) would provide natural gas services to the project site. A portion of the project's electricity need would be generated from on-site natural gas microturbines.

Emergency Services

The City of Lompoc Police Department and Fire Department will provide emergency services to the project site.

8. Surrounding Land Uses and Setting

The existing setting and surrounding land uses include the Willows Mobile Home Park to the South, the Lompoc Sewage Treatment Plant to the West, Lompoc Household Hazardous Waste Collection to the North, and a business park to the East. Table 3 provides additional details relating to existing, surrounding land uses and associated zoning designations.

Table 3 Surrounding Land Use Designation

	Existing Land Use	General Plan Designation	Zoning Designation
Project Site	Rolling Tire & Auto Repair	Industrial	Industrial
North	Lompoc Household Hazardous Waste Collection	Public Facilities	Public Facilities
West	Industrial cannabis uses	Public Facilities	Public Facilities
West	City of Lompoc Drought Tolerant Garden	Public facilities	Public facilities
South	Willows Mobile Home Park	Mobile Home Park	Mobile Home Park
East	Loring Wine Company, Pali Wine Co, Production Facility, DenMat Holdings, Aceco Equipment, SB County Lompoc Animal Shelter, and agricultural land	BP – Business Park	BP – Business Park

9. Other Public Agencies Whose Approval is Required

The City of Lompoc is the lead agency for the project and would issue the following permits:

- Commercial Cannabis Use License Cultivation
- Commercial Cannabis Use License Processing
- Business Tax Certificate

In addition, approval from the following agencies would also be required:

- California Department of Food and Agriculture: CalCannabis Cultivation Licensing, and Processing
- California Department of Cannabis Control: Cannabis Cultivation License
- Santa Barbara County Air Pollution Control District: <u>Cannabis Processing, Manufacturing,</u>
 <u>Distribution & Storage Permit</u>
- 10. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

No.

11. Response to Comments

<u>Pursuant to the California Environmental Quality Act (CEQA), lead agencies are required to consult with public agencies having jurisdiction over a proposed project and to provide the general public with an opportunity to comment on the Draft IS-MND.</u>

The Draft IS-MND was circulated for a 30-day public review period that began on September 6, 2023 and ended on October 6, 2023. The Notice of Availability and Intent to Adopt a Mitigated Negative Declaration was posted in a local newspaper and sent to local and state agencies, as well as interested parties. The Draft IS-MND was posted electronically on the City's website.

The City received three comment letters on the Draft IS-MND. A letter from the California Department of Transportation, dated October 5, 2023, a letter from the Santa Barbara County Air Pollution Control District, dated October 5, 2023, and a letter from the California Department of Cannabis Control, dated September 26, 2023 were received. A Response to Comments document is included as Appendix C, which includes written comments received during the comment period, responses to the comment letter, and revisions, if necessary. Any revisions discussed in the Response to Comments in the Draft IS-MND appear in the Final IS-MND.

City of Lompoc Babylon Gardens Indoor Cultivation Facility Project					
This page intentionally left blank.					
This page intentionally left blank.					

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

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

Determination

Based on 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 to the project have been made by or agreed to by the project proponent, and Mitigation Measures applied. 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 "less than significant with mitigation incorporated" 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 potential 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.

11/2	12-21-23
Signature	Date
Greg Stones	Principal Planner
Printed Name	Title

Environmental Checklist

1	Aesthetics				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Exc	ept as provided in Public Resources Code Sec	tion 21099, v	would the proj	ect:	
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 that would adversely affect daytime or nighttime views in the area?			•	

Aesthetic Setting

The project site is located in an industrial and commercial area of the City of Lompoc The site is currently developed with three one-story buildings on site. The project site is relatively flat with no on-site trees or substantial vegetation.

a. Would the project have a substantial adverse effect on a scenic vista?

According to the Urban Design Element of the City's General Plan, the project site is not located near a scenic vista (Lompoc 2014). The nearest scenic vista is located on a ridgeline near Ken Adam Park, approximately 2.8 miles northeast of the project site. The project's height would be consistent with surrounding development as it would not include the construction of any additional stories on the existing buildings. The closest designated scenic road corridor is approximately 1.4 miles southwest of the project site along Floradale Avenue. The proposed project would not include any outdoor modifications that would result in impacts to views along either of these scenic corridors. There would be no impacts to scenic vistas.

NO IMPACT

b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Beginning at the southern city limits, Highway 1 becomes a designated state scenic highway (Caltrans 2018). The project site is located 3.9 miles northwest of the designated highway and is not visible from the highway due to existing development and intervening buildings and vegetation. The project site has no on-site scenic resources such as historic buildings, trees, or rock outcroppings. Therefore, project would not impact scenic resources within a state scenic highway.

NO IMPACT

c. Would the project, 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?

The project site is developed and located in an urbanized area. The project includes interior tenant improvements to two one existing industrial building. The industrial buildings would remain consistent with the existing and surrounding development as no exterior changes would be made to the structures. The project site has an Industrial zoning designation and the existing industrial structures and proposed uses are consistent with this designation.

The project site has existing landscaped areas along the perimeter of the property which would remain. Exterior mechanical equipment would be screened by landscaping, consistent with LMC Chapter 17.312.040. The project would not conflict with applicable regulations governing scenic quality since no changes are proposed to the exterior of the project site. There would be no impact to scenic quality.

NO IMPACT

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The proposed project includes interior tenant improvements to two one existing industrial buildings on site. No exterior changes would be made to the existing structures. In addition, Aany exterior light improvements would be required to comply with local permitting regulations as listed in Lompoc Municipal Code (LMC) 17.304.090 which requires performance measures on outdoor lighting to reduce light and glare on adjacent properties. The California Department of Cannabis Control would also require that that all outdoor lighting for security purposes be shielded and downward facing, and that lights used in mixed-light cultivation activities must be fully shielded from sunset to sunrise to avoid nighttime glare (Cal. Code Regs., tit. 4 §§ 16304 (6) and (7)) in order to obtain a state cultivation license. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Agriculture and Forestry Resources Less than Significant **Potentially** with Less than Significant Significant Mitigation **Impact** Incorporated **Impact** No Impact Would the project: a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on 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 П 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?

- a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?
- c. Would the project 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. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

City of Lompoc

Babylon Gardens Indoor Cultivation Facility Project

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

The project site is currently on urban and built-up land according to the California Department of Conservation. (DOC 2022a) The site is not under Williamson Act contract, and does not contain any existing agricultural uses or forest resources. The project site has a non-agriculture land use designation of Industrial. Therefore, implementation of the project would not result in impacts to farmland, timberland, or forest land, and would not result in the conversion or rezoning of nearby agricultural uses or conflict with a Williamson Act contract.

NO IMPACT

3	Air Quality				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
W	ould the project:				
a.	Conflict with or obstruct implementation of the applicable air quality 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?				

Overview of Air Pollution

The federal and State Clean Air Acts (CAA) mandate the control and reduction of certain air pollutants. Under these laws, the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for "criteria pollutants" and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide, reactive organic compounds (ROC), nitrogen oxides (NO_X), particulate matter with diameters of ten microns or less (PM₁₀) and 2.5 microns or less (PM_{2.5}), sulfur dioxide, and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROC and NO_X. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog). Air pollutants can be generated by the natural environment, such as when high winds suspend fine dust particles.

Air pollutant emissions are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

- Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.
- Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and can also be divided into two major subcategories:

- On-road sources that may be legally operated on roadways and highways.
- Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air Quality Standards and Attainment

The project site is located in Santa Barbara County, within South Central Coast Air Basin (SCCAB), which is under the jurisdiction of the Santa Barbara County Air Pollution Control District (SBCAPCD). SBCAPCD is one of 15 local air quality management agencies established by the CARB. As the local air quality management agency, SBCAPCD is required to monitor air pollutant levels to ensure that applicable state and federal air quality standards for criteria pollutants are met and, if they are not met, to develop strategies to meet the standards. "Attainment" or "nonattainment" status is classified for all criteria pollutants based on whether or not SCCAB meets or exceeds the air quality standards. Santa Barbara County currently meets the NAAQS for all criteria air pollutants. Santa Barbara County is classified an attainment/maintenance area under the CAAQS for NO_x, carbon monoxide (CO), sulfur dioxide (SO₂), lead (Pb), and attainment for PM_{2.5}. Santa Barbara County is currently classified as a nonattainment area under the CAAQS for ozone (O₃) and PM₁₀ (Santa Barbara County 2023). The health effects for non-attainment criteria pollutants are described in Table 4.

Table 4 Health Effects Associated with Non-Attainment Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: pulmonary function decrements and localized lung edema in humans and animals, and risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures, and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Suspended particulate matter (PM ₁₀)	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma).
Source: U.S. EPA 2022	

Table 5 summarizes the annual air quality data for the local airshed. CARB maintains over 250 air quality monitoring stations throughout California, including 11 stations in Santa Barbara County. Other monitoring stations in Santa Barbara County are maintained by SBCAPCD. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the California and federal standards. The nearest monitoring station to the project site is the Lompoc-S H Street station, located at 128 S H ST., approximately 1.93 miles southeast of the project site. The pollutants monitored at this station are O_3 , PM_{10} , $PM_{2.5}$, CO, and nitrogen dioxide (NO_2). The data collected at this station is generally representative of the baseline air quality experienced in the project area. Sulfur dioxide (SO_2) has not been monitored at this station since 2009. The last recorded 24-hour average SO_2 value was 0.001 parts per million (ppm), which is below the state 24-hour standard of 0.14 ppm and the federal 24-hour standard of 0.04 ppm. As shown in Table 5, PM_{10} measurements exceeded the state standards in 2019, 2020, and 2021. $PM_{2.5}$ measurements exceeded the federal $PM_{2.5}$ standard exceedances in 2020. No other state or federal standards were exceeded at these monitoring stations.

Table 5 Ambient Air Quality Data

Pollutant	2019	2020	2021
Ozone (ppm), Worst Hour¹	0.041	0.038	0.040
Number of days of state exceedances (>0.09 ppm)	0	0	0
Number of days of federal exceedances (>0.12 ppm)	0	0	0
Ozone (ppm), 8-Hour Average ¹	0.033	0.030	0.035
Number of days of state and federal exceedances (>0.07 ppm)	0	0	0
Carbon Monoxide (ppm)-Worst Hour	1.1	2.5	1.9
Number of days of State exceedances	0	0	0
NO ₂ (ppm), Worst Hour	0.027	0.028	0.027
Number of days of state exceedances (>0.18 ppm)	0	0	0
Number of days of federal exceedances (>0.10 ppm)	0	0	0
PM ₁₀ (μg/m³), Worst 24 Hours	83.5	110.8	76.0
Number of days of state exceedances (>50 μg/m³)	3	17	1
Number of days of federal exceedances (>150 μg/m³)	0	0	0
PM _{2.5} (μg/m³), Worst 24 Hours	23.4	85.6	18.4
Number of days of federal exceedances (>35 μg/m³)	0	8	0

ppm= parts per million, $\mu g/m^3$ = microgram per cubic meter, NO_2 = nitrogen dioxide, PM_{10} = particulate matter with 10 microns in diameter or less, $PM_{2.5}$ = particulate matter with 2.5 microns in diameter or less.

Measurements were taken from Lompoc-S H station.

Source: CARB 2023a and CARB 2023b

Air Quality Management

Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The 2001 Clean Air Plan (2002) was the first plan prepared by SBCAPCD and established specific planning requirements to maintain the state one-hour O_3 standard. In 2006, CARB revised the CAAQS and added an 8-hour average to the O_3 standard. Both components of the standard must now be met before CARB can designate an area to be in attainment. The most recent 2022 Ozone Plan was adopted by SBCAPCD in December 2022 and was the seventh update to the 2001 Clean Air Plan. The 2022 Ozone Plan addresses the state O_3 standards only because the District is designated "attainment" for the federal 8-hour O_3 standards, including the most recent standard of 0.070 ppm promulgated by the U.S. EPA in 2015 (SBCAPCD 2022a).

To minimize potential impacts from Project emissions, the SBCAPCD implements rules and regulations for emissions that may be generated by various uses and activities. The rules and regulations detail pollution-reduction measures that must be implemented during construction and operation of Projects. Rules and regulations relevant to the Project include the following:

- Rule 345 (Control of Fugitive Dust from Construction and Demolition Activities). This rule
 establishes fugitive dust control requirements for any activity associated with construction or
 demolition of a structure or structures.
- Rule 323.1 (Architectural Coatings). This rule establishes volatile organic content limits for architectural coatings that are manufactured, blended, repackaged, supplied, sold, or offered for sale within the SBCAPCD. Rule 323.1 limits the volatile organic content to 50 grams per liter for flat coatings and 100 grams per liter for nonflat coatings and traffic marking coatings.

Rule 329 (Cutback and Emulsified Asphalt Paving Materials). This rule establishes ROC content limits pertaining to the manufacture, application, and sale of cutback and emulsified asphalt materials for paving, construction, and maintenance of streets, highways, parking lots, and driveways.

Air Emission Thresholds

Construction Emissions Thresholds

SBCAPCD does not currently have quantitative thresholds of significance for short-term construction emissions. However, CEQA requires that the short-term impacts such as exhaust emissions from construction equipment and fugitive dust generation during grading be analyzed. SBCAPCD recommends that construction-related NO_X, ROC, PM₁₀, and PM_{2.5} emissions, from diesel and gasoline powered equipment, paving, and other activities, be quantified.

According to the SBCAPCD's Scope and Content of Air Quality Sections in Environmental Documents, it recommends quantification of construction-related emissions and suggest a 25 tons per year threshold for ROC or NO_X as a guideline for determining the significance of construction impacts (SBCAPCD 2022b). This is a limit that requires offsets if the construction activity is for a project that requires SBCAPCD permits and also provides guidance for other construction projects involving standard grading and building activities. The City of Lompoc has elected to use this threshold.

Standard dust control measures must be implemented for any discretionary project involving earthmoving activities, regardless of size or duration. According to the SBCAPCD, proper implementation of these required measures reduces fugitive dust emissions to a level that is less than significant (SBCAPCD 2022b). Therefore, all construction activity would be required to incorporate the SBCAPCD requirements pertaining to minimizing construction-related emissions listed in SBCAPCD's *Scope and Content of Air Quality Sections in Environmental Documents* section 6.1, Construction Impact Mitigation: PM₁₀ Mitigation Measures.

Operational Emissions Thresholds

As described in SBCAPCD's Scope and Content of Air Quality Sections in Environmental Documents and in Environmental Review Guidelines, a project will not have a significant air quality effect on the environment if operation would:

- Emit from all project sources (both stationary and mobile) less than 240 pounds per day of ROC;
- Emit from all project sources (both stationary and mobile) less than 240 pounds per day of NOx;
- Emit from all project sources (both stationary and mobile) less than 80 pounds per day of PM₁₀;
- Emit less than 25 pounds per day of ROC from motor vehicle trips only;
- Emit less than 25 pounds per day of NO_x from motor vehicle trips only; and
- Not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone); or
- Not exceed the public notification health risk thresholds adopted by the SBCAPCD of 10 excess cancer cases in a million for cancer risk or a Hazard Index of more than 1.0 for non-cancer risk; or
- Be consistent with the latest adopted in federal and state air quality plans for Santa Barbara County.

The Guidelines state that due to the relatively low background ambient CO levels in Santa Barbara County, localized CO impacts associated with congested intersections are not expected to exceed the CO health-related air quality standards. However, the analysis qualitatively discusses the project's impact to a CO hotspot to be conservative.

Methodology

Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod uses project-specific information, including the project's land uses, square footage for different uses (e.g., Industrial and parking), and location, to model a project's construction and operational emissions. The analysis reflects the construction and operation of the project as described under Initial Study Section 7, Description of the Project.

Construction emissions modeled include emissions generated by construction equipment used on the project site and vehicle trips associated with construction, such as worker and vendor trips. The analysis conservatively models a new 7,000 square foot building to account for construction emissions from the minor building improvements. parking lot with 51 parking spaces. The project would include minor building improvements and would include up to 20 truck trips during building construction. The proposed construction start date is assumed to begin in July 2024. Based on the applicant-provided land use, CalEEMod provides assumptions for the construction schedule, equipment list, and number of vehicle trips. The model estimates construction would occur over approximately five months with any excavated soil balanced onsite. It is assumed that the construction equipment used would be diesel-powered and approximately half of the 20 truck trips would occur within one construction day to conservatively estimate daily truck emissions. The project would comply with applicable regulatory standards, such as SBCAPCD fugitive dust control measures and Rule 323.1 Architectural Coating.

Operational emissions modeled include mobile source emissions, energy source, area source, and offroad equipment emissions. Mobile source emissions are generated by vehicle trips to and from the project site. The proposed project would require 19 employees to operate activities, and it is assumed each employee would generate 2.5 vehicle trips per day. Therefore, the project would generate approximately 2347.5 daily vehicle trips. CalEEMod's trip generation rate assumptions were adjusted to be consistent with the estimated daily vehicle trips. Emissions attributed to energy use include natural gas consumption by appliances and space and water heating. The proposed project would consist of nine18 air conditioning and handling units, which would consume approximately 2.82 6.87 million kilo British Thermal Units annually. Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coatings. Operation of stationary offroad-equipment would generate air pollution emissions. The proposed project would include a 500 kilowatt Tier 4JCB model G625RS diesel-fueled emergency generator for approximately 50 hours per year for maintenance and testing purposes. The project would include approximately three 1000kilowatt natural gas microturbine generators to provide electricity onsite. The microturbine generators would operate 24 hours per day, year-round, besides a few hours for maintenance per year. Emission factors for the natural gas microturbine generators were provided by the manufacturer, Capstone Green Energy Corporation, included in Appendix A.

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The SBCAPCD Guidelines state that a project is consistent with the Clean Air Plan if its direct and indirect emissions have been accounted for in the Clean Air Plan's emissions forecast assumptions and if it would incorporate the standard fugitive dust control measures recommended by SBCAPCD during construction activities. The 2022 Ozone Plan's direct and indirect emissions inventory for the County as a whole is reliant on population projections provided by the Santa Barbara County Association of Governments (SBCAG). SBCAG generates population projections based on local General Plans. In this case, SBCAG has utilized population projections contained in the City of Lompoc's General Plan.

The 2022 Ozone Plan is based on countywide employment data provided by the California Department of Finance. The 2022 Ozone Plan also states that its growth projections are similar to that of the 2019 SBCAG Regional Growth Forecast 2050, in which assumptions about future land development patterns were used to generate future population and jobs forecasts for Lompoc (SBCAG 2019). These growth projections for Lompoc are shown in Table 6

Table 6 SBCAG Population and Job Forecast in Lompoc

Year	Population Forecast	Job Forecast
2020	45,500	13,240
2025	47,800	14,048
2030	49,000	14,480
2035	50,000	14,880
2040	51,300	15,290
2045	51,800	15,680
2050	52,200	16,080
Source: SBCAG 2019		

The proposed project would involve improvements to the an existing buildings and the operation of an indoor cultivation facility. The proposed project has no residential uses and would not directly increase population growth. However, the proposed project would increase the number of new employees in the City of Lompoc. The project requires 49 new employees. Although project employees would likely be drawn from the existing labor pool in the region and may not relocate to the city, the analysis conservatively assumes that all 49 new employees would become new residents. In a conservative scenario, there would be a population growth of 26 54 based on the city's average persons per household of 2.81. Lompoc has a current population of approximately 43,493 persons (California Department of Finance [DOF] 2023). SBCAG's growth forecast projects population in Lompoc to increase from an existing population of 43,493 residents to 52,200 residents by 2050. In addition, the growth forecast for jobs would increase from 13,240 jobs in 2020 to 16,080 jobs by 2050. The population in Lompoc would increase by 8,707 residents by 2050, and the jobs in Lompoc would increase by 2,840 jobs by 2050. Therefore, the addition of 49 employees and 2354 new residents to Lompoc would be accommodated, and the project would not exceed SBCAG's growth forecasts of population and jobs for Lompoc (SBCAG 2019).

Projects are expected to manage fugitive dust emissions such that emissions do not exceed SBCAPCD's visible emissions limit (Rule 302), create a public nuisance (Rule 303), and are in compliance with the SBCAPCD's requirements and standards for visible dust (Rule 345). The following standard SBCAPCD fugitive dust control measures would be required for Project implementation:

- During construction, water trucks or sprinkler systems shall be used to keep all areas of vehicle movement damp enough to prevent dust from leaving the site and from exceeding SBCAPCD's limit of 20 percent opacity for greater than three minutes in any 30-minute period. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency shall be required whenever the wind speed exceeds 15 mph. Reclaimed water shall be used whenever possible. However, reclaimed water shall not be used in or around crops for human consumption.
- The amount of disturbed area shall be minimized.
- On-site vehicle speeds shall be no greater than 15 mph when traveling on unpaved surfaces.
- A track-out prevention device shall be installed and operated where vehicles enter and exit unpaved roads onto paved streets. The track-out prevention device can include any device or combination of devices that are effective at preventing track out of dirt such as gravel pads, pipegrid track-out control devices, rumble strips, or wheel washing systems.
- If stockpiling of material is involved, soil stockpiled for more than one day shall be covered, kept moist, or treated with soil binders to prevent dust generation.
- After clearing, grading, earth moving or excavation is completed, the disturbed area shall be treated by watering, or using roll-compaction, or revegetating, or by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur. All driveways and sidewalks to be paved/surfaced shall be completed as soon as possible.
- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust off-site. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the SBCAPCD prior to grading/building permit issuance and/or map clearance.
- The Project applicant shall comply with SBCAPCD Rule 345: Control of Fugitive Dust from Construction and Demolition Activities, including all applicable standards and measures therein.

Therefore, the proposed project would be consistent with the applicable air quality plan, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project 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?

If the project's regional emissions do not exceed the applicable SBCAPCD thresholds, then the project's criteria pollutant emissions would not be cumulatively considerable.

Construction

Construction activities would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$), exhaust emissions from heavy construction vehicles, and ROCs that would be released during the drying phase after application of architectural coatings. Project construction emissions totals per year are shown in Table 7. As shown therein, construction emissions would not exceed the SBCAPCD threshold of 25 tons per year for ROC or NO_X . Therefore, project construction would not contribute substantially to an existing or projected air quality violation and impacts would be less than significant.

Table 7 Project Construction Emissions

	Annual Emissions (tons per year)						
Construction Year	ROC	NO _X	СО	SO ₂	PM ₁₀	PM _{2.5}	
2025	<1	<1	<1	<1	<1	<1	
Maximum Annual Emissions	<1	<1	<1	<1	<1	<1	
SBCAPCD Thresholds	25	25	N/A	N/A	N/A	N/A	
Threshold Exceeded?	No	No	N/A	N/A	N/A	N/A	

ROC = reactive organic compounds, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed using CalEEMod. See Appendix A for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulations (including SBCAPCD Rules 345, 323.1, and 329).

Operation

Operation of the project would generate criteria air pollutant emissions associated with area sources (e.g., architectural coatings, consumer products, and landscaping equipment), energy sources (i.e., use of natural gas for space and water heating), mobile sources (i.e., vehicle trips to and from the project site), and stationary source (i.e., emergency back-up diesel natural gas generators). Table 8 summarizes the project's operational emissions by emission source (mobile, area, energy, and offroad). As shown in Table 8, the project's operational emissions would not exceed SBCAPCD thresholds for criteria pollutants. Therefore, project operation would not contribute substantially to an existing or projected air quality violation and impacts would be less than significant.

