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WATSON HIGH DESERT LOGISTICS AIR QUALITY AND GREENHOUSE GAS ASSESSMENT

Nicole Morse,

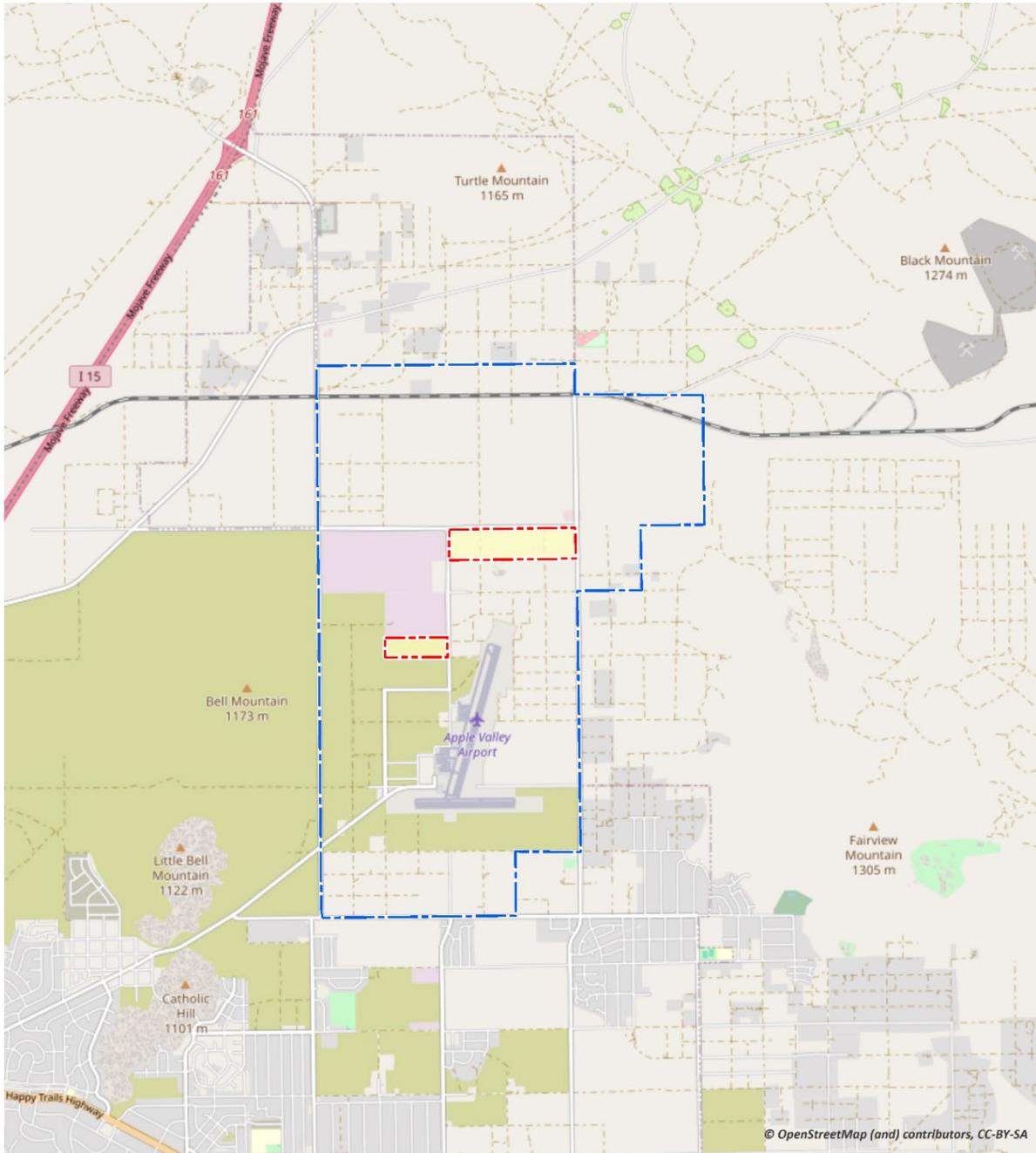
Urban Crossroads, Inc. is pleased to provide the following Air Quality and Greenhouse Gas Assessment for the Watson High Desert Logistics (**Project**), which is comprised of two sites located within the North Apple Valley Industrial Specific Plan (NAVISP) in the Town of Apple Valley, as shown on Exhibit 1. The West site is located on the northwest corner of Navajo Road and Los Padres Road, which is immediately south of the existing Big Lots distribution center facility. The East site is located on the southeast corner of Navajo Road and Johnson Road.

