November 11, 2024

Joseph Milburn
JT Prospecting LLC
447 Howland Canal
Venice, CA 90291

Subject: **San Bernardino County – Proposed Joshua Tree Campground Project Air Quality, Energy and Greenhouse Gas Emissions Technical Memorandum.**

Dear Mr. Milburn:

Vista Environmental has conducted an analysis to evaluate whether the proposed Joshua Tree Campground Project (proposed project) would cause significant air quality, energy or greenhouse gas (GHG) impacts. This assessment was conducted within the context of the California Environmental Quality Act (CEQA, California Public Resources Code Sections 21000, et seq.). The methodology follows the Mojave Desert Air Quality Management District (MDAQMD) recommendations for quantification of emissions and evaluation of potential air quality, energy and GHG impacts.

Site Location and Study Area

The project site is located within an unincorporated portion of San Bernardino County (County) at 62076 Mercury Drive and consists of one parcel (APN: 0631-201-68) that is approximately 7.5 gross acres. The project site is mostly vacant, except for a small cabin and a storage structure and is bounded by rural residential uses to the north, vacant land to the east, rural residential uses and vacant land to the south, Adele Lane and rural residential uses to the west.

Nearby Sensitive Receptors

The nearest sensitive receptors to the project site is a single-family home located as near as 230 feet west of the project site. There are also single-family homes located as near as 510 feet north of the project site and 410 feet southwest of the project site.

Project Description

The proposed project would consist of development of a campground with 15 dry campsites (no water), each with designated parking for one vehicle, a shade structure, picnic table, and designated space for either a tent or self-contained R.V. The proposed project would also include an onsite dirt road system to access the 15 campsites and a few porta potties that would be placed strategically to be shared by multiple campsites and will have a regular pumping/cleaning schedule. The existing small cabin and storage structure will remain onsite and will be utilized for owner and maintenance use only.

The proposed campground would be operated remotely with online bookings, except for scheduled maintenance activities. Automated sliding entry and exit gates will be installed with a keypad for the entry gate and motion detection for the exit gate. No utility connections will be provided to the campground. All electricity for gates and lighting will be provided by solar panels and batteries. No burning of any material will be permitted in the campground. Landscaping will consist of the natural desert landscaping that is currently on the project site.

Air Quality Setting

The project site is located within the San Bernardino County portion of the MDAB. The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains which dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north; air masses pushed onshore in southern California by differential heating are channeled through the MDAB. The MDAB is separated from the southern California coastal and central California valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses.

The Mojave Desert is bordered in the southwest by the San Bernardino Mountains, separated from the San Gabriel Mountains by the Cajon Pass (4,200 feet). A lesser channel lies between the San Bernardino Mountains and the Little San Bernardino Mountains (the Morongo Valley).

More specifically, the project site is located within the Johnson Valley portion of the Mojave Desert. Hot summers, mild winters, infrequent rainfall, moderate afternoon breezes and generally fair weather characterize the climate of the Johnson Valley, an interior sub-climate of Southern California's Mediterranean climate. The clouds and fog that form along the Southern California coastline rarely extend across the mountains to the Johnson Valley. In addition, the funneling of the daily onshore sea breeze through San Gorgonio Pass that brings polluted air into the low desert rarely reaches the Johnson Valley, which allows for much better air quality than what is experienced in the low desert.

The temperature and precipitation levels for the Joshua Tree Monitoring Station, which is the nearest weather station to the project sites with historical data found that July is typically the warmest month with an average high temperature of 101.1 degrees Fahrenheit and December is typically the coolest month with an average low off 58.2 degrees Fahrenheit. The average annual rainfall is 4.69 inches and the average snowfall is 2 inch, with most of the precipitation either occurring from the winter storms or during the summer thunderstorms, with the fall and spring mostly dry.

Monitored Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the MDAB as well as from air pollutants that travel from the coastal areas to the MDAB. The MDAQMD operates an extensive monitoring network throughout the County that continuously monitor ambient levels of criteria pollutants in compliance with federal monitoring regulations. The nearest air monitoring station to the project site is the Joshua Tree National Monument Monitoring Station, which is located approximately 13 miles south of the project site and only monitors ozone. The next closest air monitoring station to the project site that is also in the MDAB is the Victorville-1403 Park Avenue Monitoring Station, which is located 60 miles west of the project site and monitors ozone, NOx, PM10, and PM2.5. The monitoring data is presented in Table A and shows the most recent three years of monitoring data from CARB.

Table A – Local Area Air Quality Monitoring Summary

Pollutant (Standard)	Year 2020	2021	2022
Ozone: [1]			
Maximum 1-Hour Concentration (ppm)	0.111	0.106	0.099
Days > CAAQS (0.09 ppm)	4	3	2
Maximum 8-Hour Concentration (ppm)	0.099	0.093	0.083
Days > NAAQS (0.070 ppm)	34	37	37
Days > CAAQs (0.070 ppm)	39	42	39
Nitrogen Dioxide: [2]			
Maximum 1-Hour Concentration (ppb)	59.4	56.6	53.5
Days > NAAQS (100 ppb)	0	0	0
Days > CAAQS (180 ppb)	0	0	0
Inhalable Particulates (PM10):[2]			
Maximum 24-Hour National Measurement (ug/m^3)	261.4	591.6	372.1
Days > NAAQS (150 ug/m^3)	2	1	2
Days > CAAQS (50 ug/m^3)	ND	ND	ND
Annual Arithmetic Mean (AAM) (ug/m^3)	34.0	33.9	33.6
Annual > NAAQS (50 ug/m^3)	No	No	No
Annual > CAAQS (20 ug/m^3)	Yes	Yes	Yes
Ultra-Fine Particulates (PM2.5):[2]			
Maximum 24-Hour National Measurement (ug/m^3)	48.4	87.1	24.6
Days > NAAQS (35 ug/m^3)	4	1	0
Annual Arithmetic Mean (AAM) (ug/m^3)	10.4	10.3	9.0
Annual > NAAQS and CAAQS (12 ug/m^3)	No	No	No

Notes: CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb = parts per billion; ND = no data available.