Table 8 Project Operational Emissions

	Average Daily Emissions (pounds per day)					
Emissions Source	ROC	NO _x	со	SO ₂	PM ₁₀	PM _{2.5}
Mobile	<1	<1	<u><1</u> 1	<1	<1	<1
Area	<1	<1	<1	<1	<1	<1
Energy	<1	<u><1</u> 2	<u><1</u> 2	<1	<1	<1
Stationary (Generator)	<u>2</u> 5	<u>62</u>	<u>6170</u>	<u><1</u> 0	<u><1</u> 0	<u><1</u> 0
Total	<u>3</u> 6	<u>6</u> 64	<u>6</u> 174	<1	<u><1</u> 4	<1
Threshold (area + energy + mobile+ off-road)	240	240	N/A	N/A	80	N/A
Threshold Exceeded?	No	No	N/A	N/A	No	N/A
Threshold (mobile only)	25	25	N/A	N/A	N/A	N/A
Threshold Exceeded?	No	No	N/A	N/A	N/A	N/A

ROC = reactive organic compounds, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed using CalEEMod. See Appendix A for modeling results. Some numbers may not sum precisely due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulations (including SBCAPCD Rule 323.1) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

LESS THAN SIGNIFICANT IMPACT

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Sensitive receptors are facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. According to CARB, sensitive receptors are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (CARB 2005). The nearest sensitive receptors are single-family residences approximately 95 feet south of the project site boundary.

CO Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. The entire SCCAB is in conformance with state and federal CO standards, and most air quality monitoring stations no longer report CO levels. Unincorporated Santa Barbara County does not monitor CO emissions at its air monitoring stations nor is representative data available. A detailed CO analysis was conducted during the preparation of South Coast Air Quality Management District's 2003 AQMP. The locations selected for microscale modeling in the 2003 AQMP included high average daily traffic (ADT) intersections in the SCAB, i.e., those which would be expected to experience the highest CO concentrations. The highest CO concentration observed occurred at the intersection of Wilshire Boulevard and Veteran Avenue on the west side of Los Angeles near the I-405 Freeway, which has an ADT of approximately 100,000 vehicles per day. The concentration of CO at this intersection was 4.6 ppm, which is well below the state and federal standards (South Coast Air Quality Management District 2003). According to the City of Lompoc 2030 General Plan EIR, the total existing traffic volume on West Central Avenue to V Street is approximately 6,000 average daily trips. The proposed project would generate 2347.5 daily vehicle trips for this roadway intersection during the weekday and Saturday; therefore, the proposed project would be below the average daily traffic volume in the 2003 AQMP study that did not produce a CO hotspot (City of Lompoc 2010). The Guidelines state that due to the relatively low background ambient CO levels in Santa Barbara County, localized CO impacts associated with congested intersections are not expected to exceed the CO health-related air quality standards. As such, CO hotspot analyses are no longer required.

Toxic Air Contaminants

Construction Impacts

Construction-related activities would result in temporary project-generated DPM exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. Generation of DPM, which was identified as a TAC by CARB in 1998, from construction projects typically occurs in a single area for a short period. The proposed project's construction would occur in phases over approximately five months with sensitive receptors 95 feet south of the project site.

The proposed project would be consistent with the applicable AQMP requirements and control strategies intended to reduce emissions from construction equipment and activities. The proposed Project would comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than five minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction. The project would involve improvements inside the existing buildings and constructing a parking lot. Therefore, the project's construction activity would be minor and would not emit substantial TAC emissions. However, any operational construction equipment over 50 horsepower during project

construction could lead to substantial DPM emissions and impacts are potentially significant and require mitigation.

Operational Impacts

Long-term operational emissions of the project would include toxic substances such as cleaning agents and flammable materials in use on site. Compliance with State and federal handling regulations would ensure that emissions remain below a level of significance. The use of such substances such as cleaning agents and flammable materials is regulated by the 1990 Federal Clean Air Act Amendments as well as State-adopted regulations for the chemical composition of consumer products. The project would include one 500 kilowatt diesel-fueled generator for approximately 50 hours per year for maintenance and testing purposes. A screening health risk assessment was prepared by SBCAPCD for the proposed emergency generator. The maximally exposed individual resident would be exposed to a cancer risk of 3.76 cases in one million individuals, which is below SBCAPCD's recommended cancer risk criteria of 10 excess cases of cancer in one million individuals. In addition, the generator would result in a chronic hazard index of approximately 0.001 for the maximally exposed individual resident, which is below the hazard index of 1. The maximally exposed individual worker would be exposed to a cancer risk of 1.29 in one million individuals and a chronic hazard index of 0.001, which are both below SBCAPCD's health risk thresholds. three natural gas microturbines, which are not considered a source that produces a substantial TAC risk to sensitive receptors. Therefore, project-related toxic air contaminant emission impacts during operation would be less than significant.

Mitigation Measure

AQ-1 Construction Emissions Reduction

Prior to issuance of grading permits, the City shall confirm that the grading plan, building plans, and specifications stipulate that the following measures shall be implemented:

- All mobile off-road equipment (wheeled or tracked) used during construction activities shall meet the U.S. EPA Tier 4 final standards. Tier 4 certification can be for the original equipment or equipment that is retrofitted to meet the Tier 4 Final standards.
- Alternative fuel (natural gas, propane, electric, etc.) construction equipment shall be incorporated where available. These requirements shall be incorporated into the contract agreement with the construction contractor. A copy of the equipment's certification or model year specifications shall be available upon request for all equipment on-site.
- Electricity shall be supplied to the site from the existing power grid to support the electric
 construction equipment. If connection to the grid is determined to be infeasible for portions of
 the project, a non-diesel fueled generator shall be used.
- The Project shall comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than five minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction.

Significance After Mitigation

With incorporation of Mitigation Measure AQ-1, the Project would reduce DPM emissions by approximately 77 to 94 percent as compared to standard CalEEMod assumptions for engine tier. With these reductions, toxic air contaminant concentrations at sensitive receptors would not be substantial, and construction-related health impacts would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Emissions leading to odors during project construction would occur from the use of onsite construction equipment, as well as off-gassing from architectural coating activities. For construction activities, odors would be short-term in nature, generally limited to the project site, and are subject to SBCAPCD Rule 303 which provides protocol to limit the generation of odors. Construction activities would be temporary and transitory and associated odors would cease upon construction completion. Accordingly, construction of the proposed project would not generate other emissions that would create objectionable odors affecting a substantial number of people and impacts would be less than significant.

The SBCAPCD Scope and Content of Air Quality Sections in Environmental Documents (2022) states that certain projects have the potential to cause significant odor impacts because of the nature of their operation and their location. Examples include fast food restaurants, bakeries, and coffee roasting facilities. In addition, wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. Cannabis has a strong odor that may be objectionable to some people. Odors from cannabis operations may be detectable off site and prevailing winds can transport odors toward odor receptors. The proposed project entails the use of an existing structure on the site as a commercial cannabis cultivation and processing facility. Potential sources that may emit odors during operation of the proposed project would include odor emissions from cannabis growing, flowering, and processing, as well as trash storage areas. The nearest residences are located approximately 95 feet south of the project site.

The project includes an Odor Abatement Plan consistent with City permitting requirements. The project would install two independent air-filtration technologies and the installation of air purification devices which would be used to eliminate air-borne pathogens and odors both inside and outside of the cultivation facility. The HEPA filters are efficient at removing particles that are larger and smaller than 0.3 microns and install ultraviolet light emitters to aid in the control of cannabis odors. In addition, active carbon filters would remove odors before air is released from the facility into the atmosphere. While the project would include odor control features and best management practices to control cannabis odors, there is the potential for cannabis odors from on-site operations to create a nuisance for nearby residents as documented in the Odor Abatement Plan. Therefore, impacts from odors are conservatively assessed as potentially significant and require mitigation.

Mitigation Measures

AQ-2 Odor Abatement Plan

The applicant shall implement additional best management practice techniques to reduce and eliminate off site odor, which include but are not limited to:

- Keep all access doors shut except when entering or leaving the facility or when deliveries are being made.
- The facility shall have no openable windows.
- Maintain the air filtration systems in compliance with manufacture's specification.
- Replace filters pursuant to manufacture's specifications.
- Store cannabis waste inside the building until it is time for removal off-site.
- Provide 24/7 phone number onsite for odor complaints.

Significance After Mitigation

Implementation of Mitigation Measure AQ-2 would provide additional odor control techniques in addition to the Odor Abatement Plan to ensure that odors from cannabis operations would not be a nuisance to nearby residents. With implementation of Mitigation Measure AQ-2, impacts from odors would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

4	4 Biological Resources						
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact		
Wo	ould the project:						
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?				•		
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, 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 Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?						

Biological Resources Setting

The project site is located within an urban area and surrounded by existing development. The site is developed with three existing industrial buildings, a paved driveway and parking lot, and landscaping. No habitat that may support special-status plant or animal species exists within the project site. Ornamental trees and shrubs within 500 feet of the project area could provide suitable habitat for nesting birds. There is no potential for sensitive species to occur on the project site.

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The project involves the use of two one existing industrial buildings for a commercial cannabis cultivation, processing, and storage operation. The project site has no natural or native vegetation communities that would support special-status species. Ornamental trees and shrubs surrounding the project site could provide suitable habitat for nesting birds. However, there are no proposed exterior improvements that would significantly disturb sensitive or special-status species. There would be no impacts.

NO IMPACT

b. Would the project 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?

There is no riparian habitat or other sensitive natural communities within the vicinity of the project area. There would be no impacts on sensitive natural communities.

NO IMPACT

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

There are no state or federally protected wetlands present on the project site. The nearest wetland habitat identified by the National Wetland Inventory (NWI) is located near the Santa Ynez River, approximately 0.4 miles north of the project site (USFWS 2020). Because no wetlands occur on or near the project site, there would be no impacts to state of federally protected wetlands.

NO IMPACT

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. The project site is an urban parcel surrounded by industrial buildings, public facilities, and residential development. The site has no connectivity to natural habitats and therefore does not support substantial wildlife movement. There are no native wildlife nursery sites within the vicinity of the project site. No impacts to wildlife movement corridors or native wildlife nursery sites would occur as a result of project activities.

NO IMPACT

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

As discussed under impacts a and b, there are no biologically sensitive species or habitats on the project site which would be impacted by the project and the project would not conflict with policies in the City of Lompoc General Plan. There would be no outdoor construction that would require the removal of trees and the project would not violate the LMC Chapter 12.32 related to tree projection. There would be no impacts to local policies protecting biological resources.

NO IMPACT

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project site is not within an adopted habitat conservation plan or identified habitat conservation area. There would be no impacts to an applicable habitat conservation plan.

NO IMPACT

City of Lompoc Babylon Gardens Indoor Cultivation Facility Project		
This page intentionally left blank.		
, , ,		

5	5 Cultural Resources				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
W	Would the project:				
а.	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?				•
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?			•	
c.	Disturb any human remains, including those interred outside of formal cemeteries?			•	

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

According to §15064.5, a historical resource includes those listed in or determined eligible for listing in the CRHR or a local register of historical resources or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (*CEQA Guidelines*, Section 15064.5[a][1-3]).

The project involves the use of two one existing industrial buildings for a commercial cannabis cultivation, processing, and storage operation on a 2.56 acre site located at 1601 W. Central Avenue in Lompoc (Assessor's Parcel Number: 093-040-036). No known existing historic resources are located on-site. The project does not include ground disturbing activities, and therefore would not affect unknown cultural resources on-site. There would be no impacts.

NO IMPACT

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The project site is in an urbanized area and has been previously disturbed in conjunction with the construction of the existing industrial buildings and surface parking lot. There are no known existing archeological resources located on-site and the likelihood that intact archaeological resources are present is low. The proposed project would not include any major ground disturbing activities and therefore would not affect any unknown archaeological resources on-site. Therefore, impacts related to archaeological resources would be less than significant.

LESS THAN SIGNIFICANT IMPACT

City of Lompoc

Babylon Gardens Indoor Cultivation Facility Project

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

No human remains are known to exist on the project site. While the project site is unlikely to contain human remains and the project does not include any ground disturbing activities, the potential for the recovery of human remains is always a possibility. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance may occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant (MLD). The MLD must complete the inspection of the site and provide recommendations for treatment to the landowner within 48 hours of being granted access. Impacts to human remains would be less than significant.

LESS THAN SIGNIFICANT IMPACT

6	Energy				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
W	Would the project:				
a.	Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?				•
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				•

Energy Setting

The proposed project site is currently connected and provided electric power by the City of Lompoc's Electric Company. The City of Lompoc is a member of the Northern California Power Authority (NCPA), which generates power for its members. The most recent power content label (2021) for the City reports that approximately 26 percent of the power used is eligible as renewable, primarily from geothermal power. Additionally, 8.8 percent of the power is sourced from large hydroelectric and 31.5 percent from natural gas. Coal is not used in generating power for NCPA (City of Lompoc 2020). In 2020, Lompoc provided approximately 126 million kilowatt hours of electricity (CEC 2023). Natural gas would be provided by Pacific Gas and Electric, which provided 4,508 million U.S. Therms of natural gas in 2020.

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The project would not require demolition of existing facilities or construction of new facilities, as the proposed operations would use two existing on-site buildings. Minor site improvement would not require the substantial use of heavy construction equipment or activities such as grading. Therefore, the construction energy demand would be minimal and would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Impacts would be less than significant.

The proposed project would use <u>electricity power from natural gas tofrom the grid to power thegenerate electricity from the proposed microturbine generators</u>, heating and cooling, lighting, and cannabis grow lights, and freezers. In addition, natural gas would be used to power HVAC units. Table 9 shows estimated operational energy estimates of the project.

Table 9 Estimated Energy Use

Source	Energy Consumption		
Operational Electricity	<u>1,479,007</u> 2,177,515 kWh	<u>5,046</u> 7,429 MMBtu	
Operational Natural Gas	<u>2,820,000</u> 6,866,000 kBTU	<u>2,820</u> 6,866 MMBtu	
Total		<u>7,866</u> 4 ,295 -MMBtu	
Notes: Btu = British Thermal Units			
Source: Appendix A			

Operation of the proposed project would consume approximately 1,479,007 2,177,515 kilowatt hours (kWh) of electricity and 2,820,000 208,909 kilo british thermal unit (kBtu) of natural gas per year. The energy and natural gas consumption would not represent a substantial increase in demand as the project would generate electricity from three on-site microturbine generators and would not need energy supplemented from Lompoc's Energy Company. Gasoline would be used for workers driving to the project site. The project would only have 19 full-time workers which likely would be drawn from the local workforce. The energy use from worker trips would not be considered wasteful or inefficient.

The project would be required to adhere to State regulations for cannabis cultivation, contained in Title 3, Division 8, Chapter 1 of the California Code of Regulations, which are related to energy efficiency and conservation. These regulations were not captured in the above estimates as they are to be implemented by cannabis facilities in the State in the coming years. The implementation of these measures, required by law, would further reduce the energy demand for the project's cannabis operations.

The energy demand from the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Construction and operation of the project would increase electricity, and natural gas consumption due to increased vehicle trips and operational energy needs. However, this increased demand would represent a small proportion of demand from energy providers, and the project would be required to comply with applicable regulations related to energy efficiency and conservation. The project would produce its own electricity and the microturbine generators would only generate electricity needed for the proposed cannabis cultivation facility. Therefore, project operation would not result in wasteful or unnecessary energy consumption, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The proposed project would not conflict with, or obstruct, a state or local plan for renewable energy or energy efficiency, including the state's Energy Action Plan II, and its 2008 update, as well as state energy requirements implemented in the California Green Building Code (2019), and the California Energy Code (2019). The project will be required to comply with the 2019 Green Building and CA Energy Codes, and will not conflict with the identified provisions in the Energy Action Plan II and its update.

NO IMPACT

7		Geology and Soi	S			
			Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wc	ould t	he project:				
a.	sub	ectly or indirectly cause potential stantial adverse effects, including the of loss, injury, or death involving:				
	1.	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?			•	
	2.	Strong seismic ground shaking?			_	
	3.	Seismic-related ground failure, including liquefaction?		_	•	
	4.	Landslides?				•
b.		ult in substantial soil erosion or the of topsoil?			•	
C.	is unstance	ocated on a geologic unit or soil that instable, or that would become table as a result of the project, and entially result in on- or off-site delide, lateral spreading, subsidence, efaction, or collapse?			•	
d.	in Ta (199	ocated on expansive soil, as defined able 1-B of the Uniform Building Code 94), creating substantial direct or rect risks to life or property?			•	
e.	suppalte	e soils incapable of adequately porting the use of septic tanks or rnative wastewater disposal systems ere sewers are not available for the posal of wastewater?				•
f.	pale	ectly or indirectly destroy a unique contological resource or site or unique logic feature?	П	П		п

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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?

The proposed project will not result in substantial adverse effects, including the risk of loss injury or death involving the rupture of a known earthquake fault. No major faults are located in, or adjacent to the project site. There are no Alquist-Priolo Faults in the region (DOC 2021). Therefore, adverse effects from fault rupture would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Although the region and site could be subject to strong seismic ground shaking, the proposed project would not directly or indirectly cause potential substantial adverse effects involving strong seismic ground shaking, because the adopted California Building Code stipulates seismic loads must be considered in structural design of buildings. Therefore, as building code compliance is mandatory, the potential for structural impacts on the building will be addressed in project design. Adverse effects from seismic ground shaking would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

The proposed project would not directly or indirectly cause potential substantial adverse effects related to ground failure, including liquefaction. According to the Department of Conservation, the project site is not in a liquefaction zone (DOC 2021). Additionally, the adopted version of the California Building Code requires a soil survey and geotechnical information, with recommendations to address any issues related to soil instability. The code requires all recommendations of these studies to be followed in construction. Therefore, adverse effects from seismic-related ground failure would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The proposed project would not directly or indirectly cause potential substantial adverse effects related to landslides, as the subject property is flat and is surrounded by similarly flat parcels, without significant elevation changes. Additionally, it is not in a landslide zone (DOC 2021). There would be no adverse effects from landslides.

NO IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

The proposed project will not result in substantial soil erosion or the loss of topsoil, as the proposed project site is flat and paved. Additionally, the project will not involve outdoor soil disturbing construction activities. Soil erosion impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The proposed project is to be located on a flat site, on land that is generally stable, and located away from slopes or topographic changes. The proposed project will not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse and impacts would be less than significant (see response to a.3. above).

LESS THAN SIGNIFICANT IMPACT

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

Substantial direct or indirect risks to life or property will not result from the proposed project due to the presence of expansive soils. Expansive soil risk is low in the project area based on similar properties. Additionally, the project does not include soil disturbing construction or propose new onsite structures. Therefore, risks from expansive soil would be less than significant.

LESS THAN SIGNIFICANT IMPACT

e. Would the project 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?

There would be no impacts as the proposed project would not use septic tanks and would be served by the existing sanitary sewer.

NO IMPACT

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The proposed project will not directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature, as there is no evidence of paleontological resources on-site, and similar resources have not been identified on adjacent properties in development. No unique geologic features are present on the flat, developed site. The proposed project would not involve ground disturbing activities which could impact unknown resources or features. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

City of Lompoc Babylon Gardens Indoor Cultivation Facility Project
This page intentionally left blank.

8	8 Greenhouse Gas Emissions				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project:				
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	0			
b.	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse				
	gases?				

Greenhouse Gases and Climate Change Setting

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of Greenhouse Gases (GHG) emissions contributing to the "greenhouse effect," a natural occurrence which takes place in Earth's atmosphere and helps regulate the temperature of the planet. The majority of radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and from human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of a specific GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2021).

The United Nations IPCC expressed that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report (2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, that a total of 2,390 gigatons of anthropogenic CO_2 was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07

degrees Celsius between the years 2010 through 2019 (IPCC 2021). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature. Potential climate change impacts in California may include loss of snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (California Natural Resource Agency 2019).

Significance Threshold

Based on Appendix G of the CEQA Guidelines, impacts related to GHG emissions from the project would be significant if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (*CEQA guidelines*, Section 15064[h][1]).

According to the state CEQA guidelines, projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the proposed project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (2016) in its white paper, *Beyond Newhall and 2020*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions. The City of Lompoc nor the State has adopted a numerical significance threshold for assessing impacts related to GHG emissions.

In January 2021, Santa Barbara County amended their Environmental Thresholds and Guidelines Manual. The adopted Guidelines include an industrial stationary source GHG emissions threshold of 1,000 MT CO₂e per year, as shown in Table 10, which applies to industrial stationary sources subject to discretionary approvals (Santa Barbara County 2021). The threshold applies to both direct and indirect emissions. According to the Environmental Thresholds and Guidelines Manual, direct emissions encompass the projects complete operations, including stationary and mobile sources. Indirect emissions encompass GHG emissions that are associated with electricity, water, and solid waste.

<u>Table 10 Santa Barbara County GHG Emissions Thresholds</u>

GHG Emission Source Categories	Operational Emissions	
Stationary Source Industrial Projects	1,000 MT CO₂e per year	
Source: Santa Barbara County 2021		
Stationary Sources include land uses that would accommodate processes and equipment that emit GHG emissions and would require at Air District permit to operate.		

The City of Lompoc is located in Santa Barbara County and shares meteorological attributes, as well as similar land use patterns and policies, and thresholds deemed applicable in Santa Barbara County would also reasonably apply to projects within the City of Lompoc. The proposed project would require permitting from SBCAPCD related to mechanical equipment proposed and would require discretionary approval. Therefore, the City has determined the Santa Barbara County industrial stationary source threshold is appropriate for the proposed project. In addition, the proposed project is evaluated based on consistency with the 2022 Scoping Plan and SBCAG 2050 RTP/SCS for the purposes of reducing GHG emissions and mitigating the effects of climate change.

Methodology

Calculations of CO_2 , CH_4 , and N_2O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO_2 , CH_4 , and N_2O because these make up 98 percent of all GHG emissions by volume and are the GHG emissions the project would emit in the largest quantities (IPCC 2014). Emissions of all GHGs are converted into their equivalent GWP in terms of CO_2 (i.e., CO_2e). Minimal amounts of other GHGs (such as chlorofluorocarbons) would be emitted; however, these other GHG emissions would not substantially add to the total GHG emissions. GHG emissions associated with project construction and operation were estimated using CalEEMod, version 2022.1, with the assumptions described under Section 3, *Air Quality*, in addition to the following:

- The analysis uses CalEEMod default assumptions for solid waste and area sources for indoor cultivating facility.
- Based on an average indoor cannabis cultivation water use rate of 209 gallons per square feet per day, the project would require approximately 4,0089,161 gallons per day of water. Therefore, approximately 1,254,504 2,867,393 gallons of water per year would be required.
- The project would consume up to 1.48 2.16 million kilowatt-hours of electricity per year.
- The Association of Environmental Professionals (2016) has recommended amortizing construction-related emissions over a 30-year period in conjunction with the proposed Project's operational emissions since construction emissions occur for a limited period of a project's lifetime.
- a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

The proposed project involves the use an existing building for a commercial cannabis cultivation, processing, and distribution operation. The project would not require demolition of existing facilities or the use of substantial heavy construction equipment. Total construction emissions anticipated from the minor building improvements a new parking lot is approximately $6\underline{6}4$ MT CO_2e . Amortized construction emissions (2 MT of CO_2e) are the annual construction emissions spread over the anticipated 30-year project lifetime. Construction emissions are added to operational emissions and the total annual project emissions are compared with the regulatory threshold.

Total annual operational GHG emissions associated with the proposed project are shown in Table 11. As shown, the project would generate approximately $\underline{335}$ $\underline{1,337}$ MT CO₂e per year from amortized construction, stationary, area, energy, waste, water usage, and mobile emission sources. This would \underline{not} exceed the established threshold of $\underline{1,000}\underline{10,000}$ CO₂e MT per year. Therefore, project impacts would be less than significant. are potentially significant and require mitigation.

Table 11 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO	0₂e MT)
Construction Amortized	2	
Operational	<u>333</u> 2,335	
Mobile	<u>919</u>	
Area	<1	
Energy	<u>306</u> 815	
Water	<u>2</u> 5	
Waste	<u>3</u> 8	
Refrigerant	<u>≤</u> 1	
Generators	1 <u>3</u> 1,487	
Total	<u>335</u> 2,337	
Santa Barbara County Three SBCAPCD Threshold	<u>1,000</u> 10,000	
Exceed Threshold?	<u>No</u> Yes	
See Appendix A for CalEEMod works	neets. Values may not add directly	y due to rounding.