The purpose of this analysis is to evaluate potential changes in Air Quality or Greenhouse Gases for the **Project** as well as a comparison of two General Plan buildout scenarios. **Scenario 1** is buildout of industrial lands under the 2009 General Plan EIR Buildout, and **Scenario 2** is buildout of industrial lands under Current Land Use Conditions (2024), including planned industrial projects, including the proposed **Project**.

PROJECT OVERVIEW

The **Project** consists of the development of three industrial warehouse and distribution buildings within two sites totaling 3,729,100 square feet. The West site consists of a single 896,500-square-foot warehouse building and the East site consists of two buildings (Building 1 with 1,631,800 square feet and Building 2 with 1,200,800 square feet). The Project is anticipated to include up to 15% or 559,365 square feet of High-Cube Cold Storage Warehouse use. The Project is anticipated to have an Opening Year of 2027 (for all three buildings).

EXHIBIT 1: LOCATION MAP



LEGEND:

 Site Boundary

 North Apple Valley Industrial Specific Plan (NAVISP)

AIR QUALITY EMISSIONS

SCENARIO 1 (2009 GENERAL PLAN EIR BUILDOUT)

Scenario 1 assumes the buildout of the 2009 General Plan EIR. The 2009 General Plan EIR performed its air quality analysis using an emissions model (Urbemis) that is no longer used for analysis. Accordingly, to provide an accurate comparison for both Scenarios, air quality emissions reflected in the 2009 General Plan EIR were recalculated for Scenario 1 utilizing the latest California Emissions Estimator Model. To simulate 2009 conditions using the new CalEEMod model, the same assumptions for the industrial land use mix, landscaping coverage, energy demand, water demand, truck and passenger vehicle trip lengths utilized in the 2009 General Plan EIR were used. Trips were taken from the *North Apple Valley Industrial Area Cumulative Trip Generation Assessment* which disclosed traffic trips generated by industrial uses in the 2009 General Plan EIR (1).

The following assumptions were utilized in the updated CalEEMod run and are based on assumptions disclosed in the 2009 General Plan EIR:

- Industrial development would be 25% warehouse uses and 75% miscellaneous industrial uses, as such for CalEEMod modeling purposes, 25% (15,270,350 SF) was modeled as unrefrigerated warehouse (no rail) and 75 percent (45,811,050 SF) was modeled as industrial park.
- Consistent with the 2009 General Plan EIR, it was assumed that buildout of industrial lands would occur in 2025.
- Based on the *North Apple Valley Industrial Area Cumulative Trip Generation Assessment*, the industrial land uses would generate 244,055 annual trips at buildout. These trips were then further broken down per land use using the same 25% (61,014 trips) for the unrefrigerated warehouse (no rail) use and 75% (183,041 trips) for the industrial park use. Additionally, it was assumed that all warehouse trips are long-haul truck trips for distribution and all industrial park trips are passenger vehicles. Passenger Car trip lengths were taken from the 2009 General Plan EIR which assumed an average trip length of 8.06 miles and truck trip lengths were taken from the Southern California Association of Government's (SCAG) estimation of average truck trip length in its 2016 Regional Transportation Plan which discloses a 40-mile trip length, which is the current basis for the SCAQMD's Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program.
- Electricity and natural gas demand is based on the 2009 GP EIR which assumes 10.5 kWh per square foot for the industrial park and 4.35 kWh per square foot for the warehouse. Natural gas was assumed to be 4.8 cubic feet per square foot per month. Based on these parameters, electricity demand would total 547,442,048 kWh/yr and natural gas demand would total 3,655,501,897 kbtu/yr.
- Water demand based on the 2009 General Plan EIR was calculated using a factor of 1.61 acre-feet per acre per year which multiplied by the acres of vacant and developed industrial lands of 7,114.2 acres would result in 11,452.86 acre-feet per year.

Table 1 and 2 summarize the regional operational and GHG emissions for **Scenario 1** 2009 General Plan EIR Buildout which is based on the parameters summarized above. Detailed operation model outputs are presented in Attachment A.

TABLE 1: SCENARIO 1 (2009 GENERAL PLAN EIR BUILDOUT) REGIONAL OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)						
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
Total Maximum Daily Emissions	2,968	7,915	13,389	63	3,327	1,012	8,068,716

TABLE 2: SCENARIO 1 (2009 GENERAL PLAN EIR BUILDOUT) GHG EMISSIONS

Total MTCO _{2e} /yr
1,060,501.97

SCENARIO 2 CURRENT LAND USE CONDITIONS (2024) INCLUDING THE PROJECT

Scenario 2 assumes the buildout for currently developed, vacant and planned industrial projects in 2024 within the town of Apple Valley, which reflects the development that has or will actually occur compared to the 2009 General Plan EIR’s assumptions about future development. Emissions for Scenario 2 must not trigger a new significant and unavoidable impact compared to Scenario 1 emissions to demonstrate that the Project would not result in a new or more significant environmental impact compared with the impacts disclosed in the previously certified EIR. Development has not occurred at the speed anticipated in the 2009 General Plan EIR. Therefore, build out was assumed to occur in 2040 under Scenario 2, which is consistent with the 15 year build out projection used for the 2009 General Plan EIR.

Scenario 2 utilized the following assumptions and were modeled in CalEEMod:

- Industrial development would be 25% warehouse uses and 75% miscellaneous industrial uses, as such for CalEEMod modeling purposes, 25% (14,490,083 SF) was modeled as unrefrigerated warehouse (no rail) and 75 percent (43,470,248 SF) was modeled as industrial park.
- It was assumed that buildout of industrial lands would occur in 2040.
- Based on the *North Apple Valley Industrial Area Cumulative Trip Generation Assessment*, the industrial land uses would generate 217,213 annual trips at buildout. These trips were then further broken down per land use using the same 25% (54,303 trips) for the unrefrigerated warehouse (no rail) use and 75% (162,910 trips) for the industrial park use. Additionally, it was assumed that all warehouse trips are long-haul truck trips for distribution and all industrial park trips are passenger vehicles. Similar to Scenario 1, Passenger Car trip lengths were taken from the 2009 General Plan EIR which assumed an average trip length of 8.06 miles and truck trip lengths were taken from the Southern California Association of Government’s (SCAG) estimation of average truck trip length in its 2016 Regional Transportation Plan which discloses a 40-mile trip length, which is the

current basis for the SCAQMD’s Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program.

- Electricity and natural gas demand is based on CalEEMod defaults. Electricity demand would total 825,563,266 kWh/yr and natural gas demand would total 1,468,290,679 kbtu/yr.
- Water demand was calculated using separate demand factors for indoor industrial water use and outdoor landscape irrigation water use. Indoor water use was based on the U.S. Energy Information Administration 2012 Commercial Buildings Energy Consumption Survey which estimated 3.4 gallons per square foot per year and outdoor water use is based on the Town of Apple Valley Water Conservation/Landscaping Regulations (Ordinance No. 479). As such, the 2024 conditions would result in 604.77 acre-feet per year.

Table 3 and 4 summarize the regional operational and GHG emissions for **Scenario 2** Current Land Use Conditions (2024) Including the Project which is based on the parameters summarized above. Detailed operation model outputs are presented in Attachment B.

TABLE 3: SCENARIO 2 CURRENT LAND USE CONDITIONS (2024) INCLUDING THE PROJECT REGIONAL OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)						
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
Total Maximum Daily Emissions	2,242	3,481	7,307	42	2,867	824	5,453,750

TABLE 4: SCENARIO 2 CURRENT LAND USE CONDITIONS (2024) INCLUDING THE PROJECT GHG EMISSIONS

Total MTCO _{2e} /yr
716,280.52

AIR QUALITY EMISSION COMPARISON (SCENARIO 1 AND 2)

As shown in Table 5 and 6, Scenario 2 is anticipated to generate less emissions per day for all criteria pollutants and GHGs as compared to emissions generated by Scenario 1 for regional operations and GHGs. As such, the Project would not result in new or substantially more emissions than what was disclosed within the 2009 General Plan EIR and a less than significant

impact is expected. It should be noted that the Project must comply with the applicable General Plan EIR mitigation measures.

TABLE 5: BUILDOUT EMISSIONS COMPARISON SCENARIO 1 AND SCENARIO 2 REGIONAL EMISSIONS

Land Use	Emissions (lbs/day)						
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO _{2e}
Scenario 1	2,968	7,915	13,389	63	3,327	1,012	8,068,716
Scenario 2	2,242	3,481	7,307	42	2,867	824	5,453,750
Net Emissions (Scenario 1 – Scenario 2)	-726	-4,434	-6,082	-21	-460	-188	-2,614,967

TABLE 6: BUILDOUT EMISSIONS COMPARISON SCENARIO 1 AND SCENARIO 2 GHG EMISSIONS

Land Use	Total MTCO _{2e} /yr
Scenario 1	1,060,501.97
Scenario 2	716,280.52
Net Emissions (Scenario 1 – Scenario 2)	-344,221.46

PROPOSED PROJECT

The Project site is located in the portion of the County of San Bernardino, California, that is part of the Mojave Desert Air Basin (MDAB) and is under the jurisdiction of the MDAQMD. The air quality assessment for the proposed Project includes estimating emissions associated with short-term construction and long-term operation of the proposed Project. A number of air quality modeling tools are available to assess the air quality impacts of projects. In addition, certain air districts, such as the MDAQMD, have created guidelines and requirements to conduct air quality analyses. The MDAQMD's current guidelines, included in its *California Environmental Quality Act and Federal Conformity Guidelines* (August 2011), were adhered to in the assessment of air quality impacts for the proposed Project.

AIR QUALITY REGIONAL EMISSIONS THRESHOLDS

The MDAQMD has developed regional significance thresholds for criteria pollutants, as summarized at Table 7 (2). The MDAQMD's CEQA Air Quality Significance Thresholds (April 2019) indicate that any projects in the Mojave Desert Air Basin (MDAB) with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

TABLE 7: MAXIMUM DAILY REGIONAL EMISSIONS THRESHOLDS

Pollutant	Construction/Operations
CO	548 lbs/day
NO _x	137 lbs/day
VOC	137 lbs/day
SO _x	137 lbs/day
PM ₁₀	82 lbs/day
PM _{2.5}	65 lbs/day

lbs/day – Pounds Per Day

Project Impacts

Operational activities associated with the proposed Project would result in emissions of VOCs, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}. Operational related emissions are expected from the following primary sources: area source emissions, energy source emissions, and mobile source emissions.

The Project related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the *Watson High Desert Logistics* Trip Generation Assessment were utilized in this analysis (3). The Project would generate a total of 6,924 daily trips which would compose of 5,774 passenger car vehicles per day and 1,150 truck trips per day. For passenger car vehicles, CalEEMod default trip lengths were used and assuming that warehouse developments generate longer truck trips associated with product delivery/distribution, modeling for truck trips assumed a 40-mile trip length with an assumption of 100% primary trips for the proposed industrial land uses.

The estimated operational-source emissions from the Project are summarized in Table 8. Detailed operation model outputs are presented in Attachment C. As shown on Table 8, the proposed Project would exceed thresholds established by the MDAQMD for summer VOC, NO_x, and PM₁₀ emissions as well as winter NO_x and PM₁₀.

Although the Project would exceed thresholds established by the MDAQMD as mentioned above, the 2009 GP EIR identified a significant and unavoidable impact (page III-30, table III-16 of the 2009 GP EIR). Additionally, as summarized on Table 9, the proposed Project compared to the 2009 GP EIR emissions is anticipated to generate less emissions per day and would be within the total emission for pollutants of VOC, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} and no new impacts are expected.

TABLE 8: PROPOSED PROJECT REGIONAL OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Summer						
Mobile Source	29.18	132.36	333.70	1.77	102.40	28.31
Area Source	109.10	1.36	162.18	0.01	0.29	0.22
Energy Source	1.11	20.14	16.92	0.12	1.53	1.53
Total Maximum Daily Emissions	139.39	153.87	512.81	1.90	104.22	30.06
SCAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	YES	YES	NO	NO	YES	NO
Winter						
Mobile Source	26.81	140.19	259.90	1.71	102.40	28.31
Area Source	82.47	0.00	0.00	0.00	0.00	0.00
Energy Source	1.11	20.14	16.92	0.12	1.53	1.53
Total Maximum Daily Emissions	110.39	137.01	276.82	1.83	103.93	29.84
SCAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	NO	YES	NO	NO	YES	NO

TABLE 9: PROPOSED PROJECT COMPARISON

Source	Emissions (lbs/day)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Proposed Project	139	154	513	2	104	30
Scenario 1 (2009 GP EIR)	2,968	7,915	13,389	63	3,327	1,012
Net Emissions (Proposed Project - Scenario 1)	-2,828	-7,761	-12,876	-61	-3,223	-982

GREENHOUSE GAS EMISSIONS

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

In May 2022, the California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of the CalEEMod Version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_x, SO_x, CO, PM₁₀, and PM_{2.5}) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (4). Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational air quality and greenhouse gas emissions.

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. The MDAQMD follows the South Coast Air Quality Management District (SCAQMD)

recommendation in calculating the total GHG emissions for construction activities by amortizing the emissions over the life of the Project by dividing it by a 30- year project life then adding that number to the annual operational phase GHG emissions (5). As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions.

Project operations would generate CO₂, CH₄, N₂O and Refrigerant (R) emissions. Primary emissions sources would include:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- Water Supply, Treatment, and Distribution
- Solid Waste
- Refrigerants

The estimated GHG emissions for the proposed Project are summarized in Table 10. The estimated GHG emission includes emissions from Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O), and Refrigerants (R). As shown in Table 10, the Project would generate a total of approximately 34,173.88 MTCO₂e per year. Detailed operation model outputs for the proposed Project are presented in Attachment C.

TABLE 10: TOTAL PROPOSED PROJECT GHG EMISSIONS

Source	Emission (MT/year)				
	CO ₂	CH ₄	N ₂ O	Refrigerants	Total CO ₂ e
Annual construction-related emissions amortized over 30 years	210.73	3.65E-03	1.47E-02	2.40E-01	215.44
Mobile	21,640.71	0.31	2.26	27.57	22,349.02
Area	54.45	0.00	0.00	0.00	54.65
Energy	8,349.92	0.77	0.06	0.00	8,386.42
Water	1,075.05	28.13	0.68	0.00	1,979.67
Waste	312.77	31.26	0.00	0.00	1,094.29
Refrigerants	0.00	0.00	0.00	94.39	94.39
Total CO₂e (All Sources)	34,173.88				

Discussion on Establishment of Significance Thresholds

MDAQMD

The Town of Apple Valley has not adopted its own numeric threshold of significance for determining impacts with respect to greenhouse (GHG) emissions, thus this Addendum first compares the Project to the MDAQMD threshold of 90,718.5 MTCO₂e per year. If Project-related GHG emissions do not exceed the 90,718.5 MTCO₂e per year threshold, then Project-related GHG emissions would have a less-than-significant impact pursuant to Threshold GHG-1. On the other

hand, if Project-related GHG emissions exceed 90,718.5 MTCO_{2e} per year, the Project would be considered a substantial source of GHG emissions.

The Town of Apple Valley has not adopted its own numeric threshold of significance for determining impacts with respect to GHG emissions. The MDAQMD states that in general, for GHG emissions, the significant emission threshold of 100,000 Tons CO_{2e} (90,718.5 MT CO_{2e}) per year is sufficient to determine if additional analysis is required (2).

As previously shown in Table 10, the Project will result in an approximately 34,173.88 MTCO_{2e} per year; the proposed Project would not exceed the screening threshold of 90,718.5 MTCO_{2e} per year and would be considered less than significant impact.

SCAQMD

It should be noted that the MDAQMD threshold has not been formally adopted, and therefore, the Project's GHG emissions were also analyzed using the SCAQMD significance threshold.

In 2008, SCAQMD formed a Working Group to identify GHG emissions thresholds for land use projects that could be used by local lead agencies in the SCAB. The Working Group developed several different options that are contained in the SCAQMD Draft Guidance Document – Interim CEQA GHG Significance Threshold that could be applied by lead agencies. The working group has not provided additional guidance since release of the interim guidance in 2008. The SCAQMD Board has not approved the thresholds which remain interim. The interim thresholds consist of the following tiered approach:

- Tier 1 consists of evaluating whether or not the project qualifies for any applicable exemption under CEQA.
- Tier 2 consists of determining whether the project is consistent with a GHG reduction plan. If a project is consistent with a qualifying local GHG reduction plan, it would not result in a significant GHG impact. The SCAQMD tier 2 threshold is consistent with CEQA Guidelines 15064.4 and 15183.5.
- Tier 3 consists of screening values, which the lead agency can choose, but must be consistent with all projects within its jurisdiction. A project's construction emissions are averaged over 30 years and are added to the project's operational emissions¹. Although this Tier proposed specific screening thresholds for residential/commercial, industrial, and mixed use, they were never adopted by SCAQMD.
- Tier 4 has the following options:
 - Option 1: Reduce Business-as-Usual (BAU) emissions by a certain percentage; this percentage is currently undefined.
 - Option 2: Early implementation of applicable AB 32 Scoping Plan measures

¹ Amortizing construction emissions over 30 years is also consistent with the methodology described in Riverside County's *Greenhouse Gas Emissions Screening Tables* March 2019.

- Option 3: 2020 target for service populations (SP), which includes residents and employees: 4.8 MTCO₂e per SP per year for projects and 6.6 MTCO₂e per SP per year for plans;
- Option 3, 2035 target: 3.0 MTCO₂e per SP per year for projects and 4.1 MTCO₂e per SP per year for plans
- Tier 5 involves mitigation offsets to achieve target significance threshold.

The SCAQMD's interim thresholds used the Executive Order S-3-05-year 2050 goal as the basis for the Tier 2 screening level. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO₂ concentrations at 450 ppm, thus stabilizing global climate.

Town Of Apple Valley Climate Action Plan (CAP)

On May 2021, the Town of Apple Valley adopted the 2019 CAP Update, which was originally adopted in 2010. The CAP provides a framework for reducing GHG emissions and managing resources to best prepare for a changing climate (6). The CAP recommends GHG emissions targets that are consistent with the reduction targets of the State of California and presents a number of strategies that will make it possible for the Town to meet the recommended targets. Projects that demonstrate consistency with the strategies, actions, and emission reduction targets contained in the CAP would have a less than significant impact on climate change.

The 2010 CAP concluded that the Town of Apple Valley would need to reduce greenhouse gas emissions by a minimum of 112,337 MTCO₂e per year by 2020 to meet a reduction target of 15% below 2005 levels. The 2019 CAP Update provides a revised 2030 target of 299,565 MTCO₂e per year for greenhouse gas emissions or 40% below baseline emission levels. Greenhouse gas inventories emissions provided in the 2019 CAP Update show that emissions were approximately 596,681 MTCO₂e per year, a 38,894 MTCO₂e per year exceedance as compared to the 2020 target. To achieve the 2030 target of 40% below baseline emissions, the Town of Apple Valley would need to reduce greenhouse gas emissions by 148,334 MTCO₂e per year.

CEQA Guidelines Consistency Analysis

Based on the tiers provided by SCAQMD, Tier 2 applies to the Project and the following analysis will consider whether the Project is compliant with the Apple Valley 2019 Climate Action Plan. According to Tier 2, if the Project is determined to be compliant with the applicable greenhouse gas reduction plan, then impacts related to the greenhouse gas emissions resulting from that Project should be considered less than significant.

As mentioned previously, the CAP aims to achieve the 2030 target of 40% below 2005 emissions and based on growth factors in the SCAG 2020-2045 Regional Transportation Plan/SCS², the CAP forecasts that the Town of Apple Valley will have a population of 84,535 in 2030. As such, the GHG emissions in 2030 would need to be 449,347 MTCO₂e, or 5.32 MTCO₂e per capita in order to achieve this goal.

² It should be noted that although the 2050 RTP/SCS factors is the most current document, the 2045 RTP/SCS factors were used in this analysis, as they were used during CAP development and are more conservative than the current 2050 RTP/SCS factors.

Table 11 summarizes the total annual emissions from the Project and existing 2030 forecasts. The Town of Apple Valley expects to go beyond the established emissions target, reducing forecasted emissions to 410,922 MTCO₂e per year or 4.86 tons per capita. The 2030 emissions forecast with the CAP measures accounts for community emissions, including industrial projects and therefore considers the proposed Project’s 34,173.88 MTCO₂e per year within the CAP 2030 emission forecasts. To provide a conservative analysis, it should be noted that the Project’s emissions were added to the existing CAP 2030 emissions forecasts.

As shown on Table 11, both the Project total and per capita emissions would meet the CAP 2030 emission target of 40% below the 2005 baseline by 2030. As such, the Project would meet the Town of Apple Valley CAP greenhouse gas emissions reduction targets and impacts would be less than significant impact.

TABLE 11: PROPOSED PROJECT EMISSIONS AND CAP REDUCTION TARGET

Scenario/Target	Forecast (MTCO ₂ e)	Population	MTCO ₂ e Per Capita per year
CAP 2030 forecast w/CAP measures	410,922.00	84,535	4.86
Project emissions (per year)	34,173.88	84,535	--
Total	445,095.88	84,535	5.27
CAP 2030 target (40% below baseline)	449,347.001	84,535	5.32
Threshold Exceeded?			NO

The Project would also be subject to applicable mitigation measures from the CAP and as shown on Table 12, would further reduce GHG emissions.

TABLE 12: PROJECT CAP CONSISTENCY REDUCTION MEASURES

CAP Reduction Measure	Consistency
CO-4: Establish an employee carpooling program, including incentives (preferred parking, flex time incentives, etc.) for participating employees.	Consistent: Per mitigation measure GHG-1, the Project will establish an employee carpooling program, including incentives for participating employees.

CAP Reduction Measure	Consistency
<p>CO-5: (Encourage) Provide employees with free or discounted public transit passes.</p>	<p>Consistent: Per mitigation measure GHG-2, the Project will provide employees with free or discounted public transit passes.</p>
<p>ND-6: For projects within the North Apple Valley Industrial Specific Plan, develop employee housing within one mile of the industrial project.</p>	<p>Consistent: The area adjacent to the Project site, on the southeastern side of Central Rd is designated for Low Density Housing. Development of these sites would provide housing within one mile of the Project site.</p>
<p>ND-12: Building and site plan designs shall ensure that the project energy efficiencies meet applicable California Title 24 Energy Efficiency Standards.</p>	<p>Consistent: The project would comply with all Title 24 energy efficiency standards.</p>
<p>ND-20: Install common area electric vehicle charging station(s) and secure bicycle racks.</p>	<p>Consistent: The project would install EV charging station(s) and secure bicycle rack.</p>

2022 CARB SCOPING PLAN CONSISTENCY

In addition to the measures provided previously, the Project would also be consistent with other regulations. The 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) lays out a path to achieve targets for carbon neutrality and reduce anthropogenic greenhouse gas (GHG) emissions by 85 percent below 1990 levels no later than 2045, as directed by Assembly Bill 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon (7).

The Project would not impede the State’s progress towards carbon neutrality by 2045 under the 2022 Scoping Plan. The Project would be required to comply with applicable current and future regulatory requirements promulgated through the 2022 Scoping Plan. Some of the current transportation sector policies the Project will comply with (through vehicle manufacturer compliance) include: Advanced Clean Cars II, Advanced Clean Trucks, Advanced Clean Fleets, Zero Emission Forklifts, Off-Road Zero-Emission Targeted Manufacturer Rule, Clean Off-Road Fleet Recognition Program, Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation, carbon pricing through the Cap-and-Trade Program, and the Low Carbon Fuel Standard. Lastly, the Project would be required to comply with applicable elements outlined in the City’s CAP. As such, the Project would be consistent with the 2022 Scoping Plan.

2020-2045 RTP/SCS CONSISTENCY

The Project is consistent with the general plan land use designation, density, building intensity, and applicable policies specified for the Project area in SCAG's Sustainable Community Strategy/Regional Transportation Plan, which pursuant to SB 375 calls for the integration of transportation, land-use and housing policies to plan for achievement of the GHG-emissions target for the region.

The 2020-2045 RTP/SCS, developed with input from local governments, including the City of Redlands, establishes GHG emissions goals for automobiles and light-duty trucks for 2035, 2045 and establishes an overall GHG target for the region consistent with both the statewide GHG-reduction targets for the post-2020 statewide GHG reduction goals. The 2020-2045 RTP/SCS is a long-range visioning plan to encourage and promote the safe and efficient management, operation, and development of a regional intermodal transportation system that, when linked with appropriate land use planning, will serve the mobility needs of goods and people. Future investments seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices. The RTP/SCS is an important planning document for the region, allowing project sponsors to qualify for federal funding. In addition, the RTP/SCS is supported by a combination of transportation and land use strategies that help the region achieve state GHG emission reduction goals and federal Clean Air Act requirements, preserve open space areas, improve public health and roadway safety, support the vital goods movement industry, and use resources more efficiently.

The Project would be consistent with the GHG reduction strategies contained within the SCAG's RTP/SCS. Implementing SCAG's RTP/SCS will reduce the regional GHG emissions from transportation, helping to achieve statewide emission reduction targets. The proposed Project would be consistent with and would not conflict with the goals of the RTP/SCS; therefore, the proposed Project would not interfere with SCAG's ability to achieve the region's year post-2020 mobile source GHG reduction targets outlined in the RTP/SCS, and it can be assumed that regional mobile emissions will decrease in line with the goals of the RTP/SCS. The Project is both below the MDAQMD threshold for GHG emissions and compliant with the SCAQMD Tier 2 test, and therefore, would be less than significant.

Finally, the 2009 General Plan EIR quantified maximum daily emissions for buildout of the General Plan and concluded that impacts from criteria pollutants and GHGs would be significant and unavoidable. As such, mitigation measures were provided requiring project-level air quality analysis to determine if future development project impacts would be managed and mitigated accordingly on a case-by-case basis. As presented previously, a project-level greenhouse gas analysis was prepared for the proposed Project and found impacts to be less than significant with mitigation for greenhouse gas emissions. Additionally, as summarized previously on Table 9, the Project's air quality emissions would not result in new or substantially more emissions than what was disclosed within the 2009 General Plan EIR and a less than significant impact is expected. Therefore, implementation of the proposed Project would not result in any new adverse impacts or increase the severity of previously identified significant impacts in the Certified EIR.

Mitigation Measures

The 2009 GP EIR concluded that impacts associated with GHG emissions would be significant and unavoidable and therefore summarizes a wide range of mitigation measures that could be applied to new development and redevelopment projects that can reduce project-related criteria pollutants and greenhouse emissions at buildout of the General Plan and Annexation areas. The following mitigation measures can be found in the 2009 GP EIR on pages III-34 through -39. It should be noted that the mitigation measures would reduce emissions but could not be readily quantified.

General Measures

1. Grading and development permits shall be reviewed and conditioned to require the provision of all available methods and technologies to assure minimal air quality emissions from development. See EIR Table III-21 below.

EIR Table III-21

Available Emission Reduction Technologies

	Daily Emission Reduction Factors				
	CO	NOx	SOx	PM ₁₀	ROG
Diesel Equipment					
Aqueous Fuel	0%	14%	0%	63%	0%
Diesel Particle Filter	0%	0%	0%	80%	0%
Cooled Exhaust Gas Recirculation	90%	40%	0%	85%	90%
Lean NOx Catalyst	0%	20%	0%	0%	0%
Diesel Oxidation Catalyst	0%	20%	0%	0%	0%
Worker Trips	CO	NOx	SOx	PM ₁₀	ROG
Use of Shuttle or Ride Sharing	1.3%	1.3%	1.3%	1.3%	1%

Source: Urban Emissions Model (URBEMIS2002) version 8.7.0 April 2005; developed by the California Air Resources Board (CARB) as a modeling tool to assist local public agencies with estimating air quality impacts from land use projects when preparing a CEQA environmental analysis.

2. As part of the grading permit process, developers shall concurrently submit a dust control plan as required by MDAQMD in compliance with Rule 403 (see EIR Table III-22 below).

**EIR Table III-22
Fugitive Dust Control Methods**

Daily PM₁₀ Reduction	
Apply Soil Stabilizers to Inactive Areas	30%
Replace Ground Cover in Disturbed Areas Quickly	15%
Water Exposed Surfaces 2 Times Daily	34%
Water Exposed Surfaces 3 Times Daily	50%

Source: Urban Emissions Model (URBEMIS2002) version 8.7.0, April 2005.

3. Prior to grading activities a wind erosion control plan that among other things addresses soil stabilization techniques shall be submitted to the Apple Valley Building Division to assure that dust control is realized for all projects.
4. The Town shall conduct an initial study for all projects that are expected to exceed any of the MDAQMD pollutant emission threshold criteria and shall require detailed air quality analyses for all development applications that have the potential to adversely affect air quality including quantification of greenhouse gas emissions. Until new factors are developed the use of the CEQA Handbook prepared by SCAQMD or other appropriate modelling tools such as URBAMIS shall be utilized.
5. All construction activities within the Town of Apple Valley shall be subject to Rule 401 Visible Emissions, