Air Quality and Greenhouse Gas Emissions Assessment

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APPENDIX

HIPPO HARVEST AIR QUALITY AND GREENHOUSE GAS EMISSIONS ASSESSMENT

Hollister, San Benito County, California

December 22, 2025
Revised January 21, 2026

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Introduction

The purpose of this report is to address the potential air quality and greenhouse gas (GHG) impacts associated with the proposed large-scale hydroponic greenhouse and processing facility located at 2370 Shore Road in Hollister, San Benito County, California. Air quality impacts from this project would be associated with demolition of the existing land uses, construction of the new building, greenhouses, and infrastructure, and operation of the project. Air pollutants were predicted using appropriate computer models. The analysis was conducted following guidance provided by the Monterey Bay Air Resources District (MBARD).

Project Description

The approximately 80-acre project site consists of an existing single-family house. The project proposes to demolish the existing use and construct a 45,000-square foot (sf) office and processing facility building. There would be 28 acres of greenhouse cultivation. Additionally, there would be parking spaces for 58 cars and 2 semi-trucks. The project would include a 40-horsepower (HP) emergency generator. There would also be walk-in freezers and eight microturbines at full build out. The Project would be constructed in two phases. Phase 1 would construct 4 acres of greenhouse cultivation, and a 28 car parking lot. Phase 2 would construct the processing facility, 24 acres of greenhouse cultivation, and 30 automobile and two semi-truck parking spaces. The proposed hours of operation would span 6:00 AM to 8:00 PM, Monday through Saturday. Construction of Phase 1 is expected to begin in February 2026 and will be completed in January 2026. Construction of Phase 2 is expected to begin in January 2028 and will be completed in June 2029.

Setting

The project is located in San Benito County, which is in the Northern Central Coast Air Basin (NCCAB). Ambient air quality standards have been established at both the State and federal level. San Benito County meets all ambient air quality standards with the exception of fine particulate matter (PM_{10}).

Air Pollutants of Concern

Ozone (O_3) and fine particle pollution, or $PM_{2.5}$, are the major regional air pollutants of concern in the NCCAB. O_3 is primarily a problem in the summer, and fine particle pollution in the winter. A cool marine air usually reaches across San Benito County in summer. O_3 frequently forms on hot summer days when the prevailing seasonal northerly winds carry O_3 precursors southward across the county, causing health standards to be exceeded. The area experiences many exceedances of the $PM_{2.5}$ standard each winter. This is due to the high population density, wood smoke, industrial and freeway traffic, and poor wintertime air circulation caused by extensive hills to the east and west that block wind flow into the region.

Toxic Air Contaminants

TACs are a broad class of compounds known to cause morbidity or mortality, often because they cause cancer. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway). Because chronic exposure of TACs can result in adverse health effects, they are regulated at the regional, State, and federal level.

Diesel exhaust is the predominant TAC in urban air. According to the California Air Resources Board (CARB), diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects from diesel exhaust exposure a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

Sensitive Receptors

There are groups of people more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, people over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Residential locations are assumed to include infants and small children. The closest sensitive receptor to the project site is the single-family residence located adjacent to the east of the project site. This project would not introduce new sensitive receptors (i.e., residents) to the area.

Federal Regulations

The United States Environmental Protection Agency (EPA) sets nationwide ambient air quality standards (NAAQS) and emission standards for mobile sources, which include on-road (highway) motor vehicles such trucks, buses, and automobiles, and non-road (off-road) vehicles and equipment used in construction, agricultural, industrial, and mining activities (such as bulldozers and loaders). The EPA also sets nationwide fuel standards.

In the past twenty years, the EPA has established a number of emission standards for on- and non-road heavy-duty diesel engines used in trucks and other equipment. This was done in part because diesel engines are a significant source of NO_X and particulate matter ($PM_{2.5}$) and because the EPA has identified DPM as a probable carcinogen. Implementation of the heavy-duty diesel on-road vehicle standards and the non-road diesel engine standards are estimated to reduce particulate matter and NO_X emissions from diesel engines up to 95 percent in 2030 when the heavy-duty vehicle fleet is completely replaced with newer heavy-duty vehicles that comply with these emission standards.[1]

[1] USEPA, 2000. *Regulatory Announcement, Heavy-Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements*. EPA420-F-00-057. December.

In concert with the diesel engine emission standards, the EPA has also substantially reduced the amount of sulfur allowed in diesel fuels. The sulfur contained in diesel fuel is a significant contributor to the formation of particulate matter in diesel-fueled engine exhaust. The current standards limit the amount of sulfur allowed in diesel fuel to 15 parts per million by weight (ppmw). Ultra-low sulfur diesel (ULSD), as it is referred to, is required for use by all vehicles in the U.S.

All of the above federal diesel engine and diesel fuel requirements have been adopted by California, in some cases with modifications making the requirements more stringent or the implementation dates sooner.

State Regulations

The California Air Resources Board (CARB) has set statewide ambient air quality standards (CAAQS) and emission standards for on-road and off-road mobile sources that are more stringent than those adopted by the EPA. Several of these regulatory programs affect medium and heavy-duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, CARB approved a regulation to reduce emissions of DPM and NO_X from on-road heavy-duty diesel fueled vehicles.[2] The regulation requires affected vehicles to meet specific performance requirements between 2014 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. Advanced Clean Cars and Advanced Clean Cars II (ACC II) that will require all new cars and light trucks sold in California will be zero-emission vehicles by 2035.

CARB has also adopted and implemented regulations to reduce DPM and NO_X emissions from in-use (existing) and new off-road heavy-duty diesel vehicles (e.g., loaders, tractors, bulldozers, backhoes, off-highway trucks, etc.). The regulations apply to diesel-powered off-road vehicles with engines 25 horsepower (hp) or greater. The regulations are intended to reduce DPM and NO_X exhaust emissions by requiring owners to turn over their fleet (replace older equipment with newer equipment) or retrofit existing equipment in order to achieve specified fleet-averaged emission rates. Implementation of this regulation, in conjunction with the Federal off-road equipment engine emission limits for new vehicles, has significantly reduced emissions of DPM and NO_X.

To address the issue of diesel emissions in the state, CARB developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*[3]. In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, a significant component of the plan involves application of emission control strategies to existing diesel vehicles and equipment. Many of the measures of the Diesel Risk Reduction Plan have been approved and adopted, including the Federal on-road and non-road emission standards for new diesel engines, as well as adoption of regulations for ULSD fuel in California.

[2] Available online: http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm. Accessed: November 21, 2014.

[3] California Air Resources Board, 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October.

Truck and Bus Regulation

CARB is actively enforcing heavy-duty diesel vehicle regulations that require fleets to replace or retrofit heavy-duty diesel vehicles, with full implementation of the program scheduled for January 1, 2023. Compliance with the program is generally considered vehicles equipped with a 2010 or newer engine model year. As of January 1, 2020, the DMV cannot register any vehicle that does not meet the requirements of the Truck and Bus Regulation.

Other CARB diesel programs affecting heavy-duty diesel vehicles include:

- Idling limits of no more than 5 minutes with special exceptions
- Emission Control Labels must be affixed to engines of all commercial heavy-duty diesel vehicles, and must be legible as proof the engine, at minimum, meets U.S. federal emissions standards for the engine model year
- The Periodic Smoke Inspection Program requires owners of California-based fleets of two or more diesel vehicles to perform annual smoke opacity tests and to keep records for at least two years for each vehicle.
- The Heavy-Duty Vehicle Inspection Program uses random roadside inspections to verify that diesel engines do not smoke excessively and are tamper-free.

Off-Road Vehicle and Equipment Regulations

CARB has also adopted and implemented regulations to reduce DPM and nitrogen oxides (NOx) emissions from in-use (existing) and new off-road heavy-duty diesel vehicles (e.g., loaders, tractors, bulldozers, backhoes, off-highway trucks, etc.). The regulations apply to diesel-powered off-road vehicles with engines 25 horsepower (hp) or greater. The regulations are intended to reduce particulate matter and NOx exhaust emissions by requiring owners to turn over their fleet (replace older equipment with newer equipment) or retrofit existing equipment in order to achieve specified fleet-averaged emission rates. Implementation of this regulation, in conjunction with stringent Federal off-road equipment engine emission limits for new vehicles, is expected to substantially reduce emissions of DPM and NOx.

Fleet owners must report the vehicle and engine information for all vehicles within their fleets operating in California. Fleet owners must also report owner information. Fleet owners should report using DOORS, which is CARB's online reporting tool. CARB issues a unique Equipment Identification Number (EIN) that is assigned to each vehicle. The fleet owner must label their vehicles with the EIN.

Other CARB diesel programs affecting off-road vehicles and equipment include:

- Idling limits of no more than 5 minutes with special exceptions.
- Portable engines 50 hp or greater may require a permit or registration to legally operate. The Air District is responsible for taking enforcement action against individuals who own or operate portable equipment without a registration or permit.

Transport Refrigeration Units

Some trucks transporting products from the Project would have Transport Refrigeration Units (TRU), which are refrigeration systems powered by diesel internal combustion engines designed to refrigerate or heat perishable products that are transported in various containers, including truck vans, semi-truck trailers, shipping containers, and railcars. TRU engines are relatively small, ranging from 9 to 36 horsepower (hp). CARB adopted (in 2004 with amendments in 2010 and 2011) an Airborne Toxic Control Measure (ATCM) for TRUs, TRU generator sets, and facilities where TRUs and TRU generator sets operate. The TRU ATCM requires in-use TRU and TRU generator set engines that operate in California, to meet in-use performance standards that vary by horsepower range. All TRUs must meet the Ultra-Low Emission In-Use Performance Standards that are equivalent to CARB's Level 3 Verified Diesel Emission Control Strategy (VDECS) that requires at least an 85-percent reduction in particulate matter exhaust emissions.

Owners of TRUs based in California are required to register their TRUs by applying for a CARB identification number (IDN) for each TRU. Operators of terminals located in California are also required to submit an initial Operator Report to CARB that provides information about the terminal and lists the IDNs of all TRUs assigned to the terminal. Owners are responsible for ensuring that TRU engines meet in-use performance standards by using U.S. EPA Tier 4 final emission standards or installing the required level of verified diesel emission control strategy (VDECS) or using an Alternative Technology. Information regarding TRU emissions is published by CARB[4,5].

Monterey Bay Air Resources District

The Monterey Bay Air Resources District (MBARD) regulates air quality in the NCCAB and is responsible for attainment planning related to criteria air pollutants, as well as for district rule development and enforcement. The Air District also reviews air quality analyses prepared for California Environmental Quality Act (CEQA) assessments and published the CEQA Air Quality Guidelines document (last revised February 2016) for use in evaluation of air quality impacts. MBARD's CEQA Guidelines provide the most recent guidance and thresholds of significance, as shown in Table 1.

Construction activities involving typical construction equipment (defined by the MBARD CEQA Guidelines as scrapers, tractors, dozers, graders, loaders, and rollers) that temporarily emit precursors of O_3 (i.e., ROG and NOx) are considered to be included in the emission inventories of State and Federally required air plans and would not have a significant impact on the attainment and maintenance of O_3 standards in the air basin. MBARD considers construction activities (e.g., excavation, grading, on-site vehicles), which directly generate 82 pounds per day or more of PM_{10} would have a significant impact on local air quality when they are located nearby and upwind of sensitive receptors. Construction projects that with minimal earthmoving disturb less than 8.1 acres

[4] CARB. 2011. *Frequently Asked Questions for Operators of TRUs and TRU Generator Sets, and Facilities Where TRUs Operate*. Last updated in January 2011. See https://ww2.arb.ca.gov/sites/default/files/classic/diesel/tru/documents/faq.pdf?_ga=2.87010590.708001769.1642533517-106250637.1504031780 accessed 1/20/2022.

[5] CARB 2019. Draft 2019 Update to Emissions Inventory for Transport Refrigeration Units. October 2019. See https://ww2.arb.ca.gov/sites/default/files/classic/cc/cold-storage/documents/hra_emissioninventory2019.pdf accessed 1/20/2022.

per day or projects with grading and excavation that disturb 2.2 acres per day are not expected by MBARD to have direct emissions greater than the 82 lb/day threshold of significance, while projects with activity levels higher than those above may have a significant impact on air quality. Additional analysis that includes emissions modeling and application of mitigation measures may be necessary for those construction activities.

Table 1. MBARD CEQA Thresholds of Significance

Criteria Air Pollutants and Precursors (Regional)	Construction-Related	Operational-Related
	Average Daily Emissions (lbs./day)	Average Daily Emissions (lbs./day)
NO_X	--	137
ROG	--	137
PM_{10}	82 (onsite)[1]	82 (onsite)[1]
$PM_{2.5}$	--	55
CO	--	550

[1]District-approved dispersion modeling can be used to refute (or validate) this determination of significance if direct emissions would not cause an exceedance of State PM10 ambient air quality standard.
Source: Monterey Bay Unified Air Pollution Control District, 2016

Air Quality Management Plan

In accordance with the CCAA, MBARD has developed the *2012 Air Quality Management Plan for the Monterey Bay Region* (2012 AQMP). The 2012 AQMP is a transitional plan shifting focus of MBARD's efforts from achieving the 1-hour component of the State O_3 AAQS to achieving the 8-hour O_3 requirement. The plan includes an updated air quality trends analysis, which reflects both the 1- and 8-hour standards, as well as an updated emission inventory, which includes the latest information on stationary, area and mobile emission sources.

In March 2017, MBARD adopted the 2012-2015 Triennial Plan Revision, which assesses and updates elements of the 2012 AQMP, including the air quality trends analysis, emission inventory, and mobile source programs. The 2017 AQMP Revision only addresses attainment of the State O_3 standard. In 2012, EPA designated the NCCAB as attainment of the current national 8-hour O_3 standard of 0.075 ppm.[6]

The following MBARD regulations and rules would limit emissions of air pollutants from construction and operation of the Project:

Regulation II (Permits)

- Rule 207 (Review of New or Modified Sources) – The MBARD regulate criteria air pollutant emissions from new and modified stationary sources through this rule.

Regulation IV (Prohibitions)

[6] On October 1, 2015, U.S. EPA adopted a new 8-hour O_3 standard of 0.070 ppm. However, U.S. EPA has not yet reviewed recent NCCAB emissions to determine attainment status with the current 0.070 ppm standard. Therefore, this attainment status is based upon U.S. EPA's prior 0.075 ppm standard.

- *Rule 400 (Visible Emissions)* – Discharge of visible air pollutant emissions into the atmosphere from any emission source for a period or periods aggregating more than 3 minutes in any 1 hour, as observed using an appropriate test method, is prohibited.
- *Rule 402 (Nuisances)* - No person shall discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause, or have a natural tendency to cause, injury or damage to business or property. MBARD enforces permit and nuisance rules to control odorous emissions from stationary sources.
- *Rule 403 (Particulate Matter)*. This rule provides particulate matter emissions limits for sources operating within the MBARD jurisdiction.
- *Rule 425 (Use of Cutback Asphalt)* – The use of cutback asphalt (asphalt cement that has been blended with petroleum solvents) is restricted.
- *Rule 426 (Architectural Coatings)* – This rule limits the emissions of ROGs from the use of architectural coatings.
- *Rule 439 (Building Removals)*- This rule establishes work practice standards to limit particulate matter emissions during building removals.
- Rule 1000 (Permit Guidelines and Requirements for Sources Emitting Toxic Air Contaminants) – This rule applies to any source that requires a permit to construct or operate pursuant to MBARD regulations and has the potential to emit carcinogenic or noncarcinogenic TACs. This rule also requires sources of carcinogenic TACs to install best control technology and reduce cancer risk to less than one incident per 100,000 population. Sources of noncarcinogenic TACs must apply reasonable control technology.

San Benito County 2035 General Plan

The San Benito County 2035 General Plan[7] was adopted on July 21, 2015 and includes goals and policies to reduce exposure of the County's sensitive population to exposure of air pollution, toxic air contaminants, and GHG emissions. The following goals and policies are applicable to the proposed project:

Land Use Element

Goal LU-2: To promote energy efficiency through innovative and sustainable building and site design.

LU-2.1: Sustainable Building Practices. The County shall promote, and where appropriate, require sustainable building practices that incorporate a "whole system" approach to designing and constructing buildings that consume less energy, water, and other resources; facilitate natural ventilation; use daylight efficiently; and are healthy, safe, comfortable, and durable.

[7] San Benito County, *San Benito County 2035 General*, July 2015. Web: https://www.sanbenitocountyca.gov/home/showpublisheddocument/5859/637347294134470000

LU-2.2: Green Sustainable Building Practices. The County shall encourage sustainable building practices that go beyond the minimum requirements of the Title 24 CalGreen Code (i.e., Tier 1 or Tier 2 measures) and to design new buildings to achieve a green building standard such as Leadership in Energy and Environmental Design (LEED).

LU-2.3: Energy Conservation Standards for New Construction. The County shall cooperate with the local building industry, utilities, and air district to promote enhanced energy conservation standards for new construction.

LU-2.6: Green Building Standards. The County shall require all new County buildings be constructed to green building standards, such as Leadership in Energy and Environmental Design (LEED), and all existing County buildings to be retrofitted with energy efficient technologies.

Circulation Element

Goal C-4: To encourage alternative transportation modes to reduce the demand for vehicular trips, especially during congested commute times.

C-4.3: Employer Incentives The County shall encourage employers to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting, employee education, and preferential parking for carpools/vanpools.

Health and Safety Element

Goal HS-5: To improve local and regional air quality to protect residents from the adverse effects of poor air quality.

HS-5.1: New Development. The County shall use the CEQA process to ensure development projects incorporate feasible mitigation measures to reduce construction and operational air quality emissions, and consult with the Monterey Bay Unified Air Pollution Control District early in the development review process.

HS-5.3: Early Coordination with the Air Quality Control District. The County shall notify and coordinate with the Monterey Bay Unified Air Pollution Control District when industrial developments are proposed within the county to ensure applicants comply with applicable air quality regulations and incorporate design features and technologies to reduce air emissions.

HS-5.4: PM10 Emissions from Construction. The County shall require developers to reduce particulate matter emissions from construction (e.g., grading,

excavation, and demolition) consistent with standards established by the Monterey Bay Unified Air Pollution Control District.

HS-5.5: PM 10 Emissions from Industrial Facilities. The County shall require industrial facilities to incorporate best management practices to reduce PM2.5 and PM10 emissions consistent with standards established by the Monterey Bay Unified Air Pollution Control District.

HS-5.6: New Construction Mitigation. The County shall work in coordination with the Monterey Bay Unified Air Pollution Control District to minimize air emissions from construction activities associated with proposed development.

HS-5.7: Greenhouse Gas Emission Reductions. The County shall promote greenhouse gas emission reductions by supporting carbon efficient farming methods (e.g., methane capture systems, no-till farming, crop rotation, cover cropping); supporting the installation of renewable energy technologies; and protecting grasslands, open space, oak woodlands, riparian forest and farmlands from conversion to urban uses.

HS-5.8: GHG Reduction Targets. The County acknowledges that the state endeavors to achieve 1990 greenhouse gas (GHG) emission levels, and establish a long-term goal to reduce GHG emissions by 80 percent below 1990 levels by 2050. The County will encourage projects that support these goals, recognizing that these goals can be met only if the state succeeds in decarbonizing its fuel supply.

Air Pollutant Emissions Impacts and Mitigation Measures

Impact AIR-1: Conflict with or obstruct implementation of an applicable air quality plan?

MBARD is the regional agency responsible for overseeing compliance with State and federal laws, regulations, and programs within the NCCAB. MBARD, with assistance from Association of Monterey Bay Area Governments (AMBAG), has prepared and implements specific plans to meet the applicable laws, regulations, and programs. The most recent and comprehensive plan, which is the *2012-2015 AQMP*,[8] focuses on reaching attainment status for O_3. The MBARD has also developed CEQA guidelines to assist lead agencies in evaluating the significance of air quality impacts. In formulating compliance strategies, MBARD relies on planned land uses established by local general plans. Land use planning affects vehicle travel, which in turn affects region-wide emissions of air pollutants and GHGs.

According to the MBARD CEQA Air Quality Guidelines, a consistency analysis and determination serve as the project's analysis of cumulative impacts on regional air quality, i.e., O_3 levels. Project emissions which are not consistent with the AQMP are not accommodated in the

[8] Monterey Bay Air Resources District, *2012-2015 Air Quality Management Plan*, March 15, 2017.

AQMP and would have a significant cumulative impact unless offset. This impact is addressed by assessing the growth in population and employment expected in the region. The project would increase the number of workers but does not increase the growth of population. Therefore, the Project would not induce unplanned population growth. In addition, the Project would not cause a significant increase in air pollutant emissions that exceed thresholds established by MBARD. Furthermore, the Project would not cause a significant impact with respect to an increase in vehicle miles travelled (VMT).

Impact AIR-2: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

The NCCAB is considered in attainment for most air pollutants. However, the NCCAB is a non-attainment area for ground-level O_3 and PM_{10} under the California Clean Air Act. As part of an effort to attain and maintain ambient air quality standards for O_3 and particulate matter (i.e., $PM_{2.5}$ and PM_{10}), the MBARD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for O_3 precursor pollutants (ROG and NOx), CO, PM_{10}, and $PM_{2.5}$.

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to by itself, result in nonattainment of ambient air quality standards. Instead a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. The project-level thresholds are 137 pounds for NOx and ROG, 82 pounds for $PM_{10,}$ 55 pounds for $PM_{2.5}$, and 550 pounds for CO.

Construction Period Emissions

The California Emissions Estimator Model (CalEEMod) Version 2022 was used to estimate emissions from on-site construction activity, construction vehicle trips, and evaporative emissions. The project land use types and size were input to CalEEMod. The CalEEMod model output along with construction inputs are included in *Attachment 1*.