[1] Data obtained from the Joshua Tree National Monument Station.

[2] Data obtained from the Victorville Station

Source: http://www.arb.ca.gov/adam/

Thresholds of Significance

MDAQMD Air Quality and GHG Emissions Significance Thresholds

The MDAQMD's CEQA and Federal Conformity Guidelines (MDAQMD, 2020), outlines significance determination thresholds. The MDAQMD Guidelines state that any project is significant if it triggers or exceed the most appropriate evaluation criteria, and further specifies that the emissions comparison (criteria number 1) is sufficient for most projects:

1. Generate total emissions (direct and indirect) in excess of the threshold given in Table B;

2. Generates a violation of any ambient air quality standard when added to the local background;
3. Does not conform with the applicable attainment or maintenance plan(s)1;
4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.

The MDAQMD significant emissions thresholds are shown in Table B. According to the MDAQMD Guidelines, A significant project must incorporate mitigation sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Note that the emission thresholds are given as a daily value and an annual value, so that multi-phased project (such as project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value. Since construction of the proposed project is anticipated to take over a year, the annual threshold has been utilized for both short-term construction impact analysis and long-term operational impacts.

Table B – MDAQMD Significant Emissions Thresholds

Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Greenhouse Gases (CO_2e)	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_X)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO_X)	25	137
Particulate Matter (PM_{10})	15	82
Particulate Matter ($PM_{2.5}$)	12	65
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3

Source: https://www.mdaqmd.ca.gov/home/showpublisheddocument?id=8510

Odor Impacts

MDAQMD Rule 402 states:

> "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons 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.

1 A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

> The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

Energy Conservation

The *2022 CEQA California Environmental Quality Act Statutes & Guidelines* (2022 CEQA Guidelines) include an Energy Section that analyzes the proposed project's energy consumption in order to avoid or reduce inefficient, wasteful or unnecessary consumption of energy. Appendix F of the 2022 CEQA Statute and Guidelines, states the following:

> The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:
>
> (1) Decreasing overall per capita energy consumption,
>
> (2) Decreasing reliance on fossil fuels such as coal, natural gas and oil, and
>
> (3) Increasing reliance on renewable energy sources.

Since the Energy Section was recently added, no state or local agencies have adopted specific criteria or thresholds to be utilized in an energy impact analysis. However, Appendix F, Subsection II.C of the 2022 CEQA Guidelines provides the following criteria for determining significance.

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project life cycle including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
2. The effects of the project on local and regional energy supplies and on requirement for additional capacity.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the project complies with existing energy standards.
5. The effects of the project on energy resources.
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

If the proposed project creates inefficient, wasteful or unnecessary consumption of energy during construction or operation activities or conflicts with a state or local plan for renewable energy or energy efficiency, then the proposed project would create a significant energy impact.

Project Impacts

Compliance with Air Quality Plan

The proposed project would not conflict with or obstruct implementation of the MDAQMD Air Quality Management Plans (AQMPs). The following is the analysis procedure detailed in the MDAQMD Guidelines for Conformity Impacts:

> A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan).

For this project, the County of San Bernardino General Plan's Land Use Plan defines the long range land use assumptions that are represented in the AQMPs. The project site is currently designated as Rural Living (RL) in the General Plan. The proposed campground is an allowed use within the RL land use designation upon issuance of a Conditional Use Permit (CUP) from the County to comply with development code standards for campground uses. As such, development of the proposed project would require issuance of a CUP and adherence to the conditions provided in the CUP. The proposed project would consist of a campground with 15 campsites. According to the Institute of Transportation Engineers (ITE), Trip Generation Manual, Tenth Edition, ITE Land Use Code 416 for Campgrounds found that an occupied campsite would generate 0.48 daily trips in the AM Peak Hour and 0.98 daily trips in the PM Peak Hour, or 1.46 daily trips per campsite, which equates 21.9 daily trips generated by the proposed project at full occupancy. Due to the nominal amount of daily trips generated by the proposed project and the potential for employment opportunities in an area that currently has more housing than jobs that would likely result in a reduction of vehicle miles traveled (VMT) for the future employees that now have to commute long distances for work, the proposed project is anticipated to result in a negligible increase in total VMT for the region that would not have an impact on the growth forecasts for the area. Based on the above, the proposed project will not result in an inconsistency with the AQMPs. Therefore, a less than significant impact will occur in relation to implementation of the AQMP.

Short-Term Construction-Related Air Quality Impacts

Construction of the proposed project would create air emissions from the operation of construction equipment as well as from fugitive dust generated from the movement of dirt onsite. Construction of the proposed project is anticipated to start early 2024 and would take approximately six months to complete.

The criteria air pollution impacts created by the proposed project have been analyzed through use of CalEEMod Version 2022.1.22. CalEEMod is a computer model published by the California Air Pollution Control Officers Association (CAPCOA) for estimating air pollutant and GHG emissions. The CalEEMod 2022.1 program uses the EMFAC2021 computer program to calculate the emission rates specific for the MDAB portion of San Bernardino County for employee, vendor and haul truck vehicle trips and the OFFROAD2007 and OFFROAD2011 computer programs to calculate emission rates for heavy equipment operations. EMFAC2021, OFFROAD2007 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles.

Since CalEEMod does not have a land use option for campgrounds, the Mobile Home Park land use was utilized and set to 15 dwelling units. In addition, in abundance of caution, there could be up to 1,900 square feet of pavement, for parking spaces and campsite areas, which was modeled in CalEEMod as Other Non-Asphalt Surfaces. It was estimated that a quarter of 7.5 gross acre project site would be

disturbed, which equates to approximately 1.87 acres. As such, the total acreage modeled in CalEEMod was set to 1.87 acres. Since the project site is located on a dirt road, the roads were analyzed as 80 percent of the trip distances on paved roads and 20 percent on dirt roads. The applicant has stated that only small pieces of off-road equipment would be utilized during construction, as such all large pieces of equipment (i.e., dozers, graders, cranes, rollers and paving equipment) were removed from the analyzed construction equipment in CalEEMod. Construction is anticipated to start January 2024 and be completed by April 2024, which was entered into CalEEMod.

The CalEEMod model has been utilized to calculate the construction-related emissions from the proposed project and the CalEEMod output files are attached to this Memo. The daily construction-related criteria pollutant emissions from the proposed project is shown below in Table C along with the MDAQMD daily thresholds, which were utilized since construction activities will occur over less than a year period.

Table C – Construction-Related Criteria Pollutant Emissions

Season and Year of Construction	Maximum Daily Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Summer 2025	1.13	0.89	1.32	<0.01	11.8	1.20
Winter 2025	1.13	2.29	3.62	<0.01	63.8	6.47
Maximum Daily Construction Emissions	**1.13**	**2.29**	**3.62**	**<0.01**	**63.8**	**6.47**
MDAQMD Thresholds[1]	137	137	548	137	82	65
Exceeds Thresholds?	No	No	No	No	No	No

Notes:
[1] Obtained from: https://www.mdaqmd.ca.gov/home/showpublisheddocument?id=8510.
Source: CalEEMod Version 2022.1.

Table C shows that none of the analyzed criteria pollutants would exceed either the MDAQMD daily emissions thresholds during construction of the proposed project. Therefore, a less than significant air quality impact would occur from construction of the proposed project.

Toxic Air Contaminants Impacts from Construction

The greatest potential for toxic air contaminant emissions would be related to diesel particulate matter (DPM) emissions associated with heavy equipment operations during construction of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk". "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. It should be noted that the most current cancer risk assessment methodology recommends analyzing a 30 year exposure period for the nearby sensitive receptors (OEHHA, 2015).

Given the relatively limited number of heavy-duty construction equipment, the varying distances that construction equipment would operate to the nearby sensitive receptors, and the short-term construction schedule, the proposed project would not result in a long-term (i.e., 30 or 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. In addition, California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to CARB of their fleet's usage and emissions. This regulation also requires systematic upgrading of the emission Tier level of each

fleet, and currently no commercial operator is allowed to purchase Tier 0, Tier 1 or Tier 2 equipment. In addition to the purchase restrictions, equipment operators need to meet fleet average emissions targets that become more stringent each year between years 2014 and 2023. Therefore, due to the limitations in off-road construction equipment DPM emissions from implementation of Section 2448, a less than significant short-term TAC impacts would occur during construction of the proposed project from DPM emissions.

Long-Term Operational Air Quality Impacts

The proposed project would consist of operation of the proposed campground. The proposed project would generate air emissions from mobile sources, area sources and off-road equipment. Since the proposed project would not include any electrical, natural gas or water hook ups to utilities, operation of the proposed project would not utilize any energy from the grid and the CalEEMod model inputs for electricity, natural gas and water were all set to zero. In addition, the number of fireplaces was also set to zero, since burning of anything in the campground will be prohibited. As detailed above, each occupied campsite has the potential to generate 1.46 daily trips or 21.9 daily trips from the proposed project, which was entered into the CalEEMod model. In order to account for onsite road and campsite maintenance activities, one tractor operating 4 hours per day and 12 days per year was added to the CalEEMod model run. The VOC, NOx, CO, SO_2, PM10, and PM2.5 annual emissions created from the proposed project's long-term operations are summarized below in Table D and the CalEEMod printouts are attached to this Memo.

Table D – Operations-Related Criteria Pollutant Emissions

Emissions Source	Pollutant Emissions (tons per year)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Mobile Sources[1]	0.02	0.02	0.15	<0.01	6.77	0.68
Area Sources[2]	0.01	<0.01	0.08	<0.01	<0.01	<0.01
Energy Usage[3]	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road Equipment[4]	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
Total Operational Emissions	0.03	0.02	0.23	<0.01	6.77	0.68
MDAQMD Thresholds[5]	25	25	100	25	15	12
Exceeds Thresholds?	No	No	No	No	No	No

Notes:
[1] Mobile sources consist of emissions from vehicles and road dust. The CalEEMod model analyzed 21.9 daily trips and 20% of the trip length on dirt roads.
[1] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[2] Energy usage consists of emissions from natural gas usage. No utility hookups will be provided to the proposed project.
[4] Off-Road equipment was modeled based on one tractor operating 4 hours per day and 12 days per year.
[5] Obtained from: https://www.mdaqmd.ca.gov/home/showpublisheddocument?id=8510.
Source: CalEEMod Version 2022.1

The data provided in Table D above shows that none of the analyzed criteria pollutants would exceed the MDAQMD annual emissions thresholds during operation of the proposed project. Therefore, a less than significant air quality impacts would occur from operation of the proposed project.

Odor Emissions

The proposed project would not create objectionable odors affecting a substantial number of people. Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the people that live and work in the immediate vicinity of the project site and is typically presented as the mean (or 50 percent of the population). The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality, this is typically represented by recognition by 50 percent of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration. Potential odor impacts have been analyzed separately for construction and operations below.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints and solvents and from emissions from diesel equipment. Standard construction requirements that limit the time of day when construction may occur as well as MDAQMD Rule 442 that limits VOC content in solvents, Rule 1103 that limits VOC content in asphalt and Rule 1113 that limits the VOC content in paints and solvents would minimize odor impacts from construction. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur and no mitigation would be required.