Mitigation Measures

GHG-1 GHG Emissions Reduction Plan

Prepare a GHG Reduction Plan (GHGRP) that reduces annual project GHG emissions by an amount determined to be at, or below, the GHG threshold value at the time of project approval. A qualified professional air quality consultant shall prepare the GHGRP for submittal to the Planning Division for review. The qualified professional air quality consultant shall certify the GHGRP, as implemented, either solely or in combination with mitigation credits or carbon off sets, will reduce GHGs by the required $\underline{652,338}$ MT of $\underline{CO_{2}e}$ per year. The GHGRP shall be designed to reduce GHG emissions through measures, including but not limited to, the following:

- Installation of renewable energy facilities (e.g., solar photovoltaics);
- Construction of buildings that achieve energy and water efficiencies beyond those specified in the California Code of Regulations, Title 24 requirements;
- Implementation of energy efficient building design exceeding California Building Code requirements;
- Installation of energy-efficient equipment and appliances exceeding California Green Building Code standards;
- Installation of outdoor water conservation and recycling features, such as smart irrigation controllers and reclaimed water usage, exceeding the water efficient landscape ordinance (WELO) requirements;
- Installation of low-flow bathroom and kitchen fixtures and fittings;
- Installation of light emitting diode (LED) lights;
- Provision of incentives and outreach for future employees to promote alternative transportation and transit use;
- Promotion of alternative fuel vehicles;

- Increased provision of EV charging parking spaces beyond required;
- Off-site mitigation fees paid to SBCAPCD or other implementing agencies to implement local GHG reduction projects. Projects may include, but are not limited to, replacement of diesel school and/or urban buses with battery electric or fuel cell electric buses, installation of electric vehicle charging stations, retrofits of existing buildings to improve energy efficiency, installation of rooftop solar on existing buildings, and installation of residential and/or commercial battery energy storage systems. The final amount of off-site mitigation fees shall be determined based on accepted methodologies for assessing the per-unit cost of GHG emissions in Santa Barbara County;
- Purchase of GHG mitigation reduction credits, and
- Obtain and retire carbon offsets.

Prior to occupancy, written, as built verification, by the qualified air quality professional shall be submitted to the Planning Division, certifying all implementation measures included in the approved GHG reduction plan have been properly and fully implemented. The verification shall be signed and dated by the qualified air quality professional.

Significance After Mitigation

Implementation of Mitigation Measure GHG-1 would reduce project-related emissions below the threshold of significance of 1,000 MT of CO_2e per year. Impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT IMPACT

b. Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The City of Lompoc has not adopted a Climate Action Plan. The County of Santa Barbara Planning Commission adopted the Energy and Climate Action Plan (ECAP) for the County of Santa Barbara in May 2015 (County of Santa Barbara 2015). In addition, a draft 2030 Climate Action Plan for the County of Santa Barbara has been released. However, this plan applies to unincorporated areas of Santa Barbara County and not incorporated cities such as Lompoc. SBCAG has incorporated a sustainable community strategy into its Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) plan, which is designed to help the region achieve its SB 375 GHG emissions reduction target. The SBCAG 2050 RTP/SCS demonstrates that the SBCAG region would achieve its regional emissions reduction targets for the 2020 and 2035 target years. The RTP/SCS includes an objective to improve the jobs-housing ratio in the County by encouraging more housing development on the South Coast and more job-producing development in the North County, including the City of Lompoc. The project would include a cannabis cultivation, manufacturing, and processing facility that would employ up to 49 people full-time which would likely be drawn from the local workforce. As such, the project would be consistent with the RTP/SCS by creating job opportunities in Lompoc.

The 2022 Scoping Plan outlines a pathway to achieving the 2030 reduction targets set under SB 32 and achieve carbon neutrality by 2045. As discussed under a), the project's GHG emissions would not exceed the identified industrial stationary source GHG emissions threshold of 1,000 MT CO₂e per year based on Santa Barbara County 2030 GHG reduction targetthreshold. As a result, the project would not potentially conflict with the reduction targets of 2022 Scoping Plan, and impacts would be less than significant. Potentially significant. These impacts would be mitigated to less than significant through Mitigation Measure GHG-1, which includes energy efficient design components, off-site

City of Lompoc

Babylon Gardens Indoor Cultivation Facility Project

mitigation, and funding activities that reduce or sequester GHG emissions. Mitigation measures such as increased EV charging parking spaces, promote alternative transportation and transit use, and installing energy efficient appliances would be consistent with the objectives in the 2022 Scoping Plan. As a result, the project would not conflict with the reduction targets of 2022 Scoping Plan, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

Hazards and Hazardous Materials Less than Significant **Potentially** with Less than Significant Mitigation Significant **Impact** Incorporated **Impact** No Impact Would the project: 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 0.25 mile of an existing or proposed school? d. Be located on a site that is included on a list of hazardous material 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 in 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?

- a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b. Would the project 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?

The project would involve conversion of the buildings A and B (shown in Figure 2) to a commercial cannabis cultivation, processing, and storage facility. The cultivation and processing of cannabis would require the use and storage of minimal amounts of potentially hazardous materials such as diesel fuel for emergency power equipment, fertilizers, and cleaners, solvents, and pesticides. Appropriate documentation for hazardous waste that is transported, stored, or used in connection with specific project-site activities would be provided as required for compliance with existing hazardous materials regulations codified in the California Code of Regulations (CCR). Operation of the proposed cannabis cultivation and processing facility would not involve the routine transport, use, or disposal of hazardous materials in quantities or conditions that would pose a hazard to public health and safety or the environment, as detailed below. Cultivation of cannabis would require the use of fertilizers, pesticides, and other agricultural chemicals. These substances would be handled pursuant to applicable state and local regulations and policies. Specifically, the operator would comply with all pesticide laws and regulations enforced by the California Department of Pesticide Regulation and California EPA for application and storage protocols. In addition, the Occupational Safety and Health Administration (OSHA) regulates permitted businesses to ensure the health and safety of employees from occupational hazards. The project would be required to comply with all OSHA requirements for the safety of employees.

Organic cannabis waste would be stored in a locked trach container pursuant to cannabis regulations in the California Code of Regulations. Cannabis and cannabis byproduct waste material would be made unusable and unrecognizable prior to leaving the facility which includes removing or separating the cannabis goods from its packaging or container, and rendering it unrecognizable and unusable pursuant to the California Code of Regulations Title 16 Division 42.

With required compliance with existing regulations, the project would not create a significant hazard to the public or environment and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The nearest school is La Canada Elementary School approximately 1.2 miles southeast of the project site. As discussed under impact a, and b above, the project would not involve the routine transport, use or disposal of hazardous materials in quantities or conditions that would pose a hazard to nearby schools. Therefore, impacts from handling hazardous materials within 0.25 mile of a school would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project be located on a site that is included on a list of hazardous material 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?

Review of online sources, including the State Water Resources Control Board GeoTracker database and Department of Toxic Substances Control EnviroStor database determined the project is not located on a hazardous materials site. There would be no impact.

NO IMPACT

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?

According to the City of Lompoc Airport Master Plan (LAMP), the project site is located within the LAMP plan area (SBCAG 2019). However, the proposed project would not involve uses that would direct light at an aircraft, cause sunlight to be reflected at an aircraft, generate smoke or otherwise affect safe air navigation, or generate electrical interference. In addition, the City's General Plan and proposed land uses and height restrictions have been reviewed for compliance with the LAMP. The project is consistent with the existing land use and would not add new structures or increase the height of existing buildings. Therefore, the project would not result in additional safety hazards for people residing or working in the project area. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

f. Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

The proposed site is developed with three existing industrial buildings with existing paved roadway access off W Central Avenue. The project would not interfere with any emergency response plan or evacuation plan and route. No construction requiring lane closures would occur. The facility would be equipped with fire detection, alarm systems and fire sprinklers, with fire extinguishers provided throughout the facility. There would be no impacts to an emergency response or evacuation plan.

NO IMPACT

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

As discussed in Section 20, *Wildfire*, the project site is not located near areas designated to have significant risks of wildland fires. There would be no impact.

NO IMPACT

City of Lompoc Babylon Gardens Indoor Cultivation Facility Project		
This page intentionally left blank.		

10 Hydrology and Water Quality Less than Significant **Potentially** with Less than Significant Mitigation Significant **Impact** Incorporated **Impact** No Impact Would the project: a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? П П b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) Result in substantial erosion or siltation on- or off-site; П П (ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; П П П (iii) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or (iv) Impede or redirect flood flows? П П 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?

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Construction

The proposed project would involve re-use of the existing on-site building for proposed cannabis cultivation and processing operation. Project construction would not involve ground-disturbing activities or use of heavy construction equipment. There would be no alteration of the existing drainage pattern of the site or activities that would cause soil erosion or increase sediment loads in storm water run-off resulting from exposed or disturbed soil. Impacts during construction would be less than significant.

Operation

The project site is entirely developed with three existing industrial buildings, a paved parking lot, a paved driveway, and is entirely impervious with the exception of existing landscaped areas. The proposed project would not increase the total area of impervious surfaces on the project site and would not result in a greater potential to introduce pollutants to receiving waters.

Operation of the cultivation facility would use and discharge <u>all</u> water into the City's wastewater system. The project would also be subject to Lompoc Municipal Code (LMC) Chapter 13.32, Storm Water Quality Management, which addresses discharge prohibitions regulations, authority to inspect, and enforcement of storm water quality violations. <u>If such discharge of pollutants were to be found to have occurred, or may occur to the stormwater, the storm drain system, or and State waters, the City may order the owner or the responsible party to remediate and restore the property at their expense.</u>

Lompoc's water has higher levels of salts and Lompoc's Regional Wastewater Reclamation Plant is currently just below its waste discharge limit for sodium and TDS. If brine were discharged into the wastewater system this could cause a potential exceedance of water quality standards in surface and subsequently in lower basin groundwater. In addition, discharge of brine or filtration water to the City's storm drain system would have the potential to cause impacts to surface and ground water quality. Therefore, impacts to water quality would be potentially significant and would require mitigation.

Mitigation Measures

HWQ-1 Discharge Requirements

Brine used in or generated from the project shall not be discharged to Lompoc's Wastewater Reclamation Plant through the City's sanitary sewer system or discharged to Lompoc's Storm Drain System. If the project will require the disposal of brine water, the applicant shall provide a disposal plan to the City Utilities Department prior to certificate of occupancy. Non-domestic wastewater from this project that will be discharged to the Lompoc Wastewater Reclamation Plant will comply with all applicable requirements of the LMC Chapter 13.16 (Sewer System) and the conditions of any wastewater discharge permit issued by the City.

Significance After Mitigation

Implementation of Mitigation Measure HWQ-1 would reduce project-related impacts to water quality to less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The City of Lompoc Water Division would provide water to the project site primarily through pumping of groundwater from the Lompoc Plain Basin. As discussed in the 2020 Urban Water Management Plan (UWMP), the City is committed to the sustainable management of groundwater and must implement its Groundwater Management Plan (City of Lompoc 2020). As discussed in Chapter 7, Water Service Reliability and Drought Risk Assessment of the UWMP, the City expects to meet water demands under normal, single-dry, and five-consecutive year drought conditions. In addition, as discussed in Section 19, *Utilities and Service Systems*, the Water Division has sufficient supplies to service the project during normal and dry years. Therefore, water demand from the project would not substantially deplete groundwater supply.

The proposed project does not include installation of new groundwater wells or use of groundwater from existing wells. The project would not increase impervious surfaces since the site is building and site are already developed. Therefore, the proposed project would not substantially interfere with groundwater recharge. Impacts related to groundwater would be less than significant.

LESS THAN SIGNIFICANT IMPACT

- c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?
- c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
- c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?
- c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

The project site is currently developed and consists of entirely impermeable surfaces with the exception of existing landscaped areas. The project would not change existing drainage patterns or create additional impervious areas. Additionally, the project site is located outside of FEMA designated flood zones, in Zone X which is considered an area of minimal flood hazard (FEMA 2021). There would be no impacts to drainage patterns.

NO IMPACT

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The project site is located approximately ten miles from the coast and in a relatively flat area. Impacts from tsunami or a seiche are not expected. According to the Federal Emergency Management Agency (FEMA), the project site is located in Zone X which is considered an area of minimal flood hazard and is outside of FEMA designated flood zones (FEMA 2021). There would be no impacts.

NO IMPACT

f. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Construction of the project would involve primarily interior redevelopment which would not disturb soil which would impact water quality. The project would be required to comply with applicable regional and City regulations related to water quality. In addition, the project would be conditioned to properly dispose of process water and salts, pursuant to applicable laws and wastewater pretreatment requirements and prohibitions. In addition, the project would be required to implement Mitigation Measure HWQ-1 which would reduce project-related impacts to water quality to less than significant. Therefore, the project would not conflict with or obstruct implementation of the Central Coast RWQCB Water Quality Control Plan.

The project site is located in the southwestern management area of the Santa Ynez River Valley Groundwater Basin, which is a medium priority basin under the Sustainable Groundwater Management Act (California Department of Water Resources 2022). As discussed under Impact b, the project would not impact groundwater supplies or the sustainable management of groundwater in the area. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

1	11 Land Use and Planning				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project:				
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?				

a. Would the project physically divide an established community?

The project site is developed with three industrial buildings and located within the existing City limits in an urbanized area of the City of Lompoc. The project site is surrounded by industrial uses to the north, east, and south as well as residential uses to the south. The project does not include new roadways or similar linear features that would block movement between, or within, established communities, and would not separate connected land uses, neighborhoods, or other areas from each other. No impacts would occur.

NO IMPACT

b. Would the project 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?

Lompoc General Plan

The project site has a land use designation of Industrial (I). As described in the City's General Plan, the I designation is applied for a wide range of industrial uses that may involve outdoor uses.

Typical uses and activities identified include manufacturing, assembling, mechanical repair, product storage, wholesale trade, heavy commercial (e.g. lumber yards), and accessory office and services (City of Lompoc n.d.).

The proposed cannabis facility would be consistent with industrial manufacturing and distribution type uses allowed in the I land use. The existing buildings on site are consistent with this zoning and there is no exterior or significant structural construction proposed as part of the project. Therefore, the project would be consistent with the parcel's General Plan designation. The City's General Plan identifies goals and policies to guide land use patterns to strategically accommodate future growth while preserving and enhancing the City as a whole. The proposed project's consistency with the City's applicable land use policies is described in Table 12.

Table 12 General Plan Land Use Element Consistency

General Plan Goal or Policy	Proposed Project Consistency
Policy 2.2. The City shall protect residential neighborhoods from encroachment by adverse or incompatible non-residential uses (for example, new intensive agriculture or industry) and impacts associated with non-residential uses, including impacts to neighborhood character and public health	Consistent. The project would be consistent with the land use and zoning designations. As described throughout this document, specifically related to air quality, noise, and hazards and hazardous materials, the project would not create significant impacts to nearby residences.
Policy 3.1. The City shall ensure that a sufficient and balanced supply of land continues to be available for residential, commercial, and industrial uses, with priority given to underdeveloped and vacant land within the City boundaries.	Consistent. The project would be consistent with the site's land use designation and would retain the use of the site as an industrial land use.
Policy 3.3. The City shall protect existing commercially-and industrially-designated lands to ensure adequate space for non-residential development, to attract new business and employment centers, and to help achieve a jobs to housing balance in the City.	Consistent. The project would retain the industrial use consistent with the City's land use plan.

Lompoc Zoning Ordinance

The project site is zoned Industrial (I), which permits cannabis cultivation, manufacturing, and testing, uses as shown in Table 17.216.030A of the LMC. The project would not increase the height of existing one-story structures which are currently less than the maximum height standards of three stories, 35 feet. Therefore, the project would not conflict with the City's General Plan or zoning ordinance. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

12	2 Mineral Resource	es :				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	
Wo	Would the project:					
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	П	П	П	_	
	use plan?		Ц			

- a. Would the project 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. Would the project 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?

The project site is not located near any known material mineral resources and development of the project site would not result in a loss of availability of a locally-important or known mineral resource, as mapped by the California Geologic Survey's Mineral Land Classification (DOC 2022b). No impact would occur.

NO IMPACT

City of Lompoc Babylon Gardens Indoor Cultivation Facility Project					
This page intentionally left blank.					

13	13 Noise					
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	
W	ould the project result in:					
a.	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			•		
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?				•	

Overview of Sound Measurement

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz and less sensitive to frequencies around and below 100 Hertz (Kinsler, et. al. 1999). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease.

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not "sound twice as loud" as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (8 times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud.

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line, the path the sound will travel, site conditions, and obstructions). Noise levels from a point source typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance (e.g., construction, industrial machinery, ventilation units). Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site, such as a parking lot or smooth body of water, receives no additional ground attenuation and the changes in noise levels with distance (drop-off rate) result from simply the geometric spreading of the source. An additional ground attenuation value of 1.5 dBA per doubling of distance applies to a soft site (e.g., soft dirt, grass, or scattered bushes and trees) (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features such as hills and dense woods, and man-made features such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to noise as well. The FHWA's guidelines indicate that modern building construction generally provides an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows.

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. One of the most frequently used noise metrics is the equivalent noise level (L_{eq}); it considers both duration and sound power level. L_{eq} is defined as the single steady A-weighted level equivalent to the same amount of energy as that contained in the actual fluctuating levels over time. Typically, L_{eq} is summed over a one-hour period.

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (L_{dn}), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 dBA, while areas near arterial streets are in the 50 to 60-plus CNEL range. Normal conversational levels are in the 60 to 65-dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (FHWA 2018).

Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent structures. The number of cycles per second of oscillation makes up the vibration frequency, described in terms of Hz. The frequency of a vibrating object describes how rapidly it oscillates. While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hz), or when foundations or utilities, such as sewer and water pipes, physically connect the structure and the vibration source (Federal Transit Administration [FTA] 2018).

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. High-frequency vibrations diminish much more rapidly than low frequencies, so low frequencies tend to dominate the spectrum at large distances from the source. Discontinuities in the soil strata can also cause diffractions or channeling effects that affect the propagation of vibration over long distances (Caltrans 2020). When a building is impacted by vibration, a ground-to-foundation coupling loss will usually reduce the overall vibration level. However, under rare circumstances, the ground-to-foundation coupling may actually amplify the vibration level due to structural resonances of the floors and walls.

Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS) vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings (Caltrans 2020).

Sensitive Noise Receivers

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. According to the City of Lompoc Noise Element, the following land uses are considered noise-sensitive: residences, schools, hotels/motels, and open space (City of Lompoc 2014).

Vibration-sensitive receivers, which are similar to noise-sensitive receivers, include residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas. Vibration-sensitive receivers also include buildings where vibrations may interfere with vibration-sensitive equipment that is affected by vibration levels that may be well below those associated with human annoyance (e.g., recording studies or medical facilities with sensitive equipment).

The nearest sensitive receivers include the single-family residences approximately 100 feet to the south of the project site boundary.

Noise Setting

Noise in the project area is dominated by vehicle traffic noise on Central Avenue. According to Figure N-2 of the General Plan Noise Element, future (year 2030) 70 dB, 65 dB, and 60 dB noise level contours from the roadway extend 48, 105, and 226 feet from the roadway centerline, respectively. The roadway centerline is approximately 50 feet from the project boundary. Therefore, the project site is just outside of the 70 dB noise level contour.

The Noise Element contained in the City's General Plan contains noise guidelines and policies that establish acceptable noise levels for different land uses. The General Plan states that the maximum exterior sound level acceptable in manufacturing/industrial land uses are 65 L_{dn} for interior noise and 75 L_{dn} for exterior noise and 45 L_{dn} for interior noise and 60 L_{dn} for exterior noise for residential uses.

a. Would the project result in 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?

Construction Noise

Construction noise was estimated using the FHWA Roadway Construction Noise Model (RCNM) (FHWA 2006). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Using RCNM, construction

noise levels were estimated at noise sensitive receivers near the project site. RCNM provides reference noise levels for standard construction equipment, with an attenuation rate of 6 dBA per doubling of distance for stationary equipment.

Variation in power imposes additional complexity in characterizing the noise source level from construction equipment. Power variation is accounted for by describing the noise at a reference distance from the equipment operating at full power and adjusting it based on the duty cycle of the activity to determine the L_{eq} of the operation (FHWA 2018). Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase. Each phase also has its own noise characteristics; some will have higher continuous noise levels than others, and some have high-impact noise levels.

Construction activity would result in temporary noise in the project site vicinity, exposing surrounding nearby receivers to increased noise levels. Typical heavy construction equipment during project construction could include dozers, backhoes, graders, and cranes. It is assumed that diesel engines would power all construction equipment. Construction equipment would not all operate at the same time or location. In addition, construction equipment would not be in constant use during the 8-hour operating day. Therefore, for this analysis it was assumed two pieces of equipment, a dozer and a backhoe, would operate simultaneously.

The nearest sensitive receivers are single-family residences south of the project site. Over the course of a typical construction day, construction equipment would be located as close as 100 feet to the properties but would typically be located at an average distance farther away due to the nature of construction and the lot size of the project. For example, during a typical construction day, the equipment may operate across the horizontal distance of the site (100 to 500 feet) from a nearby noise receiver. Therefore, it is assumed that over the course of a typical construction day the construction equipment would operate at an average distance of 300 feet from the single-family residences.

At a distance of 300 feet, a dozer and a backhoe are estimated at a noise level of 63.6 dBA L_{eq} at the exterior of nearby residential sensitive receptors, which would exceed the land use compatibility standard of 60 L_{dn} . (calculations are included in Appendix B). However, the residences to the south have an existing, approximately 6-foot-tall CMU block wall at the property line that would attenuate construction noise. Per the most conservative FHWA reduction for shielding, the CMU wall would result in at least a 5 dBA reduction (FHWA 2011). Therefore, exterior noise levels would be approximately 57.6 dBA L_{eq} and would not exceed the land use compatibility standard of 60 L_{dn} . In addition, FHWA's guidelines indicate that typical structures provide an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows. Thus, construction activities would also not exceed interior noise compatibility standard of 45 L_{dn} . Construction activities would also comply with Section 8.08 of the LMC which regulates construction noise between the hours of 9:00 p.m. and 7:00 a.m. Construction noise impacts would be less than significant.

Operation

Stationary Noise Sources

Noise sources associated with operation of the proposed project would consist of low speed on-site vehicular noise, landscaping maintenance, general conversations, emergency generator, and mechanical equipment (e.g., heating, ventilation, and air conditioning (HVAC). Due to the distances and intermittent noise levels associated with general site activities, on-site traffic, and landscape maintenance, these sources are not considered substantial and are not analyzed further. Therefore,

noise modeling was focused on the emergency generator and mechanical equipment. The assessment methodology assumes that all receivers would be downwind of stationary sources. This is a conservative assumption for total noise impacts since only some receivers would be downwind at any one time. Each point source was assumed to attenuate at 6 dBA per doubling of distance. All point sources were summed for cumulative noise exposure to nearby sensitive receivers. In addition, the single-family residences to the south have an existing, approximately 6-foot-tall CMU block wall at the property line that would also attenuate noise; a 5 dBA reduction was assumed for the equipment located on the ground (i.e., the emergency generator and mechanical air rotation units) from this wall per the most conservative FHWA reduction for shielding (FHWA 2011). Specific inputs for mechanical equipment and the emergency generator are discussed below.

MECHANICAL EQUIPMENT

Mechanical equipment used on the project would include <u>9</u> <u>18</u> HVAC units, with <u>11</u> models being an Inspire <u>35T</u> and <u>87</u> models being an Inspire <u>205T</u>. The units would be located on the ground level on the western <u>side of the western building</u> and on the northern side of <u>both the</u> buildings. The distance of the units to the nearest sensitive receivers to the south would range from 180 feet to 285 feet. An Inspire <u>35T</u> generates a sound power level of 92.1 dBA; this noise level was conservatively assumed for all <u>35T</u> and <u>205T</u> models. A 5 dBA attenuation from the project's buildings for the <u>11</u> units located on the northern side of the project buildings was assumed to the residences to the south.