CalEEMod Inputs

Land Use Inputs

The proposed project would be constructed in two phases: Phase 1 would construct 28 parking spaces and 4 acres of greenhouse cultivation and Phase 2 would construct the processing facility portion of the new building, 32 parking spaces, and 24 acres of greenhouse cultivation. Separate CalEEMod runs were conducted for each phase. The land uses for each phase were entered into CalEEMod as described in Table 2. Note that greenhouses are not entered as building spaces because these are prefabricated. These spaces would be heated and cooled by use of combined heating power units that have emission computed outside CalEEMod.

Table 2. Summary of Project Land Use Inputs

Project Land Uses	Size	Units	Square Feet	Acreage
Phase 1 (2026 - 2027)				
Parking Lot	28	Parking Space	-	0.25*
Phase 2 (2028 - 2029)				
Refrigerated Warehouse – No Rail[1]	45	1,000-sf	45,000	1.03
Parking Lot	32	Parking Space	-	0.29
*Default CalEEMod acreage used. [1]CalEEMod land use used to represent processing facility.				

Construction Inputs

CalEEMod computes annual emissions for construction that are based on the project type, size, and acreage. The model provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The construction build-out scenario for each phase, including equipment quantities, average hours per day, total number of workdays, and schedule, were provided by the applicant (see *Attachment 1*). The construction schedule for Phase 1 begins in February 2026, with the total project (Phase 1 + Phase 2) being built out over a period of approximately 25 months, or 661 construction workdays. The earliest year of full operation for the total project was assumed to be 2030.

Construction Truck Traffic Emissions

Construction would produce traffic in the form of worker trips and truck traffic. The traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were computed based on the amount of demolition material to be exported, soil imported and/or exported to the site, and the amount of concrete and asphalt truck trips to and from the site. CalEEMod provides daily estimates of worker and vendor trips for each applicable phase. Daily haul trips for demolition and grading were estimated by CalEEMod using the provided demolition and grading volumes. The number of concrete and asphalt total round haul trips were provided for the project and converted to daily one-way trips, assuming two trips per delivery. These values are shown in the project construction equipment worksheets included in *Attachment 1*.

Summary of Computed Construction Emissions

Table 3 shows the unmitigated max daily construction emissions of ROG, NO_X, CO total PM_{10}, and total $PM_{2.5}$ during construction of the project. As indicated in Table 3, predicted unmitigated project construction emissions would not exceed MBARD significance thresholds during construction.

Table 3. Construction Period Emissions - Unmitigated

Year	ROG	NOx	CO	PM_{10}	$PM_{2.5}$
Max Daily Construction Emissions Per Year (pounds/day)					
2026	3.90	34.65	36.98	9.79[2]	5.44
2028	33.11	31.98	36.49	9.64[2]	5.30
2029	0.72	6.07	7.96	0.39[2]	0.23
MBARD Thresholds (pounds per day)	*None*[1]	*None*[1]	*550* lbs./day	*82* lbs./day[3]	*None*
Exceed Threshold?	No	No	No	No	No

[1] Project does not use unusual construction equipment that is not included in the air quality management plan inventories.
[2]Includes off-site emissions.
[3]Applies only to on-site emissions that include off-site operation within ¼ mile of facility.

Construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site deposit mud on local streets, which is an additional source of airborne dust after it dries. MBARD does not have a "basic" set of best management practices (or BMPs) to manage fugitive dust. Without BMPs to control construction period emissions, PM10 emission could exceed the threshold and lead to exceedances of an air quality standard. Construction. Therefore, the following mitigation measure would be implemented.

Mitigation Measure AQ-1: **Include measures to control dust and exhaust during construction.**

During any construction period ground disturbance, the applicant shall ensure that the project contractor implement measures to control dust and exhaust. Implementation of the measures listed below would reduce the air quality impacts associated with grading and new construction to a less-than-significant level. The contractor shall implement the following BMPs that are required of all projects:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.

2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.

3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

6. Sweep paved roads where materials have accumulated.

7. Limiting area disturbance daily to 2.2 acres for earthwork and 8.1 acres for minimal earthwork activity.

Effectiveness of Mitigation Measures AQ-1 for Best Management Practices

Mitigation Measure AQ-1 would reduce effectively fugitive dust to avoid nuisances and ensure on-site emissions of PM10 remain below MBARD-recommended thresholds.

Operational Period Emissions

Operational air emissions from the project would be generated primarily from trucks utilized for inbound and outbound deliveries and autos driven by future employees. Evaporative ROG emissions from architectural coatings and maintenance products (classified as consumer products) are also associated with these types of projects. CalEEMod was used to estimate emissions from operation of the proposed project assuming full build-out. The emissions from power systems proposed by the Project are computed separately.

CalEEMod Inputs

Land Uses

All project land uses were combined and input to CalEEMod for the operational period modeling in the year 2030. Inputs are summarized in Table 4.

Table 4. Operational Land Uses Entered into CalEEMod

Project Land Uses	Size	Units	Square Feet	Acreage
Refrigerated Warehouse – No Rail[1]	45	1,000-sf	45,000	1.03[2]
Parking Lot	60	Parking Space	-	0.54[2]
[1]CalEEMod land use used to represent processing facility. [2]Default CalEEMod acreage used.				

Model Year

Emissions associated with vehicle travel depend on the year of analysis because emission control technology requirements are phased-in over time. Therefore, the earlier the year analyzed in the model, the higher the emission rates utilized by CalEEMod. The earliest year of full operation would be 2030 if construction begins in 2026. Emissions associated with build-out later than 2030 would be lower.

Traffic Information

Traffic information developed for this project was incorporated into the CalEEMod modeling. The project-specific daily trip generation rate provided by the traffic consultant was entered into the model.[9] The project would produce approximately 102 daily trips Monday through Saturday, with

[9] Email from Shoshana Lutz, EMC Planning Group, September 26, 2025. Subject: *RE: Request for Proposals (RFP) – CEQA Initial Study/MND for Hippo Harvest Project (PLN250038)*

no trips occurring on Sunday. The analysis provided by the project's traffic consultant predicted that approximately 22 percent of the traffic trips would be made by heavy-duty trucks and the remaining would be passenger cars. The fleet mix was adjusted in CalEEMod to represent this fleet mix. In CalEEMod, automobiles were assigned to the LDA and LDT2 category for passenger cars. Truck trips were assigned to the Heavy-Heavy-Duty-Diesel Truck (HHDT) category to represent truck trucks.

Energy Demand

An emission factor of 618.67 pounds of CO_2 per megawatt of electricity produced was entered into CalEEMod, which is based on Central Coast Community Energy's average emission rates for 2021-2023.[10] Heating and cooling would be powered by the combined heat and power units described below. Therefore, no natural gas usage for the buildings was assumed.

Project Generator

The project would include one 40-HP diesel-powered emergency generator. The generator would be tested periodically and power the building in the event of a power failure. For modeling purposes, it was assumed that the generator would be operated for testing and maintenance purposes. CARB and MBARD requirements limit the engine operations to 50 hours each per year for testing and maintenance. During testing periods, the engine would typically run for less than one hour. The engine would be required to meet CARB and EPA emission standards and consume commercially available California low-sulfur diesel fuel. The emissions from the operation of this generator were calculated using CalEEMod as one hour for a maximum day (non-emergency conditions) and 50 hours for annual conditions.

Off Road Equipment

The project would include one forklift powered by CNG, which would operate 4 hours per day.

Transport Refrigeration Units

TRUs are powered by small diesel engines that have air pollutant and TAC emissions. It is estimated that half of the trucks using the site, 23, would include TRU operation. All loading docks would have electrical hookups to accommodate these units so that most will not use diesel engines while docked on site. For on-site emissions, 15 minutes of TRU operation per trip was assumed. It's possible that non-project trucks may not work with the loading docks and have to use TRUs while on site for up to 30 minutes per trip. While traveling in the air basin, TRU operation was assumed to be 30 minutes. For this assessment, all outgoing trucks were assumed to, on average, have 45 minutes of TRU operations per trip.

[10] Annual Power Content Labels for 2023. Web: https://www.energy.ca.gov/programs-and-topics/programs/power-source-disclosure-program/power-content-label/annual-power-4

TRUs are subject to emissions limits set by CARB[11]. CalEEMod does not directly compute emissions from TRUs. A separate CalEEMod run was developed to predict these emissions. The model run used a construction generator operating 17.3 hours per day. Specific inputs were entered that include:

Number of TRUs:	23 based on ½ the number of expected trucks to use the facility
Operation:	45 minutes/trip = 17.3 hours per day
Horsepower:	33.8hp based on in-state truck trailer TRU average
Load Factor:	0.46 based on CARB assumptions for 25-50 hp TRUs
Emission Rates:	U.S. EPA Tier 4 per as all TRUs are assumed to be in compliance with CARB standards.

Refrigeration Units

The Project includes walk-in freezer units that include condensers and evaporators. Four of the evaporators have 6.6-ton capacity at 78,053 BTUs and the other four have 7.4-ton capacity at 88,568 BTUs.

Other CalEEMod Inputs

Default model assumptions for emissions associated with solid waste generation and water use were used. Wastewater treatment was estimated to be 100% aerobic conditions to represent County wastewater treatment plant conditions. The project site would not send wastewater to on-site septic tanks or facultative lagoons.

Combined Heat and Power (CHP)

The central building (office and processing) would be powered by electricity. The Project proposes Capstone microturbines as combined heat and power (CHP) systems to power the project. One Model C1000S high-pressure natural gas microturbine system for Phase 1 and three total at full buildout. The C1000S consumes natural gas and has a maximum electrical output of 1,000 kilowatts. These emissions were computed in addition to those emissions from CalEEMod (see Attachment 2).

Emissions rates and fuel use published by the equipment manufacturer were used to compute annual and daily emissions. Maximum daily emissions were based on 100 percent load, operating 24 hours per day. On average, the applicant expects these to operate 13 hours per day. For this assessment, all 3 turbines were assumed to operate 24 hours per day to compute maximum daily emissions and 13 hours per day for 365 days to compute annual emissions.

NOx emissions are based on the manufacturer's published rate of <9 parts per million or 18 milligrams per cubic meter at an exhaust flowrate of 6.7 kilograms per second. Emissions for other

[11] California Code of Regulations, Title 13, Division 3, Chapter 9, Article 8, Section 2477. Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate.

pollutants were computed based on a fuel flow rate of 11,400,000 British thermal units (BTUs) using emissions factors published by U.S. EPA AP-42, Volume I[12].

Summary of Computed Operational Emissions

Max daily emissions were predicted using CalEEMod. Table 5 shows unmitigated max daily operational emissions of ROG, NO_X, CO, total PM_{10}, and total $PM_{2.5}$ during operation of the project. Operational period emissions would not exceed the MBARD significance thresholds.

Table 5. Operational Period Emissions

Scenario	ROG	NOx	CO	PM_{10}	$PM_{2.5}$
2030 Max Daily Project Operational Emissions (*pounds/day*)[1]	3.90	58.32	22.71	6.34[1]	5.69
MBARD Thresholds (pounds/day)	*137* lbs.	*137* lbs.	*550* lbs.	*82* lbs[2].	*55* lbs.
Exceed Threshold?	*No*	*No*	*No*	*No*	*No*

[1]Includes off-site emissions.
[2]Applies only to on-site emissions that include off-site operation within ¼ mile of facility.

Greenhouse Gas Emissions

Setting

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2, CH_4, and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO_2 being assigned a value of 1 and sulfur hexafluoride being several orders of magnitude stronger. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of CO_2 equivalents (CO_2e).

[12]U.S. EPA AP 42, Fifth Edition, Volume I Chapter 3: *Stationary Internal Combustion Sources* April 2000. Available at https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-fifth-edition-volume-i-chapter-3-stationary-0

An expanding body of scientific research supports the theory that global climate change is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes, and drought; and increased levels of air pollution.

Federal and Statewide GHG Emissions

The U.S. EPA reported that in 2022, total gross nationwide GHG emissions were 6,343.2 million metric tons (MMT) carbon dioxide equivalent (CO_2e).[13] These emissions were lower than peak levels of 7,416 MMT that were emitted in 2007. CARB updates the statewide GHG emission inventory on an annual basis where the latest inventory includes 2000 through 2022 emissions.[14] In 2022, GHG emissions from statewide emitting activities were 371.1 MMT CO_2e. The 2022 emissions have decreased by 24 percent since peak levels in 2004, are 9.3 MMT CO_2e lower than 2021 emissions level, and almost 60 MMT CO_2e below the State's 2020 GHG limit of 431 MMT CO_2e. Per capita GHG emissions in California have dropped from a 2001 peak of 13.8 MT CO_2e per person to 9.5 MT CO_2e per person in 2022.

Recent Regulatory Actions for GHG Emissions

Executive Order S-3-05 – California GHG Reduction Targets

Executive Order (EO) S-3-05 was signed by Governor Arnold Schwarzenegger in 2005 to set GHG emission reduction targets for California. The three targets established by this EO are as follows: (1) reduce California's GHG emissions to 2000 levels by 2010, (2) reduce California's GHG emissions to 1990 levels by 2020, and (3) reduce California's GHG emissions by 80 percent below 1990 levels by 2050.

Assembly Bill 32 – California Global Warming Solutions Act (2006)

Assembly Bill (AB) 32, the Global Warming Solutions Act of 2006, codified the State's GHG emissions target by directing CARB to reduce the State's global warming emissions to 1990 levels by 2020. AB 32 was signed and passed into law by Governor Schwarzenegger on September 27, 2006. Since that time, the CARB, California Energy Commission (CEC), California Public Utilities Commission (CPUC), and Building Standards Commission have all been developing

[13] United States Environmental Protection Agency, 2024. *Draft Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2022*. February. Web: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks

[14] CARB. 2024. *California Greenhouse Gas Emission for 2000 to 2022*. Web: https://ww2.arb.ca.gov/sites/default/files/2024-09/nc-2000_2022_ghg_inventory_trends.pdf

regulations that will help meet the goals of AB 32 and Executive Order S-3-05, which has a target of reducing GHG emissions 85 percent below 1990 levels.

The first Scoping Plan for AB 32 was adopted by CARB in December 2008. Its most recent update was completed in December of 2022[15]. It contains the State's main strategies to achieve carbon neutrality by 2045. This plan extends and expands upon the earlier versions with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. It also takes the step of adding carbon neutrality as a science-based guide and touchstone for California's climate work. Measures to achieve carbon neutrality include rapidly moving to zero emission vehicles (ZEV), removing natural gas as an option for space conditioning, increasing the number of solar arrays and wind turbines, and scaling up renewable hydrogen for hard-to-electrify end uses.

Senate Bill 375 – California's Regional Transportation and Land Use Planning Efforts (2008)

California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 provides incentives for local governments and applicants to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, walkable, and sustainable communities and revitalizing existing communities. The legislation also allows applicants to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. CARB works with the metropolitan planning organizations (e.g., ABAG and MTC) to align their regional transportation, housing, and land use plans to reduce VMT and demonstrate the region's ability to attain its GHG reduction targets.

Senate Bills 350 - Renewable Portfolio Standards

In September 2015, the California Legislature passed SB 350, which increased the states Renewables Portfolio Standard (RPS) for content of electrical generation from the 33 percent target for 2020 to a 50 percent renewables target by 2030.

Executive Order B-30-15 & Senate Bill 32 GHG Reduction Targets – 2030 GHG Reduction Target

In April 2015, Governor Brown signed EO B-30-15, which extended the goals of AB 32, setting a GHG emissions target at 40 percent of 1990 levels by 2030. On September 8, 2016, Governor Brown signed Senate Bill (SB) 32, which legislatively established the GHG reduction target of 40 percent of 1990 levels by 2030. In November 2017, CARB issued *California's 2017 Climate*

[15] CARB. 2022. Final 2022 Scoping Plan Update and Appendices. Web: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents

Change Scoping Plan.[16] While the State is on track to exceed the AB 32 scoping plan 2020 targets, this plan is an update to reflect the enacted SB 32 reduction target.

SB 32 was passed in 2016, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels. CARB has drafted a 2022 Scoping Plan Update to reflect the 2030 target set by Executive Order B-30-15 and codified by SB 32. The 2022 draft plan:

- Identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 or earlier.
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrates equity and protecting California's most impacted communities as a driving principle.
- Incorporates the contribution of natural and working lands to the state's GHG emissions, as well as its role in achieving carbon neutrality.
- Relies on the most up to date science, including the need to deploy all viable tools, including carbon capture and sequestration as well as direct air capture.
- Evaluates multiple options for achieving our GHG and carbon neutrality targets, as well as the public health benefits and economic impacts associated with each.

The Scoping Plan was updated in 2022 and lays out how the state can get to carbon neutrality by 2045 or earlier. It is the first Scoping Plan that adds carbon neutrality as a science-based guide and touchstone beyond statutorily established emission reduction targets.[17]

The mid-term 2030 target is considered critical by CARB on the path to obtaining an even deeper GHG emissions target of 80 percent below 1990 levels by 2050, as directed in Executive Order S-3-05. The 2022 Scoping Plan outlines the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure, providing a blueprint to continue driving down GHG emissions and to not only obtain the statewide goals, but cost-effectively achieve carbon-neutrality by 2045 or earlier. In the 2022 Scoping Plan, CARB recommends:

- VMT per capita reduced 12% below 2019 levels by 2030 and 22% below 2019 levels by 2045.
- 100% of Light-duty vehicle sales are zero emissions vehicles (ZEV) by 2035.
- 100% of medium duty/heavy duty vehicle sales are ZEV by 2040.
- 100% of passenger and other locomotive sales are ZEV by 2030.
- 100% of line haul locomotive sales are ZEV by 2035.

[16] California Air Resource Board, 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Targets.* November. Web: https://ww2.arb.ca.gov/sites/default/files/classic//cc/scopingplan/scoping_plan_2017.pdf

[17] https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents

- All electric appliances in new residential and commercial building beginning 2026 (residential) and 2029 (commercial).
- 80% of residential appliance sales are electric by 2030 and 100% of residential appliance sales are electric by 2035.
- 80% of commercial appliance sales are electric by 2030 and 100% of commercial appliance sales are electric by 2045.

SB 743 Transportation Impacts

Senate Bill 743 required lead agencies to abandon the old "level of service" metric for evaluating a project's transportation impacts, which was based solely on the amount of delay experienced by motor vehicles. In response, the Governor's Office of Planning and Research (OPR) developed a VMT metric that considered other factors such as reducing GHG emissions and developing multimodal transportation.[18] A VMT-per-capita metric was adopted into the CEQA Guidelines Section 15064.3 in November 2017. Given current baseline per-capita VMT levels computed by CARB in the 2017 Scoping Plan of 22.24 miles per day for light-duty vehicles and 24.61 miles per day for all vehicle types, the reductions needed to achieve the 2050 climate goal are 16.8 percent for light-duty vehicles and 14.3 percent for all vehicle types combined. Based on this analysis (as well as other factors), OPR recommended using a 15-percent reduction in per capita VMT as an appropriate threshold of significance for evaluating transportation impacts.

Executive Order B-55-18 – Carbon Neutrality

In 2018, a new statewide goal was established to achieve carbon neutrality as soon as possible, but no later than 2045, and to maintain net negative emissions thereafter. CARB and other relevant state agencies are tasked with establishing sequestration targets and creating policies/programs that would meet this goal.

Senate Bill 100 – Current Renewable Portfolio Standards

In September 2018, SB 100 was signed by Governor Brown to revise California's RPS program goals, furthering California's focus on using renewable energy and carbon-free power sources for its energy needs. The bill would require all California utilities to supply a specific percentage of their retail sales from renewable resources by certain target years. By December 31, 2024, 44 percent of the retails sales would need to be from renewable energy sources, by December 31, 2026 the target would be 40 percent, by December 31, 2027 the target would be 52 percent, and by December 31, 2030 the target would be 60 percent. By December 31, 2045, all California utilities would be required to supply retail electricity that is 100 percent carbon-free and sourced from eligible renewable energy resource to all California end-use customers.

California Building Standards Code – Title 24 Part 11 & Part 6

[18] Governor's Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December.

The California Green Building Standards Code (CALGreen Code) is part of the California Building Standards Code under Title 24, Part 11.[19] The CALGreen Code encourages sustainable construction standards that involve planning/design, energy efficiency, water efficiency resource efficiency, and environmental quality. These green building standard codes are mandatory statewide and are applicable to residential and non-residential developments. The most recent CALGreen Code (2022 California Building Standard Code) was effective as of January 1, 2023.[20]

The California Building Energy Efficiency Standards (California Energy Code) is under Title 24, Part 6 and is overseen by the CEC. This code includes design requirements to conserve energy in new residential and non-residential developments, while being cost effective for homeowners. This Energy Code is enforced and verified by cities during the planning and building permit process. The current energy efficiency standards (2022 Energy Code) replaced the 2019 Energy Code as of January 1, 2023. Under the 2019 standards, single-family homes are predicted to be 53 percent more efficient than homes built under the 2016 standard due to more stringent energy-efficiency standards and mandatory installation of solar photovoltaic systems. For nonresidential developments, it is predicted that these buildings will use 30 percent less energy due to lightening upgrades.[21]

Requirements for electric vehicle (EV) charging infrastructure are set forth in Title 24 of the California Code of Regulations. The CALGreen standards consist of a set of mandatory standards required for new development, as well as two more voluntary standards known as Tier 1 and Tier 2. The CalGreen 2022 standards require deployment of additional EV chargers in various building types, including multifamily residential and nonresidential land uses. They include requirements for both EV capable parking spaces and the installation of Level 2 EV supply equipment for multifamily residential and nonresidential buildings. There are also requirements for both EV readiness and installation of EV chargers, and mandatory requirements and more aggressive voluntary Tier 1 and Tier 2 provisions. Providing EV charging infrastructure that meets current CALGreen requirements will not be sufficient to power the anticipated more extensive level of EV penetration in the future that is needed to meet SB 30 climate goals.