Operations-Related Odor Impacts

The proposed project would consist of development of a campground. Operation of the proposed project may create odors from trash storage bins. As detailed on the site plans, there will be no fire pits at the campsites and no burning of anything will be allowed in the campground, as such no odor impacts would occur from campfires. Pursuant to County regulations, permanent trash enclosures that protect trash bins from rain as well as limit air circulation would be required for the trash storage areas. Through compliance with MDAQMD's Rule 402 and County trash storage regulations, no significant impact related to odors would occur during the on-going operations of the proposed project. Therefore, a less than significant odor impact would occur and no mitigation would be required.

Energy Consumption

The proposed project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include petroleum fuel. No electricity, natural gas, or water utilities will be connected to the proposed project. As such, energy consumption from these utilities would be nominal and no further analysis is provided about these energy sources.

Petroleum-based fuels currently account for a majority of the California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined and is shown by a comparison of 2017 to 2022 fuel consumption rates. In 2017, 993 million gallons of gasoline and 265 million gallons of diesel was sold in San Bernardino County[2]. In 2022, 915 million gallons of gasoline and 258 million gallons of diesel was sold in San Bernardino County.[3]

The following section calculates the potential energy consumption associated with the construction and operations of the proposed project and provides a determination if any energy utilized by the proposed project is wasteful, inefficient, or unnecessary consumption of energy resources.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the project site and on-road automobiles transporting workers to and from the project site and on-road trucks transporting equipment and supplies to the project site.

The off-road construction equipment fuel usage was calculated through use of the off-road equipment assumptions and fuel use assumptions that are attached to this Memo, which found that construction of the proposed project would consume 378 gallons of gasoline and 1,291 gallons of diesel fuel. This equates to 0.00004 percent increase of the gasoline and 0.0005 percent increase of the diesel used annually in San Bernardino County. As such, the construction-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates.

Construction activities associated with the proposed project would be required to adhere to all State and MDAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the project would not result in the need to manufacture construction materials or create new building material facilities specifically to supply the proposed project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

2 Obtained from: https://ww2.energy.ca.gov/almanac/transportation_data/gasoline/
3 Obtained from: https://www.energy.ca.gov/media/3874

Operations-Related Vehicular Petroleum Fuel Usage

Operation of the proposed project would result in increased consumption of petroleum-based fuels related to vehicular travel to and from the project site. The proposed project would consume 3,620 gallons of gasoline fuel per year from vehicle travel (see attached energy use calculations). This equates to 0.0004 percent increase of the gasoline consumed annually in San Bernardino County. As such, the operations-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates. Therefore, it is anticipated the proposed project will be designed and built to minimize transportation energy and it is anticipated that existing and planned capacity and supplies of transportation fuels would be sufficient to support the proposed project's demand. Thus, impacts with regard transportation energy supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

In conclusion, the proposed project would comply with regulatory compliance measures outlined by the State and County related to Air Quality, GHG Emissions, Transportation/Circulation, and Water Supply. Additionally, the proposed project would be constructed in accordance with all applicable County Building and Fire Codes. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant.

Generation of Greenhouse Gas Emissions

The proposed project would consist of development of a campground. The proposed project is anticipated to generate GHG emissions from area sources, mobile sources, off-road equipment, waste disposal, water usage, and construction equipment. Since the proposed project would not include any electrical, natural gas or water hook ups to utilities, operation of the proposed project would not utilize any energy from the grid.

The MDAQMD shares responsibility with CARB for ensuring that all state and federal GHG standards are achieved and maintained within its jurisdiction. The MDAQMD CEQA Guidelines provides a project level significance threshold of 100,000 tons of CO_2e per year for both construction and operational activities. The MDAQMD developed this threshold in order to comply with the GHG emission reductions required by AB 32.

The project's GHG emissions have been calculated with the CalEEMod model and the output files are attached to this Memo. A summary of the results is shown below in Table E and the CalEEMod model run is attached to this Memo.

Table E – Project Related Greenhouse Gas Annual Emissions

	Greenhouse Gas Emissions (Metric Tons per Year)			
Category	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Construction				
Total Construction Emissions	15.3	<0.01	<0.01	15.4
Amortized Construction Emissions[1] (30 Years)	**0.51**	**<0.01**	**<0.01**	**0.51**
Operations				
Mobile Sources[2]	34.5	<0.01	0.00	35.1
Area Sources[3]	0.19	<0.01	<0.01	0.19
Energy Usage[4]	0	0	0	0

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO_2	CH_4	N_2O	CO_2e
Solid Waste[5]	1.00	0.10	0.00	3.49
Water and Wastewater[6]	0	0	0	0
Off-Road Equipment[7]	0.79	0.00	0.00	0.79
Total Operational Emissions	**36.5**	**0.10**	**<0.01**	**39.6**
Total Annual Emission (Construction & Operations)	**37.0**	**0.10**	**<0.01**	**40.1**
MDAQMD Threshold[8]				**100,000**
Exceed Thresholds?				**No**

Notes:
[1] Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.
[2] Mobile sources consist of GHG emissions from vehicles.
[3] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscaping equipment.
[4] Energy usage consists of GHG emissions from electricity natural gas usage. No utility hookups will be provided to the proposed project and generated onsite.
[5] Waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[6] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
[7] Off-Road equipment was modeled based on one tractor operating 4 hours per day and 12 days per year.
[8] Obtained from: https://www.mdaqmd.ca.gov/home/showpublisheddocument?id=8510.
Source: CalEEMod Version 2022.1.

The data provided in Table E shows that the construction activities would create a total of 15.4 $MTCO_2e$, which equates to 0.51 $MTCO_2e$ per year, when amortized over 30 years. Table E also shows that operational activities would create 39.6 $MTCO_2e$ per year and when combined with the amortized construction emissions, the proposed project would create a total of 40.1 $MTCO_2e$ per year, which is well below the MDAQMD threshold of 100,000 $MTCO_2e$ per year that is described above in Table B. Therefore, a less than significant generation of greenhouse gas emissions would occur from development of the proposed project. Impacts would be less than significant.

Please let me know if you have any questions or need additional information with regard to the above analysis. I can be reached at (949) 510-5355, or email me at greg@vistalb.com.

Sincerely,

Greg Tonkovich

Greg Tonkovich, AICP
Senior Analyst
Vista Environmental
949 510 5355

Encl.: CalEEMod Model Printouts
Energy Calculations
EMFAC 2021 Printouts

Joshua Tree Campground Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

3.3. Grading (2025) - Unmitigated

3.5. Building Construction (2025) - Unmitigated

3.7. Paving (2025) - Unmitigated

3.9. Architectural Coating (2025) - Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Joshua Tree Campground
Construction Start Date	1/1/2025
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.60
Precipitation (days)	12.2
Location	34.249311451030295, -116.3100262672215
County	San Bernardino-Mojave Desert
City	Unincorporated
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5143
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.22

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

Mobile Home Park	15.0	Dwelling Unit	1.83	1,500	—	—	50.0	—
Other Non-Asphalt Surfaces	1.90	1000sqft	0.04	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.13	0.89	1.32	< 0.005	11.8	1.20	165	0.01	< 0.005	0.12	166
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.13	2.29	3.62	< 0.005	63.8	6.47	627	0.02	0.02	0.02	632
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.34	0.53	< 0.005	8.16	0.83	92.6	< 0.005	< 0.005	0.04	93.3
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.06	0.10	< 0.005	1.49	0.15	15.3	< 0.005	< 0.005	0.01	15.4
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	137	548	137	82.0	65.0	—	—	—	—	—
Unmit.	No	No	No	No	No	No	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—
Threshold	137	137	548	137	82.0	65.0	—	—	—	—	—

Unmit.	No	No	No	No	No	No	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—
Unmit.	Yes	—	—	—	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2025	1.13	0.89	1.32	< 0.005	11.8	1.20	165	0.01	< 0.005	0.12	166
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2025	1.13	2.29	3.62	< 0.005	63.8	6.47	627	0.02	0.02	0.02	632
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2025	0.07	0.34	0.53	< 0.005	8.16	0.83	92.6	< 0.005	< 0.005	0.04	93.3
Annual	—	—	—	—	—	—	—	—	—	—	—
2025	0.01	0.06	0.10	< 0.005	1.49	0.15	15.3	< 0.005	< 0.005	0.01	15.4

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.28	0.67	2.79	< 0.005	38.4	3.87	—	—	—	0.84	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.19	0.67	1.72	< 0.005	38.4	3.87	—	—	—	0.03	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.18	0.14	1.28	< 0.005	37.1	3.72	—	—	—	0.37	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.03	0.23	< 0.005	6.77	0.68	—	—	—	0.06	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—
Threshold	25.0	25.0	100	25.0	15.0	12.0	—	—	—	—	100,000
Unmit.	No	No	No	No	No	No	—	—	—	—	No

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.12	0.11	0.99	< 0.005	38.4	3.85	223	0.01	0.01	0.83	227
Area	0.11	0.01	0.85	< 0.005	< 0.005	< 0.005	2.28	< 0.005	< 0.005	—	2.28
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN
Waste	—	—	—	—	—	—	6.02	0.60	0.00	—	21.1
Refrig.	—	—	—	—	—	—	—	—	—	0.01	0.01
Off-Road	0.05	0.55	0.95	< 0.005	0.02	0.02	145	0.01	< 0.005	—	146
Total	0.28	0.67	2.79	< 0.005	38.4	3.87	NaN	NaN	NaN	0.84	NaN
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.10	0.12	0.77	< 0.005	38.4	3.85	204	0.01	0.01	0.02	207
Area	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN

Waste	—	—	—	—	—	—	6.02	0.60	0.00	—	21.1
Refrig.	—	—	—	—	—	—	—	—	—	0.01	0.01
Off-Road	0.05	0.55	0.95	< 0.005	0.02	0.02	145	0.01	< 0.005	—	146
Total	0.19	0.67	1.72	< 0.005	38.4	3.87	NaN	NaN	NaN	0.03	NaN
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.10	0.12	0.83	< 0.005	37.1	3.72	208	0.01	0.01	0.36	212
Area	0.07	< 0.005	0.42	< 0.005	< 0.005	< 0.005	1.12	< 0.005	< 0.005	—	1.13
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN
Waste	—	—	—	—	—	—	6.02	0.60	0.00	—	21.1
Refrig.	—	—	—	—	—	—	—	—	—	0.01	0.01
Off-Road	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005	4.77	< 0.005	< 0.005	—	4.79
Total	0.18	0.14	1.28	< 0.005	37.1	3.72	NaN	NaN	NaN	0.37	NaN
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.02	0.02	0.15	< 0.005	6.77	0.68	34.5	< 0.005	< 0.005	0.06	35.1
Area	0.01	< 0.005	0.08	< 0.005	< 0.005	< 0.005	0.19	< 0.005	< 0.005	—	0.19
Energy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Water	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN
Waste	—	—	—	—	—	—	1.00	0.10	0.00	—	3.49
Refrig.	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Off-Road	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.79	< 0.005	< 0.005	—	0.79
Total	0.03	0.03	0.23	< 0.005	6.77	0.68	NaN	NaN	NaN	0.06	NaN

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.10	1.91	< 0.005	0.04	0.04	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	1.59	< 0.005	< 0.005	—	1.60
Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.26	< 0.005	< 0.005	—	0.26
Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	13.6	1.36	32.3	< 0.005	< 0.005	< 0.005	32.7

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.07	0.01	0.18	< 0.005	< 0.005	< 0.005	0.18
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.01	< 0.005	0.03	< 0.005	< 0.005	< 0.005	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.19	1.93	3.34	< 0.005	0.07	0.07	508	0.02	< 0.005	—	510
Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.04	< 0.005	< 0.005	< 0.005	5.57	< 0.005	< 0.005	—	5.59

Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.92	< 0.005	< 0.005	—	0.93
Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.28	0.00	27.3	2.73	64.6	< 0.005	< 0.005	0.01	65.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.29	0.03	0.73	< 0.005	< 0.005	< 0.005	0.74
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.05	0.01	0.12	< 0.005	< 0.005	< 0.005	0.12
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	2.17	2.74	< 0.005	0.09	0.09	436	0.02	< 0.005	—	438
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.24	0.30	< 0.005	0.01	0.01	47.8	< 0.005	< 0.005	—	47.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005	7.91	< 0.005	< 0.005	—	7.94
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.06	0.60	0.00	58.9	5.90	139	0.01	0.01	0.01	141
Vendor	< 0.005	0.05	0.02	< 0.005	4.83	0.48	51.1	< 0.005	0.01	< 0.005	53.2
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.07	0.00	6.24	0.62	15.7	< 0.005	< 0.005	0.03	16.0
Vendor	< 0.005	0.01	< 0.005	< 0.005	0.51	0.05	5.60	< 0.005	< 0.005	0.01	5.83
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	0.01	0.00	1.14	0.11	2.60	< 0.005	< 0.005	< 0.005	2.64
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	0.09	0.01	0.93	< 0.005	< 0.005	< 0.005	0.97
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	1.41	2.15	< 0.005	0.05	0.05	333	0.01	< 0.005	—	334
Paving	0.00	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.06	< 0.005	< 0.005	< 0.005	9.11	< 0.005	< 0.005	—	9.15
Paving	0.00	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	1.51	< 0.005	< 0.005	—	1.51
Paving	0.00	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.03	0.28	0.00	27.3	2.73	64.6	< 0.005	< 0.005	0.01	65.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.72	0.07	1.82	< 0.005	< 0.005	< 0.005	1.85
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.13	0.01	0.30	< 0.005	< 0.005	< 0.005	0.31
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.88	1.14	< 0.005	0.03	0.03	134	0.01	< 0.005	—	134
Architectural Coatings	0.99	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.88	1.14	< 0.005	0.03	0.03	134	0.01	< 0.005	—	134

Architectural Coatings	0.99	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005	3.66	< 0.005	< 0.005	—	3.67
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.18	0.00	11.8	1.18	31.5	< 0.005	< 0.005	0.12	32.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	11.8	1.18	27.9	< 0.005	< 0.005	< 0.005	28.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.31	0.03	0.79	< 0.005	< 0.005	< 0.005	0.80
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.06	0.01	0.13	< 0.005	< 0.005	< 0.005	0.13
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.12	0.11	0.99	< 0.005	38.4	3.85	223	0.01	0.01	0.83	227
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.12	0.11	0.99	< 0.005	38.4	3.85	223	0.01	0.01	0.83	227
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.10	0.12	0.77	< 0.005	38.4	3.85	204	0.01	0.01	0.02	207
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.10	0.12	0.77	< 0.005	38.4	3.85	204	0.01	0.01	0.02	207
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.02	0.02	0.15	< 0.005	6.77	0.68	34.5	< 0.005	< 0.005	0.06	35.1

Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.02	0.02	0.15	< 0.005	6.77	0.68	34.5	< 0.005	< 0.005	0.06	35.1

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	0.03	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.08	0.01	0.85	< 0.005	< 0.005	< 0.005	2.28	< 0.005	< 0.005	—	2.28
Total	0.11	0.01	0.85	< 0.005	< 0.005	< 0.005	2.28	< 0.005	< 0.005	—	2.28
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	0.03	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—
Total	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	0.01	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	< 0.005	0.08	< 0.005	< 0.005	< 0.005	0.19	< 0.005	< 0.005	—	0.19
Total	0.01	< 0.005	0.08	< 0.005	< 0.005	< 0.005	0.19	< 0.005	< 0.005	—	0.19

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN
Other Non-Asphalt Surfaces	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN
Total	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN
Other Non-Asphalt Surfaces	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN
Total	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN
Other Non-Asphalt Surfaces	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN
Total	—	—	—	—	—	—	NaN	NaN	NaN	—	NaN

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	6.02	0.60	0.00	—	21.1
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	6.02	0.60	0.00	—	21.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	6.02	0.60	0.00	—	21.1
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	6.02	0.60	0.00	—	21.1
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	1.00	0.10	0.00	—	3.49
Other Non-Asphalt Surfaces	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	1.00	0.10	0.00	—	3.49

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	0.01	0.01
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	0.01	0.01
Annual	—	—	—	—	—	—	—	—	—	—	—
Mobile Home Park	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Tractors/Loaders/Backhoes	0.05	0.55	0.95	< 0.005	0.02	0.02	145	0.01	< 0.005	—	146
Total	0.05	0.55	0.95	< 0.005	0.02	0.02	145	0.01	< 0.005	—	146
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Tractors/Loaders/Backhoes	0.05	0.55	0.95	< 0.005	0.02	0.02	145	0.01	< 0.005	—	146

Total	0.05	0.55	0.95	< 0.005	0.02	0.02	145	0.01	< 0.005	—	146
Annual	—	—	—	—	—	—	—	—	—	—	—
Tractors/Loaders/Backhoes	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.79	< 0.005	< 0.005	—	0.79
Total	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.79	< 0.005	< 0.005	—	0.79

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

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

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2025	1/2/2025	5.00	2.00	—
Grading	Grading	1/3/2025	1/8/2025	5.00	4.00	—
Building Construction	Building Construction	1/9/2025	3/5/2025	5.00	40.0	—
Paving	Paving	3/6/2025	3/19/2025	5.00	10.0	—
Architectural Coating	Architectural Coating	3/20/2025	4/2/2025	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	7.00	84.0	0.37
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37

Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	2.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	5.00	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	10.8	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	1.60	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	5.00	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT

Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	2.16	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%

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	3,038	1,013	0.00	0.00	114

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)
Site Preparation	—	—	0.00	0.00	—
Grading	—	—	0.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.04

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

Land Use	Area Paved (acres)	% Asphalt
Mobile Home Park	—	0%
Other Non-Asphalt Surfaces	0.04	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Mobile Home Park	21.9	21.9	21.9	7,994	257	257	257	93,744
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Mobile Home Park	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	15
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	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)
3037.5	1,013	0.00	0.00	114

5.10.3. Landscape Equipment

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

5.11. Operational Energy Consumption

5.11.1. Unmitigated

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

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Mobile Home Park	0.00	532	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Mobile Home Park	0.00	NaN
Other Non-Asphalt Surfaces	0.00	NaN

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Mobile Home Park	11.2	—
Other Non-Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Mobile Home Park	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Mobile Home Park	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

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
Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. 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	31.6	annual days of extreme heat
Extreme Precipitation	0.50	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.96	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	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

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

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
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	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

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

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	93.6
AQ-PM	1.44
AQ-DPM	0.71
Drinking Water	55.1
Lead Risk Housing	32.7
Pesticides	1.34
Toxic Releases	7.68
Traffic	1.70
Effect Indicators	—
CleanUp Sites	68.9
Groundwater	0.00
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	0.00
Solid Waste	23.0
Sensitive Population	—
Asthma	52.5
Cardio-vascular	97.5
Low Birth Weights	45.9
Socioeconomic Factor Indicators	—

Education	46.5
Housing	75.7
Linguistic	33.3
Poverty	84.9
Unemployment	98.7

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	8.161170281
Employed	2.091620685
Median HI	6.73681509
Education	—
Bachelor's or higher	21.46798409
High school enrollment	100
Preschool enrollment	1.873476197
Transportation	—
Auto Access	89.83703323
Active commuting	1.039394328
Social	—
2-parent households	34.44116515
Voting	53.98434492
Neighborhood	—
Alcohol availability	91.10740408
Park access	31.79776723
Retail density	2.977030669

Supermarket access	2.399589375
Tree canopy	0.025664057
Housing	—
Homeownership	87.62992429
Housing habitability	62.69729244
Low-inc homeowner severe housing cost burden	42.06339022
Low-inc renter severe housing cost burden	11.6514821
Uncrowded housing	79.21211344
Health Outcomes	—
Insured adults	41.5629411
Arthritis	0.0
Asthma ER Admissions	56.3
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	0.6
Cognitively Disabled	3.1
Physically Disabled	2.5
Heart Attack ER Admissions	23.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	81.9
Physical Health Not Good	0.0

Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	88.7
Elderly	20.2
English Speaking	77.5
Foreign-born	9.7
Outdoor Workers	15.3
Climate Change Adaptive Capacity	—
Impervious Surface Cover	99.4
Traffic Density	0.1
Traffic Access	23.0
Other Indices	—
Hardship	73.4
Other Decision Support	—
2016 Voting	78.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	35.0
Healthy Places Index Score for Project Location (b)	10.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Total area disturbed 1.88 acres, 1,900 sq ft of paved area and 1,500 sq ft of structures
Construction: Construction Phases	Construction schedule provided by applicant
Construction: Off-Road Equipment	Per applicant no large off-road equipment will be used. As such, dozers, graders, cranes, welders, rollers, and paving equipment removed from equipment list
Construction: On-Road Fugitive Dust	80% of travel on paved roads
Operations: Vehicle Data	Daily trips set to 1.46 trips per campsite per ITE Land Use Code 416 for campgrounds
Operations: Road Dust	80% of road trip length paved
Operations: Hearths	No fireplaces or woodstoves
Operations: Energy Use	No Electricity of Natural Gas will be used by project
Operations: Water and Waste Water	Campsites will be dry - no water
Operations: Off-Road Equipment	Once per month a tractor may be used to smooth roads and campsites

Energy Calculations

Construction-Related Petroleum Fuels

The off-road construction equipment fuel usage was calculated through use of the off-road equipment assumptions utilized in the CalEEMod model run provided in Appendix A and the fuel usage calculations provided in the 2017 Off-road Diesel Emission Factors spreadsheet, prepared by CARB. The Spreadsheet provides the following formula to calculate fuel usage from off-road equipment:

Fuel Used = Load Factor x Horsepower x Total Operational Hours x BSFC / Unit Conversion

Where:

Load Factor - Obtained from CalEEMod default values

Horsepower – Obtained from CalEEMod default values

Total Operational Hours – Calculated by multiplying CalEEMod default daily hours by the estimated number of working days for each phase of construction

BSFC – Brake Specific Fuel Consumption (pounds per horsepower-hour) – If less than 100 Horsepower = 0.408, if greater than 100 Horsepower = 0.367

Unit Conversion – Converts pounds to gallons = 7.109

The Following Table shows the off-road construction equipment fuel calculations based on the above formula, which shows that the off-road equipment utilized during construction of the proposed project would consume 26,220 gallons of diesel fuel.

Off-Road Construction Equipment Modeled in CalEEMod and Fuel Used

Equipment Type	Equipment Quantity	Horse-Power	Load Factor	Operating Hours Per Day	Total Operational Hours[1]	Fuel Used (gallons)
Site Preparation						
Tractors/Loaders/Backhoes	1	84	0.37	8	14	25
Grading						
Tractors/Loaders/Backhoes	2	84	0.37	7	56	100
Building Construction						
Forklifts	1	82	0.2	6	240	226
Generator Set	1	14	0.74	8	320	190
Tractors/Loaders/Backhoes	1	84	0.37	6	240	428
Paving						
Cement and Mortar Mixers	1	10	0.56	6	60	19
Tractors/Loaders/Backhoes	1	84	0.37	8	80	143
Architectural Coatings						
Air Compressor	1	37	0.48	6	60	61
Total Off-Road Equipment Diesel Fuel used during Construction (gallons)						**1,196**

Notes:
[1] Based on 2 days for Site Preparation, 4 days for Grading , 40 days for Building Construction, 10 days for Paving, and 10 days for Architectural Coatings.
Source: CalEEMod Version 2022.1, CARB, 2017.

The on-road construction-related vehicle trips fuel usage was calculated through use of the default construction vehicle trip assumptions from the CalEEMod model run. The calculated total construction miles were then divided by the fleet average for MDAB portion of San Bernardino County miles per gallon rates for the year 2025 that were calculated through use of the EMFAC2021 model and the EMFAC2021 model printouts are attached. The worker trips were based on the combined fleet average miles per gallon rates for gasoline powered automobiles, SUVs and pickup trucks and the vendor and haul truck trips were based on the combined T4, T5, T6 and T7 diesel trucks fleet average miles per gallon rate. The following Table shows the on-road construction vehicle trips modeled in CalEEMod and the fuel usage calculations, which shows that the on-road construction-related vehicle trips would consume 378 gallons of gasoline and 95 gallons of diesel fuel during construction of the proposed project.

On-Road Construction Vehicle Trips Modeled in CalEEMod and Fuel Used

Vehicle Trip Types / Fuel Type	Daily Trips	Trip Length (miles)	Total per Day (miles)	Total per Phase (miles)	Fleet Average Miles per Gallon	Fuel Used (gallons)
Site Preparation						
Worker (Gasoline)	2.5	18.5	46	93	25.9	4
Grading						
Worker (Gasoline)	5	18.5	93	370	25.9	14
Building Construction						
Worker (Gasoline)	10.8	18.5	200	7,992	25.9	309
Vendor (Diesel)	1.6	10.2	16	653	6.9	95
Paving						
Worker (Gasoline)	5	18.5	93	925	25.9	36
Architectural Coatings						
Worker (Gasoline)	2.16	18.5	40	400	25.9	15
Total Gasoline Fuel Used from On-Road Construction Trips (gallons)						**378**
Total Diesel Fuel Used from On-Road Construction Trips (gallons)						**95**

Notes:
[1] Based on 2 days for Site Preparation, 4 days for Grading , 40 days for Building Construction, 10 days for Paving, and 10 days for Architectural Coatings..
Source: CalEEMod Version 2022.1, CARB, 2017.

Operations-Related Petroleum Fuels

The on-road operations-related vehicle trips fuel usage was calculated through use of the total annual vehicle miles traveled assumptions from the CalEEMod model run attached to this Memo, which found that operation of the proposed project would generate 93,744 vehicle miles traveled per year. The calculated total operational miles were then divided by the MDAB portion of San Bernardino County fleet average rate of 25.9 miles per gallon, which was calculated through use of the EMFAC2021 model. The EMFAC2021 model printouts are attached to this Memo. Based on the above calculation methodology, the operation of the proposed project would consume 3,620 gallons of gasoline per year.

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: San Bernardino (MD)
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Y	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Trips	Fuel Consumption
San Bernar	2025	LDA	Aggregate	Aggregate	Gasoline	307205	12797927	1420636	429.2
San Bernar	2025	LDT1	Aggregate	Aggregate	Gasoline	30282	1023948	129676	41.7
San Bernar	2025	LDT2	Aggregate	Aggregate	Gasoline	140054	5773503	652071	236.2
San Bernar	2025	MCY	Aggregate	Aggregate	Gasoline	18028	103627	36057	2.5
San Bernar	2025	MDV	Aggregate	Aggregate	Gasoline	104111	4088311	472934	209.0
San Bernar	2025	T6 Instate Delivery Class 4	Aggregate	Aggregate	Diesel	69	2268	981	0.3
San Bernar	2025	T6 Instate Delivery Class 5	Aggregate	Aggregate	Diesel	49	1618	697	0.2
San Bernar	2025	T6 Instate Delivery Class 6	Aggregate	Aggregate	Diesel	256	8655	3650	1.0
San Bernar	2025	T6 Instate Delivery Class 7	Aggregate	Aggregate	Diesel	52	2797	742	0.3
San Bernar	2025	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	316	13219	3653	1.5
San Bernar	2025	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	498	21506	5759	2.5
San Bernar	2025	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	440	18723	5084	2.1
San Bernar	2025	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	278	12502	3214	1.4
San Bernar	2025	T6 Instate Tractor Class 6	Aggregate	Aggregate	Diesel	6	278	71	0.0
San Bernar	2025	T6 Instate Tractor Class 7	Aggregate	Aggregate	Diesel	122	7037	1406	0.7
San Bernar	2025	T6 Public Class 5	Aggregate	Aggregate	Diesel	50	1860	256	0.2
San Bernar	2025	T7 Single Concrete/Transi	Aggregate	Aggregate	Diesel	57	3763	539	0.6
San Bernar	2025	T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	138	7963	1295	1.4
San Bernar	2025	T7 SWCV Class 8	Aggregate	Aggregate	Diesel	36	2327	165	0.8
San Bernar	2025	T7 Tractor Class 8	Aggregate	Aggregate	Diesel	1731	131167	25150	21.3

Worker (Autos) vehicle miles per day	23,787,316	918	1,000 gall per day
Workers (Autos) Avg Miles per gallon	25.9	918,482	gallons per day
Diesel Truck vehicle miles per day	235,681	34	1,000 gall per day
Diesel Truck Fleet Avg Miles per gallon	6.9	34,335	gallons per day