GENERATOR

The project would use three Capstone C1000S generators; each unit one Tier 4 JCB model G625RS generator that would generate a noise level of 65 dBA at 10 meters 72 dBA at 23 feet. The distance of the units to the nearest sensitive receivers to the south would range from 190 feet to 285 feet. A 5 dBA attenuation from the project's buildings for the one generator located on the northern side of the project buildings was assumed to the residences to the south. As shown in Table 13, the proposed generator noise levels noise levels do not exceed the City's exterior or interior noise levels at the nearby residential or industrial property lines or interiors. Impacts would be less than significant.

STATIONARY NOISE LEVELS

Noise levels from project stationary equipment at the nearest exterior areas, the single-family residences to the south, are shown in Table 13. As shown in Table 13, the project's combined operational noise levels do not exceed the City's exterior or interior noise levels. Impacts would be less than significant.

Table 13 Operational Noise Levels

	Noise Levels (dBA Ldn) ¹				
Receiver	Mechanical Equipment	Generator	Combined Exterior Noise Levels	Combined Interior Noise Levels ²	Exceed Thresholds?
Single Family Residential to the South	58	54	60	40	No

¹ Noise levels account for a 5 dBA reduction from the concrete wall on the northern edge of the single-family residential properties, and a 5 dBA attenuation for the 11 HVAC units and one generator located on the northern side of the project buildings from building attenuation.

² Interior noise-levels assumed a 20 dBA reduction, per FHWA guidelines (FHWA 2011).

 $^{^3}$ Applicable thresholds include residential exterior noise thresholds of 60 dBA L_{dn} at property line and interior noise thresholds of 45 dBA L_{dn} . Also noise thresholds include 75 dBA L_{dn} at industrial land use property line.

Off-site Traffic Noise

A significant impact would occur if project-related traffic increases the ambient noise by 5 dBA or more in the City of Lompoc. The project would generate new vehicle trips that would increase noise levels on nearby roadways. With 2.5 trips assumed per employee and 49 total employees, it was assumed the project would add 23 48 trips to Central Avenue. A previous traffic study conducted for a cannabis facility nearby determined that there were 854 PM peak hour trips on Central Avenue (Associated Transportation Engineers 2020). Assuming half of the project trips occur during the PM peak hour, this increase in traffic would result in a 0.1 dBA noise increase, well below the 5 dBA increase threshold. Therefore, traffic noise impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

The project does not include any substantial vibration sources associated with operation. Thus, construction activities have the greatest potential to generate ground-borne vibration affecting nearby receivers, especially during grading and excavation of the project site. The greatest vibratory source during construction in the project vicinity would be a large bulldozer. Neither blasting nor pile driving would be required for construction of the project. Construction vibration estimates are based on vibration levels reported by FTA (FTA 2018). Table shows typical vibration levels for various pieces of construction equipment used in the assessment of construction vibration (FTA 2018).

Table 14 Vibration Levels Measured during Construction Activities

Equipment	PPV at 25 ft. (in/sec)	
Large Bulldozer	0.089	
Loaded Trucks	0.076	
Small Bulldozer	0.003	
Source: FTA 2018		

Maximum recommended vibration limits by the American Association of State Highway and Transportation Officials (AASHTO) are identified in Table 15. Based on AASHTO recommendations, limiting vibration levels to below 0.2 In/sec PPV at residential structures would prevent structural damage regardless of building construction type. These limits are applicable regardless of the frequency of the source.

Table 15 AASHTO Maximum Vibration Levels for Preventing Damage

Type of Situation	Limiting Velocity (in/sec)	
Historic sites or other critical locations	0.1	
Residential buildings, plastered walls	0.2–0.3	
Residential buildings in good repair with gypsum board walls	0.4–0.5	
Engineered structures, without plaster	1.0–1.5	
Source: Caltrans 2013		

A dozer creates approximately 0.089 in/sec PPV at a distance of 25 feet. A dozer may be used within 100 feet of the nearest off-site structure; at this distance, vibration levels would be 0.019 in/sec PPV. This would be lower than the structural damage impact of 0.20 in/sec PPV. Therefore, temporary impacts associated with construction would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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?

Lompoc City Airport is the nearest public airport, located approximately 1,000 feet to the north of the project site. According to the noise compatibility contours figure for Lompoc City Airport in the Santa Barbara County Airport Land Use Compatibility Plan (Santa Barbara County Airport Land Use Commission 2019), the project site is located outside the airport's 65 CNEL noise contour. Therefore, no substantial noise exposure from airport noise would occur to construction workers, users, or employees of the project, and no impacts would occur.

NO IMPACT

City of Lompoc Babylon Gardens Indoor Cultivation Facility Project					
	This page intentionally left blank.				
	This page intentionally left blank.				
	This page intentionally left blank.				
	This page intentionally left blank.				
	This page intentionally left blank.				
	This page intentionally left blank.				
	This page intentionally left blank.				
	This page intentionally left blank.				
	This page intentionally left blank.				
	This page intentionally left blank.				
	This page intentionally left blank.				
	This page intentionally left blank.				

14	14 Population and Housing					
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact	
Wo	ould the project:					
a.	Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?			-		
b.	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				•	

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The proposed project does not involve the construction of new housing which would lead to a direct population increase. The project would include a cannabis cultivation, manufacturing, and processing facility that would employ up to 19 people full-time. The increase in employment opportunities would not result in a substantial increase in population, as it is anticipated that most employees would come from the regional workforce. Therefore, the project is not anticipated to induce substantial population growth. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The project site is in an already developed area that has been intended for development in the City's General Plan. There are no residential uses on the project site. The project would not displace people or housing, necessitating the construction of replacement housing elsewhere. Therefore, there would be no impact.

NO IMPACT

City of Lompoc Babylon Gardens Indoor Cultivation Faci	lity Project	
This as	ige intentionally left blank.	
inis pa	ge memorally rejestant.	
inis pa	ge memonany reje arama	
inis pa	ge memonany reje biank.	
This pa	ge memonany reje arama	
This pa	ge memonany reje biania	
This pa	ge memonany reje biania	
This pa	ge memorally reje blank.	
This pa	ge memorally reje blank.	
This pa		
This pa		
This pa		
This pa	ge memorally reje blank.	

15	5	Public Services				
			Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	adv the gov nev fac cau in c rat per	buld the project result in substantial werse physical impacts associated with a provision of new or physically altered wernmental facilities, or the need for w or physically altered governmental ilities, the construction of which could use significant environmental impacts, order to maintain acceptable service ios, response times or other rformance objectives for any of the blic services:				
	1	Fire protection?			•	
	2	Police protection?			•	
	3	Schools?			•	
	4	Parks?			•	
	5	Other public facilities?			•	

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The Lompoc Fire Department would provide fire protection and emergency services to the project site. The nearest fire station to the site is Lompoc Fire Station #2, which is approximately 1.7 miles east of the project site at 1100 N. D Street. Fire Station #1, approximately 2.8 miles southeast of the project site at 115 S. G Street, would provide secondary response services.

The project would involve establishing a cannabis facility within two one existing industrial buildings. The project site is located in a developed, industrial area already served by Lompoc Fire Department. In addition, the City of Lompoc adopted the most recent California Fire and Building Codes in LMC Title 15, and the project would be required to comply with requirements for fire access and on-site fire prevention facilities. While the project would incrementally increase the demand for fire and emergency response services in the area, the proposed cannabis facility would be consistent with surrounding uses and would not place an unanticipated burden on fire protection services or affect response times or service ratios such that new or expanded fire facilities would be needed. Impacts on fire services would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The Lompoc Police Department would provide law enforcement and safety services to the project site. The Lompoc Police Department is located approximately three miles southeast of the project site at 107 Civic Center Plaza. As discussed under Impact a.1. above, the project involves the use of two one existing industrial buildings as a cannabis facility, which could increase the demand for police services in the area as cannabis facilities could generate police service calls such as for burglaries and theft. The project site and surrounding area are currently served by Lompoc Police Department. The project is consistent with the existing land use designation, which includes industrial uses as specified in the City's General Plan. In addition, the project would have a security cameras and on site security personnel to check persons entering the site, which would help reduce potential security risk from the cannabis use and reduce the demand on police services. Therefore, the project would not require the construction or expansion of police protection facilities beyond those already planned under General Plan assumptions.

LESS THAN SIGNIFICANT IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Schools in Lompoc are in the Lompoc Unified School District. The proposed cannabis facility does not include housing units which would directly increase the student population in the City and impact Lompoc Unified School District. As discussed in Section 14, *Population and Housing*, the project would require approximately 19 full-time employees which would likely be drawn from the local population. Though some employees may relocate to the area as a result of job opportunities, there would not be a significant increase of students from relocated employees. Impacts to schools would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

Please see Section 16, *Recreation*, for an analysis of impacts related to parks and recreation resources. Impacts were found to be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The project would require approximately 19 full-time employees which would likely be drawn from the local population. Though some employees may relocate to the area as a result of job opportunities resulting from the proposed project, a substantial change increase population from relocated employees would not occur. Impacts from an increased demand on public facilities would be less than significant.

LESS THAN SIGNIFICANT IMPACT

City of Lompoc Babylon Gardens Indoor Cultiva	tion Facility Project	
	This page intentionally left blank.	

1	6 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 antisymment?	П	П	_	п
	•			•	

- 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?

The nearest recreation facilities to the project site include Briar Creek Park which is 0.7 miles southwest of the project site and the City of Lompoc Drought Tolerant Botanical Garden which is 0.3 miles west of the project site. The proposed project would require approximately 19 full-time employees, who could increase the use of recreational facilities in the city. However, as discussed in Section 14, *Population and Housing*, the employees would likely be drawn from the local population and would not result in a significant increase in residents. Therefore, the project would not result in a significant increase in use of recreation facilities or require the construction of new facilities. Impacts to recreational facilities would be less than significant.

LESS THAN SIGNIFICANT IMPACT

•	Facility Project	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	

17	7 Transportation				
		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Wo	ould the project:				
a.	Conflict with a 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 due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?				
d.	Result in inadequate emergency access?			•	

Transportation Regulatory Setting

Senate Bill 743 and Vehicle Miles Traveled

Senate Bill (SB) 743 was signed into law by Governor Brown in 2013 and tasked the State Office of Planning and Research (OPR) with establishing new criteria for determining the significance of transportation impacts under the California Environmental Quality Act (CEQA). SB 743 requires the new criteria to "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." It also states that alternative measures of transportation impacts may include "vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated."

On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changes transportation impact analysis as part of CEQA compliance. SB 743 requires the Governor's OPR to identify new metrics for identifying and mitigating transportation impacts within CEQA. In January 2018, OPR transmitted its proposed CEQA Guidelines implementing SB 743 to the California Natural Resources Agency for adoption, and in January 2019 the Natural Resources Agency finalized updates to the CEQA Guidelines, which incorporated SB 743 modifications, and are now in effect. SB 743 changed the way that public agencies evaluate the transportation impacts of projects under CEQA, recognizing that roadway congestion, while an inconvenience to drivers, is not itself an environmental impact (Public Resource Code, § 21099 (b)(2)). In addition to new exemptions for projects consistent with specific plans, the CEQA Guidelines replaced congestion-based metrics, such as auto delay and level of service (LOS), with VMT as the basis for determining significant impacts, unless the Guidelines provide specific exceptions.

CEQA Guidelines Section 15064.3(b) indicates that land use projects would have a significant impact if the project resulted in VMT exceeding an applicable threshold of significance. On August 17, 2021, the City of Lompoc adopted Resolution No. 6445(21) which outlines CEQA VMT analysis screening criteria and thresholds for determining VMT impacts.

Projects that exceed 8.6 VMT/employee or 15 percent below baseline regional average for industrial/warehouse/manufacturing employment would have a significant impact under CEQA (City of Lompoc 2021b).

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Transit, Bicycle, and Pedestrian Facilities

The project site is located near City of Lompoc Transit (COLT) Route 2, with the nearest bus stops from the project site located at Central Avenue and V. Street). The project would not degrade local access to bus stops along West Central Avenue, which can be accessed via the local sidewalk network. In addition, the project would not result in a substantial increase in population growth which would place significant demand on COLT. Therefore, implementation of the project would not conflict with plans, programs, and policies regarding transit facilities.

The project vicinity includes sidewalks along the southern property border along West Central Avenue. The project would not involve changes to the sidewalk network. Class II bike paths exist along Central Avenue–, which would not be impacted by the proposed project. According to the City's Pedestrian and Bicycle Master Plan, there are no planning pedestrian or bicycle facility improvements near the project site that would be impacted by the proposed project (City of Lompoc 2020). Implementation of the project would not conflict with plans, programs, or policies addressing transit, bicycle, or pedestrian facilities. There would be no impacts.

NO IMPACT

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

Pursuant to the City's Vehicle Miles Traveled (VMT) Analysis Guidelines, there are specific projects that are exempt from VMT analysis which include:

- The proposed activity is not a project under CEQA
- The project is exempt from CEQA
- The City's discretionary approval and/or CEQA review is focused and does not involve transportation issues

The proposed project is a new use that would be established in an existing building. Therefore, the project meets CEQA Categorical Exemption Class 1, 15301 Existing Facilities, and Class 3, 15303 New Construction or Conversion of Small Structures. Therefore, the project is exempt from VMT analysis pursuant to the City of Lompoc VMT Analysis Guidelines. In addition, according to the Office of Planning and Research (OPR) Technical Advisory, projects that generate fewer than 110 trips per day can be assumed to have a less than significant transportation impact (OPR 2018). With the 19 full-time employees, it is assumed each employee would generate 2.5 vehicle trips per day. Therefore, the project would generate approximately 23 47.5 daily vehicle trips. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

The proposed cannabis facility would be compatible with the industrial uses in the surrounding area. Site access would be provided through the existing driveways off of West Central Avenue. This existing driveway is generally flat and does not have obstructions that would affect safe ingress/egress to the site. Therefore, the project would not increase hazards due to a design feature and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project result in inadequate emergency access?

Emergency access would be provided via the existing driveway off of West Central Avenue. In addition, project site ingress/egress locations are subject to the City Public Works and Fire Department review and approval, which would ensure that the project would provide adequate access for emergency vehicles. Impacts to emergency access would be less than significant.

LESS THAN SIGNIFICANT IMPACT

City of Lompoc Babylon Gardens Indoor Cultivat	ion Facility Project
	This page intentionally left blank.

18 Tribal Cultural Resources Less than Significant With Less than Mitigation Significant Impact Impact No Impact

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or 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:

П

П

П

a.	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

b.	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.

Tribal Cultural Resources Setting

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

- 1. 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
- 2. 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 these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

The consultation process must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

- a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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)?
- b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is 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?

On August 3, 2023, the City of Lompoc mailed notification letters to the NAHC contact list for the project site. The list included the following contacts:

- Santa Ynez Band of Chumash
- San Luis Obispo County Chumash Council
- Northern Chumash Tribal Council
- Coastal Band of the Chumash Nation
- Chumash Council of Bakersfield
- Barbareño/Ventureño Band of Mission Indians

By the time of the release of this IS-MND, no tribes responded to the letter.

The project would not involve ground disturbing activities which could impact subsurface archaeological and tribal resources. Therefore, there would be no impacts to tribal cultural resources.

NO IMPACT

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

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The proposed project involves the use of two-one existing industrial buildings for a commercial cannabis cultivation, processing, and storage operation. The project site is located in the western area of the City of Lompoc within a fully urbanized area with existing utility infrastructure in place. The proposed project would not involve the construction or expansion of water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities as the site has existing utility connections and is already served by the associated utility providers. In addition, the

proposed project includes three on-site microturbine generators which would generate enough electricity to operate the cannabis facility. Therefore, impacts are less than significant.

LESS THAN SIGNIFICANT IMPACT

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The project site is currently served by existing water infrastructure and is connected to existing water systems which would continue to serve the project site. The City of Lompoc would supply water to the project site for the proposed cannabis industrial use.

The 2020 Urban Water Management Plan analyzed future water demand through the year 2045 and predicted water use would increase due to increases in population and employment, as well as from growth of the cannabis industry. The City's existing and planned source of water is entirely provided by groundwater from the Lompoc Plain portion of the Santa Ynez River Valley Groundwater Basin (SYRVGB) through 10 wells located in the east and northeast part of the City. The City anticipates having adequate water supply under normal, single-dry, and five-year consecutive drought scenarios and will continue to implement water conservation measures to ensure future water supply reliability (City of Lompoc 2021).

The City anticipates a water production capability of 9.25 million gallons per day (MGD) under normal conditions in the future (City of Lompoc 2021a). The proposed project would have a water demand of approximately 4,0089,161 gallons per day, which represents approximately 0.09 percent of the City's estimated supply. In addition, the water use from the proposed project was accounted for in the 2020 Urban Water Management Plan as the water supply analysis accommodates for increases in water demand due to new cannabis operations. Therefore, the analysis adequately accounts for water demands of the proposed cannabis facility. Therefore, and impacts to water supply would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The City owns and operates the Lompoc Regional Wastewater Reclamation Plant (LRWRP) which treats wastewater from Lompoc, Vandenberg Village Community Services District, and Vandenberg Air Force Base. The LRWRP has a peak dry-weather flow of 9.5 MGD and peak wet-weather capacity of 15 MGD (City of Lompoc 2021).

The project site is currently served by existing wastewater infrastructure and is connected to the City's wastewater system which would continue to serve the project site. Conservatively assuming all water demand would become wastewater, the project would produce approximately 4,0089,161 gallons per day of wastewater, which equals about 0.09 percent of the LRWRP's total peak dry-weather flow. The project would not result in a substantial increase in wastewater generation and would not exceed the LRWRP's wastewater treatment capacity. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The project site is serviced by the City of Lompoc's solid waste collection services and Lompoc Landfill. Recycling of construction materials will be required, and commercial recycling is available. The Lompoc Landfill has a remaining capacity of 2,146,779 cubic yards which can accommodate waste by the proposed project (CalRecycle 2023). According to Appendix A, the project could generate approximately 25.3 tons of waste per year, which is approximately 58 cubic yards or 0.002 percent of the remaining capacity at the Lompoc Landfill. In addition, the majority of waste generated by the proposed project would be cannabis waste mixed with non-cannabis materials suitable for composting or grinding as green waste and would be diverted to these waste streams. Therefore, the proposed project would not generate solid waste in excess of state or local standards, or in excess of the capacity of the local landfill, or otherwise impair the attainment of Solid Waste reduction goals.

LESS THAN SIGNIFICANT IMPACT

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The proposed project will comply with SB 1016, AB 341, AB 1826 and the Lompoc Municipal Code. There is adequate capacity in the Lompoc Regional Landfill to accept the waste that will be directed there. Recycling of construction materials will be required and commercial recycling is available. Additionally, the majority of the waste generated from the site will be cannabis waste mixed with non-cannabis materials suitable for composting or grinding as green waste and will be diverted to these waste streams. There would be no impacts to solid waste regulations.

NO IMPACT

•	Facility Project	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	
Th	is page intentionally left blank.	

		Potentia Significa Impaci	nt Mitigation	Less than Significant Impact	No Impact
20	Wildfire				

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? \Box П 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? П П d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a
- a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

result of runoff, post-fire slope instability,

or drainage changes?

- b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, 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. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?

City of Lompoc

Babylon Gardens Indoor Cultivation Facility Project

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project site is not located within or near a Very High Fire Hazard Severity Zone or state responsibility area. The nearest Very High Fire Hazard Severity Zone is located approximately three miles south from the project site (CalFire 2022). Because the site is not within or near a state responsibility area or a Very High Fire Hazard Severity Zone, no impacts related to wildfires would occur.

NO IMPACT

21 Mandatory Findings of Significance

Less than Significant **Potentially** with Less than Significant Mitigation Significant **Impact** Incorporated **Impact** No Impact 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 \Box prehistory? b. 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 П effects of probable future projects)? Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

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?

Based on the analysis provided throughout this Initial Study, implementation of the proposed project would not substantially degrade the quality of the environment and would not substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of rare or endangered plants or animals, or eliminate important examples of California history or prehistory. Biological resources are addressed in Section 4, Biological Resources. The proposed project is located on a developed parcel with no sensitive wildlife habitats. The project would not

include the development of new structures or ground disturbing activities and would not substantially reduce wildlife habitat or population. The proposed project's impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Cumulative impacts associated with some of the resource areas are addressed in the individual resource sections above: Air Quality, Electric, Energy Use, Greenhouse Gases, Water Supply, Wastewater and Solid Waste (CEQA Guidelines Section 15064(h)(3)). Based on SBCAPCD thresholds, a project would have a significant cumulative air quality impact if it is inconsistent with the applicable adopted federal and state air quality plans. The project is consistent with the Clean Air Plan and would not exceed criteria pollutant emission thresholds or result in a cumulatively considerable contribution to air quality impacts. Greenhouse Gas impacts would be less than significant with a greenhouse gas reduction strategy required under Mitigation Measure GHG-1. The City would have sufficient existing water supplies and wastewater capacity to accommodate cumulative development in addition to the project. Other issues (e.g., Geology/Soils, Hazards and Hazardous Materials) are by their nature project-specific and impacts at one location do not add to impacts at other locations or create additive impacts. Therefore, the impacts of development of the site under the proposed project would be individually limited and not cumulatively considerable.

The proposed project is consistent with the City's General Plan designation and does not include any new structures. The project would incrementally increase noise in the vicinity but would comply with LMC standards for construction and operations would not exceed noise thresholds. In addition, the project would incrementally increase traffic compared to existing conditions. However, the project would not lead to a significant cumulative increase in VMT as it is below VMT thresholds. Therefore, the proposed project would not result in a significant contribution to cumulatively considerable impacts, and impacts would be less than significant with mitigation incorporated.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

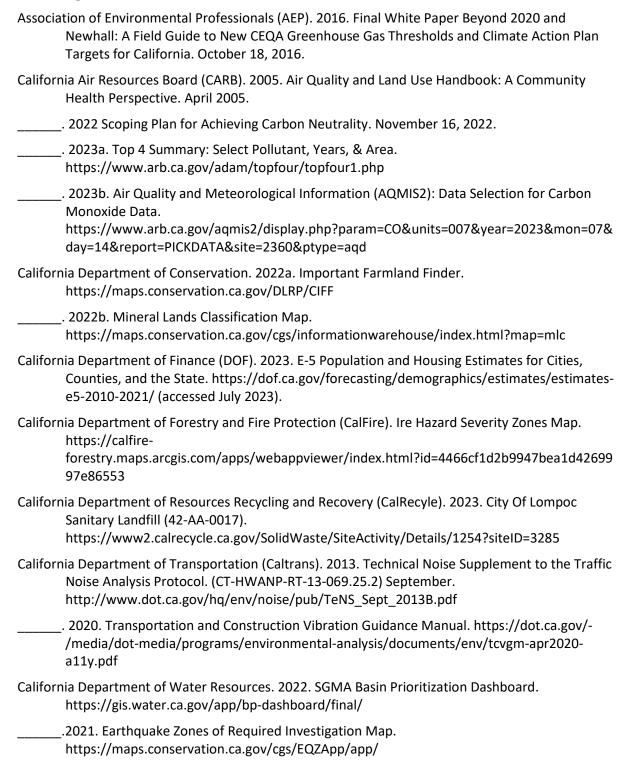
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

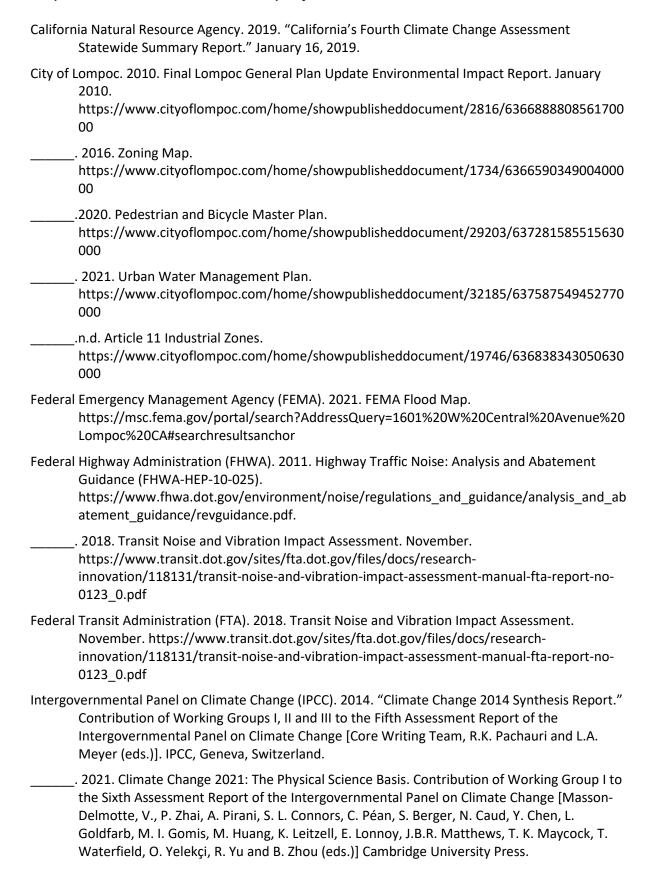
Effects on human beings are generally associated with impacts related to such issue areas as air quality, geology and soils, hazards, hydrology and water quality, noise, and traffic safety. Potential impacts associated with air quality, geology and soils, hazards, hydrology and water quality, noise, and traffic safety would be less than significant. Mitigation Measures AQ-1 and AQ-2 have been designed to reduce potential impacts to air quality. Therefore, the project would not cause substantial adverse effects on human beings, either directly or indirectly.

LESS THAN SIGNIFICANT IMPACT

References

Bibliography







List of Preparers

Rincon Consultants, Inc. prepared this IS-MND under contract to the City of Lompoc. Persons involved in data gathering analysis, project management, and quality control are listed below.

RINCON CONSULTANTS, INC.

Richard Daulton, Principal Ryan Russell, Project Manager Hannah Bireschi, Environmental Planner Aaron Rojas Jr., Environmental Planner

This page intentionally left blank.	

Appendix A

Air Quality and Greenhouse Gas Modeling

Babylon Gardens Indoor Cultivation Facility Detailed Report

Table of Contents

- 1. Basic Project Information
 - 1.1. Basic Project Information
 - 1.2. Land Use Types
 - 1.3. User-Selected Emission Reduction Measures by Emissions Sector
- 2. Emissions Summary
 - 2.1. Construction Emissions Compared Against Thresholds
 - 2.2. Construction Emissions by Year, Unmitigated
 - 2.3. Construction Emissions by Year, Mitigated
 - 2.4. Operations Emissions Compared Against Thresholds
 - 2.5. Operations Emissions by Sector, Unmitigated
 - 2.6. Operations Emissions by Sector, Mitigated
- 3. Construction Emissions Details
 - 3.1. Site Preparation (2024) Unmitigated
 - 3.2. Site Preparation (2024) Mitigated

- 3.3. Grading (2024) Unmitigated
- 3.4. Grading (2024) Mitigated
- 3.5. Building Construction (2024) Unmitigated
- 3.6. Building Construction (2024) Mitigated
- 3.7. Paving (2024) Unmitigated
- 3.8. Paving (2024) Mitigated
- 3.9. Architectural Coating (2024) Unmitigated
- 3.10. Architectural Coating (2024) Mitigated
- 4. Operations Emissions Details
 - 4.1. Mobile Emissions by Land Use
 - 4.1.1. Unmitigated
 - 4.1.2. Mitigated
 - 4.2. Energy
 - 4.2.1. Electricity Emissions By Land Use Unmitigated
 - 4.2.2. Electricity Emissions By Land Use Mitigated
 - 4.2.3. Natural Gas Emissions By Land Use Unmitigated
 - 4.2.4. Natural Gas Emissions By Land Use Mitigated

- 4.3. Area Emissions by Source
 - 4.3.1. Unmitigated
 - 4.3.2. Mitigated
- 4.4. Water Emissions by Land Use
 - 4.4.1. Unmitigated
 - 4.4.2. Mitigated
- 4.5. Waste Emissions by Land Use
 - 4.5.1. Unmitigated
 - 4.5.2. Mitigated
- 4.6. Refrigerant Emissions by Land Use
 - 4.6.1. Unmitigated
 - 4.6.2. Mitigated
- 4.7. Offroad Emissions By Equipment Type
 - 4.7.1. Unmitigated
 - 4.7.2. Mitigated
- 4.8. Stationary Emissions By Equipment Type
 - 4.8.1. Unmitigated

- 4.8.2. Mitigated
- 4.9. User Defined Emissions By Equipment Type
 - 4.9.1. Unmitigated
 - 4.9.2. Mitigated
- 4.10. Soil Carbon Accumulation By Vegetation Type
 - 4.10.1. Soil Carbon Accumulation By Vegetation Type Unmitigated
 - 4.10.2. Above and Belowground Carbon Accumulation by Land Use Type Unmitigated
 - 4.10.3. Avoided and Sequestered Emissions by Species Unmitigated
 - 4.10.4. Soil Carbon Accumulation By Vegetation Type Mitigated
 - 4.10.5. Above and Belowground Carbon Accumulation by Land Use Type Mitigated
 - 4.10.6. Avoided and Sequestered Emissions by Species Mitigated
- 5. Activity Data
 - 5.1. Construction Schedule
 - 5.2. Off-Road Equipment
 - 5.2.1. Unmitigated
 - 5.2.2. Mitigated
 - 5.3. Construction Vehicles

- 5.3.1. Unmitigated
- 5.3.2. Mitigated
- 5.4. Vehicles
 - 5.4.1. Construction Vehicle Control Strategies
- 5.5. Architectural Coatings
- 5.6. Dust Mitigation
 - 5.6.1. Construction Earthmoving Activities
 - 5.6.2. Construction Earthmoving Control Strategies
- 5.7. Construction Paving
- 5.8. Construction Electricity Consumption and Emissions Factors
- 5.9. Operational Mobile Sources
 - 5.9.1. Unmitigated
 - 5.9.2. Mitigated
- 5.10. Operational Area Sources
 - 5.10.1. Hearths
 - 5.10.1.1. Unmitigated
 - 5.10.1.2. Mitigated

- 5.10.2. Architectural Coatings
- 5.10.3. Landscape Equipment
- 5.10.4. Landscape Equipment Mitigated
- 5.11. Operational Energy Consumption
 - 5.11.1. Unmitigated
 - 5.11.2. Mitigated
- 5.12. Operational Water and Wastewater Consumption
 - 5.12.1. Unmitigated
 - 5.12.2. Mitigated
- 5.13. Operational Waste Generation
 - 5.13.1. Unmitigated
 - 5.13.2. Mitigated
- 5.14. Operational Refrigeration and Air Conditioning Equipment
 - 5.14.1. Unmitigated
 - 5.14.2. Mitigated
- 5.15. Operational Off-Road Equipment
 - 5.15.1. Unmitigated

- 5.15.2. Mitigated
- 5.16. Stationary Sources
 - 5.16.1. Emergency Generators and Fire Pumps
 - 5.16.2. Process Boilers
- 5.17. User Defined
- 5.18. Vegetation
 - 5.18.1. Land Use Change
 - 5.18.1.1. Unmitigated
 - 5.18.1.2. Mitigated
 - 5.18.1. Biomass Cover Type
 - 5.18.1.1. Unmitigated
 - 5.18.1.2. Mitigated
 - 5.18.2. Sequestration
 - 5.18.2.1. Unmitigated
 - 5.18.2.2. Mitigated
- 6. Climate Risk Detailed Report
 - 6.1. Climate Risk Summary

- 6.2. Initial Climate Risk Scores
- 6.3. Adjusted Climate Risk Scores
- 6.4. Climate Risk Reduction Measures
- 7. Health and Equity Details
 - 7.1. CalEnviroScreen 4.0 Scores
 - 7.2. Healthy Places Index Scores
 - 7.3. Overall Health & Equity Scores
 - 7.4. Health & Equity Measures
 - 7.5. Evaluation Scorecard
 - 7.6. Health & Equity Custom Measures
- 8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Babylon Gardens Indoor Cultivation Facility
Construction Start Date	7/1/2024
Operational Year	2024
Lead Agency	_
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.10
Precipitation (days)	27.8
Location	1601 W Central Ave, Lompoc, CA 93436, USA
County	Santa Barbara
City	Lompoc
Air District	Santa Barbara County APCD
Air Basin	South Central Coast
TAZ	3336
EDFZ	6
Electric Utility	City of Lompoc Electric Division
Gas Utility	Southern California Gas
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq	Special Landscape	Population	Description
					ft)	Area (sq ft)		

	0 - -	7.00	4000	0.40	7.000	0.00			
.	General Light	7.00	1000sqft	0.16	7,000	0.00	_	_	_
	la du atra								
.	Industry								

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Construction	C-5	Use Advanced Engine Tiers
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads

^{*} Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

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)

	On Great It	- (,)	, ,		. a		(.,	.,,,		,						
Un/Mit.	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	_	_	_	_	_	_	_		_	_	_	_	_	_	_	_	_
Mit.	0.21	1.94	10.5	0.02	0.05	2.30	2.34	0.04	1.06	1.10	_	2,511	2,511	0.12	0.13	1.66	2,555
% Reduced	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mit.	1.14	2.16	8.24	0.01	0.06	0.11	0.17	0.06	0.03	0.08	_	1,344	1,344	0.06	0.01	0.01	1,350

% Reduced	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mit.	0.06	0.24	2.43	< 0.005	0.01	0.02	0.03	0.01	0.01	0.02	_	399	399	0.02	< 0.005	0.02	401
% Reduced	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mit.	0.01	0.04	0.44	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	_	66.1	66.1	< 0.005	< 0.005	< 0.005	66.4
% Reduced	_	_	-	-	-	_	-	-	_	_	-	_	-	_	_	_	_

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T		PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily - Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

2.3. Construction Emissions by Year, Mitigated

Year	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2024	0.21	1.94	10.5	0.02	0.05	2.30	2.34	0.04	1.06	1.10	_	2,511	2,511	0.12	0.13	1.66	2,555
Daily - Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2024	1.14	2.16	8.24	0.01	0.06	0.11	0.17	0.06	0.03	0.08	_	1,344	1,344	0.06	0.01	0.01	1,350
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
2024	0.06	0.24	2.43	< 0.005	0.01	0.02	0.03	0.01	0.01	0.02	_	399	399	0.02	< 0.005	0.02	401
Annual	_	_	-	_	_	<u> </u>	_	_	_	_	_	_	_	_	-	_	_
2024	0.01	0.04	0.44	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	_	66.1	66.1	< 0.005	< 0.005	< 0.005	66.4

2.4. Operations Emissions Compared Against Thresholds

							,	, ,	J. J								
Un/Mit.	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Annual (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Unmit.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	со	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	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

2.6. Operations Emissions by Sector, Mitigated

Sector	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.09	0.05	0.40	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	64.0	64.0	0.01	< 0.005	0.27	65.6
Area	0.22	< 0.005	0.30	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.25	1.25	< 0.005	< 0.005	_	1.26
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1,837	1,837	0.13	0.02	_	1,846

Water	_	_	_	_	_	_	_	_	_	_	2.68	8.43	11.1	0.01	0.01	_	13.1
Waste	_	_	_	_	_	_	_	_	_	_	4.68	0.00	4.68	0.47	0.00	_	16.4
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	1.82	1.82
Stationar y	2.20	6.16	5.62	0.01	0.32	0.00	0.32	0.32	0.00	0.32	0.00	1,127	1,127	0.05	0.01	0.00	1,130
Total	2.51	6.21	6.32	0.01	0.33	0.05	0.38	0.33	0.01	0.34	7.36	3,038	3,045	0.66	0.04	2.10	3,074
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.10	0.06	0.45	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	63.1	63.1	0.01	< 0.005	0.01	64.6
Area	0.17	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1,837	1,837	0.13	0.02	_	1,846
Water	_	_	_	_	_	_	_	_	_	_	2.68	8.43	11.1	0.01	0.01	_	13.1
Waste	_	_	_	_	_	_	_	_	_	_	4.68	0.00	4.68	0.47	0.00	_	16.4
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	1.82	1.82
Stationar y	2.20	6.16	5.62	0.01	0.32	0.00	0.32	0.32	0.00	0.32	0.00	1,127	1,127	0.05	0.01	0.00	1,130
Total	2.46	6.21	6.06	0.01	0.32	0.05	0.38	0.32	0.01	0.34	7.36	3,036	3,043	0.66	0.04	1.83	3,072
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mobile	0.08	0.05	0.37	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	_	54.1	54.1	0.01	< 0.005	0.10	55.5
Area	0.19	< 0.005	0.15	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.62	0.62	< 0.005	< 0.005	_	0.62
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1,837	1,837	0.13	0.02	_	1,846
Water	_	_	_	_	_	_	_	_	_	_	2.68	8.43	11.1	0.01	0.01	_	13.1
Waste	_	_	_	_	_	_	_	_	_	_	4.68	0.00	4.68	0.47	0.00	_	16.4
Refrig.	_	_	_	_	_	_	_	_	_	_	_		_	_	_	1.82	1.82
Stationar y	0.15	0.42	0.38	< 0.005	0.02	0.00	0.02	0.02	0.00	0.02	0.00	77.2	77.2	< 0.005	< 0.005	0.00	77.4
Total	0.42	0.47	0.90	< 0.005	0.02	0.04	0.07	0.02	0.01	0.03	7.36	1,978	1,985	0.62	0.03	1.92	2,010
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Mobile	0.01	0.01	0.07	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	8.96	8.96	< 0.005	< 0.005	0.02	9.18
Area	0.04	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.10	0.10	< 0.005	< 0.005	_	0.10
Energy	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	304	304	0.02	< 0.005	_	306
Water	_	_	_	_	_	_	_	_	_	_	0.44	1.40	1.84	< 0.005	< 0.005	_	2.17
Waste	_	_	_	_	_	_	_	_	_	_	0.77	0.00	0.77	0.08	0.00	_	2.71
Refrig.	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.30	0.30
Stationar y	0.03	0.08	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	0.00	12.8
Total	0.08	0.09	0.16	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	1.22	327	329	0.10	< 0.005	0.32	333

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

	ROG	NOx	co	SO2			1	PM2.5E			BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

3.2. Site Preparation (2024) - Mitigated

Location	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment	80.0	0.42	5.99	0.01	0.02	_	0.02	0.02	_	0.02	_	858	858	0.03	0.01	_	861
Dust From Material Movement		_	_	_	_	0.21	0.21	_	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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment	< 0.005	< 0.005	0.02	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	2.35	2.35	< 0.005	< 0.005	_	2.36
Dust From Material Movement	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.39	0.39	< 0.005	< 0.005	_	0.39
Dust From Material Movement	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	0.02	0.02	0.20	0.00	0.00	0.03	0.03	0.00	0.01	0.01	_	32.1	32.1	< 0.005	< 0.005	0.15	32.7
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
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	-	-	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	0.09	0.09	< 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
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
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	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

3.3. Grading (2024) - Unmitigated

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

				ton/yr io													
Location	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

3.4. Grading (2024) - Mitigated

Location	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Off-Road Equipment		0.84	9.79	0.02	0.03	_	0.03	0.03	_	0.03	_	1,713	1,713	0.07	0.01	_	1,719
Dust From Material Movement	_	_	_	_	_	2.07	2.07	_	1.00	1.00	_	_	_	_	_	_	_
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment	< 0.005	< 0.005	0.05	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	9.39	9.39	< 0.005	< 0.005	_	9.42
Dust From Material Movement	_	_	_	_	_	0.01	0.01	_	0.01	0.01	_	_	_	_	_	-	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment	< 0.005	< 0.005	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	-	1.55	1.55	< 0.005	< 0.005	-	1.56
Dust From Material Movement	_	_	_	_	_	< 0.005	< 0.005	_	< 0.005	< 0.005	_	_	_	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_		_	_	_	_	_	_	-	-	_	_	_	-	_
Worker	0.04	0.03	0.30	0.00	0.00	0.05	0.05	0.00	0.01	0.01	_	48.1	48.1	< 0.005	< 0.005	0.22	49.0

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
Hauling	0.01	1.07	0.37	0.01	0.01	0.18	0.19	0.01	0.05	0.06	_	750	750	0.04	0.12	1.44	787
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	0.26	0.26	< 0.005	< 0.005	< 0.005	0.26
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
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	4.11	4.11	< 0.005	< 0.005	< 0.005	4.31
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	0.04	0.04	< 0.005	< 0.005	< 0.005	0.04
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
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	0.68	0.68	< 0.005	< 0.005	< 0.005	0.71

3.5. Building Construction (2024) - Unmitigated

Location	ROG	NOx	со	SO2			PM10T		PM2.5D	PM2.5T	BCO2	NBCO2	СО2Т	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

3.6. Building Construction (2024) - Mitigated

Location	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment		0.64	8.10	0.01	0.02	_	0.02	0.02	_	0.02	_	1,305	1,305	0.05	0.01	_	1,309
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_
Off-Road Equipment	0.12	0.64	8.10	0.01	0.02	_	0.02	0.02	_	0.02	_	1,305	1,305	0.05	0.01	_	1,309
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
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment	0.03	0.18	2.22	< 0.005	0.01	_	0.01	0.01	_	0.01	_	357	357	0.01	< 0.005	_	359

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
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment	0.01	0.03	0.41	< 0.005	< 0.005	-	< 0.005	< 0.005	_	< 0.005	_	59.2	59.2	< 0.005	< 0.005	_	59.4
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
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	18.9	18.9	< 0.005	< 0.005	0.09	19.2
Vendor	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	20.7	20.7	< 0.005	< 0.005	0.05	21.7
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
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Worker	0.01	0.01	0.12	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	_	18.5	18.5	< 0.005	< 0.005	< 0.005	18.8
Vendor	< 0.005	0.03	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	20.7	20.7	< 0.005	< 0.005	< 0.005	21.7
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
Average Daily	_	_	-	_	_	-	_	_	-	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	5.06	5.06	< 0.005	< 0.005	0.01	5.15
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	5.68	5.68	< 0.005	< 0.005	0.01	5.94
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
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	0.84	0.84	< 0.005	< 0.005	< 0.005	0.85
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	0.94	0.94	< 0.005	< 0.005	< 0.005	0.98
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

3.7. Paving (2024) - Unmitigated

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

				tori/yr io													
Location	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_		_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

3.8. Paving (2024) - Mitigated

Location	ROG	NOx	со	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	0.23	2.09	5.55	0.01	0.06	_	0.06	0.06	-	0.06	_	823	823	0.03	0.01	-	826
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
Average Daily	_	_	-	_	_	-	_	-	_	_	_	_	-	_	_	_	_
Off-Road Equipment	< 0.005	0.03	0.08	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	11.3	11.3	< 0.005	< 0.005	_	11.3
Paving	0.00	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.87	1.87	< 0.005	< 0.005	_	1.87
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
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	-	_	_	_	_	-	_	_	_	_	_	_	_	_	_	-
Worker	0.08	0.07	0.72	0.00	0.00	0.11	0.11	0.00	0.03	0.03	_	110	110	0.01	< 0.005	0.01	112
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
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
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	1.51	1.51	< 0.005	< 0.005	< 0.005	1.53
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
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
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	0.25	0.25	< 0.005	< 0.005	< 0.005	0.25
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
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

3.9. Architectural Coating (2024) - Unmitigated

										ioi aiiiie							
Location	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Offsite	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

3.10. Architectural Coating (2024) - Mitigated

	ROG	NOx	СО	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	0.96	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	134	134	0.01	< 0.005	_	134
Architectu ral Coatings	1.11	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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
Average Daily	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.83	1.83	< 0.005	< 0.005	_	1.84
Architectu ral Coatings	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
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Off-Road Equipment	< 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
Architectu ral Coatings	< 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
Offsite	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	3.69	3.69	< 0.005	< 0.005	< 0.005	3.75
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
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
Average Daily	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
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
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
Annual	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	_	0.01	0.01	< 0.005	< 0.005	< 0.005	0.01
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	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

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Land Use	ROG	NOv	ICO .	ISO2	PM10F	PM10D	PM10T	PM2.5F	PM2 5D	PM2.5T	BCO2	NRCO2	LCO2T	CH4	N2O	l R	CO2e
Lana 030	1100	IVOX	100	1002	INTIOL	I WITOD	I WITOI	I IVIZ.OL	1 1012.00	1 1012.01	10002	140002	10021	OTIT	11420	1 \	0020

Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.1.2. Mitigated

Land Use	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	0.09	0.05	0.40	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	64.0	64.0	0.01	< 0.005	0.27	65.6
Total	0.09	0.05	0.40	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	64.0	64.0	0.01	< 0.005	0.27	65.6
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	0.10	0.06	0.45	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	63.1	63.1	0.01	< 0.005	0.01	64.6
Total	0.10	0.06	0.45	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	_	63.1	63.1	0.01	< 0.005	0.01	64.6
Annual	_	_	_	_	_	_	_	_	-	_	_	_	_	_	_	_	_
General Light Industry	0.01	0.01	0.07	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	_	8.96	8.96	< 0.005	< 0.005	0.02	9.18

Total 0.01 0.01 0.07 < 0.005 < 0.005 0.01 0.01 < 0.005 < 0.005 -	8.96	8 96	8.96	0.005	< 0.005	0.02	0.18
10tal 0.01 0.01 0.07 < 0.005 < 0.005 0.01 0.01 < 0.005 < 0.005 = 0.005 = 0.005	0.30	0.30	0.30	< 0.005	< 0.003	0.02	9.10

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		NOx					<u> </u>		PM2.5D			NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.2.2. Electricity Emissions By Land Use - Mitigated

	5 11 G 1 G 11 1 C	(1.07 0.0.)	. c. c.cy,	torn yr io			(1.07 0.0	.,	.,,,		· · · · ·						
Land Use	ROG	NOx	СО	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	_	_	_	_	_	_	_	_	_	_	_	1,836	1,836	0.13	0.02	_	1,845
Total	_	_	_	_	_	_	_	_	_	_	_	1,836	1,836	0.13	0.02	_	1,845
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

General Light Industry	_	_	_	_	_	_	_	_	_	_	_	1,836	1,836	0.13	0.02	_	1,845
Total	_	_	_	_	_	_	_	_	_	_	_	1,836	1,836	0.13	0.02	_	1,845
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	_	_	_	_	_	_	_	_	_	_	_	304	304	0.02	< 0.005	_	305
Total	_	_	_	_	_	_	_	_	_	_	_	304	304	0.02	< 0.005	_	305

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)

	• · · • · · · · · · · · · · · · · · · ·	(,	· · · · · · · · · · · · · · · · · · ·			(,	<i>J</i> , . <i>J</i>		/						
Land Use	ROG	NOx	СО	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	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.2.4. Natural Gas Emissions By Land Use - Mitigated

O mona i	0	J (1.0, G.G.)	,	101.1, 30		aa •	O () ac	,	.,,, .		ω.,						
Land Use	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily,	_	<u> </u>	_	_	<u> </u>	_	<u> </u>	<u> </u>	_	<u> </u>	_	_	<u> </u>	<u> </u>	_	_	_
Summer																	
(Max)																	

General Light Industry	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.90	0.90	< 0.005	< 0.005	_	0.91
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.90	0.90	< 0.005	< 0.005	_	0.91
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.90	0.90	< 0.005	< 0.005	_	0.91
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.90	0.90	< 0.005	< 0.005	_	0.91
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.15	0.15	< 0.005	< 0.005	_	0.15
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	_	< 0.005	< 0.005	<u> </u>	< 0.005	_	0.15	0.15	< 0.005	< 0.005	_	0.15

4.3. Area Emissions by Source

4.3.1. Unmitigated

Source	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.3.2. Mitigated

				ton/yr fo	r annual)	and GH											
Source	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consume r Products	0.15	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architectu ral Coatings	0.02	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Landscap e Equipme nt	0.05	< 0.005	0.30	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.25	1.25	< 0.005	< 0.005	_	1.26
Total	0.22	< 0.005	0.30	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	1.25	1.25	< 0.005	< 0.005	_	1.26
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consume r Products	0.15	_	_	_	_	_	_	_	_	_	_	_		_	_	_	_
Architectu ral Coatings	0.02	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	0.17	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Consume r Products	0.03	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Architectu ral Coatings	< 0.005	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Landscap Equipment		< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.10	0.10	< 0.005	< 0.005	_	0.10
Total	0.04	< 0.005	0.03	< 0.005	< 0.005	_	< 0.005	< 0.005	_	< 0.005	_	0.10	0.10	< 0.005	< 0.005	_	0.10

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

									, , , , , , , , , , , , , , , , , , , 								
Land Use	ROG	NOx	со	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	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.4.2. Mitigated

		(110) 01019	· · · · · · · · · · · · · · · · · · ·				(,	<i>y</i> ,								
Land Use	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	_	_	_	_	_	_	_	_	_	_	2.68	8.43	11.1	0.01	0.01	_	13.1
Total	_	_	_	_	_	_	_	_	_	_	2.68	8.43	11.1	0.01	0.01	_	13.1

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	_	_	_	_	_	_	_	_	_	_	2.68	8.43	11.1	0.01	0.01	_	13.1
Total	_	_	_	_	_	_	_	_	_	_	2.68	8.43	11.1	0.01	0.01	_	13.1
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	_	_	_	_	_	_	_	_	_	_	0.44	1.40	1.84	< 0.005	< 0.005	_	2.17
Total	_	_	_	_	_	_	_	_	_	_	0.44	1.40	1.84	< 0.005	< 0.005	_	2.17

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

								<u>,</u>	, ,								
Land Use	ROG	NOx	СО	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	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.5.2. Mitigated

Land Use	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	_	_	_	_		_	_	_	_	_	4.68	0.00	4.68	0.47	0.00	_	16.4
Total	_	_	_	_	_	_	_	_	_	_	4.68	0.00	4.68	0.47	0.00	_	16.4
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	_	_	_	_	_	_	_	_	_	_	4.68	0.00	4.68	0.47	0.00	_	16.4
Total	_	_	_	_	_	_	_	_	_	_	4.68	0.00	4.68	0.47	0.00	_	16.4
Annual	_	_	_	_	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_
General Light Industry	_	_	_	_	_	_	_	_	_	_	0.77	0.00	0.77	0.08	0.00	_	2.71
Total	_	_	_	_	_	_	_	_	_	_	0.77	0.00	0.77	0.08	0.00	_	2.71

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Land Use	ROG	NOx	со	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	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.6.2. Mitigated

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

Land Use		NOx	СО	SO2	PM10E						BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	1.82	1.82
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	1.82	1.82
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	1.82	1.82
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	1.82	1.82
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
General Light Industry	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.30	0.30
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	0.30	0.30

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Equipme Type	ROG	NOx	со	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)

									, , , , , , , , , , , , , , , , , , , 								
Equipme nt Type	ROG	NOx	СО	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)

Equipme nt Type	ROG	NOx	СО	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

Equipme nt Type	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r	2.20	6.16	5.62	0.01	0.32	0.00	0.32	0.32	0.00	0.32	0.00	1,127	1,127	0.05	0.01	0.00	1,130
Total	2.20	6.16	5.62	0.01	0.32	0.00	0.32	0.32	0.00	0.32	0.00	1,127	1,127	0.05	0.01	0.00	1,130
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Emergen Generator		6.16	5.62	0.01	0.32	0.00	0.32	0.32	0.00	0.32	0.00	1,127	1,127	0.05	0.01	0.00	1,130
Total	2.20	6.16	5.62	0.01	0.32	0.00	0.32	0.32	0.00	0.32	0.00	1,127	1,127	0.05	0.01	0.00	1,130
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Emergen cy Generato r	0.03	0.08	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	0.00	12.8
Total	0.03	0.08	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	12.8	12.8	< 0.005	< 0.005	0.00	12.8

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)

Equipme nt Type	ROG	NOx	со	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

Equipme nt	ROG	NOx	со	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetatio n	ROG											NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

Land Use	ROG	NOx	со	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

	ROG	NOx	СО	SO2				PM2.5E			BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	<u> </u>	_	_	_	_	_	_	_	<u> </u>	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequeste red	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Removed	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequeste red	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Removed	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequeste red		_	_	_	_	_	_	_	_		_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Removed	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Vegetatio n	ROG	NOx							PM2.5D			NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Total	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Tatal																	
lotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

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			СО	SO2			PM10T			PM2.5T		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

Species	ROG	NOx	СО				PM10T		PM2.5D	PM2.5T		NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequeste red	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Removed	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_

Daily, Winter (Max)	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequeste red	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Removed	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Annual	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Avoided	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Subtotal	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Sequeste red	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
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	7/1/2024	7/1/2024	5.00	1.00	_
Grading	Grading	7/2/2024	7/3/2024	5.00	2.00	_
Building Construction	Building Construction	7/4/2024	11/20/2024	5.00	100	_

Paving	Paving	11/21/2024	11/27/2024	5.00	5.00	_
Architectural Coating	Architectural Coating	11/28/2024	12/4/2024	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	Tractors/Loaders/Backh oes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backh oes	Diesel	Average	1.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backh oes	Diesel	Average	2.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	4.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backh oes	Diesel	Average	1.00	7.00	84.0	0.37
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	Tier 4 Final	1.00	8.00	148	0.41

Site Preparation	Tractors/Loaders/Backh	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	6.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	6.00	367	0.40
Grading	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	1.00	7.00	84.0	0.37
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	4.00	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	2.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	4.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Tier 4 Final	1.00	7.00	81.0	0.42
Paving	Rollers	Diesel	Tier 4 Final	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backh oes	Diesel	Tier 4 Final	1.00	7.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	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	5.00	8.80	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00	5.30	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	_	_	HHDT
Grading	_	_	_	_
Grading	Worker	7.50	8.80	LDA,LDT1,LDT2
Grading	Vendor	0.00	5.30	HHDT,MHDT

Grading	Hauling	10.0	20.0	HHDT
Grading	Onsite truck	_	_	HHDT
Building Construction	_	_	_	_
Building Construction	Worker	2.94	8.80	LDA,LDT1,LDT2
Building Construction	Vendor	1.15	5.30	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	_	_	HHDT
Paving	_	_	_	_
Paving	Worker	17.5	8.80	LDA,LDT1,LDT2
Paving	Vendor	0.00	5.30	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	_	_	HHDT
Architectural Coating	_	_	_	_
Architectural Coating	Worker	0.59	8.80	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.00	5.30	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	5.00	8.80	LDA,LDT1,LDT2
Site Preparation	Vendor	0.00	5.30	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	_	_	HHDT
Grading	_	_	_	_
Grading	Worker	7.50	8.80	LDA,LDT1,LDT2

Grading	Vendor	0.00	5.30	HHDT,MHDT
Grading	Hauling	10.0	20.0	HHDT
Grading	Onsite truck	_	_	HHDT
Building Construction	_	_	_	_
Building Construction	Worker	2.94	8.80	LDA,LDT1,LDT2
Building Construction	Vendor	1.15	5.30	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	_	_	HHDT
Paving	_	_	_	_
Paving	Worker	17.5	8.80	LDA,LDT1,LDT2
Paving	Vendor	0.00	5.30	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	_	_	HHDT
Architectural Coating	_	_	_	_
Architectural Coating	Worker	0.59	8.80	LDA,LDT1,LDT2
Architectural Coating	Vendor	0.00	5.30	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	0.00	0.00	1,200

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	0.50	0.00	_
Grading	0.00	0.00	1.50	0.00	_
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Light Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	453	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	23.0	23.0	0.00	7,196	73.5	73.5	0.00	23,006

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
General Light Industry	23.0	23.0	0.00	7,196	73.5	73.5	0.00	23,006

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	10,500	3,500	_

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)
General Light Industry	1,479,007	453	0.0330	0.0040	2,820

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Light Industry	1,479,007	453	0.0330	0.0040	2,820

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)	
General Light Industry	1,254,504	0.00	

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Light Industry	1,254,504	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

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

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Light Industry	8.68	_

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

		Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
--	--	----------------	-----------	-------------	----------------	---------------	------------	-------------

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Equipment Type	li dei Tybe	Lingine riei	Number per Day	Tiours I of Day	Horsepower	Load I actor

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
Emergency Generator	Diesel	1.00	2.00	50.0	671	0.73

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Appual Heat Input (MMRtu/yr)
Equipment Type	r der Type	Number	Doller Kating (MMDtu/III)	Daily Fleat Input (MiMbtu/day)	Annual Fleat Input (MMDtu/yl)

5.17. User Defined

Equipment Type	Fuel Type
_	_

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

regetation Early 636 Type Triggetation Gott Type Triggetation Early 636 Type	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
1 - 9 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	3		

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

	1		1
Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
Tree Type	Inullibel	TEIECHICILY Saveu (KVVII/Vear)	maturai Gas Saveu (Diu/Vear)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
31			

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	5.59	annual days of extreme heat
Extreme Precipitation	4.30	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	43.8	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 3/4 an inch of rain, which would be light to moderate rainfall if received over a full

day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	_
AQ-Ozone	3.83
AQ-PM	9.26
AQ-DPM	33.4
Drinking Water	20.6
Lead Risk Housing	27.7
Pesticides	87.1
Toxic Releases	4.48
Traffic	4.22
Effect Indicators	_
CleanUp Sites	17.1
Groundwater	0.00
Haz Waste Facilities/Generators	19.2
Impaired Water Bodies	72.2

Solid Waste	9.67
Sensitive Population	_
Asthma	56.1
Cardio-vascular	71.0
Low Birth Weights	3.52
Socioeconomic Factor Indicators	
Education	65.0
Housing	62.4
Linguistic	32.0
Poverty	51.1
Unemployment	92.2

7.2. Healthy Places Index Scores

Indicator	Result for Project Census Tract
Economic	_
Above Poverty	53.65071218
Employed	48.29975619
Median HI	48.38958039
Education	_
Bachelor's or higher	36.87925061
High school enrollment	100
Preschool enrollment	50.86616194
Transportation	_
Auto Access	81.29090209
Active commuting	69.34428333
Social	

2 parent households	70.00442670
2-parent households	70.88412678
Voting	70.47350186
Neighborhood	_
Alcohol availability	54.65161042
Park access	81.35506224
Retail density	24.58616707
Supermarket access	9.688181702
Tree canopy	31.52829462
Housing	_
Homeownership	89.5547286
Housing habitability	94.11009881
Low-inc homeowner severe housing cost burden	36.44296163
Low-inc renter severe housing cost burden	96.36853587
Uncrowded housing	73.51469267
Health Outcomes	
Insured adults	44.20633902
Arthritis	0.0
Asthma ER Admissions	34.6
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	21.3
Cognitively Disabled	5.8
Physically Disabled	16.0

Heart Attack ER Admissions	19.5
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	_
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	_
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	51.6
Elderly	38.5
English Speaking	42.4
Foreign-born	23.9
Outdoor Workers	34.2
Climate Change Adaptive Capacity	_
Impervious Surface Cover	62.6
Traffic Density	4.6
Traffic Access	0.0
Other Indices	_
Hardship	50.4
Other Decision Support	_
2016 Voting	65.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	27.0
Healthy Places Index Score for Project Location (b)	62.0
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.

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	Demolition would not occur. Uses CalEEMod defaults for other construction phases
Construction: Trips and VMT	Assume a daily peak of 10 truck trips per day, and 20 truck trips for total construction
Construction: Architectural Coatings	Based on SBCAPCD Rule 323.1
Operations: Vehicle Data	Assumed 2.5 daily vehicle trips per employee (9 total employees). Adjusted Trip Generation Rates to generate 23 daily vehicle trips estimation.
Operations: Architectural Coatings	Based on SBCAPCD Rule 323.1
Operations: Energy Use	Based on applicant provide information
Operations: Water and Waste Water	Assumed 209 gallons of water per square foot per day. 4,008 gallons of water per day.

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.

Appendix B

Noise Calculations

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 7/11/2023 Case Description: Babylon Gardens

---- Receptor #1 ----

Baselines (dBA)

Description Land Use Daytime Evening Night
Residential Residential 60 60 60

Equipment

			- 9 0 10			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Dozer	No	40)	81.	7 300	0
Backhoe	No	40)	77.	6 300	0

Results

Calculated (dBA)

 Equipment
 *Lmax
 Leq

 Dozer
 66.1
 62.1

 Backhoe
 62
 58

 Total
 66.1
 63.6

^{*}Calculated Lmax is the Loudest value.

About Us

Investors

News



Solutions

Sectors

Technologies

Financing Benefits

Case Studies

Contact Us

CHP Systems - 65 kW to 10 MW

Solutions

CHP

What is CHP?

We provide customers **CCHP**

Steam

Direct Exhaust

Biogas

Critical Power

Generators

Solar

Battery Storage

Microgrids

66

Microturbines' lower operating costs offer savings of up to 25%



throughout the UK and Ireland with cheaper, cleaner and more reliable combined heat and power (CHP) solutions.

To achieve this, we exclusively utilise Capstone microturbine CHP technology. Capstone is the world's leading developer and manufacturer of clean and green microturbine power generation systems, with **over 9,000 installations globally**, including many within the Fortune 500 top global companies.



Traditionally, reciprocating engines have been deployed

Technologies

World-leading turbine power generation systems

Cleaner,
more reliable and
cost-efficient CHP
solutions

Financing Benefits

Learn more about our financing

for small gas-fired combined heat and power projects, whilst gas turbines were only suitable for larger generation requirements. However, Capstone technology enables a wide diversity of facilities, with varying power requirements, to all enjoy the benefits of a gas turbine cogeneration system.

What are the unique benefits of our CHP systems?

Capstone micro gas turbine
CHP systems offer
multiple cost, environmental
and operational advantages to
a broad range of commercial
and industrial organisations.

The key benefits include:

- Lower operating costs offer savings of up to 25%
- Cleaner emissions and more environmentally friendly



Over 9,000

Capstone
microturbine
installations globally



An Introduction to CHP

Learn more about CHP and its benefits

- than many traditional cogeneration systems
- Proven technology over 9,000 installations globally and used by many Fortune 500 companies
- Scalable from 65 kW to 5
 MW
- Small footprints and quiet operation, with just 65 dba (decibels) at 10 meters
- The versatility to function on a variety of gaseous or liquid fuels
- Highly reliable, with 4,000 hour service intervals as standard across the entire range

In addition to all of these advantages, we are also able to offer the option of https://doi.org/10.2016/jhistory.com/petitive-financing:

- Free-up your capital for other projects
- Eliminate your exposure to volatile utility rates
- Enjoy the benefits of no installation, connection,

servicing or maintenance costs

Here to help

If you'd like more information on our unique CHP solutions, we'd be delighted to hear from you.

Get In Touch



Capstone Microturbine Benefits

Only one moving part

Longer service intervals & low operating costs

/

Scalable to match demand

Multiple applications and industries



Free clean waste heat

Thermal energy for cogeneration / trigeneration



Low emissions

No exhaust after-treatment



Minimal vibration

Low noise (65 dba @ 10 meters)

V

High power density

Compact footprint, small modular design & easy to install

/

Fuel versatility

Operates on gaseous, renewable and liquid fuels



Stand alone or grid connect

Supports aging utility infrastructures



Remote monitoring

View performance and diagnostics 24/7

Microturbine Models



Capstone C30 Microturbine



Capstone C65 Microturbine



Capstone C200 Microturbine



Capstone C600 Microturbine



Capstone C800 Microturbine



Capstone C1000 Microturbine

Capstone Global Case Studies

Capstone microturbines are an ideal solution for today's distributed generation needs. As the world's leading clean technology manufacturer of microturbine energy systems, Capstone products are used by many of the Fortune 500 top global companies.

View Case Studies



Subscribe for updates

Email Address

as their Terms and Conditions.

Sign
up

I'd like to receive energy industry insights and product and service information from Pure World Energy (PWE). By signing up, I agree to PWE's Privacy & Cookie Policy, as well

© 2023 Pure World Energy. All Rights Reserved. Pure World Energy Limited is registered in England & Wales under company number 07040329 and in Ireland under company number 641352. Registered UK Office address: Pure World Energy, Spaces - 1650 Arlington Business Park, Theale, Reading, RG7 4SA. Registered Ireland Office address: Pure World Energy, Harmony Court Harmony Row, Dublin 2, Ireland

Terms of Use Privacy Policy Cookie Policy Sitemap

Appendix C

Response to Comments

Response to Comments on the Draft IS-MND

1 Introduction

1.1 Purpose of the Response to Comments on the Draft IS-MND

This document has been prepared to respond to comments received on the Draft Initial Study-Mitigated Negative Declaration (Draft IS-MND) prepared for the proposed Babylon Gardens Indoor Cannabis Cultivation Facility Project. The Draft IS-MND identifies the likely environmental consequences associated with development of the project and recommends mitigation measures to reduce potentially significant impacts. This document provides a response to comments received on the Draft IS-MND by the lead agency and makes revisions to the Draft IS-MND, as necessary, in response to those comments or to make clarifications to material in the Draft IS-MND. This document, together with the Draft IS-MND, constitutes the Final IS-MND for the project.

1.2 Environmental Review Process

Pursuant to the California Environmental Quality Act (CEQA), lead agencies are required to consult with public agencies having jurisdiction over a proposed project and to provide the general public with an opportunity to comment on the Draft IS-MND.

The Draft IS-MND was circulated for a 30-day public review period that began on September 6, 2023 and ended on October 6, 2023. The Notice of Intent to Adopt a Mitigated Negative Declaration was posted in a local newspaper and sent to local and state agencies, as well as interested parties. The Draft IS-MND was posted electronically on the City's website.

The City received three comment letters on the Draft IS-MND. Copies of written comments received during the comment period are included in Section 2 of this document.

1.3 Document Organization

This Response to Comments (RTC) Document consists of the following sections:

- Section 1: Introduction. This section discusses the purpose and organization of this RTC Document and the Final IS-MND and summarizes the environmental review process for the project.
- Section 2: Comments and Responses. This section contains reproductions of the comment letter received on the Draft IS-MND. A written response for each comment received during the public review period is provided. Each response is keyed to the corresponding comment.

2 Comments and Responses

This section includes comments received during the circulation of the Draft IS-MND for the Babylon Gardens Indoor Cannabis Cultivation Facility Project.

The City of Lompoc received three comment letters on the Draft IS-MND during the public comment period. The commenter and the page number in which the commenter's letter appears are listed below.

Let	tter No. and Commenter	Page No.
1	Lindsay Rains, Licensing Program Manager, California Department of Cannabis Control	3
2	Emily Waddington, Air Quality Specialist, Santa Barbara County Air Pollution Control District	14
3	Tiffany Martinez, Transportation Planner, Aeronautics Program, California Department of Transportation	28

The comment letter and responses follow in Section 2. The comment letter has been numbered sequentially and each separate issue raised by the commenter has been assigned a number. The responses to each comment identify first the number of the comment letter, and then the number assigned to each issue (Response 1-3, for example, indicates that the response is for the third issue raised in Letter 1).





Director



September 26, 2023

Greg Stones, Principal Planner City of Lompoc 100 Civic Center Plaza Lompoc, CA 93436 805-875-8273 g stones@ci.lompoc.ca.us

Re: Initial Study/Mitigated Negative Declaration (SCH No. 2023090039) - Babylon Gardens Indoor Cultivation Facility Project

Letter 1

Dear Mr. Stones:

Thank you for providing the California Department of Cannabis Control (DCC) the opportunity to comment on the Initial Study/Mitigated Negative Declaration (IS/MND) prepared by the City of Lompoc (City) for the proposed Babylon Gardens Indoor Cultivation Facility Project (Proposed Project).

DCC has jurisdiction over the issuance of licenses to commercial cannabis businesses. DCC may issue a cultivation license to a business that meets all licensing requirements, and where the local jurisdiction authorizes these activities. (Bus. & Prof. Code, § 26012(a).) All commercial cannabis businesses within California require a license from DCC. For more information pertaining to commercial cannabis business license requirements, including DCC regulations, please visit: https://cannabis.ca.gov/cannabis-laws/dcc-regulations/.

DCC expects to be a Responsible Agency for this project under the California Environmental Quality Act (CEQA) because the project will need to obtain one or more annual cultivation licenses from DCC. In order to ensure that the IS/MND is sufficient for DCC's needs at that time, DCC requests that a copy of the document, revised to respond to the comments provided in this letter, and a signed Notice of Determination be provided to the applicant, so the applicant can include them with the application package submitted to DCC. This should apply not only to this Project, but to all future CEQA documents related to cannabis business applications in the City.

DCC offers the following comments concerning the IS/MND.

General Comments (GCs)

GC 1: Proposed Project Description

Certain comments provided in the specific comment table below relate to the need for additional detail regarding the description of the Proposed Project. In general, a more detailed project

description would be helpful to DCC. The following information would make the IS/MND more informative:

- 1) Any water efficiency equipment that would be used; and
- 2) Amounts of energy expected to be used in operating the cultivation facility, including any energy management and efficiency features incorporated into the Proposed Project.

GC 2: Requirements for Mitigation Measures

When a CEQA document identifies impacts that are potentially significant, CEQA requires the Lead Agency to propose mitigation measures, where feasible, that may avoid, reduce, and/or minimize these impacts. According to the CEQA Guidelines, mitigation measures must be practical, specific, enforceable, effective, and roughly proportional to project impacts. This requires a Lead Agency to clearly disclose potential impacts and be sufficiently specific about prescribed mitigation measures.

GC 3: Acknowledgement of DCC Regulations

The IS/MND does not acknowledge that the project would require one or more cannabis cultivation licenses from DCC. The document could be improved if it acknowledged that DCC is responsible for licensing, regulation, and enforcement of commercial cannabis business activities, as defined in the Medicinal and Adult Use Cannabis Regulation and Safety Act (MAUCRSA) and DCC regulations related to cannabis cultivation and distribution (Bus. & Prof. Code, § 26012(a)). In particular, the analysis could benefit from discussion of the protections for environmental resources provided by DCC's cultivation and distribution regulations. The impact analysis for each of the following resource topics could be further supported by a discussion of the effects of state regulations on reducing the severity of impacts for each applicable topic:

- Aesthetics (See 4 California Code of Regulations §16304(a).)
- Air Quality and Greenhouse Gas Emissions (See §§ 15020(e); 16304(a)(4); 16305; 16306.)
- Biological Resources (See §§ 15006(i); 15011(a)(11); 16304(a).)
- Cultural Resources (See § 16304(a)(3).)
- Energy (See §§ 15006(h)(6); 15011(a)(5); 15020(e); 16305; 16306.)
- Hazards and Hazardous Materials (See §§ 15006(h)(5)(c); 15011(a)(4); 15011(a)(12); 16304(a)(5)); 16307; 16310.)
- Hydrology and Water Quality (See §§ 15006(h); 15011(a)(3); 15011(a)(7); 15011(a)(11); 16304(a(1); 16307; 16311.)
- Noise (See §§ 16304(a)(4); 16306.)
- Public Services (See §§15011(a)(10); 15036; 15042.)
- Utilities and Service Systems (See §§ 16311; 17223.)
- Wildfire (See § 15011(a)(10).)
- Cumulative Impacts (related to the above topics)

GC 4: Evaluation of Cumulative Impacts

It is important for CEQA analysis to consider the cumulative impacts of commercial cannabis

1-4

1-2

1-3

Department of Cannabis Control

business activities in the City. Of particular importance are topics for which the impacts of individual projects may be less than significant, but where individual projects may make a considerable contribution to a significant cumulative impact. These topics include, but are not limited to:

1-4

- cumulative impacts from groundwater diversions on the health of the underlying aquifer, including impacts on other users and impacts on stream-related resources connected to the aquifer;
- cumulative impacts related to noise;
- cumulative impacts related to transportation; and
- cumulative impacts related to air quality and objectionable odors.

Specific Comments and Recommendations

In addition to the general comments provide above, DCC provides the following specific comments regarding the analysis in the IS/MND.

THIS SPACE INTENDED TO BE LEFT BLANK

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	DCC Comments and Recommendations	
1	Initial Study	4	General Mitigation	The IS/MND could be improved if it clarified whether the measures described will be a condition of the City issued permit.	1-5
2	Initial Study	10	Other Public Agencies Whose Approval is Required	The IS/MND does not list DCC as the agency responsible for issuing a state cannabis cultivation license. In addition, the IS/MND would be more informative if it provided the permit(s) or approval(s) required from each of the agencies listed.	1-6
3	1	15 to 16	Aesthetics	The IS/MND would be improved if it referenced DCC's requirements that all outdoor lighting for security purposes must be shielded and downward facing, and that lights used in mixed-light cultivation activities must be fully shielded from sunset to sunrise to avoid nighttime glare (Cal. Code Regs., tit. 4 §§ 16304 (6) and (7)).	1-7
4	1	16	Aesthetics	The IS/MND would be improved if it clarified what Lompoc Municipal Code (LMC) 17.304.090 is and how it would reduce the impacts from new light sources to have no impact.	1-8
5	4	31 to 33	Biological Resources	The IS/MND would be improved if it provided an analysis of potential impacts to biological impacts resulting from Proposed Project operations. This could include an analysis of impacts resulting from increased light, noise, vehicles, or heavy machinery.	1-9
6	10	54	Hydrology and Water Quality	The IS/MND would be improved if it clarified what the Lompoc Municipal Code (LMC) Chapter 13.32 is and how it would reduce the impacts to stormwater.	1-10

Comment No.	Section Nos.	Page No(s).	Resource Topic(s)	DCC Comments and Recommendations
7	10	53 to 57	Hydrology and Water Quality	The IS/MND could be improved if it noted that applicants are required to provide proof of enrollment in or exemption from the applicable SWRCB or Regional Water Quality Control Board (RWQCB) program for water quality protection. (Cal. Code Regs., tit. 4 § 15011(a)(3)), and are required to provide a final copy of proof of a lake and streambed alteration agreement issued by CDFW or written verification that an agreement is not needed. (Cal. Code Regs., tit. 4 § 15011(a)(8)) improved by including a discussion of criteria air pollutant emissions that could result from cannabis cultivation operations and routine maintenance at the project site.
8	10	53 to 57	Hydrology and Water Quality	The IS/MND would be improved if it provided an analysis of potential impacts resulting from agricultural runoff related to cultivation activities. The document should provide information about the volume of agricultural runoff, how runoff would be managed, and whether runoff would result in significant impacts to water quality.
9	19	84	Utilities and Service Systems	The IS/MND would be more informative if it included the water conservation plan for the Proposed Project. To ensure that DCC has supporting documentation for the IS/MND, DCC requests that the City of Lompoc advise the applicant to provide a copy of the plan with its state application package for an annual cultivation license to DCC.

1-11

1-12

1-13

Conclusion

DCC appreciates the opportunity to provide comments on the IS/MND for the Proposed Project. If you have any questions about our comments or wish to discuss them, please contact Kevin Ponce, Senior Environmental Scientist Supervisor, at (916) 247-1659 or via e-mail at Kevin.Ponce@cannabis.ca.gov.

Sincerely,

Lindsay Rains Licensing Program Manager

Letter 1

COMMENTER: Lindsay Rains, Licensing Program Manager, California Department of Cannabis

Control (DCC)

DATE: September 27, 2023

Response 1-1

The commenter states that additional detail regarding the proposed project would be helpful for DCC's review. Specifically, the commenter requests information regarding any water efficiency equipment that would be used, and the amounts of energy expected to be used in operating the cultivation facility, including any energy management and efficiency features incorporated into the proposed project.

The Project Description provides a summary of the various project components, including water and energy use. Estimated energy use is also included in Section 6, *Energy*, in the Draft IS-MND. The project would be required to comply with all water and energy efficiency and conservation measures within the California Code of Regulations. Specific energy and water efficiency details for the project were added to the Project Description. The Draft IS-MND was revised as follows.

Project Description, page 9

Energy and Water Use

The indoor cultivation component of the project would require electricity for lighting, air circulation, and dehumidification. and natural gas to create chilled and hot water for air cooling, condensing, and operating the three microturbine generators. The project would utilize purpose-built HVAC systems that are a higher efficiency than standard HVAC equipment and close canopy air circulation which would reduce the size and speed of fans used for circulation in order to use less energy. The close canopy design would also allow for lower wattage LED lighting that is used for cultivation. The project would require up to 4,725 13,000 kilowatt hour (kWh) of electricity per day. In addition to the indoor cultivation, typical office energy needs would also require electricity. The three on site natural gas microturbine generators would generate on site electricity to be used to run the proposed cultivation facility. The microturbine generators would run 24-hours per day and would generate enough electricity to power the full cultivation facility.

The cultivation areas would also require water for irrigation, which would use spray nozzles mounted inside the grow towers and plumbed to water storage tanks outside the growing rooms. The project would use an aeroponic growing system which typically requires 90 percent less water than other indoor growing systems. In addition, the water used in irrigation would be reused in the system for greater efficiency. Based on an average indoor cannabis cultivation water use rate of 209 gallons per square feet per year, the project would require approximately 4,008 9,161 gallons per day of water.

Section 19 Utilities and Service Systems, page 89

The City anticipates a water production capability of 9.25 million gallons per day (MGD) under normal conditions in the future (City of Lompoc 2021a). The proposed project would have a water demand of approximately 4,0089,161 gallons per day, which represents approximately 0.09 percent of the City's estimated supply. In addition, the water use from the proposed project was accounted for in the 2020 Urban Water Management Plan as the water supply analysis accommodates for increases in

Babylon Gardens Indoor Cultivation Facility Project

water demand due to new cannabis operations. Therefore, the analysis adequately accounts for water demands of the proposed cannabis facility. Therefore, and impacts to water supply would be less than significant.

Response 1-2

The commenter states that when a CEQA document identifies impacts that are potentially significant, CEQA requires the Lead Agency to propose mitigation measures that may avoid, reduce, and/or minimize these impacts. The commenter further states that, according to the CEQA Guidelines, mitigation measures must be practical, specific, enforceable, effective, and roughly proportional to project impacts and requires a Lead Agency to clearly disclose potential impacts and be sufficiently specific about prescribed mitigation measures.

Potential impacts were identified and disclosed for the project in the Draft IS-MND, and mitigation measures were proposed where feasible in order to reduce those impacts. This comment does not address the need for or revision of a specific mitigation measure and does not identify deficiencies in the analysis completed or conclusions provided in the Draft IS-MND. No revisions were made in response to this comment.

Response 1-3

The commenter states that the Draft IS-MND does not acknowledge that one or more cultivation licenses would be required from the California DCC and that the document could be improved if it acknowledged that the DCC is a responsible agency for licensing, regulation, and enforcement of commercial cannabis activities. In addition, they state the document could be improved if there was discussion of the protections for environmental resources provided by DCC's regulations.

The applicant would be required to comply with all California Code of Regulations and the proposed project would be reviewed for compliance when the applicant applies for DCC licensing. Including a discussion of the applicable regulations for each environmental topic would not change the results or reduce any identified impacts. The Draft IS-MND was revised to include the DCC as an agency in which approval is required and lists the approval type in the section. The Draft IS-MND was revised as follows:

Project Description, page 11

9. Other Public Agencies Whose Approval is Required

The City of Lompoc is the lead agency for the project and would issue the following permits:

- Commercial Cannabis Use License Cultivation
- Commercial Cannabis Use License Processing
- Business Tax Certificate

In addition, approval from the following agencies would also be required:

- California Department of Food and Agriculture: CalCannabis Cultivation Licensing, and Processing
- Department of Cannabis Control: Cannabis Cultivation License
- Santa Barbara County Air Pollution Control District: <u>Cannabis Processing</u>, <u>Manufacturing</u>, <u>Distribution & Storage Permit</u>

Response 1-4

The commenter states that it is important for CEQA analysis to consider the cumulative impacts of commercial cannabis business activities, and in particular, topics for which the impacts of individual projects may be less than significant, but where individual projects may make a considerable contribution to a significant cumulative impact such as groundwater, noise, air quality, odors, and transportation.

The Draft IS-MND evaluated cumulative impacts of the proposed project in Section 21, *Mandatory Findings of Significance*. The analysis found the project would not have significant cumulative impacts. No revisions were made to the Draft IS-MND in response to this comment.

Response 1-5

The commenter states that the IS-MND could be improved if it clarified whether the measures described will be a condition of the City issued permit.

The Draft IS-MND lists the City of Lompoc as the lead agency for Commercial Cannabis Use License for cultivation and processing and would ultimately determine the conditions of approval for the proposed project. The City of Lompoc requires a mitigation monitoring plan that ensures implementation of all mitigation measures as a condition of approval for local permits. No revisions were made to the Draft IS-MND.

Response 1-6

The commenter states that the Draft IS-MND does not list the DCC as the agency responsible for issuing a state cannabis cultivation license and that if would be more informative if it provided the permit(s) or approval(s) required from each of the agencies listed.

The Draft IS-MND was revised to include the DCC as a responsible agency as well as the required permits. See Response 1-3.

Response 1-7

The commenter states that the Draft IS-MND would be improved if it referenced DCC's requirements that all outdoor lighting for security purposes must be shielded and downward facing, and that lights used in mixed-light cultivation activities must be fully shielded from sunset to sunrise to avoid nighttime glare.

The document was revised to clarify that any exterior lighting improvements would be subject to local permitting regulations and added the DCC requirement for outdoor lighting. The Draft IS-MND was revised as follows:

Section 1 Aesthetics, page 16

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The proposed project includes interior tenant improvements to two existing industrial buildings on site. No exterior changes would be made to the <u>existing</u> structures. <u>In addition, Aany exterior light improvements would be required to comply with local permitting regulations as listed in Lompoc Municipal Code (LMC) 17.304.090 which requires performance measures <u>on outdoor lighting</u> to</u>

Babylon Gardens Indoor Cultivation Facility Project

reduce light and glare <u>on adjacent properties</u>. The California Department of Cannabis Control would also require that that all outdoor lighting for security purposes be shielded and downward facing, and that lights used in mixed-light cultivation activities must be fully shielded from sunset to sunrise to avoid nighttime glare (Cal. Code Regs., tit. 4 §§ 16304 (6) and (7)) in order to obtain a state cultivation license. Impacts would be less than significant.

Response 1-8

The commenter states that the IS-MND would be improved if it clarified what Lompoc Municipal Code (LMC) 17.304.090 is and how it would reduce the impacts from new light sources to have no impact.

The Aesthetics section was revised to clarify what (LMC) 17.304.090 requires. See revisions to the Draft IS-MND in Response 1-7.

Response 1-9

The commenter states that the Draft IS-MND would be improved if it provided an analysis of potential impacts to biological impacts resulting from the proposed project operations. This could include an analysis of impacts resulting from increased light, noise, vehicles, or heavy machinery.

Section 4, *Biological Resources*, includes an analysis of impacts to biological resources as a result of the project. As discussed in the Project Description and Section 4, *Biological Resources*, the project site is currently paved and developed with three buildings, and the existing buildings are used as an auto repair, wine storage, and a welding shop. The proposed cannabis cultivation use would not result in increased activities compared to existing conditions. No revisions were made in response to this comment.

Response 1-10

The commenter states that the IS-MND would be improved if it clarified what the Lompoc Municipal Code (LMC) Chapter 13.32 is and how it would reduce the impacts to stormwater.

Section 10, *Hydrology and Water Quality*, states that LMC Chapter 13.32 addresses discharge prohibitions. Further clarification on how the City regulates stormwater was added to the analysis. The Draft IS-MND was revised as follows:

Hydrology and Water Quality, page 55

Operation

The project site is entirely developed with three existing industrial buildings, a paved parking lot, a paved driveway, and is entirely impervious with the exception of existing landscaped areas. The proposed project would not increase the total area of impervious surfaces on the project site and would not result in a greater potential to introduce pollutants to receiving waters.

Operation of the cultivation facility would use and discharge <u>all</u> water into the City's wastewater system. The project would also be subject to Lompoc Municipal Code (LMC) Chapter 13.32, Storm Water Quality Management, which addresses discharge prohibitions regulations, authority to inspect, and enforcement of storm water quality violations. If the owner or the responsible party discharges pollutants into the stormwater, the storm drain system, or any State waters, or if there is a risk of such discharge, the City may order them to remediate and restore the property at their own expense.

Lompoc's water has higher levels of salts and Lompoc's Regional Wastewater Reclamation Plant is currently just below its waste discharge limit for sodium and TDS. If brine were discharged into the wastewater system this could cause a potential exceedance of water quality standards in surface and subsequently in lower basin groundwater. In addition, discharge of brine or filtration water to the City's storm drain system would have the potential to cause impacts to surface and ground water quality. Therefore, impacts to water quality would be potentially significant and would require mitigation.

Response 1-11

The commenter states that the Draft IS-MND could be improved if it noted that applicants are required to provide proof of enrollment in or exemption from the applicable SWRCB or Regional Water Quality Control Board (RWQCB) program for water quality protection, and are required to provide a final copy of proof of a lake and streambed alteration agreement issued by CDFW or written verification that an agreement is not needed.

The project does not propose an alteration of a lake or streambed, or any exterior improvements that could result in an impact to water sources in the vicinity. The proposed project would provide proof of exemption when the applicant applies for DCC licensing. No revisions were made in response to this comment.

Response 1-12

The commenter states that the Draft IS-MND would be improved if it provided an analysis of potential impacts resulting from agricultural runoff related to cultivation activities. The document should provide information about the volume of agricultural runoff, how runoff would be managed, and whether runoff would result in significant impacts to water quality.

As stated above, the Draft IS-MND in Section 10, *Hydrology and Water Quality*, describes that all the water related to cultivation will be processed through the municipal water system. The project does not include outdoor cultivation. No revisions were made in response to this comment.

Response 1-13

The commenter states that the Draft IS-MND would be more informative if it included a water conservation plan for the proposed project. The commenter also requests that the City of Lompoc advise the applicant to provide a copy of the plan with its state application package for an annual cultivation license to the DCC.

The City does not require the project to prepare a water conservation plan. As discussed in Section 19, *Utilities and Service Systems*, there are sufficient water supplies to serve the proposed project. As detailed in the Project Description, the project would use an aeroponic growing system which typically requires 90 percent less water than other indoor growing systems. In addition, the water used in irrigation would be reused for greater efficiency. The project would be required to comply with all water efficiency and conservation measures within the California Code of Regulations. This comment does not affect the analysis completed or conclusions provided in the Draft IS-MND and no revisions are necessary.



air pollution control district

Letter 2

October 5, 2023

Greg Stones City of Lompoc **Planning Division** 100 Civic Center Plaza Lompoc, CA 93436

Email: g stones@ci.lompoc.ca.us

Re: Santa Barbara County Air Pollution Control District Comments on the Draft Mitigated Negative Declaration for the Babylon Gardens Cannabis Facility, CCU 22-02, ER 23-01

Dear Greg Stones:

The Santa Barbara County Air Pollution Control District (District) has reviewed the Draft Mitigated Negative Declaration (MND) for the referenced project which consists of a 20,370 square foot (SF) indoor cannabis cultivation and processing facility within existing buildings. Building A (7,000 SF) would be used for flowering plant cultivation, and portions of Building B (13,370 SF) would be used for cultivation, storage, freeze rooms, trimming and drying areas, and office use. The facility would only sell cannabis products on a wholesale basis and would not be open to the public. Approximately 19 employees would be required. The project is proposing to install and operate three (3) natural gasfueled 1000-kilowatt Capstone C1000S microturbines to run 24 hours per day to generate electricity for the facility. Proposed odor control systems include use of high efficiency particulate air (HEPA) filters, active carbon filters, and stationary ozone generator units. The subject property, a parcel zoned as Business Park, and identified in the Assessor Parcel Map Book as APN 093-040-036, is located at 1601 West Central Avenue in the City of Lompoc.

The District has the following comments on the Draft MND and project:

1. Health Risk: The Draft MND does not adequately assess health risk impacts from the proposed project. Initial health risk screening performed by the District shows that the operation of the proposed microturbine engines may present a significant health risk to the surrounding community.

In discussing operational air quality impacts from the project, page 28 makes the following statement: "The project would include three natural gas microturbines, which are not considered a source that produces a substantial TAC risk to sensitive receptors. Therefore, project-related toxic air contaminant emission impacts during operation would be less than significant." This statement is inaccurate, and the foregoing conclusion is not supported with substantial evidence. The combustion of natural gas via the proposed microturbine engines generates toxic air contaminants (TACs), in addition to criteria pollutant and greenhouse gas (GHG) emissions. Due to the operational characteristics of the engines, including size and hours of use, TAC emissions are quite substantial.

As previously communicated to the City, the proposed facility, including microturbines, will require a District permit. As part of District permitting, an assessment of health risk from the project will be required. Given the potential for health risk impacts from the proposed

equipment and absence of an adequate evaluation of risk in the MND, the District conducted a screening-level health risk assessment (HRA) on the three proposed microturbines to generate a conservative assessment of potential risk. The results from the screening-level HRA show that health risk from the proposed equipment exceeds the District's significance thresholds and may present a significant health risk to the surrounding community.

The District will not issue a permit for a project that does not pass either a refined HRA or screening HRA. Hence, it is highly recommended that an adequate health risk analysis is conducted as part of the land use process. Proceeding with land use entitlement for a project description that is unable to obtain a District permit would be undesirable and costly for the applicant should they need to redesign their project and potentially obtain new entitlements as a result.

Therefore, the District recommends one of two options to adequately evaluate the project's potential health risk:

- A. The applicant may prepare a <u>refined</u> HRA for the project as proposed to determine the estimated risk associated with the project. A refined HRA is a more complex, precise, and accurate assessment of risk that uses dispersion modeling. The applicant should conduct an HRA in accordance with the latest District's Modeling Guidelines for Health Risk Assessments, Form-15i, available at <u>www.ourair.org/wp-content/uploads/apcd-15i.pdf</u>.
- B. The project description and equipment/operations may be revised to reduce health risk from the project so that proposed equipment passes a screening HRA. The District can assist with conducting the revised screening HRA if this option is pursued.

Please select one of the options above and incorporate the results into the Final MND. If the applicant prepares a refined HRA, District staff would like the opportunity to review the refined HRA and verify the results before the Final MND is published. Please contact David Harris, District Engineering Division Manager, (805) 979-8311, to discuss this matter further as needed.

- 2. Microturbine Emissions: The criteria pollutant and GHG emissions for the proposed microturbines are currently assessed using CalEEMod emission factors for a CNG-fueled generator set in the "Operational Off-Road Equipment" category which is not providing an accurate emissions estimate for this equipment. Emission factors for the proposed microturbines should be based on manufacturer gaurantees, or if unavailable, emission factors from AP 42 Section 3.1 Stationary Gas Turbines. Please revise the estimate of operational criteria pollutant and GHG emissions from this equipment and include the revised estimates in Table 8 (page 26) and Table 10 (page 45).
- **3. Truck Trip Emissions**: Please quantify emissions from all truck trips (for deliveries, shipments etc.) and compare emissions from all mobile sources to the air quality and GHG thresholds. Currently, only emissions from employee trips have been quantified (as shown in the CalEEMod analysis in *Appendix A Air Quality and Greenhouse Gas Modeling*).

2-2

¹ Environmental Protection Agency, AP-42: <u>AP-42</u>, Vol. I, 3.1: Stationary Gas Turbines (epa.gov)

4. Ozone Generators: Page 9 of the Description of Project section describes the proposal for use of stationary ozone generator units in non-occupied areas of Building A and B. The District recommends against the use of ozone-generating air purifier devices for odor mitigation. Nonetheless if such units are installed, the California Air Resources Board (CARB) has established an ozone emission limit of 0.05 ppm for indoor air cleaning devices and maintains a list of CARB-certified air cleaners that meet this requirement. According to the Odor Control section on Page 8 of the MND, the proposed ozone generators would be operated between 0.03 and 0.10 ppm which does not meet the requirements of CARB's ozone emission limit. Therefore, either a CARB-certified air cleaner should be selected or a different odor mitigation strategy should be utilized for the facility.

2-4

2-5

2-6

- 5. Cannabis Manufacturing: A few areas in the MND (pages 47 and 69) state that the project will be a "cannabis cultivation, manufacturing, and processing facility..." while other sections of the MND describe the project as just a cultivation and processing facility. Please specify if the project is proposing cannabis manufacturing (oil extraction or infusion processes). If the project involves cannabis manufacturing or any other operations that involve solvent usage, then reactive organic compounds (ROCs) from these processes should be quantified and compared to air quality thresholds.
- 6. District Greenhouse Gas Threshold Applicability: Page 44 of the Greenhouse Gas Emissions section states "In the absence of locally adopted thresholds, SBCAPCD's thresholds are recommended for CEQA review of all other projects in the county for which SBCAPCD is a responsible agency or a concerned agency." The District would like to clarify for the record that the District's GHG threshold is intended to be used only for the evaluation of impacts from stationary source projects in the County. Stationary source projects include land uses with processes and equipment that require a District permit to operate. The District's threshold is not applicable to the analysis of land use development projects that do not involve stationary sources of air pollution, such as residential and most retail/commercial project types. We recommend the referenced sentence be revised as follows: "In the absence of locally adopted thresholds, SBCAPCD's GHG thresholds are recommended for CEQA review of industrial-type projects that involve stationary sources of air emissions all other projects in the county for which SBCAPCD is a responsible agency or a concerned agency."
- 7. District Involvement with Greenhouse Gas Reduction Projects: Mitigation Measure GHG-1 GHG Emissions Reduction Plan on page 46 of the Greenhouse Gas Emissions section includes a measure for the District to implement local GHG reduction projects by receiving off-site mitigation fees. While we are in favor of this approach and the pursuit of local mitigation opportunities, some of the potential projects listed such as building retrofits, and installation of solar and energy storage systems, are outside of the scope of the programs that the District normally funds and would be better suited for implementation by a municipality. Please revise

² CARB, Hazardous Ozone-Generating Air Purifiers: https://ww2.arb.ca.gov/our-work/programs/air-cleaners-ozone-products/hazardous-ozone-generating-air-purifiers

³ CARB, California's Air Cleaner Regulation (AB 2776): https://ww2.arb.ca.gov/about-indoor-air-cleaning-devices-regulation

District Comments on the Draft MND for the Babylon Gardens Cannabis Facility October 5, 2023 Page 4

this measure to clarify that the District may not be the implementing agency for all of the listed project types.

If you or the project applicant have any questions regarding these comments, please feel free to contact me at (805) 979-8334 or via email at WaddingtonE@sbcapcd.org.

Sincerely,

Emily Waddington Air Quality Specialist

Planning Division

cc: Joe Magazino, Managing Member, [email only]

David Harris, Manager, District Engineering Division [email only] William Sarraf, Supervisor, District Engineering Division [email only]

Planning Chron File

Letter 2

COMMENTER: Emily Waddington, Air Quality Specialist, Santa Barbara County Air Pollution

Control District

DATE: October 5, 2023

Response 2-1

The commenter states the Draft IS-MND does not adequately assess health risk impacts from the microturbine engine operation identified in the proposed project. The commenter states that the microturbines exceeded a screening level Health Risk Assessment (HRA) performed by Santa Barbara County Air Pollution Control District (SBCAPCD). The commenter states that the applicant should either prepare a refined HRA or revise the project description to reduce equipment/operation health risks.

The project no longer includes the use of microturbines or the use of Building B for cultivation activities. The updated equipment/operations were revised to reduce health risk from the project based on the comment. A diesel emergency generator will instead be a component of the project. A screening HRA was prepared by SBCAPCD for the proposed emergency generator which indicated impacts to be below SBCAPCD's risk thresholds. The following revisions were made to the Draft IS-MND:

Project Description, page 6

Babylon Gardens, LLC. Proposes to complete improvements and reengineering to portions of <u>one</u> two of the existing industrial buildings for an indoor cannabis cultivation and processing facility. Previously, the <u>The</u> three existing buildings were <u>are</u> used as a Tire and Auto Repair shop called Rolling Tire and Auto Repair, <u>wine storage</u>, and a welding shop. Currently the structures are vacant. The cannabis cultivation facility would occur within all of building A and portions of building B and would total approximately <u>7,000</u> 20,370 square feet. The growing facility would typically operate from 6:30am to 4:30pm Monday through Saturday and would require approximately <u>19</u> employees.

All 7,000 square feet of building A would be dedicated to flowering plant cultivation as shown in Figure 4. 13,370 square feet of Building B would be part of the proposed project. In Building B, 9,000 square feet would be used for cultivating mother/clone plants and flowering plants. The remaining 4,370 square feet would be used for water tank storage, freeze rooms, a cannabis trimming and dying area, and general office uses such as offices, breakroom, restrooms. Figure 5 shows the proposed floor plan of building B. The facility would only sell cannabis products to State licensed facilities on a wholesale basis and there would be no retail sales on-site. As such, the proposed facility would not be open to the public and visitors would be permitted only with a specific business purpose. Table 1 below provides a summary of the project components.

Table 1 Project Summary

Building Use and A	rea
Building A	7,000 square feet of plant cultivation
Building B	13,370 square feet (4,370 square feet of office uses and 9,000 square feet of plant cultivation)
Total	<u>7,000</u> 20,370 square feet

Project Description, page 8

Mechanical equipment proposed for the project would include <u>9</u> <u>18</u> ground mounted air conditioning and handling units and three natural gas microturbines which would generate electricity for the proposed cultivation facility. The equipment details are shown in Table 2. The exterior pad mounted air conditioner unit would be located at the northwest corner of the building. The project does <u>include</u> <u>a Tier 4 backup emergency generator which would be diesel-fueled</u>. Not include any diesel-powered generators.

Table 2 Proposed Mechanical Equipment

Туре	Quantity	Make/Model
Air Conditioner/Handling Unit	<u>8</u> 11	Inspire 2 5-ton
Air Conditioner/Handling Unit	<u>1</u> 8	Inspire <u>2035-ton</u>
Emergency Generator	<u>1</u>	Tier 4 JCB model G625RS
Natural gas microturbine	3	Capstone C1000S

Project Description, page 12

Utilities Providers

The City of Lompoc would provide water, sewer, storm sewer, electricity, and solid waste services to the project site. The City would also provide any electricity needed beyond what is produced from the on-site microturbine generators. The Southern California Gas Company (SoCalGas) would provide natural gas services to the project site. A portion of the project's electricity need would be generated from on-site natural gas microturbines.

Section 3 Air Quality, page 29

Operational Impacts

Long-term operational emissions of the project would include toxic substances such as cleaning agents and flammable materials in use on site. Compliance with State and federal handling regulations would ensure that emissions remain below a level of significance. The use of such substances such as cleaning agents and flammable materials is regulated by the 1990 Federal Clean Air Act Amendments as well as State-adopted regulations for the chemical composition of consumer products. The project would include one 500 kilowatt diesel-fueled generator for approximately 50 hours per year for maintenance and testing purposes. A screening health risk assessment was prepared by SBCAPCD for the proposed emergency generator. The maximally exposed individual resident would be exposed to a cancer risk of 3.76 cases in one million individuals, which is below SBCAPCD's recommended cancer risk criteria of 10 excess cases of cancer in one million individuals. In addition, the generator would result in a chronic hazard index of approximately 0.001 for the maximally exposed individual resident, which is below the hazard index of 1. The maximally exposed individual worker would be exposed to a cancer risk of 1.29 in one million individuals and a chronic hazard index of 0.001, which are both below SBCAPCD's health risk thresholds. three natural gas microturbines, which are not considered a source that produces a substantial TAC risk to sensitive receptors. Therefore, project-related toxic air contaminant emission impacts during operation would be less than significant.

Response 2-2

The commenter states, in relation to the microturbine emissions, that that criteria pollutant and greenhouse gas emissions for the proposed project was assessed using CalEEMod factors that were not applicable. The commenter states emissions should be re-analyzed using appropriate emissions.

The criteria pollutant and greenhouse gas emission estimates were revised based on the revised Project Description, including the use of an emergency back-up generator in place of the three microturbines. In addition, energy use estimates were revised. The following revisions were made to the Draft IS-MND:

Section 3 Air Quality, page 27

Operation

Operation of the project would generate criteria air pollutant emissions associated with area sources (e.g., architectural coatings, consumer products, and landscaping equipment), energy sources (i.e., use of natural gas for space and water heating), mobile sources (i.e., vehicle trips to and from the project site), and stationary source (i.e., emergency back-up diesel-natural gas generators). Table 8 summarizes the project's operational emissions by emission source (mobile, area, energy, and offroad). As shown in Table 8, the project's operational emissions would not exceed SBCAPCD thresholds for criteria pollutants. Therefore, project operation would not contribute substantially to an existing or projected air quality violation and impacts would be less than significant.

Table 3 Project Operational Emissions

	Average Daily Emissions (pounds per day)					
Emissions Source	ROC	NO _x	со	SO ₂	PM ₁₀	PM _{2.5}
Mobile	<1	<1	<u><1</u> 1	<1	<1	<1
Area	<1	<1	<1	<1	<1	<1
Energy	<1	< <u>1</u> 2	<u><1</u> 2	<1	<1	<1
Stationary (Generator)	<u>2</u> 5	<u>6</u> 2	<u>6</u> 170	<u><1</u> 0	<u><1</u> 0	<u><1</u> 0
Total	<u>3</u> 6	<u>6</u> 64	<u>6</u> 174	<1	<u><1</u> 4	<1
Threshold (area + energy + mobile+ off-road)	240	240	N/A	N/A	80	N/A
Threshold Exceeded?	No	No	N/A	N/A	No	N/A
Threshold (mobile only)	25	25	N/A	N/A	N/A	N/A
Threshold Exceeded?	No	No	N/A	N/A	N/A	N/A

ROC = reactive organic compounds, NO_X = nitrogen oxides, CO = carbon monoxide, SO_2 = sulfur dioxide, PM_{10} = particulate matter 10 microns in diameter or less, $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed using CalEEMod. See Appendix A for modeling results. Some numbers may not sum precisely due to rounding. Emission data is pulled from "mitigated" results, which account for compliance with regulations (including SBCAPCD Rule 323.1) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

Section 6 Energy, page 41

The proposed project would use <u>electricity power from natural gas to-from the grid to power the generate electricity from the proposed microturbine generators</u>, heating and cooling, lighting and cannabis grow lights, and freezers. In addition, natural gas would be used to power HVAC units. Table 9 shows estimated operational energy estimates of the project.

Table 4 Estimated Energy Use

Source	Energy Consumption		
Operational Electricity	<u>1,479,007</u> 2,177,515 kWh	<u>5,046</u> 7,429 MMBtu	
Operational Natural Gas	<u>2,820,000</u> 6,866,000 kBTU	<u>2,820</u> 6,866 MMBtu	
Total		<u>7,866</u> 4 ,295 -MMBtu	
Notes: Btu = British Thermal Units			
Source: Appendix A			

Operation of the proposed project would consume approximately 1,479,007 2,177,515 kilowatt hours (kWh) of electricity and 2,820,000 208,909 kilo british thermal unit (kBtu) of natural gas per year. The energy and natural gas consumption would not represent a substantial increase in demand as the project would generate electricity from three on site microturbine generators and would not need energy supplemented from Lompoc's Energy Company. Gasoline would be used for workers driving to the project site. The project would only have 49 full-time workers which likely would be drawn from the local workforce. The energy use from worker trips would not be considered wasteful or inefficient.

The project would be required to adhere to State regulations for cannabis cultivation, contained in Title 3, Division 8, Chapter 1 of the California Code of Regulations, which are related to energy efficiency and conservation. These regulations were not captured in the above estimates as they are to be implemented by cannabis facilities in the State in the coming years. The implementation of these measures, required by law, would further reduce the energy demand for the project's cannabis operations.

The energy demand from the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Construction and operation of the project would increase electricity, and natural gas consumption due to increased vehicle trips and operational energy needs. However, this increased demand would represent a small proportion of demand from energy providers, and the project would be required to comply with applicable regulations related to energy efficiency and conservation. The project would produce its own electricity and the microturbine generators would only generate electricity needed for the proposed cannabis cultivation facility. Therefore, project operation would not result in wasteful or unnecessary energy consumption, and impacts would be less than significant.

Section 8 Greenhouse Gas Emissions, page 48

Total annual operational GHG emissions associated with the proposed project are shown in Table 11. As shown, the project would generate approximately $\underline{335}$ $\underline{1,337}$ MT CO₂e per year from amortized construction, stationary, area, energy, waste, water usage, and mobile emission sources. This would \underline{not} exceed the established threshold of $\underline{1,000}\underline{10,000}$ CO₂e MT per year. Therefore, project impacts would be less than significant. are potentially significant and require mitigation.

Table 5 Combined Annual Emissions of Greenhouse Gases

Emission Source		Annual Emissions (CO₂e MT)
Construction Amortized		2	
Operational		1, <u>063</u> 2,335	
Mobile		19	
Area		<1	
Energy		<u>1,026</u> 815	
Water		<u>2</u> 5	
Waste		<u>3</u> 8	
Refrigerant		<u>≤</u> 1	
Generators		1 <u>31,487</u>	
Total		1 <u>,065</u> 2,337	
Santa Barbara County SBCAPCD Threshold	Threshold	<u>1,000</u> 10,000	
Exceed Threshold?		Yes	
See Appendix A for CalEEMod wo	rksheets. Values m	nay not add directly due	e to rounding.

Mitigation Measures

GHG-1 GHG Emissions Reduction Plan

Prepare a GHG Reduction Plan (GHGRP) that reduces annual project GHG emissions by an amount determined to be at, or below, the GHG threshold value at the time of project approval. A qualified professional air quality consultant shall prepare the GHGRP for submittal to the Planning Division for review. The qualified professional air quality consultant shall certify the GHGRP, as implemented, either solely or in combination with mitigation credits or carbon off sets, will reduce GHGs by the required 652,338 MT of CO₂e per year. The GHGRP shall be designed to reduce GHG emissions through measures, including but not limited to, the following:

- Installation of renewable energy facilities (e.g., solar photovoltaics);
- Construction of buildings that achieve energy and water efficiencies beyond those specified in the California Code of Regulations, Title 24 requirements;
- Implementation of energy efficient building design exceeding California Building Code requirements;
- Installation of energy-efficient equipment and appliances exceeding California Green Building Code standards;
- Installation of outdoor water conservation and recycling features, such as smart irrigation controllers and reclaimed water usage, exceeding the water efficient landscape ordinance (WELO) requirements;
- Installation of low-flow bathroom and kitchen fixtures and fittings;
- Installation of light emitting diode (LED) lights;
- Provision of incentives and outreach for future employees to promote alternative transportation and transit use;
- Promotion of alternative fuel vehicles;

- Increased provision of EV charging parking spaces beyond required;
- Off-site mitigation fees paid to SBCAPCD or other implementing agencies to implement local GHG reduction projects. Projects may include, but are not limited to, replacement of diesel school and/or urban buses with battery electric or fuel cell electric buses, installation of electric vehicle charging stations, retrofits of existing buildings to improve energy efficiency, installation of rooftop solar on existing buildings, and installation of residential and/or commercial battery energy storage systems. The final amount of off-site mitigation fees shall be determined based on accepted methodologies for assessing the per-unit cost of GHG emissions in Santa Barbara County;
- Purchase of GHG mitigation reduction credits, and
- Obtain and retire carbon offsets.

Prior to occupancy, written, as built verification, by the qualified air quality professional shall be submitted to the Planning Division, certifying all implementation measures included in the approved GHG reduction plan have been properly and fully implemented. The verification shall be signed and dated by the qualified air quality professional.

Significance After Mitigation

Implementation of Mitigation Measure GHG-1 would reduce project related emissions below the threshold of significance of 1,000 MT of CO₂e per year. Impacts would be less than significant with mitigation incorporated.

Section 13 Noise, page 70

Generator

The project would use three Capstone C1000S generators; each unit one Tier 4 JCB model G625RS generator that would generate a noise level of 65 dBA at 10 meters 72 dBA at 23 feet. The distance of the units to the nearest sensitive receivers to the south would range from 190 feet to 285 feet. A 5 dBA attenuation from the project's buildings for the one generator located on the northern side of the project buildings was assumed to the residences to the south. As shown in Table 12, the proposed generator noise levels noise levels do not exceed the City's exterior or interior noise levels at the nearby residential or industrial property lines or interiors. Impacts would be less than significant.

Response 2-3

The commenter states that the Draft IS-MND should quantify the emissions from all truck trips and compare emissions from all mobile sources to air quality and greenhouse gas thresholds.

Estimated truck trips during construction were conservatively added to the emission modeling. The project would not have any significant truck use or emissions during operation. The following revisions were made to the Draft IS-MND:

Section 3 Air Quality, page 23

Construction emissions modeled include emissions generated by construction equipment used on the project site and vehicle trips associated with construction, such as worker and vendor trips. The analysis conservatively models a new parking lot with 51 parking spaces. The project would include minor building improvements and would include up to 20 truck trips during building construction. The

Babylon Gardens Indoor Cultivation Facility Project

proposed construction start date is assumed to begin in July 2024. Based on the applicant-provided land use, CalEEMod provides assumptions for the construction schedule, equipment list, and number of vehicle trips. The model estimates construction would occur over approximately five months with any excavated soil balanced onsite. It is assumed that the construction equipment used would be diesel-powered and approximately half of the 20 truck trips would occur within one construction day to conservatively estimate daily truck emissions. The project would comply with applicable regulatory standards, such as SBCAPCD fugitive dust control measures and Rule 323.1 Architectural Coating.

Response 2-4

The commenter recommended against the use of ozone-generating air purifier devices for odor mitigation. The commenter states that either a CARB-certified air cleaner should be selected, or a different odor mitigation strategy should be utilized for the facility.

The project no longer includes the use of a Stationary Ozone Generator, and the description of its use was removed from the document. The Draft IS-MND has been revised as follows:

Project Description, page 9

Stationary Ozone Generator

Stationary ozone generator units would be installed in non-accessible and non-occupied areas on the perimeter of the building A and B. Ozone generators produce Ozone which is attaches to odors, mold, mildew, bacteria, microorganisms and other pollutants and oxidizes them. Any Ozone particles not used in the oxidation process convert back to Oxygen after about an hour. Ozone generators would be set between 0.03 ppm and 0.10 ppm to ensure safe levels of ozone are maintained at all times and will be maintained in accordance with the manufacturer's recommendation.

Response 2-5

The commenter states that the Draft IS-MND should revise the references to the project type to be consistent and asks that the document specify if the project involves cannabis manufacturing or any other operations that involve solvent usage.

The proposed project does not include cannabis manufacturing. References to the project type throughout the Draft IS-MND were revised to specify that only cultivation and processing would occur. Solvent usage and reactive organic compounds (ROCs) were not included as part of the Project Description or analysis. The following revisions were made to the Draft IS-MND:

Section 8 Greenhouse Gas Emissions, page 48

The project would include a cannabis cultivation, manufacturing, and processing facility that would employ up to 19 people full-time which would likely be drawn from the local workforce. As such, the project would be consistent with the RTP/SCS by creating job opportunities in Lompoc.

Section 14 Population and Housing, page 70

The proposed project does not involve the construction of new housing which would lead to a direct population increase. The project would include a cannabis cultivation, manufacturing, and processing facility that would employ up to 19 people full-time. The increase in employment opportunities would not result in a substantial increase in population, as it is anticipated that most employees would come from the regional workforce. Therefore, the project is not anticipated to induce substantial population growth. Impacts would be less than significant.

Response 2-6

The commenter suggests that the Draft IS-MND clarify for the record that the SBCAPCD's GHG threshold is intended to be used only for the evaluation of impacts from stationary source projects in the county. The commenter recommended revisions to the description of the proposed threshold.

The Draft IS-MND was revised to include information on the locally adopted thresholds for stationary industrial sources of air pollution. The Draft IS-MND was revised as follows:

Section 3 Air Quality, page 46

Significance Threshold

In January 2021, Santa Barbara County amended their Environmental Thresholds and Guidelines Manual. The adopted Guidelines include an industrial stationary source GHG emissions threshold of 1,000 MT CO₂e per year, as shown in Table 10, which applies to industrial stationary sources subject to discretionary approvals (Santa Barbara County 2021). The threshold applies to both direct and indirect emissions. According to the Environmental Thresholds and Guidelines Manual, direct emissions encompass the project's complete operations, including stationary and mobile sources. Indirect emissions encompass GHG emissions that are associated with electricity, water, and solid waste.

Table 6 Santa Barbara County GHG Emissions Thresholds

GHG Emission Source Categories	Operational Emissions		
Stationary Source Industrial Projects	1,000 MT CO₂e per year		
Source: Santa Barbara County 2021			
Stationary Sources include land uses that would accommodate processes and equipment that emit GHG emissions and would require an Air District permit to operate.			

The City of Lompoc is located in Santa Barbara County and shares meteorological attributes, as well as similar land use patterns and policies, and thresholds deemed applicable in Santa Barbara County would also reasonably apply to projects within the City of Lompoc. The proposed project would require permitting from SBCAPCD related to mechanical equipment proposed and would require discretionary approval. Therefore, the City has determined the Santa Barbara County industrial stationary source threshold is appropriate for the proposed project.

Response 2-7

The commenter notes that for Mitigation Measure GHG-1 *GHG Emissions Reduction Plan*, SBCAPCD may not be the implementing agency for all of the listed project types. The commenter asks that the Mitigation Measure be revised to clarify this.

The Draft IS-MND and GHG emission model were revised to incorporate the new project description, which now shows GHG emissions below the identified threshold. Therefore, Mitigation Measure GHG-1 is no longer applicable. The following revisions were made to the Draft IS-MND:

Section 8 Greenhouse Gas Emissions, page 48

Mitigation Measures

GHG-1 GHG Emissions Reduction Plan

Prepare a GHG Reduction Plan (GHGRP) that reduces annual project GHG emissions by an amount determined to be at, or below, the GHG threshold value at the time of project approval. A qualified professional air quality consultant shall prepare the GHGRP for submittal to the Planning Division for review. The qualified professional air quality consultant shall certify the GHGRP, as implemented, either solely or in combination with mitigation credits or carbon off sets, will reduce GHGs by the required $\underline{652,338}$ MT of $\underline{CO_{2}e}$ per year. The GHGRP shall be designed to reduce GHG emissions through measures, including but not limited to, the following:

- Installation of renewable energy facilities (e.g., solar photovoltaics);
- Construction of buildings that achieve energy and water efficiencies beyond those specified in the California Code of Regulations, Title 24 requirements;
- Implementation of energy efficient building design exceeding California Building Code requirements;
- Installation of energy-efficient equipment and appliances exceeding California Green Building Code standards;
- Installation of outdoor water conservation and recycling features, such as smart irrigation controllers and reclaimed water usage, exceeding the water efficient landscape ordinance (WELO) requirements;
- Installation of low-flow bathroom and kitchen fixtures and fittings;
- Installation of light emitting diode (LED) lights;
- Provision of incentives and outreach for future employees to promote alternative transportation and transit use;
- Promotion of alternative fuel vehicles;
- Increased provision of EV charging parking spaces beyond required;
- Off-site mitigation fees paid to SBCAPCD or other implementing agencies to implement local GHG reduction projects. Projects may include, but are not limited to, replacement of diesel school and/or urban buses with battery electric or fuel cell electric buses, installation of electric vehicle charging stations, retrofits of existing buildings to improve energy efficiency, installation of rooftop solar on existing buildings, and installation of residential and/or commercial battery energy storage systems. The final amount of off-site mitigation fees shall be determined based on accepted methodologies for assessing the per-unit cost of GHG emissions in Santa Barbara County;
- Purchase of GHG mitigation reduction credits, and
- Obtain and retire carbon offsets.

Prior to occupancy, written, as-built verification, by the qualified air quality professional shall be submitted to the Planning Division, certifying all implementation measures included in the approved GHG reduction plan have been properly and fully implemented. The verification shall be signed and dated by the qualified air quality professional.

Significance After Mitigation

Implementation of Mitigation Measure GHG-1 would reduce project-related emissions below the threshold of significance of 1,000 MT of CO_2e per year. Impacts would be less than significant with mitigation incorporated.

California Department of Transportation

DIVISION OF TRANSPORTATION PLANNING AERONAUTICS PROGRAM – M.S. #40 1120 N STREET P. O. BOX 942874 SACRAMENTO, CA 94274-0001 PHONE (916) 654-4959 FAX (916) 653-9531 TTY 711 www.dot.ca.gov







October 5th, 2023

Greg Stones
Principal Planner
City of Lompoc
100 Civic Center Plaza
Lompoc, CA 93436

Electronically Sent < g_stones@ci.lompoc.ca.us>

Re: 2023090039, Babylon Gardens Indoor Cultivation Facility Project

Dear Mr. Stones:

The California Department of Transportation, Aeronautics Program has reviewed the Mitigated Negative Declaration for the Babylon Gardens Indoor Cultivation Facility Project located at 1601 West Central Avenue in the City of Lompoc, County of Santa Barbara. One of the goals of the California Department of Transportation (Caltrans), Aeronautics Program, is to assist cities, counties, and Airport Land Use Commissions or their equivalent (ALUC), to understand and comply with the State Aeronautics Act pursuant to the California Public Utilities Code (PUC), Section 21001 et seq. Caltrans encourages collaboration with our partners in the planning process and thanks you for including the Aeronautics Program in the review of the Mitigated Negative Declaration.

The site of the proposed Project is in Safety Zone 6 and Review Area 1 of the Airport Influence Area (AIA) for the Lompoc Regional Airport, and therefore must adhere to the safety criteria and restrictions defined in the Airport Land Use Compatibility Plan (ALUCP) formed by the ALUC pursuant to the PUC, Section 21674. Review Area 1 of the AIA consists of a combination of the noise contours and the six safety zones for the Airport and represents areas where noise and/or safety concerns may require limitations on the type of allowable land uses. Safety Zone 6 has no limits on lot coverage, and typically allows compatibility for most uses (Table 3-2, Lompoc Airport Safety Compatibility Criteria).

Caltrans advises the City of Lompoc to submit its plans upon completion to the ALUC to determine if the plans or projects are consistent or not with the ALUCP according to the State Aeronautics Act's statutory procedure. An ALUCP is crucial in minimizing noise nuisance and safety hazards around airports while promoting the orderly

3-1

Greg Stones, Principal Planner October 5th, 2023 Page 2

development of airports, as declared by the California Legislature. A responsibility of the ALUC is to assess potential risk to aircraft and persons in airspace and people occupying areas within the vicinity of the airport.

If you have any questions or need additional information, please contact me at my email address: tiffany.martinez@dot.ca.gov.

Sincerely,

Tiffany Martinez

Transportation Planner, Aeronautics Program

Cc: State Clearinghouse

Tiffany Martinez

Letter 3

COMMENTER: Tiffany Martinez, Transportation Planner, Aeronautics Program, California

Department of Transportation

DATE: October 5, 2023

Response 3-1

The commenter states that the site of the proposed project is in Safety Zone 6 and Review Area 1 of the Airport Influence Area (AIA) for the Lompoc Regional Airport, and therefore must adhere to the safety criteria and restrictions defined in the Airport Land Use Compatibility Plan (ALUCP) formed by the ALUC, including noise and safety concerns that may require limitations on the type of allowable land uses. The commenter also states that Safety Zone 6 has no limits on lot coverage, and typically allows compatibility for most uses.

As discussed in Section 9, *Hazards and Hazardous Materials*, the City's General Plan and proposed land uses and height restrictions have been reviewed for compliance with the adopted ALUCP. The project is consistent with the existing land use and would not add new structures or increase the height or floor area of existing buildings. The comment does not indicate any deficiencies in the Draft IS-MND. Therefore, no revisions were made in response to this comment.

Response 3-2

The commenter advises the City of Lompoc to submit its plans upon completion to the ALUC to determine if the plans or projects are consistent or not with the ALUCP according to the State Aeronautics Act's statutory procedure and to review potential risk to aircraft and persons in airspace and people occupying areas within the vicinity of the airport.

The comment does not point to a deficiency or area of the Draft ID-MND that should be revised. No revisions were made in response to this comment.