CEC studies have identified the most aggressive electrification scenario as putting the building sector on track to reach the carbon neutrality goal by 2045.[22] Installing new natural gas infrastructure in new buildings will interfere with this goal. To meet the State's goal, communities have been adopting "Reach" codes that prohibit natural gas connections in new and remodeled buildings. However, these reach codes have been challenged in court and have been found to be unlawful. Therefore, communities in California are struggling to limit natural gas use by new construction.

[19] See: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen#:~:text=CALGreen%20is%20the%20first%2Din,to%201990%20levels%20by%202020.
[20] The 2025 CAL Green Code will become effective January 1, 2026 and will apply to this Plan Area Update.
[21] See: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf
[22] California Energy Commission. 2021. F*inal Commission Report: California Building Decarbonization Assessment. Publication Number CEC-400-2021-006-CMF*.August

An update to the current CALGreen Energy Code will be effective on January 1, 2026, with the adoption of the 2025 Energy Code.[23] The 2025 standards were adopted at the September 11, 2024 CEC business meeting and will go to the California Building Standards Commission for approval as part of California's Building Standards Code before the end of 2024. It will apply to newly constructed buildings, additions, and alterations and focus on:

- Expanding the use of heat pumps for space conditioning and water heating in newly constructed single-family, multifamily, and select nonresidential buildings.
- Encouraging electric-ready buildings to set up owners to use cleaner electric water heating and cooking when they are ready to invest in those technologies.
- Updating photovoltaic and battery energy storage system standards for high-rise multifamily and nonresidential buildings to achieve cost effective installations in consideration of revised net billing and virtual net billing rules.
- Updating space conditioning system control standards for nonresidential buildings.
- Updating ventilation requirements in multifamily buildings to improve indoor air quality.

Advanced Clean Cars

The Advanced Clean Cars Program, originally adopted by CARB in 2012, was designed to bring together CARB's traditional passenger vehicle requirements to meet federal air quality standards and also support California's AB 32 goals to develop and implement programs to reduce GHG emissions back down to 1990 levels by 2020, a goal achieved in 2016 as a result of numerous emissions reduction programs.

Advanced Clean Cars II (ACC II) is phase two of the original rule. ACC II establishes a year-by-year process, starting in 2026, so all new cars and light trucks sold in California will be zero-emission vehicles by 2035. The regulation codifies the light-duty vehicle goals set out in Governor Newsom's Executive Order N-79-20. Currently, 16 percent of new light-duty vehicles sold in California are zero emissions or plug-in hybrids. By 2030, 68 percent of new vehicles sold in California would be zero emissions and 100 percent by 2035.

California's Cap-and-Trade Program

The Cap-and-Trade Program is a policy originating from AB 32 intended to reduce GHG emissions from emission sources that include oil refineries, electricity generators and importers, and manufacturing facilities. Under this program, CARB sets a declining aggregate cap on GHG emissions for these entities. Revenues collected from the program are deposited in the Greenhouse Gas Reduction Fund. AB 32 legislation required that revenues be spent on activities that reduce GHG emissions and/or address the impacts of climate change. In addition, SB 535 required that at least 35 percent of fund expenditures benefit "priority populations," which include disadvantaged and lower-income communities. Examples of the fund appropriations include High-Speed Rail, affordable housing and sustainable communities, and intercity transit and rail.

[23] CEC 2025 California Energy Code Fact Sheet, September 2024.
https://www.energy.ca.gov/sites/default/files/2024-09/2025_California_Energy_Code_Fact_Sheet_ada.pdf

In general, covered entities that emit 25,000 MT/year or greater are subject to this program. Sources covered can comply with program requirements in three ways: (1) reduce their GHG emissions, (2) obtain allowances (essentially a permit to emit one ton of CO_2e), and/or (3) purchase "offsets" (paying to support a GHG reduction project elsewhere) to cover their emissions. CARB issues a set number of allowances each year equal to the annual cap that entities can purchase and sell on an open market. Some of these allowances are auctioned, and some are provided to utilities, natural gas suppliers, and industrial facilities. These "free" allowances are intended to protect State consumers from significant rate increases and prevent emissions leakage (that is, to keep companies from moving their operations outside of California to avoid the need to comply with the program). The total number of allowances sold and given away statewide in a given year is equal to the aggregate statewide cap on GHG emissions that CARB sets each year. In September 2025, the State legislature passed AB 1207 and SB 840, reauthorizing the program through 2045, developing a plan for allocating revenues from the Greenhouse Gas Reduction Fund, and defining requirements for compliance offsets. The program has been rebranded as California's Cap-and-Invest program.

San Benito County 2035 General Plan

The San Benito County 2035 General Plan's Land Use and Health & Safety Elements includes goals and policies to reduce exposure of the County's sensitive population to exposure of air pollution, toxic air contaminants, and GHG emissions. The following goals and policies are applicable to the proposed project:

Land Use Element

Goal LU-2: To promote energy efficiency through innovative and sustainable building and site design.

LU-2.1: Sustainable Building Practices. The County shall promote, and where appropriate, require sustainable building practices that incorporate a "whole system" approach to designing and constructing buildings that consume less energy, water, and other resources; facilitate natural ventilation; use daylight efficiently; and are healthy, safe, comfortable, and durable.

LU-2.2: Green Sustainable Building Practices. The County shall encourage sustainable building practices that go beyond the minimum requirements of the Title 24 CalGreen Code (i.e., Tier 1 or Tier 2 measures) and to design new buildings to achieve a green building standard such as Leadership in Energy and Environmental Design (LEED).

LU-2.3: Energy Conservation Standards for New Construction. The County shall cooperate with the local building industry, utilities, and air district to promote enhanced energy conservation standards for new construction.

LU-2.6: Green Building Standards. The County shall require all new County buildings be constructed to green building standards, such as Leadership in Energy and

Environmental Design (LEED), and all existing County buildings to be retrofitted with energy efficient technologies.

Circulation Element

Goal C-4: To encourage alternative transportation modes to reduce the demand for vehicular trips, especially during congested commute times.

C-4.3: Employer Incentives The County shall encourage employers to provide transit subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting, employee education, and preferential parking for carpools/vanpools.

Health and Safety Element

Goal HS-5: To improve local and regional air quality to protect residents from the adverse effects of poor air quality.

HS-5.7: Greenhouse Gas Emission Reductions. The County shall promote greenhouse gas emission reductions by supporting carbon efficient farming methods (e.g., methane capture systems, no-till farming, crop rotation, cover cropping); supporting the installation of renewable energy technologies; and protecting grasslands, open space, oak woodlands, riparian forest and farmlands from conversion to urban uses.

HS-5.8: GHG Reduction Targets. The County acknowledges that the state endeavors to achieve 1990 greenhouse gas (GHG) emission levels, and establish a long-term goal to reduce GHG emissions by 80 percent below 1990 levels by 2050. The County will encourage projects that support these goals, recognizing that these goals can be met only if the state succeeds in decarbonizing its fuel supply.

GHG Significance Thresholds

MBARD does not have any guidance or significance thresholds for GHG emissions; therefore, the GHG significance thresholds from the State's goals, as expressed in the most recent Scoping Plan, to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045 were used for this analysis. To assess the significance of GHG missions from the Project, thresholds recently adopted by the neighboring Bay Area Air District were applied. These thresholds are meant to address consistency of projects with State goals and policies in reducing future GHG emissions to meet future targets. For projects with stationary sources, the threshold is 10,000 metric tons per year (MT/yr) of CO_2e. Stationary-source projects include land uses that would accommodate processes and equipment that emit GHG emissions and would require an Air District permit to operate. This includes the standby diesel generators and the CHP units for the proposed project.

The following framework is how the Air District recommends that lead agencies assess GHG significance moving forward.[24] The new thresholds of significance for land use projects are:

A. Projects must include, at a minimum, the following project design elements:
    a. Buildings
        i. The project will not include natural gas appliances or natural gas plumbing (in both residential and non-residential development).
        ii. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
    b. Transportation
        i. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
            1. Residential Projects: 15 percent below the existing VMT per capita
            2. Office Projects: 15 percent below the existing VMT per employee
            3. Retail Projects: no net increase in existing VMT
        ii. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Any new land use project would have to include either section A or B from the above list, not both, to be considered in compliance with the Air District's GHG thresholds of significance. The County does not have a CAP that serves as a qualified local GHG reduction strategy.

The thresholds of significance considered within this analysis are:

1. Meet State's goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045, as described above.
2. Emissions from stationary sources permitted by MBARD must not exceed 10,000 metric tons per year.

[24] Justification Report: *BAAQMD CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Project and Plans.* Web: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa-thresholds-2022/justification-report-pdf.pdf?la=en

Impact GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

GHG Emissions

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. Operational GHG emissions are described below. These emissions are shown in Table 6.

Table 6. Annual Project GHG Emissions (CO_2e) in Metric Tons

Source Category	Proposed Project (MT CO_{2e}/year)
Construction	
Year 2026	300
Year 2028	698
Year 2029	117
Operation in 2030	
Mobile	196
Area	1
Energy Consumption (from CalEEMod)	311
Water Usage	10
Solid Waste Generation	13
Refrigerants	199
Off Road Equipment	12
Transportation Refrigeration Units	44
Stationary (Generators)	1
CHP Units	8,126
Total Land Use	785
Total Stationary	8,127

Construction

Neither the County nor the MBARD have an adopted threshold of significance for construction related GHG emissions. MBARD does not specifically recommend best management practices to reduce GHG emissions during construction where feasible and applicable. Industry-accepted best management practices include using alternative fueled (e.g., biodiesel, electric) construction vehicles/equipment for at least 15 percent of the fleet, using local building materials of at least 10 percent, and recycling or reusing at least 65 percent of construction waste or demolition materials.

Land Use Operation

The CalEEMod model was used to estimate daily emissions associated with operation of the fully developed site under the proposed project, as described above for computing operational period

air pollutant emissions. Annual GHG emissions resulting from operation of the proposed project would be approximately 785 MT of CO_2e annually in 2030. The CalEEMod output is included in *Attachment 1*.

The primary sources of GHG emissions are from traffic, water usage, refrigerants, and solid waste. The modeling results using CalEEMod do not incorporate future regulations that would reduce GHG emissions. For example, CalEEMod results are based on regulations in place in 2020 for on-road vehicles and current emission rates of electricity providers. Under new State laws, these emissions are anticipated to decrease substantially beyond those levels predicted by CalEEMod.

Direct Emissions - Stationary Sources

Emissions for the 3 CHP units and the standby diesel generator, which would be permitted by MBARD, were also computed. The CHP units were assumed to operate on average about 13 hours per day for 365 days per year. The generator was assumed to operate 50 hours per year. These would emit 8,170 MT of CO_2e annually.

Project-Level Impact

To have less-than-significant GHG emissions, the proposed project must meet the State's goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045. Stationary equipment that is permitted are not addressed by this threshold.

There are no currently feasible measures within the County's control to achieve the state's target of carbon-neutrality in 2045. Achieving carbon neutrality is expected to take advancements in technology, investments in clean energy, and regulatory actions by other levels of government, including the state, and perhaps even federal government, and there is not substantial evidence in the record for the County to conclude it is feasible to meet GHG reduction goals for 2030 for the proposed project and carbon neutrality by 2045. Therefore, the Bay Area Air District thresholds for land use projects and stationary sources are applied (Criteria A, listed above).

Land Use Impacts

Land use projects must include, at a minimum, the following project design elements:

a. Buildings

i. The project will not include natural gas appliances or natural gas plumbing (in both residential and non-residential development).

Conforms: The Project building will be all electric. CHP units will use natural gas; however, these will be permitted by MBARD and subject to the stationary source threshold.

ii. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

Conforms: The Project will be constructed to meet the County's building codes that are in place at the time of permitting, which would meet the most recent set of State Title 24 building code requirements. The project will utilize CHP units that efficiently use heat from power generation to air condition greenhouses and other facility operations.

b. Transportation

i. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Land Use and Climate Innovation (formerly the Governor's Office of Planning and Research) Technical Advisory on Evaluating Transportation Impacts in CEQA:

1. Residential Projects: 15 percent below the existing VMT per capita
2. Office Projects: 15 percent below the existing VMT per employee
3. Retail Projects: no net increase in existing VMT

Conforms: There is no target for industrial projects. The Project would have less than 110 average daily trips. As a result, the project would not be considered to have a significant impact on VMT. Therefore, the Project is consistent with the current version of the California Climate Change Scoping Plan.

ii. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.

Conforms: The Project includes EV charge stations and EV ready parking places as well as electric plug in outlets at loading docks.

c. Stationary Sources

The Project CHP units and standby diesel generator are subject to permitting by MBARD. The combined emissions from permitted stationary sources of 8,127 MT CO2e per year is below the threshold of 10,000 MT CO2e per year.

Impact Conclusion

The Project would be consistent with State goals to meet 2030 and 2045 goals at reducing GHG emissions and Stationary equipment associated with the Project would not have emissions that exceed 10,000 MT CO2e per year for stationary sources permitted by MBARD. This would be a *less than significant impact* with respect to Project-related emissions of GHG.

Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The County of San Benito enforces its building codes, which aim to reduce GHG emissions. The proposed building would be constructed in conformance with at a minimum the latest CALGreen

and the Title 24 Building Codes, which requires high-efficiency water fixtures, water-efficient irrigation systems, and compliance with current energy efficacy standards. Compliance with these standards ensures compliance with State and federal plans, policies, and regulations applicable to GHG emissions reductions.

CARB Scoping Plan

The Project would be required to adhere to the statewide programs and regulations identified by the Scoping Plan and implemented by State, regional, and local agencies to achieve the statewide GHG reduction goals of AB 32, SB 32, and AB 1279. For example, the Project would be required to meet the CALGreen and Title 24 Building Energy Efficiency Standards in effect at the time when applying for building permits.

Supporting Documentation

Attachment 1 includes the CalEEMod output for project construction and operational criteria air pollutant emissions. Also included are any modeling assumptions.

Attachment 2 includes the emission computations for the Capstone Model C1000S combined heat power units.

Attachment 1: CalEEMod Modeling Inputs and Outputs

Total Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	Total PM10	Total PM2.5	CO	**CO2e**	
Max Pounds/Days	*Maximum Daily Emissions*					Workdays	
2026	3.90	34.65	9.79	5.44	36.98	6623.52	
2027							
2028	33.11	31.98	9.64	5.30	36.49	7038.03	
2029	0.72	6.07	0.39	0.23	7.96	1971.39	
Threshold - Max lbs/day	**137.0**	**137.0**	**82.0**	**55.0**	**550.0**		

Operational Criteria Air Pollutants					
Unmitigated	ROG	NOX	Total PM10	Total PM2.5	CO
	Maximum Daily Emissions (lbs/day)				
from CalEEMod	1.59	2.03	0.93	0.27	8.86
TRU	0.61	0.03	0.01	0.01	1.55
CHP Units (3)	1.70	56.26	5.40	5.40	12.30
Total	3.90	58.32	6.34	5.69	22.71
Threshold - Max lbs/day	**137.0**	**137.0**	**82.0**	**55.0**	**550.0**

Category	**CO2e (MT/yr)**					
	Project					
Mobile	196.00					
Area	0.92					
Energy	311.09					
Water	9.59					
Waste	13.21					
Refrig.	198.55					
Off-Road	11.52					
Stationary	0.76					
TRU	44.18					
CHP Units (3)	8126.16					
TOTAL	8,912.0	0.00	0.00	0.00		
Net GHG Emissions		8,912		0.00	8170.35	741.64
Stationary	8170.35					
Land Use	785.06	8955.40				

Mitigated Construction Criteria Air Pollutants							
Mitigated	ROG	NOX	Total PM10	Total PM2.5	CO	**CO2e**	
Max Pounds/Days	*Maximum Daily Emissions*					Workdays	
2026	0.70	5.33	8.37	4.15	37.13	6623.52	
2027							
2028	32.98	5.92	8.37	4.15	37.91	7038.03	
2029	0.25	2.54	0.23	0.08	10.21	1971.39	
Threshold - Max lbs/day	**137.0**	**137.0**	**82.0**	**55.0**	**550.0**		

Phase 1 Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	Total PM10	Total PM2.5	CO	**CO2e**	
Max Pounds/Days	*Average Daily Emissions*					Workdays	
2026	3.90	34.65	9.79	5.44	36.98	6623.52	
2027							
2028							
2029							
Threshold - Max lbs/day	**137.0**	**137.0**	**82.0**	**55.0**	**550.0**		

Phase 1 Mitigated Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	Total PM10	Total PM2.5	CO	**CO2e**	
Max Pounds/Days	*Average Daily Emissions*					Workdays	
2026	0.70	5.33	8.37	4.15	37.13	6623.52	
2027							
2028							
2029							
Threshold - Max lbs/day	**137.0**	**137.0**	**82.0**	**55.0**	**550.0**		

Phase 2 Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	Total PM10	Total PM2.5	CO	**CO2e**	
Max Pounds/Days	*Average Daily Emissions*					Workdays	
2026							
2027							
2028	33.11	31.98	9.64	5.30	36.49	7038.03	
2029	0.72	6.07	0.39	0.23	7.96	1971.39	
Threshold - Max lbs/day	**137.0**	**137.0**	**82.0**	**55.0**	**550.0**		

Phase 2 Mitigated Construction Criteria Air Pollutants							
Unmitigated	ROG	NOX	Total PM10	Total PM2.5	CO	**CO2e**	
Max Pounds/Days	*Average Daily Emissions*					Workdays	
2026							
2027							
2028	32.98	5.92	8.37	4.15	37.91	7038.03	
2029	0.25	2.54	0.23	0.08	10.21	1971.39	
Threshold - Max lbs/day	**137.0**	**137.0**	**82.0**	**55.0**	**550.0**		

Air Quality/Noise Construction Information Data Request

Project Name: Hippo Harvest, Hollister PHASE 1

Complete ALL Portions in Yellow

See Equipment Type TAB for type, horsepower and load factor

Project Size

0 Dwelling Units

18 total project acres disturbed

0 s.f. residential

0 s.f. office/commercial

0 s.f. other, specify: Processing facility

4 acres other, specify: greenhouse cultivation

s.f. parking garage spaces

~16,000 s.f. parking lot 28 cars spaces

Construction Days (i.e, M-F) Monday to Friday

Construction Hours 6 am to 2 pm

Pile Driving? No

Project include on-site GENERATOR OR FIRE PUMP during project OPERATION (not construction)? Y/N? Yes

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: 40 HP

Fuel Type: Diesel

Location in project (Plans Desired if Available):

DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition	**Start Date:**	**2/1/2026**	**Total phase:**	**3**			**Overall Import/Export Volumes**
		End Date:	**2/4/2026**					
1	Concrete/Industrial Saws	33	0.73	8	3	8	578	**Demolition Volume**
3	Excavators	36	0.38	8	3	8	985	Square footage of buildings to be demolished
2	Rubber-Tired Dozers	367	0.4	8	3	8	7046	(*or* total tons to be hauled)
1	Tractors/Loaders/Backhoes	84	0.37	8	3	8	746	**_0_** square feet *or*
	Other Equipment?							**_0_** Hauling volume (tons)
								Any pavement demolished and hauled? **_6_ tons**
	Site Preparation	**Start Date:**	**2/5/2026**	**Total phase:**	**30**			
		End Date:	**3/5/2026**					
2	Graders	148	0.41	8	30	8	29126	
3	Rubber Tired Dozers	367	0.4	8	30	8	105696	
4	Tractors/Loaders/Backhoes	84	0.37	8	30	8	29837	
	Other Equipment?							
	Grading / Excavation	**Start Date:**	**3/6/2026**	**Total phase:**	**60**			
		End Date:	**5/6/2026**					**Soil Hauling Volume**
2	Excavators	36	0.38	8	30	4	6566	Export volume = **_0_** cubic yards (All grading will done on-site)
1	Graders	148	0.41	8	30	4	14563	Import volume = **_0_** cubic yards (All grading will done on-site)
1	Rubber Tired Dozers	367	0.4	8	30	4	35232	
1	Concrete/Industrial Saws	33	0.73	8	30	4	5782	
2	Tractors/Loaders/Backhoes	84	0.37	8	30	4	14918	
2	*Other Equipment? Scrapers*	423	0.48	8	30	4	97459.2	
	Trenching/Foundation	**Start Date:**	**5/7/2026**	**Total phase:**	**30**			
		End Date:	**6/7/2026**					
1	Trencher	40	0.5	8	30	8	4800	
1	Tractor/Loader/Backhoe	84	0.37	8	20	5.33	4973	
1	Excavators	36	0.38	8	20	5.33	2189	
	Other Equipment?							
n/a	**Building - Exterior**	**Start Date:**	**n/a**	**Total phase:**	**n/a**			**Cement Trucks? _50_ Total Round-Trips**
			n/a					
								Electric? (Y/N) _N__ Otherwise assumed diesel
								Liquid Propane (LPG)? (Y/N) _N__ Otherwise Assumed diesel
								Or temporary line power? (Y/N) _N__
n/a	**Building - Interior/Architectural Coa**	**Start Date:**	**n/a**	**Total phase:**	**n/a**			
			n/a					
	Paving	**Start Date:**	**5/7/2026**	**Total phase:**	**30**			**Asphalt 505 cubic yards**
		End Date:	**6/7/2026**					
2	Pavers	81	0.42	8	30	8	16330	
2	Paving Equipment	89	0.36	8	30	8	15379	
2	Rollers	36	0.38	8	30	8	6566	
1	Tractors/Loaders/Backhoes	84	0.37	8	30	8	7459	
	Other Equipment?							
	Hoop Houses	**Start Date:**	**6/8/2026**	**Total phase:**	**120**			
		Start Date:	**10/9/2026**					
1	Crane	367	0.29	8	120	8	102173	
2	Forklift	82	0.2	8	120	8	31488	
1	Trencher	40	0.5	8	120	8	19200	
1	Aerial Lift	46	0.31	8	120	8	13690	

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Air Quality/Noise Construction Information Data Request

Project Name: Hippo Harvest, Hollister FULL BUILDOUT

See Equipment Type TAB for type, horsepower and load factor

Complete ALL Portions in Yellow

Project Size		Dwelling Units
		s.f. residential
		s.f. office/commercial
	45,000	s.f. other, specify: Processing facility
	24	acres other, specify: greenhouse cultivation
		s.f. parking garage
	~13,500	s.f. parking lot
Construction Days (i.e, M-F)	M	to F
Construction Hours	6 am	to 2 pm

38.1 total project acres disturbed

spaces

30 cars + 2 Semi spaces

Pile Driving? Y/N?

Project include on-site GENERATOR OR FIRE PUMP during project OPERATION

IF YES (if BOTH separate values) -->

Kilowatts/Horsepower: 40 HP

Fuel Type: Diesel

Location in project (Plans Desired if Available):

DO NOT MULTIPLY EQUIPMENT HOURS/DAY BY THE QUANTITY OF EQUIPMENT

Quantity	Description	HP	Load Factor	Hours/day	Total Work Days	Avg. Hours per day	HP Annual Hours	Comments
	Demolition	**Start Date:**	**1/1/2028**	**Total phase:**	**10**			**Overall Import/Export Volumes**
		End Date:	**1/11/2028**					
1	Concrete/Industrial Saws	33	0.73	8	10	8	1927	**Demolition Volume**
3	Excavators	36	0.38	8	10	8	3283	Square footage of buildings to be demolished
2	Rubber-Tired Dozers	367	0.4	8	10	8	23488	(*or* total tons to be hauled)
1	Tractors/Loaders/Backhoes	84	0.37	8	10	8	2486	**11200** square feet *or*
	Other Equipment?							**?** Hauling volume (tons)
								Any pavement demolished and hauled? **46 tons**
	Site Preparation	**Start Date:**	**1/12/2028**	**Total phase:**	**90**			
		End Date:	**4/12/2028**					
2	Graders	148	0.41	8	90	8	87379	
3	Rubber Tired Dozers	367	0.4	8	90	8	317088	
4	Tractors/Loaders/Backhoes	84	0.37	8	90	8	89510	
	Other Equipment?							
	Grading / Excavation	**Start Date:**	**4/13/2028**	**Total phase:**	**120**			
		End Date:	**8/13/2028**					**Soil Hauling Volume**
2	Excavators	36	0.38	8	120	8	26266	Export volume = **0** cubic yards (All grading will done on-site)
1	Graders	148	0.41	8	120	8	58253	Import volume = **0** cubic yards (All grading will done on-site)
1	Rubber Tired Dozers	367	0.4	8	120	8	140928	
1	Concrete/Industrial Saws	33	0.73	8	120	8	23126	
2	Tractors/Loaders/Backhoes	84	0.37	8	120	8	59674	
2	*Other Equipment? Scrapers*	423	0.48	8	120	8	389836.8	
	Trenching/Foundation	**Start Date:**	**8/14/2028**	**Total phase:**	**60**			
		End Date:	**10/14/2028**					
1	Trencher	40	0.5	8	40	5.33	6400	
1	Tractor/Loader/Backhoe	84	0.37	8	30	4	7459	
1	Excavators	36	0.38	8	30	4	3283	
	Other Equipment?							
								Cement Trucks? 50 Total Round-Trips
	Building - Exterior	**Start Date:**	**10/15/2028**	**Total phase:**	**30**			
		End Date:	**11/15/2028**					Electric? (Y/N) ___ Otherwise assumed diesel
1	Cranes	367	0.29	8	30	8	25543	Liquid Propane (LPG)? (Y/N) ___ Otherwise Assumed diesel
3	Forklifts	82	0.2	8	30	8	11808	Or temporary line power? (Y/N) ___
1	Generator Sets	14	0.74	8	30	8	2486	
3	Tractors/Loaders/Backhoes	84	0.37	8	30	8	22378	
1	Welders	46	0.45	8	30	8	4968	
	Other Equipment?							
	Building - Interior/Architectural Coa	**Start Date:**	**11/16/2028**	**Total phase:**	**30**			
		End Date:	**12/16/2028**					
1	Air Compressors	37	0.48	8	30	8	4262	
1	Aerial Lift	46	0.31	8	30	8	3422	
	Other Equipment?							
	Paving	**Start Date:**	**8/14/2028**	**Total phase:**	**30**			**Asphalt 663 cubic yards**
		End Date:	**10/14/2028**					
2	Pavers	81	0.42	8	30	8	16330	
2	Paving Equipment	89	0.36	8	30	8	15379	
2	Rollers	36	0.38	8	30	8	6566	
1	Tractors/Loaders/Backhoes	84	0.37	8	30	8	7459	
	Other Equipment?							
	Hoop Houses	**Start Date:**	**1/1/2029**	**Total phase:**	**150**			
		Start Date:	**6/1/2029**					
1	Crane	367	0.29	8	150	8	127716	
2	Forklift	82	0.2	8	150	8	39360	
1	Trencher	40	0.5	8	150	8	24000	
1	Aerial Lift	46	0.31	8	150	8	17112	

Equipment types listed in "Equipment Types" worksheet tab.

Equipment listed in this sheet is to provide an example of inputs

It is assumed that water trucks would be used during grading

Add or subtract phases and equipment, as appropriate

Modify horsepower or load factor, as appropriate

Complete one sheet for each project component

Traffic Consultant Trip Gen					CalEEMod Default			
Land Use	Size	Daily Trips	New Trips	Weekday Trip Gen		Weekday	Sat	Sun
Refrigerated Warehouse- N ksf	45	102	102	***2.27***		2.12	2.21	2.12
					Rev		***2.36***	***2.27***

Trip Generation Estimates (9-26-25)

Land Use	Daily Trips	In	Out	Total	In	Out	Total
Proposed Land Uses							
Trucks - Outbound Deliveries[1]	20	1	1	2	1	1	2
Trucks - Inbound Deliveries[2]	2	1	1	2	0	0	0
Employees (Passenger Vehicles)[3]	80	20	0	20	0	0	0
Total Trips	**102**	**22**	**2**	**24**	**1**	**1**	**2**

Source: Proposed project operations at full buildout provided by applicant.

[1] Up to 58 outbound deliveries are anticipated each work week (6 days), which equates to approximately 10 outbound deliveries daily. Assumes deliveries will be made throughout operating hours (7am-6pm), which equates to approximately 1 delivery (2 trips) per hour.

[2] Up to 4 inbound deliveries are anticipated each work week, which equates to approximately 1 inbound delivery daily. Assumes the inbound delivery will occur during the AM peak hour.

[3] A total of 30 employees would arrive each shift (6am-2:30pm; 11:30am-8pm). Assuming that at least 1/3 of employees opt to carpool/vanpool, no more than 20 passenger vehicles or vans would arrive before and after each shift. Inbound trips before the first shift will arrive during the AM peak-hour.

25-119 Hippo Harvest, Hollister Phase 1 BMPs T4 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	25-119 Hippo Harvest, Hollister Phase 1 BMPs T4
Construction Start Date	2/1/2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.8
Precipitation (days)	29
Location	Shore Rd, California 95023, USA
County	San Benito
City	Unincorporated
Air District	Monterey Bay ARD
Air Basin	North Central Coast
TAZ	3102
EDFZ	6
Electric Utility	Central Coast Community Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.35

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Parking Lot	28	Space	0.25	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.7	14	16	0.58	2.0	2.5	0.53	0.75	1.3	3,612
Mit.	0.50	5.3	20	0.12	2.0	2.0	0.11	0.75	0.82	3,612
% Reduced	71%	63%	-19%	79%	—	20%	79%	—	36%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	3.9	35	37	1.5	8.3	9.8	1.4	4.0	5.4	6,624
Mit.	0.70	4.7	37	0.12	8.3	8.4	0.12	4.0	4.1	6,624
% Reduced	82%	86%	> -0.5%	92%	—	15%	91%	—	24%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.87	7.6	8.6	0.31	0.93	1.2	0.28	0.41	0.69	1,815
Mit.	0.23	1.8	9.8	0.04	0.93	0.97	0.04	0.41	0.44	1,815
% Reduced	74%	76%	-15%	88%	—	22%	87%	—	36%	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.16	1.4	1.6	0.06	0.17	0.23	0.05	0.07	0.13	300
Mit.	0.04	0.34	1.8	0.01	0.17	0.18	0.01	0.07	0.08	300
% Reduced	74%	76%	-15%	88%	—	22%	87%	—	36%	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2026	1.7	14	16	0.58	2.0	2.5	0.53	0.75	1.3	3,612
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2026	3.9	35	37	1.5	8.3	9.8	1.4	4.0	5.4	6,624
Average Daily	—	—	—	—	—	—	—	—	—	—
2026	0.87	7.6	8.6	0.31	0.93	1.2	0.28	0.41	0.69	1,815
Annual	—	—	—	—	—	—	—	—	—	—
2026	0.16	1.4	1.6	0.06	0.17	0.23	0.05	0.07	0.13	300

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2026	0.50	5.3	20	0.12	2.0	2.0	0.11	0.75	0.82	3,612
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2026	0.70	4.7	37	0.12	8.3	8.4	0.12	4.0	4.1	6,624
Average Daily	—	—	—	—	—	—	—	—	—	—
2026	0.23	1.8	9.8	0.04	0.93	0.97	0.04	0.41	0.44	1,815
Annual	—	—	—	—	—	—	—	—	—	—
2026	0.04	0.34	1.8	0.01	0.17	0.18	0.01	0.07	0.08	300

3. Construction Emissions Details

3.1. Demolition (2026) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.4	22	21	0.88	—	0.88	0.81	—	0.81	3,730
Demolition	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.18	0.17	0.01	—	0.01	0.01	—	0.01	31
Demolition	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.1
Demolition	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.70	0.00	0.13	0.13	0.00	0.03	0.03	130

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	28
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.1
Vendor	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	0.23
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04

3.2. Demolition (2026) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	4.6	20	0.07	—	0.07	0.07	—	0.07	3,730
Demolition	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.17	< 0.005	—	< 0.005	< 0.005	—	< 0.005	31
Demolition	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	5.1
Demolition	—	—	—	—	0.00	0.00	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.70	0.00	0.13	0.13	0.00	0.03	0.03	130
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	28
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.1
Vendor	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	0.23
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04

3.3. Site Preparation (2026) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	3.8	35	36	1.5	—	1.5	1.4	—	1.4	6,456
Dust From Material Movement	—	—	—	—	8.1	8.1	—	4.0	4.0	—
Onsite truck	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	0.26	2.4	2.5	0.11	—	0.11	0.10	—	0.10	442
Dust From Material Movement	—	—	—	—	0.55	0.55	—	0.27	0.27	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.43	0.45	0.02	—	0.02	0.02	—	0.02	73
Dust From Material Movement	—	—	—	—	0.10	0.10	—	0.05	0.05	—
Onsite truck	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	0.09	0.07	0.90	0.00	0.17	0.17	0.00	0.04	0.04	167
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12
Vendor	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

Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.9
Vendor	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

3.4. Site Preparation (2026) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	3.1	36	0.12	—	0.12	0.12	—	0.12	6,456
Dust From Material Movement	—	—	—	—	8.1	8.1	—	4.0	4.0	—
Onsite truck	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	0.04	0.22	2.5	0.01	—	0.01	0.01	—	0.01	442
Dust From Material Movement	—	—	—	—	0.55	0.55	—	0.27	0.27	—
Onsite truck	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	0.04	0.45	< 0.005	—	< 0.005	< 0.005	—	< 0.005	73
Dust From Material Movement	—	—	—	—	0.10	0.10	—	0.05	0.05	—

Onsite truck	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	0.09	0.07	0.90	0.00	0.17	0.17	0.00	0.04	0.04	167
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.06	0.00	0.01	0.01	0.00	< 0.005	< 0.005	12
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.9
Vendor	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

3.5. Grading (2026) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.6	14	15	0.58	—	0.58	0.53	—	0.53	3,433
Dust From Material Movement	—	—	—	—	1.8	1.8	—	0.71	0.71	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.6	14	15	0.58	—	0.58	0.53	—	0.53	3,433
Dust From Material Movement	—	—	—	—	1.8	1.8	—	0.71	0.71	—
Onsite truck	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	0.23	2.1	2.1	0.08	—	0.08	0.08	—	0.08	498
Dust From Material Movement	—	—	—	—	0.26	0.26	—	0.10	0.10	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.38	0.39	0.02	—	0.02	0.01	—	0.01	83
Dust From Material Movement	—	—	—	—	0.05	0.05	—	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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.06	0.96	0.00	0.17	0.17	0.00	0.04	0.04	179
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.07	0.90	0.00	0.17	0.17	0.00	0.04	0.04	167
Vendor	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

Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.02	0.02	0.00	0.01	0.01	24
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.1
Vendor	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

3.6. Grading (2026) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	2.8	19	0.06	—	0.06	0.06	—	0.06	3,433
Dust From Material Movement	—	—	—	—	1.8	1.8	—	0.71	0.71	—
Onsite truck	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	0.34	2.8	19	0.06	—	0.06	0.06	—	0.06	3,433
Dust From Material Movement	—	—	—	—	1.8	1.8	—	0.71	0.71	—
Onsite truck	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	0.05	0.41	2.7	0.01	—	0.01	0.01	—	0.01	498
Dust From Material Movement	—	—	—	—	0.26	0.26	—	0.10	0.10	—
Onsite truck	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	0.07	0.49	< 0.005	—	< 0.005	< 0.005	—	< 0.005	83
Dust From Material Movement	—	—	—	—	0.05	0.05	—	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
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.06	0.96	0.00	0.17	0.17	0.00	0.04	0.04	179
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.07	0.90	0.00	0.17	0.17	0.00	0.04	0.04	167
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.02	0.02	0.00	0.01	0.01	24
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.1
Vendor	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

3.7. Hoop Houses (2026) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	6.8	7.3	0.26	—	0.26	0.24	—	0.24	1,656
Onsite truck	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	0.73	6.8	7.3	0.26	—	0.26	0.24	—	0.24	1,656
Onsite truck	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	0.21	2.0	2.2	0.08	—	0.08	0.07	—	0.07	485
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.36	0.39	0.01	—	0.01	0.01	—	0.01	80
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.85	0.00	0.15	0.15	0.00	0.04	0.04	159
Vendor	< 0.005	0.12	0.05	< 0.005	0.03	0.03	< 0.005	0.01	0.01	102
Hauling	< 0.005	0.16	0.03	< 0.005	0.04	0.04	< 0.005	0.01	0.01	141

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.80	0.00	0.15	0.15	0.00	0.04	0.04	149
Vendor	< 0.005	0.13	0.05	< 0.005	0.03	0.03	< 0.005	0.01	0.01	102
Hauling	< 0.005	0.17	0.03	< 0.005	0.04	0.04	< 0.005	0.01	0.01	141
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.22	0.00	0.04	0.04	0.00	0.01	0.01	44
Vendor	< 0.005	0.04	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	30
Hauling	< 0.005	0.05	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	41
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.3
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.0
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.9

3.8. Hoop Houses (2026) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	2.3	9.5	0.03	—	0.03	0.03	—	0.03	1,656
Onsite truck	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	0.18	2.3	9.5	0.03	—	0.03	0.03	—	0.03	1,656
Onsite truck	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	0.05	0.67	2.8	0.01	—	0.01	0.01	—	0.01	485
Onsite truck	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	0.12	0.51	< 0.005	—	< 0.005	< 0.005	—	< 0.005	80
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.85	0.00	0.15	0.15	0.00	0.04	0.04	159
Vendor	< 0.005	0.12	0.05	< 0.005	0.03	0.03	< 0.005	0.01	0.01	102
Hauling	< 0.005	0.16	0.03	< 0.005	0.04	0.04	< 0.005	0.01	0.01	141
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.80	0.00	0.15	0.15	0.00	0.04	0.04	149
Vendor	< 0.005	0.13	0.05	< 0.005	0.03	0.03	< 0.005	0.01	0.01	102
Hauling	< 0.005	0.17	0.03	< 0.005	0.04	0.04	< 0.005	0.01	0.01	141
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.22	0.00	0.04	0.04	0.00	0.01	0.01	44
Vendor	< 0.005	0.04	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	30
Hauling	< 0.005	0.05	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	41
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.3
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	5.0
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	6.9

3.9. Paving (2026) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.86	8.2	12	0.35	—	0.35	0.33	—	0.33	1,807
Paving	0.02	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.06	0.60	0.88	0.03	—	0.03	0.02	—	0.02	134
Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.11	0.16	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22
Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.07	0.05	0.74	0.00	0.13	0.13	0.00	0.03	0.03	140
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.32	0.06	0.01	0.07	0.08	0.01	0.02	0.03	283
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	21
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.6
Vendor	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	3.5

3.10. Paving (2026) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	3.4	12	0.11	—	0.11	0.10	—	0.10	1,807
Paving	0.02	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.02	0.25	0.92	0.01	—	0.01	0.01	—	0.01	134
Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.05	0.17	< 0.005	—	< 0.005	< 0.005	—	< 0.005	22
Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.07	0.05	0.74	0.00	0.13	0.13	0.00	0.03	0.03	140
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.32	0.06	0.01	0.07	0.08	0.01	0.02	0.03	283
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.05	0.00	0.01	0.01	0.00	< 0.005	< 0.005	9.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	21
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.6
Vendor	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	3.5

3.11. Trenching (2026) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	2.5	3.4	0.09	—	0.09	0.08	—	0.08	497
Onsite truck	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	0.02	0.18	0.25	0.01	—	0.01	0.01	—	0.01	37

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.1
Onsite truck	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	0.03	0.02	0.32	0.00	0.06	0.06	0.00	0.01	0.01	60
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.2
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.69
Vendor	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

3.12. Trenching (2026) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	1.5	3.5	0.01	—	0.01	0.01	—	0.01	497

Onsite truck	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	0.11	0.26	< 0.005	—	< 0.005	< 0.005	—	< 0.005	37
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.05	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.1
Onsite truck	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	0.03	0.02	0.32	0.00	0.06	0.06	0.00	0.01	0.01	60
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.2
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.69
Vendor	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

4. Operations Emissions Details

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)

Vegetation	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	2/1/2026	2/4/2026	6.0	3.0	—
Site Preparation	Site Preparation	2/5/2026	3/5/2026	6.0	25	—

Grading	Grading	3/6/2026	5/6/2026	6.0	53	—
Hoop Houses	Building Construction	6/8/2026	10/9/2026	6.0	107	—
Paving	Paving	5/7/2026	6/7/2026	6.0	27	—
Trenching	Trenching	5/7/2026	6/7/2026	6.0	27	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.0	33	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	2.0	8.0	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.0	84	0.37
Demolition	Excavators	Diesel	Average	3.0	8.0	36	0.38
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.0	8.0	84	0.37
Site Preparation	Graders	Diesel	Average	2.0	8.0	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.0	8.0	367	0.40
Grading	Graders	Diesel	Average	1.00	4.0	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	4.0	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.0	4.0	84	0.37
Grading	Excavators	Diesel	Average	2.0	4.0	36	0.38
Grading	Scrapers	Diesel	Average	2.0	4.0	423	0.48
Grading	Concrete/Industrial Saws	Diesel	Average	1.00	4.0	33	0.73
Hoop Houses	Forklifts	Diesel	Average	2.0	8.0	82	0.20
Hoop Houses	Cranes	Diesel	Average	1.00	8.0	367	0.29
Hoop Houses	Trenchers	Diesel	Average	1.00	8.0	40	0.50

Hoop Houses	Aerial Lifts	Diesel	Average	1.00	8.0	46	0.31
Paving	Pavers	Diesel	Average	2.0	8.0	81	0.42
Paving	Rollers	Diesel	Average	2.0	8.0	36	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.0	84	0.37
Paving	Paving Equipment	Diesel	Average	2.0	8.0	89	0.36
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	5.3	84	0.37
Trenching	Excavators	Diesel	Average	1.00	5.3	36	0.38
Trenching	Trenchers	Diesel	Average	1.00	8.0	40	0.50

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.0	33	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	2.0	8.0	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.0	84	0.37
Demolition	Excavators	Diesel	Tier 4 Final	3.0	8.0	36	0.38
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.0	8.0	84	0.37
Site Preparation	Graders	Diesel	Tier 4 Final	2.0	8.0	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.0	8.0	367	0.40
Grading	Graders	Diesel	Tier 4 Final	1.00	4.0	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	4.0	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.0	4.0	84	0.37
Grading	Excavators	Diesel	Tier 4 Final	2.0	4.0	36	0.38
Grading	Scrapers	Diesel	Tier 4 Final	2.0	4.0	423	0.48
Grading	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	4.0	33	0.73

Hoop Houses	Forklifts	Diesel	Tier 4 Final	2.0	8.0	82	0.20
Hoop Houses	Cranes	Diesel	Tier 4 Final	1.00	8.0	367	0.29
Hoop Houses	Trenchers	Diesel	Tier 4 Final	1.00	8.0	40	0.50
Hoop Houses	Aerial Lifts	Diesel	Tier 4 Final	1.00	8.0	46	0.31
Paving	Pavers	Diesel	Average	1.00	8.0	81	0.42
Paving	Pavers	Diesel	Tier 4 Final	1.00	8.0	81	0.42
Paving	Rollers	Diesel	Tier 4 Final	2.0	8.0	36	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.0	84	0.37
Paving	Paving Equipment	Diesel	Tier 4 Final	2.0	8.0	89	0.36
Trenching	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	5.3	84	0.37
Trenching	Excavators	Diesel	Tier 4 Final	1.00	5.3	36	0.38
Trenching	Trenchers	Diesel	Tier 4 Final	1.00	8.0	40	0.50

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	18	11	LDA,LDT1,LDT2
Demolition	Vendor	—	7.9	HHDT,MHDT
Demolition	Hauling	0.40	20	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	23	11	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.9	HHDT,MHDT
Site Preparation	Hauling	0.00	20	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	23	11	LDA,LDT1,LDT2
Grading	Vendor	—	7.9	HHDT,MHDT

Grading	Hauling	0.00	20	HHDT
Grading	Onsite truck	—	—	HHDT
Hoop Houses	Worker	20	11	LDA,LDT1,LDT2
Hoop Houses	Vendor	4.0	7.9	HHDT,MHDT
Hoop Houses	Hauling	2.0	20	HHDT
Hoop Houses	Onsite truck	—	—	HHDT
Paving	Worker	18	11	LDA,LDT1,LDT2
Paving	Vendor	—	7.9	HHDT,MHDT
Paving	Hauling	4.0	20	HHDT
Paving	Onsite truck	—	—	HHDT
Trenching	Worker	7.5	11	LDA,LDT1,LDT2
Trenching	Vendor	—	7.9	HHDT,MHDT
Trenching	Hauling	0.00	20	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	18	11	LDA,LDT1,LDT2
Demolition	Vendor	—	7.9	HHDT,MHDT
Demolition	Hauling	0.40	20	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	23	11	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.9	HHDT,MHDT
Site Preparation	Hauling	0.00	20	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	23	11	LDA,LDT1,LDT2
Grading	Vendor	—	7.9	HHDT,MHDT
Grading	Hauling	0.00	20	HHDT

Grading	Onsite truck	—	—	HHDT
Hoop Houses	Worker	20	11	LDA,LDT1,LDT2
Hoop Houses	Vendor	4.0	7.9	HHDT,MHDT
Hoop Houses	Hauling	2.0	20	HHDT
Hoop Houses	Onsite truck	—	—	HHDT
Paving	Worker	18	11	LDA,LDT1,LDT2
Paving	Vendor	—	7.9	HHDT,MHDT
Paving	Hauling	4.0	20	HHDT
Paving	Onsite truck	—	—	HHDT
Trenching	Worker	7.5	11	LDA,LDT1,LDT2
Trenching	Vendor	—	7.9	HHDT,MHDT
Trenching	Hauling	0.00	20	HHDT
Trenching	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

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	0.00
Site Preparation	—	—	63	0.00	0.00
Grading	0.00	0.00	80	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.25

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Parking Lot	0.25	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	10.0	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	14	annual days of extreme heat
Extreme Precipitation	5.5	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	24	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (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	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	22
AQ-PM	1.2
AQ-DPM	10
Drinking Water	76
Lead Risk Housing	25
Pesticides	89
Toxic Releases	21
Traffic	37
Effect Indicators	—
CleanUp Sites	58
Groundwater	56
Haz Waste Facilities/Generators	92
Impaired Water Bodies	98
Solid Waste	99
Sensitive Population	—
Asthma	68

Cardio-vascular	95
Low Birth Weights	4.4
Socioeconomic Factor Indicators	—
Education	59
Housing	12
Linguistic	44
Poverty	49
Unemployment	77

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—

Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	—
Asthma ER Admissions	—
High Blood Pressure	—
Cancer (excluding skin)	—
Asthma	—
Coronary Heart Disease	—
Chronic Obstructive Pulmonary Disease	—
Diagnosed Diabetes	—
Life Expectancy at Birth	—
Cognitively Disabled	—
Physically Disabled	—
Heart Attack ER Admissions	—
Mental Health Not Good	—
Chronic Kidney Disease	—
Obesity	—
Pedestrian Injuries	—

Physical Health Not Good	—
Stroke	—
Health Risk Behaviors	—
Binge Drinking	—
Current Smoker	—
No Leisure Time for Physical Activity	—
Climate Change Exposures	—
Wildfire Risk	—
SLR Inundation Area	—
Children	—
Elderly	—
English Speaking	—
Foreign-born	—
Outdoor Workers	—
Climate Change Adaptive Capacity	—
Impervious Surface Cover	—
Traffic Density	—
Traffic Access	—
Other Indices	—
Hardship	—
Other Decision Support	—
2016 Voting	—

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	Hollister default clean energy provider is Central Coast Community Energy. Average 2021-2023 power content label = 618.67 lb/MWh.
Construction: Construction Phases	Information provided by filled out construction worksheet.
Construction: Off-Road Equipment	Information provided by filled out construction worksheet.
Construction: Trips and VMT	Demolition = 6 tons of pavement demo'ed and hauled (0.4 trips/day), Paving = 505-cy of asphalt (4.00 trips/day).
Construction: On-Road Fugitive Dust	100% paved roads.

25-119 Hippo Harvest, Hollister Phase 2 BMPs T4 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	25-119 Hippo Harvest, Hollister Phase 2 BMPs T4
Construction Start Date	1/1/2028
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.8
Precipitation (days)	29
Location	Shore Rd, California 95023, USA
County	San Benito
City	Unincorporated
Air District	Monterey Bay ARD
Air Basin	North Central Coast
TAZ	3102
EDFZ	6
Electric Utility	Central Coast Community Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.35

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	45	1000sqft	1.0	45,000	0.00	—	—	—
Parking Lot	32	Space	0.29	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	3.7	32	36	1.4	8.3	9.6	1.3	4.0	5.3	7,038
Mit.	0.76	5.6	38	0.13	8.3	8.4	0.13	4.0	4.1	7,038
% Reduced	80%	82%	-4%	91%	—	13%	90%	—	22%	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	33	32	36	1.4	8.3	9.6	1.3	4.0	5.3	6,620
Mit.	33	5.9	37	0.12	8.3	8.4	0.12	4.0	4.1	6,620
% Reduced	< 0.5%	81%	-2%	91%	—	13%	91%	—	22%	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	4.5	17	20	0.69	3.0	3.7	0.63	1.3	1.9	4,216
Mit.	2.9	3.3	23	0.08	3.0	3.0	0.08	1.3	1.4	4,216
% Reduced	35%	81%	-13%	89%	—	17%	88%	—	28%	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.81	3.1	3.7	0.13	0.54	0.67	0.12	0.24	0.36	698
Mit.	0.53	0.61	4.2	0.01	0.54	0.56	0.01	0.24	0.25	698
% Reduced	35%	81%	-13%	89%	—	17%	88%	—	28%	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2028	3.7	32	36	1.4	8.3	9.6	1.3	4.0	5.3	7,038
2029	0.72	6.0	8.0	0.20	0.19	0.39	0.18	0.05	0.23	1,971
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2028	33	32	36	1.4	8.3	9.6	1.3	4.0	5.3	6,620
2029	0.71	6.1	7.9	0.20	0.19	0.39	0.18	0.05	0.23	1,963
Average Daily	—	—	—	—	—	—	—	—	—	—
2028	4.5	17	20	0.69	3.0	3.7	0.63	1.3	1.9	4,216
2029	0.26	2.2	2.8	0.07	0.07	0.14	0.07	0.02	0.08	705
Annual	—	—	—	—	—	—	—	—	—	—
2028	0.81	3.1	3.7	0.13	0.54	0.67	0.12	0.24	0.36	698
2029	0.05	0.40	0.52	0.01	0.01	0.03	0.01	< 0.005	0.01	117

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—
2028	0.76	5.6	38	0.13	8.3	8.4	0.13	4.0	4.1	7,038
2029	0.25	2.5	10	0.03	0.19	0.23	0.03	0.05	0.08	1,971
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—
2028	33	5.9	37	0.12	8.3	8.4	0.12	4.0	4.1	6,620
2029	0.24	2.6	10	0.03	0.19	0.23	0.03	0.05	0.08	1,963

Average Daily	—	—	—	—	—	—	—	—	—	—
2028	2.9	3.3	23	0.08	3.0	3.0	0.08	1.3	1.4	4,216
2029	0.09	0.92	3.6	0.01	0.07	0.08	0.01	0.02	0.03	705
Annual	—	—	—	—	—	—	—	—	—	—
2028	0.53	0.61	4.2	0.01	0.54	0.56	0.01	0.24	0.25	698
2029	0.02	0.17	0.66	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	117

3. Construction Emissions Details

3.1. Demolition (2028) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.3	21	21	0.80	—	0.80	0.74	—	0.74	3,732
Demolition	—	—	—	—	1.2	1.2	—	0.18	0.18	—
Onsite truck	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	0.06	0.51	0.51	0.02	—	0.02	0.02	—	0.02	92
Demolition	—	—	—	—	0.03	0.03	—	< 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
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	0.09	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15
Demolition	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.60	0.00	0.13	0.13	0.00	0.03	0.03	125
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.2	0.25	0.02	0.28	0.31	0.02	0.08	0.10	1,034
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	25
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.51
Vendor	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	4.2

3.2. Demolition (2028) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.39	4.6	20	0.07	—	0.07	0.07	—	0.07	3,732
Demolition	—	—	—	—	1.2	1.2	—	0.18	0.18	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.11	0.50	< 0.005	—	< 0.005	< 0.005	—	< 0.005	92
Demolition	—	—	—	—	0.03	0.03	—	< 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
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.09	< 0.005	—	< 0.005	< 0.005	—	< 0.005	15
Demolition	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.60	0.00	0.13	0.13	0.00	0.03	0.03	125
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.2	0.25	0.02	0.28	0.31	0.02	0.08	0.10	1,034
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.1
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	25
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.51
Vendor	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	4.2

3.3. Site Preparation (2028) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.6	32	36	1.4	—	1.4	1.3	—	1.3	6,459
Dust From Material Movement	—	—	—	—	8.1	8.1	—	4.0	4.0	—
Onsite truck	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	3.6	32	36	1.4	—	1.4	1.3	—	1.3	6,459
Dust From Material Movement	—	—	—	—	8.1	8.1	—	4.0	4.0	—
Onsite truck	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	0.79	6.9	7.7	0.30	—	0.30	0.28	—	0.28	1,398
Dust From Material Movement	—	—	—	—	1.7	1.7	—	0.86	0.86	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.3	1.4	0.05	—	0.05	0.05	—	0.05	231
Dust From Material Movement	—	—	—	—	0.32	0.32	—	0.16	0.16	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.82	0.00	0.17	0.17	0.00	0.04	0.04	172
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.77	0.00	0.17	0.17	0.00	0.04	0.04	161
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.16	0.00	0.04	0.04	0.00	0.01	0.01	35
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	0.01	0.00	< 0.005	< 0.005	5.8
Vendor	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

3.4. Site Preparation (2028) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.61	3.1	36	0.12	—	0.12	0.12	—	0.12	6,459
Dust From Material Movement	—	—	—	—	8.1	8.1	—	4.0	4.0	—

Onsite truck	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	0.61	3.1	36	0.12	—	0.12	0.12	—	0.12	6,459
Dust From Material Movement	—	—	—	—	8.1	8.1	—	4.0	4.0	—
Onsite truck	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	0.13	0.68	7.8	0.03	—	0.03	0.03	—	0.03	1,398
Dust From Material Movement	—	—	—	—	1.7	1.7	—	0.86	0.86	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.12	1.4	< 0.005	—	< 0.005	< 0.005	—	< 0.005	231
Dust From Material Movement	—	—	—	—	0.32	0.32	—	0.16	0.16	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.82	0.00	0.17	0.17	0.00	0.04	0.04	172
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.06	0.77	0.00	0.17	0.17	0.00	0.04	0.04	161
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.16	0.00	0.04	0.04	0.00	0.01	0.01	35
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	0.01	0.00	< 0.005	< 0.005	5.8
Vendor	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

3.5. Grading (2028) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.0	26	29	1.0	—	1.0	0.93	—	0.93	6,866
Dust From Material Movement	—	—	—	—	3.6	3.6	—	1.4	1.4	—
Onsite truck	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	0.87	7.4	8.3	0.29	—	0.29	0.27	—	0.27	1,975
Dust From Material Movement	—	—	—	—	1.0	1.0	—	0.41	0.41	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	1.4	1.5	0.05	—	0.05	0.05	—	0.05	327
Dust From Material Movement	—	—	—	—	0.19	0.19	—	0.07	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.82	0.00	0.17	0.17	0.00	0.04	0.04	172
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.21	0.00	0.05	0.05	0.00	0.01	0.01	47
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.7
Vendor	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

3.6. Grading (2028) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.68	5.6	37	0.13	—	0.13	0.13	—	0.13	6,866
Dust From Material Movement	—	—	—	—	3.6	3.6	—	1.4	1.4	—
Onsite truck	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	0.19	1.6	11	0.04	—	0.04	0.04	—	0.04	1,975
Dust From Material Movement	—	—	—	—	1.0	1.0	—	0.41	0.41	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.29	1.9	0.01	—	0.01	0.01	—	0.01	327
Dust From Material Movement	—	—	—	—	0.19	0.19	—	0.07	0.07	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.05	0.82	0.00	0.17	0.17	0.00	0.04	0.04	172
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.21	0.00	0.05	0.05	0.00	0.01	0.01	47
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.7
Vendor	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

3.7. Building Construction (2028) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.1	9.7	14	0.33	—	0.33	0.30	—	0.30	2,639
Onsite truck	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	0.08	0.71	1.0	0.02	—	0.02	0.02	—	0.02	195
Onsite truck	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	0.13	0.19	< 0.005	—	< 0.005	< 0.005	—	< 0.005	32
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.64	0.00	0.14	0.14	0.00	0.03	0.03	135

Vendor	0.01	0.22	0.08	< 0.005	0.05	0.05	< 0.005	0.01	0.02	180
Hauling	< 0.005	0.30	0.06	< 0.005	0.07	0.07	< 0.005	0.02	0.02	249
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13
Hauling	< 0.005	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	18
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.7
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.2
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.1

3.8. Building Construction (2028) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.35	2.9	16	0.08	—	0.08	0.08	—	0.08	2,639
Onsite truck	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	0.22	1.2	0.01	—	0.01	0.01	—	0.01	195
Onsite truck	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	0.04	0.22	< 0.005	—	< 0.005	< 0.005	—	< 0.005	32
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.64	0.00	0.14	0.14	0.00	0.03	0.03	135
Vendor	0.01	0.22	0.08	< 0.005	0.05	0.05	< 0.005	0.01	0.02	180
Hauling	< 0.005	0.30	0.06	< 0.005	0.07	0.07	< 0.005	0.02	0.02	249
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	13
Hauling	< 0.005	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	18
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.7
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	2.2
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.1

3.9. Hoop Houses (2029) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.65	5.8	7.2	0.20	—	0.20	0.18	—	0.18	1,656
Onsite truck	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	0.65	5.8	7.2	0.20	—	0.20	0.18	—	0.18	1,656

Onsite truck	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	0.23	2.1	2.6	0.07	—	0.07	0.06	—	0.06	594
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.38	0.47	0.01	—	0.01	0.01	—	0.01	98
Onsite truck	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	0.06	0.03	0.64	0.00	0.14	0.14	0.00	0.03	0.03	141
Vendor	0.01	0.20	0.07	< 0.005	0.05	0.05	< 0.005	0.01	0.02	175
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.60	0.00	0.14	0.14	0.00	0.03	0.03	133
Vendor	0.01	0.22	0.08	< 0.005	0.05	0.05	< 0.005	0.01	0.02	175
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.20	0.00	0.05	0.05	0.00	0.01	0.01	48
Vendor	< 0.005	0.08	0.03	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	63
Hauling	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	0.04	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.9
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Hoop Houses (2029) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	2.3	9.5	0.03	—	0.03	0.03	—	0.03	1,656
Onsite truck	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	0.18	2.3	9.5	0.03	—	0.03	0.03	—	0.03	1,656
Onsite truck	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	0.06	0.83	3.4	0.01	—	0.01	0.01	—	0.01	594
Onsite truck	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	0.15	0.62	< 0.005	—	< 0.005	< 0.005	—	< 0.005	98
Onsite truck	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	0.06	0.03	0.64	0.00	0.14	0.14	0.00	0.03	0.03	141
Vendor	0.01	0.20	0.07	< 0.005	0.05	0.05	< 0.005	0.01	0.02	175
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.60	0.00	0.14	0.14	0.00	0.03	0.03	133

Vendor	0.01	0.22	0.08	< 0.005	0.05	0.05	< 0.005	0.01	0.02	175
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.20	0.00	0.05	0.05	0.00	0.01	0.01	48
Vendor	< 0.005	0.08	0.03	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	63
Hauling	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	0.04	0.00	0.01	0.01	0.00	< 0.005	< 0.005	7.9
Vendor	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	10
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2028) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.78	7.6	12	0.28	—	0.28	0.26	—	0.26	1,807
Paving	0.01	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.78	7.6	12	0.28	—	0.28	0.26	—	0.26	1,807
Paving	0.01	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.12	1.1	1.7	0.04	—	0.04	0.04	—	0.04	267

Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.20	0.32	0.01	—	0.01	0.01	—	0.01	44
Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.06	0.04	0.64	0.00	0.13	0.13	0.00	0.03	0.03	134
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.22	0.05	< 0.005	0.05	0.06	< 0.005	0.01	0.02	197
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.60	0.00	0.13	0.13	0.00	0.03	0.03	125
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.23	0.05	< 0.005	0.05	0.06	< 0.005	0.01	0.02	197
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.02	0.02	0.00	< 0.005	< 0.005	19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	29
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.1
Vendor	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	4.8

3.12. Paving (2028) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	2.1	13	0.03	—	0.03	0.03	—	0.03	1,807
Paving	0.01	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.19	2.1	13	0.03	—	0.03	0.03	—	0.03	1,807
Paving	0.01	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.31	1.9	< 0.005	—	< 0.005	< 0.005	—	< 0.005	267
Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.06	0.34	< 0.005	—	< 0.005	< 0.005	—	< 0.005	44
Paving	< 0.005	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.06	0.04	0.64	0.00	0.13	0.13	0.00	0.03	0.03	134
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.22	0.05	< 0.005	0.05	0.06	< 0.005	0.01	0.02	197

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.60	0.00	0.13	0.13	0.00	0.03	0.03	125
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.23	0.05	< 0.005	0.05	0.06	< 0.005	0.01	0.02	197
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.02	0.02	0.00	< 0.005	< 0.005	19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	29
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.1
Vendor	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	4.8

3.13. Architectural Coating (2028) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	1.8	2.3	0.03	—	0.03	0.02	—	0.02	327
Architectural Coatings	33	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.17	< 0.005	—	< 0.005	< 0.005	—	< 0.005	24

Architectural Coatings	2.4	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.0
Architectural Coatings	0.44	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.26	0.00	0.06	0.06	0.00	0.01	0.01	54
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.0
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.67
Vendor	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

3.14. Architectural Coating (2028) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.6	2.3	0.01	—	0.01	0.01	—	0.01	327
Architectural Coatings	33	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.11	0.17	< 0.005	—	< 0.005	< 0.005	—	< 0.005	24
Architectural Coatings	2.4	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.0
Architectural Coatings	0.44	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.26	0.00	0.06	0.06	0.00	0.01	0.01	54
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	4.0
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.67
Vendor	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

3.15. Trenching (2028) - Unmitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	1.7	2.4	0.05	—	0.05	0.04	—	0.04	356
Onsite truck	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	0.20	1.7	2.4	0.05	—	0.05	0.04	—	0.04	356
Onsite truck	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	0.25	0.36	0.01	—	0.01	0.01	—	0.01	53
Onsite truck	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	0.05	0.06	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.7
Onsite truck	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	0.03	0.02	0.27	0.00	0.06	0.06	0.00	0.01	0.01	57
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.26	0.00	0.06	0.06	0.00	0.01	0.01	54
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.0
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.3
Vendor	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

3.16. Trenching (2028) - Mitigated

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

Location	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	1.0	2.5	0.01	—	0.01	0.01	—	0.01	356
Onsite truck	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	0.05	1.0	2.5	0.01	—	0.01	0.01	—	0.01	356

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.16	0.37	< 0.005	—	< 0.005	< 0.005	—	< 0.005	53
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.7
Onsite truck	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	0.03	0.02	0.27	0.00	0.06	0.06	0.00	0.01	0.01	57
Vendor	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.26	0.00	0.06	0.06	0.00	0.01	0.01	54
Vendor	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
Average Daily	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	0.01	0.00	< 0.005	< 0.005	8.0
Vendor	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
Annual	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.3
Vendor	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

4. Operations Emissions Details

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)

Vegetation	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	1/1/2028	1/11/2028	6.0	9.0	—
Site Preparation	Site Preparation	1/12/2028	4/12/2028	6.0	79	—
Grading	Grading	4/13/2028	8/13/2028	6.0	105	—
Building Construction	Building Construction	10/15/2028	11/15/2028	6.0	27	—
Hoop Houses	Building Construction	1/1/2029	6/1/2029	6.0	131	—
Paving	Paving	8/14/2028	10/14/2028	6.0	54	—
Architectural Coating	Architectural Coating	11/16/2028	12/16/2028	6.0	27	—
Trenching	Trenching	8/14/2028	10/14/2028	6.0	54	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.0	33	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	2.0	8.0	367	0.40
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.0	84	0.37
Demolition	Excavators	Diesel	Average	3.0	8.0	36	0.38
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.0	8.0	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.0	8.0	84	0.37
Site Preparation	Graders	Diesel	Average	2.0	8.0	148	0.41
Grading	Graders	Diesel	Average	1.00	8.0	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.0	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.0	8.0	84	0.37
Grading	Concrete/Industrial Saws	Diesel	Average	1.00	8.0	33	0.73

Grading	Excavators	Diesel	Average	2.0	8.0	36	0.38
Grading	Scrapers	Diesel	Average	2.0	8.0	423	0.48
Building Construction	Cranes	Diesel	Average	1.00	8.0	367	0.29
Building Construction	Forklifts	Diesel	Average	3.0	8.0	82	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.0	14	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.0	8.0	84	0.37
Building Construction	Welders	Diesel	Average	1.00	8.0	46	0.45
Hoop Houses	Forklifts	Diesel	Average	2.0	8.0	82	0.20
Hoop Houses	Cranes	Diesel	Average	1.00	8.0	367	0.29
Hoop Houses	Trenchers	Diesel	Average	1.00	8.0	40	0.50
Hoop Houses	Aerial Lifts	Diesel	Average	1.00	8.0	46	0.31
Paving	Pavers	Diesel	Average	2.0	8.0	81	0.42
Paving	Paving Equipment	Diesel	Average	2.0	8.0	89	0.36
Paving	Rollers	Diesel	Average	2.0	8.0	36	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.0	84	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.0	37	0.48
Architectural Coating	Aerial Lifts	Diesel	Average	1.00	8.0	46	0.31
Trenching	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.0	84	0.37
Trenching	Excavators	Diesel	Average	1.00	4.0	36	0.38
Trenching	Trenchers	Diesel	Average	1.00	5.3	40	0.50

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.0	33	0.73
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	2.0	8.0	367	0.40

Demolition	Tractors/Loaders/Back	Diesel	Tier 4 Final	1.00	8.0	84	0.37
Demolition	Excavators	Diesel	Tier 4 Final	3.0	8.0	36	0.38
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.0	8.0	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.0	8.0	84	0.37
Site Preparation	Graders	Diesel	Tier 4 Final	2.0	8.0	148	0.41
Grading	Graders	Diesel	Tier 4 Final	1.00	8.0	148	0.41
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.0	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.0	8.0	84	0.37
Grading	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.0	33	0.73
Grading	Excavators	Diesel	Tier 4 Final	2.0	8.0	36	0.38
Grading	Scrapers	Diesel	Tier 4 Final	2.0	8.0	423	0.48
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	8.0	367	0.29
Building Construction	Forklifts	Diesel	Tier 4 Final	3.0	8.0	82	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.0	14	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.0	8.0	84	0.37
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.0	46	0.45
Hoop Houses	Forklifts	Diesel	Tier 4 Final	2.0	8.0	82	0.20
Hoop Houses	Cranes	Diesel	Tier 4 Final	1.00	8.0	367	0.29
Hoop Houses	Trenchers	Diesel	Tier 4 Final	1.00	8.0	40	0.50
Hoop Houses	Aerial Lifts	Diesel	Tier 4 Final	1.00	8.0	46	0.31
Paving	Pavers	Diesel	Tier 4 Final	2.0	8.0	81	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.0	8.0	89	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.0	8.0	36	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.0	84	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	8.0	37	0.48

Architectural Coating	Aerial Lifts	Diesel	Tier 4 Final	1.00	8.0	46	0.31
Trenching	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	4.0	84	0.37
Trenching	Excavators	Diesel	Tier 4 Final	1.00	4.0	36	0.38
Trenching	Trenchers	Diesel	Tier 4 Final	1.00	5.3	40	0.50

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	18	11	LDA,LDT1,LDT2
Demolition	Vendor	—	7.9	HHDT,MHDT
Demolition	Hauling	15	20	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	23	11	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.9	HHDT,MHDT
Site Preparation	Hauling	0.00	20	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	23	11	LDA,LDT1,LDT2
Grading	Vendor	—	7.9	HHDT,MHDT
Grading	Hauling	0.00	20	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	Worker	19	11	LDA,LDT1,LDT2
Building Construction	Vendor	7.4	7.9	HHDT,MHDT
Building Construction	Hauling	3.7	20	HHDT
Building Construction	Onsite truck	—	—	HHDT
Hoop Houses	Worker	19	11	LDA,LDT1,LDT2
Hoop Houses	Vendor	7.4	7.9	HHDT,MHDT
Hoop Houses	Hauling	0.00	20	HHDT

Hoop Houses	Onsite truck	—	—	HHDT
Paving	Worker	18	11	LDA,LDT1,LDT2
Paving	Vendor	—	7.9	HHDT,MHDT
Paving	Hauling	2.9	20	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	7.6	11	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.9	HHDT,MHDT
Architectural Coating	Hauling	0.00	20	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	Worker	7.5	11	LDA,LDT1,LDT2
Trenching	Vendor	—	7.9	HHDT,MHDT
Trenching	Hauling	0.00	20	HHDT
Trenching	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	Worker	18	11	LDA,LDT1,LDT2
Demolition	Vendor	—	7.9	HHDT,MHDT
Demolition	Hauling	15	20	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	Worker	23	11	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.9	HHDT,MHDT
Site Preparation	Hauling	0.00	20	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	Worker	23	11	LDA,LDT1,LDT2
Grading	Vendor	—	7.9	HHDT,MHDT
Grading	Hauling	0.00	20	HHDT
Grading	Onsite truck	—	—	HHDT

Building Construction	Worker	19	11	LDA,LDT1,LDT2
Building Construction	Vendor	7.4	7.9	HHDT,MHDT
Building Construction	Hauling	3.7	20	HHDT
Building Construction	Onsite truck	—	—	HHDT
Hoop Houses	Worker	19	11	LDA,LDT1,LDT2
Hoop Houses	Vendor	7.4	7.9	HHDT,MHDT
Hoop Houses	Hauling	0.00	20	HHDT
Hoop Houses	Onsite truck	—	—	HHDT
Paving	Worker	18	11	LDA,LDT1,LDT2
Paving	Vendor	—	7.9	HHDT,MHDT
Paving	Hauling	2.9	20	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	Worker	7.6	11	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.9	HHDT,MHDT
Architectural Coating	Hauling	0.00	20	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Trenching	Worker	7.5	11	LDA,LDT1,LDT2
Trenching	Vendor	—	7.9	HHDT,MHDT
Trenching	Hauling	0.00	20	HHDT
Trenching	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	67,500	22,500	753

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	11,200	0.00
Site Preparation	—	—	198	0.00	0.00
Grading	0.00	0.00	315	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.31

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Phase Name	Land Use	Area Paved (acres)	% Asphalt
Paving	Refrigerated Warehouse-No Rail	0.00	0%
Paving	Parking Lot	0.31	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2028	0.00	10.0	0.03	< 0.005
2029	0.00	10.0	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	14	annual days of extreme heat
Extreme Precipitation	5.5	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	24	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (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	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	22

AQ-PM	1.2
AQ-DPM	10
Drinking Water	76
Lead Risk Housing	25
Pesticides	89
Toxic Releases	21
Traffic	37
Effect Indicators	—
CleanUp Sites	58
Groundwater	56
Haz Waste Facilities/Generators	92
Impaired Water Bodies	98
Solid Waste	99
Sensitive Population	—
Asthma	68
Cardio-vascular	95
Low Birth Weights	4.4
Socioeconomic Factor Indicators	—
Education	59
Housing	12
Linguistic	44
Poverty	49
Unemployment	77

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—

Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—
Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	—

Asthma ER Admissions	—
High Blood Pressure	—
Cancer (excluding skin)	—
Asthma	—
Coronary Heart Disease	—
Chronic Obstructive Pulmonary Disease	—
Diagnosed Diabetes	—
Life Expectancy at Birth	—
Cognitively Disabled	—
Physically Disabled	—
Heart Attack ER Admissions	—
Mental Health Not Good	—
Chronic Kidney Disease	—
Obesity	—
Pedestrian Injuries	—
Physical Health Not Good	—
Stroke	—
Health Risk Behaviors	—
Binge Drinking	—
Current Smoker	—
No Leisure Time for Physical Activity	—
Climate Change Exposures	—
Wildfire Risk	—
SLR Inundation Area	—
Children	—
Elderly	—
English Speaking	—
Foreign-born	—

Outdoor Workers	—
Climate Change Adaptive Capacity	—
Impervious Surface Cover	—
Traffic Density	—
Traffic Access	—
Other Indices	—
Hardship	—
Other Decision Support	—
2016 Voting	—

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	Hollister default clean energy provider is Central Coast Community Energy. Average 2021-2023 power content label = 618.67 lb/MWh.
Construction: Construction Phases	Information provided by filled out construction worksheet.
Construction: Off-Road Equipment	Information provided by filled out construction worksheet.
Construction: Trips and VMT	Demolition = 46 tons of pavement demo-ed and hauled (1.02 trips/day) added to 11,200-sf of building demo (14.33 trips/day) totaling 15.36 trips/day). Building Construction = Assumed to be same as phase 1 50 concrete truck round trips (3.7 trips/day), Pavement = 663-cy of asphalt (2.93 trips/day).
Construction: On-Road Fugitive Dust	100% paved roads.
Construction: Paving	100% asphalt paved parking area. Default acres.

25-119 Hippo Harvest Operational 2030 Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	25-119 Hippo Harvest Operational 2030
Operational Year	2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80000
Precipitation (days)	29.2000
Location	2370 Shore Rd, Hollister, CA 95023, USA
County	San Benito
City	Unincorporated
Air District	Monterey Bay ARD
Air Basin	North Central Coast
TAZ	3102
EDFZ	6
Electric Utility	Central Coast Community Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.37

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	45.0000	1000sqft	1.03306	45,000.0	0.00000	—	—	—
Parking Lot	60.0000	Space	0.54000	0.00000	0.00000	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.59480	1.95745	8.85534	0.05042	0.87561	0.92603	0.04870	0.22513	0.27383	4,771.83
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.26983	2.03250	6.73417	0.04696	0.87561	0.92257	0.04610	0.22513	0.27122	4,724.83
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.40805	1.41001	6.21424	0.02187	0.73720	0.75907	0.02054	0.18963	0.21018	4,479.53
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.25697	0.25733	1.13410	0.00399	0.13454	0.13853	0.00375	0.03461	0.03836	741.638

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	0.17037	1.15749	2.23302	0.01812	0.87561	0.89372	0.01725	0.22513	0.24238	1,416.44
Area	1.35879	0.01647	1.95716	0.00348	—	0.00348	0.00263	—	0.00263	8.07712
Energy	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	1,878.99
Water	—	—	—	—	—	—	—	—	—	57.9286

Waste	—	—	—	—	—	—	—	—	—	79.7593
Refrig.	—	—	—	—	—	—	—	—	—	1,199.26
Off-Road	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Stationary	0.06563	0.34229	0.26423	0.02882	0.00000	0.02882	0.02882	0.00000	0.02882	33.6927
Total	1.59480	1.95745	8.85534	0.05042	0.87561	0.92603	0.04870	0.22513	0.27383	4,771.83
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	0.16700	1.24901	2.06901	0.01814	0.87561	0.89375	0.01727	0.22513	0.24240	1,377.52
Area	1.03720	—	—	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	1,878.99
Water	—	—	—	—	—	—	—	—	—	57.9286
Waste	—	—	—	—	—	—	—	—	—	79.7593
Refrig.	—	—	—	—	—	—	—	—	—	1,199.26
Off-Road	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Stationary	0.06563	0.34229	0.26423	0.02882	0.00000	0.02882	0.02882	0.00000	0.02882	33.6927
Total	1.26983	2.03250	6.73417	0.04696	0.87561	0.92257	0.04610	0.22513	0.27122	4,724.83
Average Daily	—	—	—	—	—	—	—	—	—	—
Mobile	0.14159	1.03757	1.70261	0.01554	0.73720	0.75274	0.01479	0.18963	0.20443	1,183.87
Area	1.25747	0.01128	1.34052	0.00238	—	0.00238	0.00180	—	0.00180	5.53227
Energy	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	1,878.99
Water	—	—	—	—	—	—	—	—	—	57.9286
Waste	—	—	—	—	—	—	—	—	—	79.7593
Refrig.	—	—	—	—	—	—	—	—	—	1,199.26
Off-Road	0.00000	0.31428	3.13491	0.00000	—	0.00000	0.00000	—	0.00000	69.5747
Stationary	0.00899	0.04689	0.03620	0.00395	0.00000	0.00395	0.00395	0.00000	0.00395	4.61543
Total	1.40805	1.41001	6.21424	0.02187	0.73720	0.75907	0.02054	0.18963	0.21018	4,479.53
Annual	—	—	—	—	—	—	—	—	—	—
Mobile	0.02584	0.18936	0.31073	0.00284	0.13454	0.13737	0.00270	0.03461	0.03731	196.003
Area	0.22949	0.00206	0.24465	0.00043	—	0.00043	0.00033	—	0.00033	0.91593

Energy	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	311.089
Water	—	—	—	—	—	—	—	—	—	9.59074
Waste	—	—	—	—	—	—	—	—	—	13.2051
Refrig.	—	—	—	—	—	—	—	—	—	198.551
Off-Road	0.00000	0.05736	0.57212	0.00000	—	0.00000	0.00000	—	0.00000	11.5189
Stationary	0.00164	0.00856	0.00661	0.00072	0.00000	0.00072	0.00072	0.00000	0.00072	0.76414
Total	0.25697	0.25733	1.13410	0.00399	0.13454	0.13853	0.00375	0.03461	0.03836	741.638

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.17037	1.15749	2.23302	0.01812	0.87561	0.89372	0.01725	0.22513	0.24238	1,416.44
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.17037	1.15749	2.23302	0.01812	0.87561	0.89372	0.01725	0.22513	0.24238	1,416.44
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.16700	1.24901	2.06901	0.01814	0.87561	0.89375	0.01727	0.22513	0.24240	1,377.52
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.16700	1.24901	2.06901	0.01814	0.87561	0.89375	0.01727	0.22513	0.24240	1,377.52
Annual	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No Rail	0.02584	0.18936	0.31073	0.00284	0.13454	0.13737	0.00270	0.03461	0.03731	196.003
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.02584	0.18936	0.31073	0.00284	0.13454	0.13737	0.00270	0.03461	0.03731	196.003

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	1,843.95
Parking Lot	—	—	—	—	—	—	—	—	—	35.0401
Total	—	—	—	—	—	—	—	—	—	1,878.99
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	1,843.95
Parking Lot	—	—	—	—	—	—	—	—	—	35.0401
Total	—	—	—	—	—	—	—	—	—	1,878.99
Annual	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	305.288
Parking Lot	—	—	—	—	—	—	—	—	—	5.80129
Total	—	—	—	—	—	—	—	—	—	311.089

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Consumer Products	0.96485	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.07235	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.32160	0.01647	1.95716	0.00348	—	0.00348	0.00263	—	0.00263	8.07712
Total	1.35879	0.01647	1.95716	0.00348	—	0.00348	0.00263	—	0.00263	8.07712
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.96485	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.07235	—	—	—	—	—	—	—	—	—
Total	1.03720	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.17609	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01320	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04020	0.00206	0.24465	0.00043	—	0.00043	0.00033	—	0.00033	0.91593
Total	0.22949	0.00206	0.24465	0.00043	—	0.00043	0.00033	—	0.00033	0.91593

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	57.9286

Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	57.9286
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	57.9286
Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	57.9286
Annual	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	9.59074
Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	9.59074

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	79.7593
Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	79.7593
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	79.7593
Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	79.7593
Annual	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	13.2051
Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	13.2051

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	1,199.26
Total	—	—	—	—	—	—	—	—	—	1,199.26
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	1,199.26
Total	—	—	—	—	—	—	—	—	—	1,199.26
Annual	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	198.551

Total	—	—	—	—	—	—	—	—	—	198.551

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Forklifts	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Total	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Forklifts	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Total	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Annual	—	—	—	—	—	—	—	—	—	—
Forklifts	0.00000	0.05736	0.57212	0.00000	—	0.00000	0.00000	—	0.00000	11.5189
Total	0.00000	0.05736	0.57212	0.00000	—	0.00000	0.00000	—	0.00000	11.5189

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.06563	0.34229	0.26423	0.02882	0.00000	0.02882	0.02882	0.00000	0.02882	33.6927
Total	0.06563	0.34229	0.26423	0.02882	0.00000	0.02882	0.02882	0.00000	0.02882	33.6927

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.06563	0.34229	0.26423	0.02882	0.00000	0.02882	0.02882	0.00000	0.02882	33.6927
Total	0.06563	0.34229	0.26423	0.02882	0.00000	0.02882	0.02882	0.00000	0.02882	33.6927
Annual	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.00164	0.00856	0.00661	0.00072	0.00000	0.00072	0.00072	0.00000	0.00072	0.76414
Total	0.00164	0.00856	0.00661	0.00072	0.00000	0.00072	0.00072	0.00000	0.00072	0.76414

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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)

Vegetation	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. 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
Refrigerated Warehouse-No Rail	102.150	102.150	0.00000	31,958.4	1,173.12	1,173.12	0.00000	367,020
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Refrigerated Warehouse-No Rail	Wood Fireplaces	0	0
Refrigerated Warehouse-No Rail	Gas Fireplaces	0	0
Refrigerated Warehouse-No Rail	Propane Fireplaces	0	0
Refrigerated Warehouse-No Rail	Electric Fireplaces	0	0
Refrigerated Warehouse-No Rail	No Fireplaces	0	0
Refrigerated Warehouse-No Rail	Conventional Wood Stoves	0	0
Refrigerated Warehouse-No Rail	Catalytic Wood Stoves	0	0
Refrigerated Warehouse-No Rail	Non-Catalytic Wood Stoves	0	0
Refrigerated Warehouse-No Rail	Pellet Wood Stoves	0	0
Parking Lot	Wood Fireplaces	0	0
Parking Lot	Gas Fireplaces	0	0
Parking Lot	Propane Fireplaces	0	0
Parking Lot	Electric Fireplaces	0	0
Parking Lot	No Fireplaces	0	0
Parking Lot	Conventional Wood Stoves	0	0
Parking Lot	Catalytic Wood Stoves	0	0
Parking Lot	Non-Catalytic Wood Stoves	0	0
Parking Lot	Pellet Wood Stoves	0	0

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)
0.00000	0.00000	67,500.0	22,500.0	1,411.34

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

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)
Refrigerated Warehouse-No Rail	1,084,352	618.670	0.0330	0.0040	0.00000
Parking Lot	20,605.6	618.670	0.0330	0.0040	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	4,486,250	0.00000
Parking Lot	0.00000	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	42.3000	0.00000
Parking Lot	0.00000	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922.00	7.50000	7.50000	7.50000	25.0000

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
Forklifts	CNG	Average	1.000000	4.00000	82.0000	0.20000

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	1.000000	1.000000	50.0000	40.0000	0.73000

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

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	13.7700	annual days of extreme heat
Extreme Precipitation	5.50000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	23.6300	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (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	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

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

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	22.3273
AQ-PM	1.24456
AQ-DPM	10.3423
Drinking Water	76.1084
Lead Risk Housing	24.5621
Pesticides	89.3103
Toxic Releases	21.4929
Traffic	37.1750
Effect Indicators	—
CleanUp Sites	58.1747
Groundwater	56.2178
Haz Waste Facilities/Generators	91.5553
Impaired Water Bodies	98.4250
Solid Waste	98.5109
Sensitive Population	—
Asthma	67.7717
Cardio-vascular	95.0648
Low Birth Weights	4.40082

Socioeconomic Factor Indicators	—
Education	59.1116
Housing	12.0025
Linguistic	43.8760
Poverty	48.9196
Unemployment	76.6918

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	63.87783909
Employed	58.62953933
Median HI	70.4478378
Education	—
Bachelor's or higher	35.2239189
High school enrollment	100
Preschool enrollment	35.76286411
Transportation	—
Auto Access	65.16104196
Active commuting	10.6249198
Social	—
2-parent households	84.0626203
Voting	64.36545618
Neighborhood	—
Alcohol availability	90.63261902
Park access	4.606698319
Retail density	2.900038496

Supermarket access	18.42679328
Tree canopy	36.96907481
Housing	—
Homeownership	70.96111895
Housing habitability	81.27807006
Low-inc homeowner severe housing cost burden	68.26639292
Low-inc renter severe housing cost burden	90.32465033
Uncrowded housing	51.23829077
Health Outcomes	—
Insured adults	41.30630053
Arthritis	0.0
Asthma ER Admissions	35.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	80.2
Cognitively Disabled	52.2
Physically Disabled	55.6
Heart Attack ER Admissions	19.1
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	82.6
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	87.0
Elderly	32.8
English Speaking	67.8
Foreign-born	30.0
Outdoor Workers	8.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	95.5
Traffic Density	26.4
Traffic Access	0.0
Other Indices	—
Hardship	52.9
Other Decision Support	—
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0000
Healthy Places Index Score for Project Location (b)	59.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	Hollister default clean energy provider is Central Coast Community energy. Average 2021-2023 power content label rate = 618.67 lb/MWh.
Operations: Vehicle Data	Provided trip gen. No trips on Sunday.
Operations: Fleet Mix	Fleet mix 80 LDA/LDT2 and 22 HHDT trucks.
Operations: Road Dust	100% paved.
Operations: Energy Use	Project design is all-electric. 0 natural gas usage for entire project as that will be computed for turbines.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.
Operations: Off-Road Equipment	1 CNG forklift 4 hours a day.
Operations: Emergency Generators and Fire Pumps	40 HP generator.

8.2. Project Characteristics

8.2.1. Project Details

Model Parameter	Default Value	New Value
Electric Utility	Pacific Gas & Electric Company	Central Coast Community Energy

8.2.2. Utility Information

Model Parameter	Units	Default Value	New Value
CO2	lb/MWh	9.99000	618.670

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Refrigerated Warehouse-No Rail	Weekday Trip Rate	size/day	2.12000	2.27000
Refrigerated Warehouse-No Rail	Saturday Trip Rate	size/day	2.12000	2.27000
Refrigerated Warehouse-No Rail	Sunday Trip Rate	size/day	2.12000	0.00000

8.5.1.2. Fleet Mix

Land Use	Season	Model Parameter	Units	Default Value	New Value
Refrigerated Warehouse-No Rail	A	Heavy-Heavy-Duty Trucks	%	4%	22%
Refrigerated Warehouse-No Rail	A	Passenger Cars	%	45%	39%
Refrigerated Warehouse-No Rail	A	Light-Duty Trucks 1	%	3%	0%
Refrigerated Warehouse-No Rail	A	Light-Duty Trucks 2	%	21%	39%
Refrigerated Warehouse-No Rail	A	Light Heavy-Duty Trucks 1	%	4%	0%
Refrigerated Warehouse-No Rail	A	Light Heavy-Duty Trucks 2	%	1%	0%
Refrigerated Warehouse-No Rail	A	Motorcycles	%	3%	0%

Refrigerated Warehouse-No Rail	A	Medium-Duty Trucks	%	17%	0%
Refrigerated Warehouse-No Rail	A	Motor Homes	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	A	Medium-Heavy-Duty Trucks	%	1%	0%
Refrigerated Warehouse-No Rail	A	Other Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	A	School Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	A	Urban Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	S	Heavy-Heavy-Duty Trucks	%	4%	22%
Refrigerated Warehouse-No Rail	S	Passenger Cars	%	45%	39%
Refrigerated Warehouse-No Rail	S	Light-Duty Trucks 1	%	3%	0%
Refrigerated Warehouse-No Rail	S	Light-Duty Trucks 2	%	21%	39%
Refrigerated Warehouse-No Rail	S	Light Heavy-Duty Trucks 1	%	4%	0%
Refrigerated Warehouse-No Rail	S	Light Heavy-Duty Trucks 2	%	1%	0%
Refrigerated Warehouse-No Rail	S	Motorcycles	%	3%	0%
Refrigerated Warehouse-No Rail	S	Medium-Duty Trucks	%	17%	0%
Refrigerated Warehouse-No Rail	S	Motor Homes	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	S	Medium-Heavy-Duty Trucks	%	1%	0%
Refrigerated Warehouse-No Rail	S	Other Buses	%	< 0.5%	0%

Refrigerated Warehouse-No Rail	S	School Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	S	Urban Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	W	Heavy-Heavy-Duty Trucks	%	4%	22%
Refrigerated Warehouse-No Rail	W	Passenger Cars	%	45%	39%
Refrigerated Warehouse-No Rail	W	Light-Duty Trucks 1	%	3%	0%
Refrigerated Warehouse-No Rail	W	Light-Duty Trucks 2	%	21%	39%
Refrigerated Warehouse-No Rail	W	Light Heavy-Duty Trucks 1	%	4%	0%
Refrigerated Warehouse-No Rail	W	Light Heavy-Duty Trucks 2	%	1%	0%
Refrigerated Warehouse-No Rail	W	Motorcycles	%	3%	0%
Refrigerated Warehouse-No Rail	W	Medium-Duty Trucks	%	17%	0%
Refrigerated Warehouse-No Rail	W	Motor Homes	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	W	Medium-Heavy-Duty Trucks	%	1%	0%
Refrigerated Warehouse-No Rail	W	Other Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	W	School Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	W	Urban Buses	%	< 0.5%	0%
Parking Lot	A	Heavy-Heavy-Duty Trucks	%	4%	22%
Parking Lot	A	Passenger Cars	%	45%	39%
Parking Lot	A	Light-Duty Trucks 1	%	3%	0%
Parking Lot	A	Light-Duty Trucks 2	%	21%	39%

Parking Lot	A	Light Heavy-Duty Trucks 1	%	4%	0%
Parking Lot	A	Light Heavy-Duty Trucks 2	%	1%	0%
Parking Lot	A	Motorcycles	%	3%	0%
Parking Lot	A	Medium-Duty Trucks	%	17%	0%
Parking Lot	A	Motor Homes	%	< 0.5%	0%
Parking Lot	A	Medium-Heavy-Duty Trucks	%	1%	0%
Parking Lot	A	Other Buses	%	< 0.5%	0%
Parking Lot	A	School Buses	%	< 0.5%	0%
Parking Lot	A	Urban Buses	%	< 0.5%	0%
Parking Lot	S	Heavy-Heavy-Duty Trucks	%	4%	22%
Parking Lot	S	Passenger Cars	%	45%	39%
Parking Lot	S	Light-Duty Trucks 1	%	3%	0%
Parking Lot	S	Light-Duty Trucks 2	%	21%	39%
Parking Lot	S	Light Heavy-Duty Trucks 1	%	4%	0%
Parking Lot	S	Light Heavy-Duty Trucks 2	%	1%	0%
Parking Lot	S	Motorcycles	%	3%	0%
Parking Lot	S	Medium-Duty Trucks	%	17%	0%
Parking Lot	S	Motor Homes	%	< 0.5%	0%
Parking Lot	S	Medium-Heavy-Duty Trucks	%	1%	0%
Parking Lot	S	Other Buses	%	< 0.5%	0%
Parking Lot	S	School Buses	%	< 0.5%	0%
Parking Lot	S	Urban Buses	%	< 0.5%	0%
Parking Lot	W	Heavy-Heavy-Duty Trucks	%	4%	22%
Parking Lot	W	Passenger Cars	%	45%	39%
Parking Lot	W	Light-Duty Trucks 1	%	3%	0%
Parking Lot	W	Light-Duty Trucks 2	%	21%	39%
Parking Lot	W	Light Heavy-Duty Trucks 1	%	4%	0%
Parking Lot	W	Light Heavy-Duty Trucks 2	%	1%	0%

Parking Lot	W	Motorcycles	%	3%	0%
Parking Lot	W	Medium-Duty Trucks	%	17%	0%
Parking Lot	W	Motor Homes	%	< 0.5%	0%
Parking Lot	W	Medium-Heavy-Duty Trucks	%	1%	0%
Parking Lot	W	Other Buses	%	< 0.5%	0%
Parking Lot	W	School Buses	%	< 0.5%	0%
Parking Lot	W	Urban Buses	%	< 0.5%	0%

8.5.1.4. Road Dust

Model Parameter	Units	Default Value	New Value
% Paved	%	52.0000	100.0000

8.5.3. Energy Usage

Land Use	Model Parameter	Units	Default Value	New Value
Refrigerated Warehouse-No Rail	Natural Gas	kBTU/yr	96,657.7	0.00000
Refrigerated Warehouse-No Rail	Natural Gas (Subject to Title 24)	kBTU/yr	24,660.0	0.00000
Refrigerated Warehouse-No Rail	Natural Gas (Not Subject to Title 24)	kBTU/yr	71,997.7	0.00000

8.5.4. Water and Waste Water

Land Use	Model Parameter	Units	Default Value	New Value
Refrigerated Warehouse-No Rail	Indoor Water	gal/year	10,406,250	4,486,250
Refrigerated Warehouse-No Rail	Treated by Septic Tank	%	10.3300	0.00000
Refrigerated Warehouse-No Rail	Treated by Aerobic Processes	%	87.4600	100.0000
Refrigerated Warehouse-No Rail	Treated by Facultative Lagoons	%	2.21000	0.00000
Parking Lot	Treated by Septic Tank	%	10.3300	0.00000
Parking Lot	Treated by Aerobic Processes	%	87.4600	100.0000
Parking Lot	Treated by Facultative Lagoons	%	2.21000	0.00000

8.5.7. Off-Road Equipment

8.5.7.1. Off-Road Equipment

Equipment Type	Model Parameter	Default Value	New Value
Forklifts	Hours/Day	8.00000	4.00000
Forklifts	Horsepower	70.0000	82.0000
Forklifts	Load Factor	0.30000	0.20000

8.5.8. Stationary Sources

8.5.8.1. Emergency Generators and Fire Pumps

Equipment Type	Model Parameter	Default Value	New Value
Emergency Generator	Hours per Day	0.00000	1.000000
Emergency Generator	Horsepower	53.6400	40.0000

25-119 Hippo Harvest TRU Operational 2030 Detailed Report

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8.5.8.2. Generators + Pumps EF

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	25-119 Hippo Harvest TRU Operational 2030
Operational Year	2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80000
Precipitation (days)	29.2000
Location	2370 Shore Rd, Hollister, CA 95023, USA
County	San Benito
City	Unincorporated
Air District	Monterey Bay ARD
Air Basin	North Central Coast
TAZ	3102
EDFZ	6
Electric Utility	Central Coast Community Energy
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.37

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Refrigerated Warehouse-No Rail	45.0000	1000sqft	1.03306	45,000.0	0.00000	—	—	—
Parking Lot	60.0000	Space	0.54000	0.00000	0.00000	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	2.20297	1.98728	10.4063	0.06235	0.87561	0.93796	0.06063	0.22513	0.28576	5,084.03
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.87800	2.06232	8.28509	0.05889	0.87561	0.93450	0.05803	0.22513	0.28315	5,037.03
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	1.92791	1.49837	8.16694	0.03206	0.73720	0.76926	0.03074	0.18963	0.22037	4,760.32
Annual (Max)	—	—	—	—	—	—	—	—	—	—
Unmit.	0.35184	0.27345	1.49047	0.00585	0.13454	0.14039	0.00561	0.03461	0.04022	788.125

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	0.17037	1.15749	2.23302	0.01812	0.87561	0.89372	0.01725	0.22513	0.24238	1,416.44
Area	1.35879	0.01647	1.95716	0.00348	—	0.00348	0.00263	—	0.00263	8.07712
Energy	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	1,878.99
Water	—	—	—	—	—	—	—	—	—	57.9286

Waste	—	—	—	—	—	—	—	—	—	79.7593
Refrig.	—	—	—	—	—	—	—	—	—	1,199.26
Off-Road	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Stationary	0.67381	0.37212	1.81515	0.04075	0.00000	0.04075	0.04075	0.00000	0.04075	345.894
Total	2.20297	1.98728	10.4063	0.06235	0.87561	0.93796	0.06063	0.22513	0.28576	5,084.03
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Mobile	0.16700	1.24901	2.06901	0.01814	0.87561	0.89375	0.01727	0.22513	0.24240	1,377.52
Area	1.03720	—	—	—	—	—	—	—	—	—
Energy	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	1,878.99
Water	—	—	—	—	—	—	—	—	—	57.9286
Waste	—	—	—	—	—	—	—	—	—	79.7593
Refrig.	—	—	—	—	—	—	—	—	—	1,199.26
Off-Road	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Stationary	0.67381	0.37212	1.81515	0.04075	0.00000	0.04075	0.04075	0.00000	0.04075	345.894
Total	1.87800	2.06232	8.28509	0.05889	0.87561	0.93450	0.05803	0.22513	0.28315	5,037.03
Average Daily	—	—	—	—	—	—	—	—	—	—
Mobile	0.14159	1.03757	1.70261	0.01554	0.73720	0.75274	0.01479	0.18963	0.20443	1,183.87
Area	1.25747	0.01128	1.34052	0.00238	—	0.00238	0.00180	—	0.00180	5.53227
Energy	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	1,878.99
Water	—	—	—	—	—	—	—	—	—	57.9286
Waste	—	—	—	—	—	—	—	—	—	79.7593
Refrig.	—	—	—	—	—	—	—	—	—	1,199.26
Off-Road	0.00000	0.37713	3.76189	0.00000	—	0.00000	0.00000	—	0.00000	83.4897
Stationary	0.52886	0.07238	1.36192	0.01415	0.00000	0.01415	0.01415	0.00000	0.01415	271.484
Total	1.92791	1.49837	8.16694	0.03206	0.73720	0.76926	0.03074	0.18963	0.22037	4,760.32
Annual	—	—	—	—	—	—	—	—	—	—
Mobile	0.02584	0.18936	0.31073	0.00284	0.13454	0.13737	0.00270	0.03461	0.03731	196.003
Area	0.22949	0.00206	0.24465	0.00043	—	0.00043	0.00033	—	0.00033	0.91593

Energy	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	311.089
Water	—	—	—	—	—	—	—	—	—	9.59074
Waste	—	—	—	—	—	—	—	—	—	13.2051
Refrig.	—	—	—	—	—	—	—	—	—	198.551
Off-Road	0.00000	0.06883	0.68655	0.00000	—	0.00000	0.00000	—	0.00000	13.8227
Stationary	0.09652	0.01321	0.24855	0.00258	0.00000	0.00258	0.00258	0.00000	0.00258	44.9472
Total	0.35184	0.27345	1.49047	0.00585	0.13454	0.14039	0.00561	0.03461	0.04022	788.125

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.17037	1.15749	2.23302	0.01812	0.87561	0.89372	0.01725	0.22513	0.24238	1,416.44
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.17037	1.15749	2.23302	0.01812	0.87561	0.89372	0.01725	0.22513	0.24238	1,416.44
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.16700	1.24901	2.06901	0.01814	0.87561	0.89375	0.01727	0.22513	0.24240	1,377.52
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.16700	1.24901	2.06901	0.01814	0.87561	0.89375	0.01727	0.22513	0.24240	1,377.52
Annual	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No Rail	0.02584	0.18936	0.31073	0.00284	0.13454	0.13737	0.00270	0.03461	0.03731	196.003
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total	0.02584	0.18936	0.31073	0.00284	0.13454	0.13737	0.00270	0.03461	0.03731	196.003

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	1,843.95
Parking Lot	—	—	—	—	—	—	—	—	—	35.0401
Total	—	—	—	—	—	—	—	—	—	1,878.99
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	1,843.95
Parking Lot	—	—	—	—	—	—	—	—	—	35.0401
Total	—	—	—	—	—	—	—	—	—	1,878.99
Annual	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	305.288
Parking Lot	—	—	—	—	—	—	—	—	—	5.80129
Total	—	—	—	—	—	—	—	—	—	311.089

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Annual	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Parking Lot	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000
Total	0.00000	0.00000	0.00000	0.00000	—	0.00000	0.00000	—	0.00000	0.00000

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Consumer Products	0.96485	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.07235	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.32160	0.01647	1.95716	0.00348	—	0.00348	0.00263	—	0.00263	8.07712
Total	1.35879	0.01647	1.95716	0.00348	—	0.00348	0.00263	—	0.00263	8.07712
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.96485	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.07235	—	—	—	—	—	—	—	—	—
Total	1.03720	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.17609	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01320	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.04020	0.00206	0.24465	0.00043	—	0.00043	0.00033	—	0.00033	0.91593
Total	0.22949	0.00206	0.24465	0.00043	—	0.00043	0.00033	—	0.00033	0.91593

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	57.9286

Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	57.9286
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	57.9286
Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	57.9286
Annual	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	9.59074
Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	9.59074

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	79.7593
Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	79.7593
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	79.7593
Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	79.7593
Annual	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	13.2051
Parking Lot	—	—	—	—	—	—	—	—	—	0.00000
Total	—	—	—	—	—	—	—	—	—	13.2051

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	1,199.26
Total	—	—	—	—	—	—	—	—	—	1,199.26
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	1,199.26
Total	—	—	—	—	—	—	—	—	—	1,199.26
Annual	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	198.551

Total	—	—	—	—	—	—	—	—	—	198.551

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Forklifts	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Total	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Forklifts	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Total	0.00000	0.44120	4.40093	0.00000	—	0.00000	0.00000	—	0.00000	97.6722
Annual	—	—	—	—	—	—	—	—	—	—
Forklifts	0.00000	0.06883	0.68655	0.00000	—	0.00000	0.00000	—	0.00000	13.8227
Total	0.00000	0.06883	0.68655	0.00000	—	0.00000	0.00000	—	0.00000	13.8227

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.67381	0.37212	1.81515	0.04075	0.00000	0.04075	0.04075	0.00000	0.04075	345.894
Total	0.67381	0.37212	1.81515	0.04075	0.00000	0.04075	0.04075	0.00000	0.04075	345.894

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.67381	0.37212	1.81515	0.04075	0.00000	0.04075	0.04075	0.00000	0.04075	345.894
Total	0.67381	0.37212	1.81515	0.04075	0.00000	0.04075	0.04075	0.00000	0.04075	345.894
Annual	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.09652	0.01321	0.24855	0.00258	0.00000	0.00258	0.00258	0.00000	0.00258	44.9472
Total	0.09652	0.01321	0.24855	0.00258	0.00000	0.00258	0.00258	0.00000	0.00258	44.9472

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	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)

Vegetation	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

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

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

Land Use	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. 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
Refrigerated Warehouse-No Rail	102.150	102.150	0.00000	31,958.4	1,173.12	1,173.12	0.00000	367,020
Parking Lot	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000

5.10. Operational Area Sources

5.10.1. Hearths

Land Use	Hearth Type	Unmitigated (number)	Mitigated (number)
Refrigerated Warehouse-No Rail	Wood Fireplaces	0	0
Refrigerated Warehouse-No Rail	Gas Fireplaces	0	0
Refrigerated Warehouse-No Rail	Propane Fireplaces	0	0
Refrigerated Warehouse-No Rail	Electric Fireplaces	0	0
Refrigerated Warehouse-No Rail	No Fireplaces	0	0
Refrigerated Warehouse-No Rail	Conventional Wood Stoves	0	0
Refrigerated Warehouse-No Rail	Catalytic Wood Stoves	0	0
Refrigerated Warehouse-No Rail	Non-Catalytic Wood Stoves	0	0
Refrigerated Warehouse-No Rail	Pellet Wood Stoves	0	0
Parking Lot	Wood Fireplaces	0	0
Parking Lot	Gas Fireplaces	0	0
Parking Lot	Propane Fireplaces	0	0
Parking Lot	Electric Fireplaces	0	0
Parking Lot	No Fireplaces	0	0
Parking Lot	Conventional Wood Stoves	0	0
Parking Lot	Catalytic Wood Stoves	0	0
Parking Lot	Non-Catalytic Wood Stoves	0	0
Parking Lot	Pellet Wood Stoves	0	0

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)
0.00000	0.00000	67,500.0	22,500.0	1,411.34

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00000
Summer Days	day/yr	250.000

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)
Refrigerated Warehouse-No Rail	1,084,352	618.670	0.0330	0.0040	0.00000
Parking Lot	20,605.6	618.670	0.0330	0.0040	0.00000

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	4,486,250	0.00000
Parking Lot	0.00000	0.00000

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	42.3000	0.00000
Parking Lot	0.00000	0.00000

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Refrigerated Warehouse-No Rail	Cold storage	R-404A	3,922.00	7.50000	7.50000	7.50000	25.0000

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
Forklifts	CNG	Average	1.000000	4.00000	82.0000	0.20000

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	1.000000	1.000000	50.0000	40.0000	0.73000
Emergency Generator	Diesel	1.000000	17.3000	5,397.60	34.0000	0.46000

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

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	13.7700	annual days of extreme heat
Extreme Precipitation	5.50000	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	23.6300	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (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	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	22.3273
AQ-PM	1.24456
AQ-DPM	10.3423
Drinking Water	76.1084
Lead Risk Housing	24.5621
Pesticides	89.3103
Toxic Releases	21.4929
Traffic	37.1750
Effect Indicators	—
CleanUp Sites	58.1747
Groundwater	56.2178
Haz Waste Facilities/Generators	91.5553
Impaired Water Bodies	98.4250
Solid Waste	98.5109
Sensitive Population	—
Asthma	67.7717

Cardio-vascular	95.0648
Low Birth Weights	4.40082
Socioeconomic Factor Indicators	—
Education	59.1116
Housing	12.0025
Linguistic	43.8760
Poverty	48.9196
Unemployment	76.6918

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	63.87783909
Employed	58.62953933
Median HI	70.4478378
Education	—
Bachelor's or higher	35.2239189
High school enrollment	100
Preschool enrollment	35.76286411
Transportation	—
Auto Access	65.16104196
Active commuting	10.6249198
Social	—
2-parent households	84.0626203
Voting	64.36545618
Neighborhood	—
Alcohol availability	90.63261902

Park access	4.606698319
Retail density	2.900038496
Supermarket access	18.42679328
Tree canopy	36.96907481
Housing	—
Homeownership	70.96111895
Housing habitability	81.27807006
Low-inc homeowner severe housing cost burden	68.26639292
Low-inc renter severe housing cost burden	90.32465033
Uncrowded housing	51.23829077
Health Outcomes	—
Insured adults	41.30630053
Arthritis	0.0
Asthma ER Admissions	35.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	80.2
Cognitively Disabled	52.2
Physically Disabled	55.6
Heart Attack ER Admissions	19.1
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	82.6

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	87.0
Elderly	32.8
English Speaking	67.8
Foreign-born	30.0
Outdoor Workers	8.7
Climate Change Adaptive Capacity	—
Impervious Surface Cover	95.5
Traffic Density	26.4
Traffic Access	0.0
Other Indices	—
Hardship	52.9
Other Decision Support	—
2016 Voting	75.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	64.0000
Healthy Places Index Score for Project Location (b)	59.0000
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

8.1. Justifications

Screen	Justification
Characteristics: Utility Information	Hollister default clean energy provider is Central Coast Community energy. Average 2021-2023 power content label rate = 618.67 lb/MWh.
Operations: Vehicle Data	Provided trip gen. No Sunday trips.
Operations: Fleet Mix	Fleet mix 80 LDA/LDT2 and 22 HHDT trucks.
Operations: Road Dust	100% paved.
Operations: Energy Use	Project design is all-electric. 0 natural gas usage for entire project as that will be computed for turbines.
Operations: Water and Waste Water	Wastewater treatment 100% aerobic - no septic tanks or lagoons.
Operations: Off-Road Equipment	1 CNG forklift 4 hours a day ran 6 days/week.
Operations: Emergency Generators and Fire Pumps	40 HP generator. and 34-hp to represent tru's on trucks 6 days a week.
Operations: Generators + Pumps EF	Tier 4 for TRU modeling.

8.2. Project Characteristics

8.2.1. Project Details

Model Parameter	Default Value	New Value
Electric Utility	Pacific Gas & Electric Company	Central Coast Community Energy

8.2.2. Utility Information

Model Parameter	Units	Default Value	New Value
CO2	lb/MWh	9.99000	618.670

8.5. Operations

8.5.1. Mobile Sources

8.5.1.1. Vehicle Data

Land Use	Model Parameter	Units	Default Value	New Value
Refrigerated Warehouse-No Rail	Weekday Trip Rate	size/day	2.12000	2.27000
Refrigerated Warehouse-No Rail	Saturday Trip Rate	size/day	2.12000	2.27000
Refrigerated Warehouse-No Rail	Sunday Trip Rate	size/day	2.12000	0.00000

8.5.1.2. Fleet Mix

Land Use	Season	Model Parameter	Units	Default Value	New Value
Refrigerated Warehouse-No Rail	A	Heavy-Heavy-Duty Trucks	%	4%	22%
Refrigerated Warehouse-No Rail	A	Passenger Cars	%	45%	39%
Refrigerated Warehouse-No Rail	A	Light-Duty Trucks 1	%	3%	0%
Refrigerated Warehouse-No Rail	A	Light-Duty Trucks 2	%	21%	39%

Refrigerated Warehouse-No Rail	A	Light Heavy-Duty Trucks 1	%	4%	0%
Refrigerated Warehouse-No Rail	A	Light Heavy-Duty Trucks 2	%	1%	0%
Refrigerated Warehouse-No Rail	A	Motorcycles	%	3%	0%
Refrigerated Warehouse-No Rail	A	Medium-Duty Trucks	%	17%	0%
Refrigerated Warehouse-No Rail	A	Motor Homes	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	A	Medium-Heavy-Duty Trucks	%	1%	0%
Refrigerated Warehouse-No Rail	A	Other Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	A	School Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	A	Urban Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	S	Heavy-Heavy-Duty Trucks	%	4%	22%
Refrigerated Warehouse-No Rail	S	Passenger Cars	%	45%	39%
Refrigerated Warehouse-No Rail	S	Light-Duty Trucks 1	%	3%	0%
Refrigerated Warehouse-No Rail	S	Light-Duty Trucks 2	%	21%	39%
Refrigerated Warehouse-No Rail	S	Light Heavy-Duty Trucks 1	%	4%	0%
Refrigerated Warehouse-No Rail	S	Light Heavy-Duty Trucks 2	%	1%	0%
Refrigerated Warehouse-No Rail	S	Motorcycles	%	3%	0%
Refrigerated Warehouse-No Rail	S	Medium-Duty Trucks	%	17%	0%

Refrigerated Warehouse-No Rail	S	Motor Homes	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	S	Medium-Heavy-Duty Trucks	%	1%	0%
Refrigerated Warehouse-No Rail	S	Other Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	S	School Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	S	Urban Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	W	Heavy-Heavy-Duty Trucks	%	4%	22%
Refrigerated Warehouse-No Rail	W	Passenger Cars	%	45%	39%
Refrigerated Warehouse-No Rail	W	Light-Duty Trucks 1	%	3%	0%
Refrigerated Warehouse-No Rail	W	Light-Duty Trucks 2	%	21%	39%
Refrigerated Warehouse-No Rail	W	Light Heavy-Duty Trucks 1	%	4%	0%
Refrigerated Warehouse-No Rail	W	Light Heavy-Duty Trucks 2	%	1%	0%
Refrigerated Warehouse-No Rail	W	Motorcycles	%	3%	0%
Refrigerated Warehouse-No Rail	W	Medium-Duty Trucks	%	17%	0%
Refrigerated Warehouse-No Rail	W	Motor Homes	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	W	Medium-Heavy-Duty Trucks	%	1%	0%
Refrigerated Warehouse-No Rail	W	Other Buses	%	< 0.5%	0%
Refrigerated Warehouse-No Rail	W	School Buses	%	< 0.5%	0%

Refrigerated Warehouse-No Rail	W	Urban Buses	%	< 0.5%	0%
Parking Lot	A	Heavy-Heavy-Duty Trucks	%	4%	22%
Parking Lot	A	Passenger Cars	%	45%	39%
Parking Lot	A	Light-Duty Trucks 1	%	3%	0%
Parking Lot	A	Light-Duty Trucks 2	%	21%	39%
Parking Lot	A	Light Heavy-Duty Trucks 1	%	4%	0%
Parking Lot	A	Light Heavy-Duty Trucks 2	%	1%	0%
Parking Lot	A	Motorcycles	%	3%	0%
Parking Lot	A	Medium-Duty Trucks	%	17%	0%
Parking Lot	A	Motor Homes	%	< 0.5%	0%
Parking Lot	A	Medium-Heavy-Duty Trucks	%	1%	0%
Parking Lot	A	Other Buses	%	< 0.5%	0%
Parking Lot	A	School Buses	%	< 0.5%	0%
Parking Lot	A	Urban Buses	%	< 0.5%	0%
Parking Lot	S	Heavy-Heavy-Duty Trucks	%	4%	22%
Parking Lot	S	Passenger Cars	%	45%	39%
Parking Lot	S	Light-Duty Trucks 1	%	3%	0%
Parking Lot	S	Light-Duty Trucks 2	%	21%	39%
Parking Lot	S	Light Heavy-Duty Trucks 1	%	4%	0%
Parking Lot	S	Light Heavy-Duty Trucks 2	%	1%	0%
Parking Lot	S	Motorcycles	%	3%	0%
Parking Lot	S	Medium-Duty Trucks	%	17%	0%
Parking Lot	S	Motor Homes	%	< 0.5%	0%
Parking Lot	S	Medium-Heavy-Duty Trucks	%	1%	0%
Parking Lot	S	Other Buses	%	< 0.5%	0%
Parking Lot	S	School Buses	%	< 0.5%	0%
Parking Lot	S	Urban Buses	%	< 0.5%	0%
Parking Lot	W	Heavy-Heavy-Duty Trucks	%	4%	22%

Parking Lot	W	Passenger Cars	%	45%	39%
Parking Lot	W	Light-Duty Trucks 1	%	3%	0%
Parking Lot	W	Light-Duty Trucks 2	%	21%	39%
Parking Lot	W	Light Heavy-Duty Trucks 1	%	4%	0%
Parking Lot	W	Light Heavy-Duty Trucks 2	%	1%	0%
Parking Lot	W	Motorcycles	%	3%	0%
Parking Lot	W	Medium-Duty Trucks	%	17%	0%
Parking Lot	W	Motor Homes	%	< 0.5%	0%
Parking Lot	W	Medium-Heavy-Duty Trucks	%	1%	0%
Parking Lot	W	Other Buses	%	< 0.5%	0%
Parking Lot	W	School Buses	%	< 0.5%	0%
Parking Lot	W	Urban Buses	%	< 0.5%	0%

8.5.1.4. Road Dust

Model Parameter	Units	Default Value	New Value
% Paved	%	52.0000	100.0000

8.5.3. Energy Usage

Land Use	Model Parameter	Units	Default Value	New Value
Refrigerated Warehouse-No Rail	Natural Gas	kBTU/yr	96,657.7	0.00000
Refrigerated Warehouse-No Rail	Natural Gas (Subject to Title 24)	kBTU/yr	24,660.0	0.00000
Refrigerated Warehouse-No Rail	Natural Gas (Not Subject to Title 24)	kBTU/yr	71,997.7	0.00000

8.5.4. Water and Waste Water

Land Use	Model Parameter	Units	Default Value	New Value
Refrigerated Warehouse-No Rail	Indoor Water	gal/year	10,406,250	4,486,250
Refrigerated Warehouse-No Rail	Treated by Septic Tank	%	10.3300	0.00000

Refrigerated Warehouse-No Rail	Treated by Aerobic Processes	%	87.4600	100.0000
Refrigerated Warehouse-No Rail	Treated by Facultative Lagoons	%	2.21000	0.00000
Parking Lot	Treated by Septic Tank	%	10.3300	0.00000
Parking Lot	Treated by Aerobic Processes	%	87.4600	100.0000
Parking Lot	Treated by Facultative Lagoons	%	2.21000	0.00000

8.5.7. Off-Road Equipment

8.5.7.1. Off-Road Equipment

Equipment Type	Model Parameter	Default Value	New Value
Forklifts	Hours/Day	8.00000	4.00000
Forklifts	Days/Year	260.000	312.000
Forklifts	Horsepower	70.0000	82.0000
Forklifts	Load Factor	0.30000	0.20000

8.5.8. Stationary Sources

8.5.8.1. Emergency Generators and Fire Pumps

Equipment Type	Model Parameter	Default Value	New Value
Emergency Generator	Hours per Day	0.00000	1.000000
Emergency Generator	Horsepower	53.6400	40.0000
Emergency Generator	Hours per Year	50.0000	5,397.60

8.5.8.2. Generators + Pumps EF

Equipment Type	Model Parameter	Default Value	New Value
Emergency Generator	NOx	5.31716	0.05000
Emergency Generator	CO	4.10448	2.60000
Emergency Generator	PM10E	0.44776	0.02000

Emergency Generator	PM2.5E	0.44776	0.02000

Attachment 2: Emission Computations for Combined Heat Power Units

Attachment 2

Hippo Harvest		Capstone		High-Pressure Natural Gas				
				Microturbine Data Sheet				
PPM to mass emission rate				Model:	C1000S			
				Output	1000	kW		
2.5	0.0093	0.03348						
	11,400,000							
	11.4	0.381672						
Flow rate Reported	6.7	kg s						
NOx Emission = Reported	18	mg m3	3.97E-05	lb m3				
	2.20E-06	lbs/mg	conv to lb/m3					
	Density of air		1.225	kg m3	at 1 atm/15deg C			
NOx Emissions								
Computed Flow Rate (SCM) of Nox			5.46938776	m3 s				
	Hourly Rate		7.81E-01	lb/hr				
1 turbine	Daily Rate		1.88E+01	lb/day				
3 turbines	Daily Rate		56.26	lb/day				
Emissions Computed from AP-42								
Fuel Flow:	11400000	Btu/hr						
	Factor	Hours/day	13		CO2e			
AP-42	lb/MMBtu	lb/hr	lb/day	units lb/da	tric Tons/Year			
NOx	9.90E-02	1.13E+00	27.1	see D32		Lean-Premix		
VOC	2.10E-03	2.39E-02	0.6	1.7				
CO	1.50E-02	1.71E-01	4.1	12.3		Lean-Premix		
PM	6.60E-03	7.52E-02	1.8	5.4				
	Based on Lean-Premix							
CO2	1.10E+02	1.25E+03	16,302.0		2,699			
N2O	3.00E-03	3.42E-02	0.8					
Methane	8.60E-03	9.80E-02	2.4		10			
	GWP of Methane		25					
		CO2e	3 turbines		8,126			
					MT/CO2e			

NG Internal Combustion - Turbine w/ Catalyst

District Toxic Profile ID	163
Description	NG Internal Combustion - Turbine w/ Catalyst
Source	The emission factors were based on AP 42, Fifth Edition, Volume I, Chapter 3: Stationary Internal Combustion Sources, Section 3: Stationary Gas Turbines, Table 3.1-3. Assumes 1,000 Btu's per scf natural gas.

Pollutant Name	Emission Factor	Emission Factor Units	CAS#
1,3-Butadiene	4.30E-04	lbs/MMscf	106990
Acetaldehyde	4.00E-02	lbs/MMscf	75070
Acrolein	6.40E-03	lbs/MMscf	107028
Benzene	9.10E-04	lbs/MMscf	71432
Ethyl benzene	3.20E-02	lbs/MMscf	100414
Formaldehyde	2.00E-02	lbs/MMscf	50000
Naphthalene	1.30E-03	lbs/MMscf	91203
PAHs, total, with individ. components also reported	2.20E-03	lbs/MMscf	1150
Propylene oxide	2.90E-02	lbs/MMscf	75569
Toluene	1.30E-01	lbs/MMscf	108883
Xylenes (mixed)	6.40E-02	lbs/MMscf	1330207

TACs

TAC Emissions lbs/year		Lbs/hr
0.04		0.000005
3.99		0.000456
0.63		0.000072
0.09	ben	0.000010
3.20		0.000365
2.00	form	0.000228
0.13		0.000015
0.22		0.000025
2.90		0.000331
12.98		0.001482
6.39		0.000730

Flow Rate Repported

Fuel Flow HHV: 11,400,000 BTU/hr Y

11400 scf/hr

3.16666667 scf/s

99864000 scf/year

99.864 MMscf/year

Capstone Specifications

Fuel/Engine Characteristics(1)

	C65	C200S	C600S	C800S	C1000S
Natural Gas HHV (2)	30.7 – 47.5 MJ/m³ (825 – 1,275 BTU/scf)				
Inlet Pressure	517 – 551 kPa gauge (75 – 80 psig)				
Fuel Flow HHV	919 MJ/hr (871,000 BTU/hr)	2,400 MJ/hr (2,280,000 BTU/hr)	7,200 MJ/hr (6,840,000 BTU/hr)	9,600 MJ/hr (9,120,000 BTU/hr)	12,000 MJ/hr (11,400,000 BTU/hr)
Net Heat Rate LHV	12.9 MJ/kWh (12,200 BTU/kWh)	10.9 MJ/kWh (10,300 BTU/kWh)			

Exhaust Characteristics(1)

	C65	C200S	C600S	C800S	C1000S
NOx Emissions @ 15% O_2	< 9 ppmvd (18 mg/m³)				
Exhaust Mass Flow	0.49 kg/s (1.08 lbm/s)	1.3 kg/s (2.9 lbm/s)	4.0 kg/s (8.8 lbm/s)	5.3 kg/s (11.7 lbm/s)	6.7 kg/s (14.7 lbm/s)
Exhaust Gas Temperature	329°C (625°F)	280°C (535°F)			

Table 1. Capstone Microturbine system emission profile

Pollutant	ppmV @ 15% O_2	gm/kw-hr	gm/GJ	gm/hp-hr	lb/kWh	lb/hp-hr
NOx	9	0.223	61.94	0.166	4.91E-04	3.66E-04
CO	40	0.603	167.56	0.450	13.3E-04	9.90E-04
HC	9	0.078	21.54	0.058	1.71E-04	1.27E-04
NOx+HC		0.301	83.48	0.224	6.61E-04	4.93E-04

Operating on Natural Gas at full power. Capstone Turbine Corp warrants emissions of NOx to be less than 9ppm. Other emissions targets are not warranted.

Emission Rates at 100% using Table 1 data

Nox (lb/hr) 0.491 Based on Capstone White paper

Table 3.1-1. EMISSION FACTORS FOR NITROGEN OXIDES (NO_X) AND CARBON MONOXIDE (CO) FROM STATIONARY GAS TURBINES

Emission Factors[a]				
Turbine Type	Nitrogen Oxides		Carbon Monoxide	
Natural Gas-Fired Turbines[b]	(lb/MMBtu)[c] (Fuel Input)	Emission Factor Rating	(lb/MMBtu)[c] (Fuel Input)	Emission Factor Rating
Uncontrolled	3.2 E-01	A	8.2 E-02[d]	A
Water-Steam Injection	1.3 E-01	A	3.0 E-02	A
Lean-Premix	9.9 E-02	D	1.5 E-02	D
Distillate Oil-Fired Turbines[e]	(lb/MMBtu)[f] (Fuel Input)	Emission Factor Rating	(lb/MMBtu)[f] (Fuel Input)	Emission Factor Rating
Uncontrolled	8.8 E-01	C	3.3 E-03	C
Water-Steam Injection	2.4 E-01	B	7.6 E-02	C
Landfill Gas-Fired Turbines[g]	(lb/MMBtu)[h] (Fuel Input)	Emission Factor Rating	(lb/MMBtu)[h] (Fuel Input)	Emission Factor Rating
Uncontrolled	1.4 E-01	A	4.4 E-01	A
Digester Gas-Fired Turbines[j]	(lb/MMBtu)[k] (Fuel Input)	Emission Factor Rating	(lb/MMBtu)[k] (Fuel Input)	Emission Factor Rating
Uncontrolled	1.6 E-01	D	1.7 E-02	D

Table 3.1-2a. EMISSION FACTORS FOR CRITERIA POLLUTANTS AND GREENHOUSE GASES FROM STATIONARY GAS TURBINES

Emission Factors[a] - Uncontrolled				
Pollutant	Natural Gas-Fired Turbines[b]		Distillate Oil-Fired Turbines[d]	
	(lb/MMBtu)[c] (Fuel Input)	Emission Factor Rating	(lb/MMBtu)[e] (Fuel Input)	Emission Factor Rating
CO_2[f]	110	A	157	A
N_2O	0.003[g]	E	ND	NA
Lead	ND	NA	1.4 E-05	C
SO_2	0.94S[h]	B	1.01S[h]	B
Methane	8.6 E-03	C	ND	NA
VOC	2.1 E-03	D	4.1 E-04[j]	E
TOC[k]	1.1 E-02	B	4.0 E-03[l]	C
PM (condensible)	4.7 E-03[l]	C	7.2 E-03[l]	C
PM (filterable)	1.9 E-03[l]	C	4.3 E-03[l]	C
PM (total)	6.6 E-03[l]	C	1.2 E-02[l]	C

High-Pressure Natural Gas

Microturbine Data Sheet

Achieve ultra-low emissions and reliable electrical generation.

65 kW 200 kW 600 kW 800 kW 1000 kW

- Ultra-low emissions
- One moving part – minimal maintenance and downtime
- Patented air bearings – no lubricating oil or coolant
- Modular design allows for easy, low-cost installation
- Remote monitoring and diagnostic capabilities
- Proven technology with tens of millions of operating hours

Electrical Performance[1]

	C65	C200S	C600S	C800S	C1000S
Electrical Power Output	65 kW	200 kW	600 kW	800 kW	1000 kW
Voltage	400/480 VAC				
Electrical Service	3-Phase, 4 Wire Wye				
Frequency	50/60 Hz				
Electrical Efficency LHV	28%	33%			

Fuel/Engine Characteristics[1]

	C65	C200S	C600S	C800S	C1000S
Natural Gas HHV [2]	30.7 – 47.5 MJ/m^3 (825 – 1,275 BTU/scf)				
Inlet Pressure	517 – 551 kPa gauge (75 – 80 psig)				
Fuel Flow HHV	919 MJ/hr (871,000 BTU/hr)	2,400 MJ/hr (2,280,000 BTU/hr)	7,200 MJ/hr (6,840,000 BTU/hr)	9,600 MJ/hr (9,120,000 BTU/hr)	12,000 MJ/hr (11,400,000 BTU/hr)
Net Heat Rate LHV	12.9 MJ/kWh (12,200 BTU/kWh)	10.9 MJ/kWh (10,300 BTU/kWh)			

Smarter Energy for a Cleaner Future

Exhaust Characteristics[1]

	C65	C200S	C600S	C800S	C1000S
NOx Emissions @ 15% O_2	< 9 ppmvd (18 mg/m³)				
Exhaust Mass Flow	0.49 kg/s (1.08 lbm/s)	1.3 kg/s (2.9 lbm/s)	4.0 kg/s (8.8 lbm/s)	5.3 kg/s (11.7 lbm/s)	6.7 kg/s (14.7 lbm/s)
Exhaust Gas Temperature	329°C (625°F)	280°C (535°F)			

Dimensions & Weight[3][4]

		C65	C200S	C600S	C800S	C1000S
Standard	W x D x H	0.76 x 1.95 x 2.08 m (30 x 77 x 82 in)	3.0 x 2.5 x 3.0 m (117 x 100 x 119 in)	3.0 x 5.8 x 3.0 m (117 x 230 x 119 in)	3.0 x 7.5 x 3.0 m (117 x 295 x 119 in)	3.0 x 9.1 x 3.0 m (117 x 360 x 119 in)
	Weight - GC Model	758 kg (1,671 lb)	5,200 kg (11,400 lb)	11,250 kg (24,800 lb)	14,100 kg (31,100 lb)	17,100 kg (37,700 lb)
	Weight - DM Model	1,121 kg (2,471 lb)	5,850 kg (12,900 lb)	13,350 kg (29,400 lb)	16,900 kg (37,300 lb)	20,650 kg (45,500 lb)
ICHP	W x D x H	0.76 x 2.20 x 2.53 m (30 x 87 x 100 in)	3.0 x 2.5 x 4.0 m (117 x 100 x 157 in)	3.0 x 5.8 x 4.0 m (117 x 230 x 157 in)	3.0 x 7.5 x 4.0 m (117 x 295 x 157 in)	3.0 x 9.1 x 4.0 m (117 x 360 x 157 in)
	Weight - GC Model	998 kg (2,200 lb)	6,000 kg (13,200 lb)	13,700 kg (30,000 lb)	17,400 kg (38,300 lb)	21,200 kg (46,800 lb)
	Weight - DM Model	1,364 kg (3,000 lb)	6,700 kg (14,700 lb)	15,800 kg (34,900 lb)	20,200 kg (44,500 lb)	24,750 kg (54,500 lb)

ICHP Heat Recovery[5]

	C65	C200S	C600S	C800S	C1000S
Hot Water Heat Recovery	132 kW (0.45 MMBtu/hr)	300 kW (1.0 MMBtu/hr)	0.9 MW (3.1 MMBtu/hr)	1.2 MW (4.1 MMBtu/hr)	1.5 MW (5.1 MMBtu/hr)

Certifications

- Grid interconnections standards: UL 1741-SA (C65), UL 1741-SB (C200S – C1000S), VDE, BDEW, CEI 0-16, AS4777
- UL 2200
- CE Certified

(1) Nominal full power performance at ISO conditions: 15°C (59°F), 14.696 psia, 60% RH.
(2) Suitable for use with fuel blends containing up to 30 percent hydrogen gas by volume.
(3) Approximate dimensions and weights. Dimensions do not include service clearances. DM refers to Dual Mode models and GC refers to Grid Connect models.
(4) All values for models configured for high pressure natural gas with standard emissions. Configurations available for low pressure natural gas and reduced carbon monoxide (CO) emissions.
(5) Nominal heat recovery is based on a water inlet temperature of 60°C (140°F) and a flow rate of 2.5 L/s (40 GPM) for the C65. For C200S to C1000S models, values are based on a water inlet temperature of 38°C (100°F) and a flow rate of 6.3 L/s (100 GPM) per Heat Recovery Module (HRM).

Specifications are not warranted and are subject to change without notice.

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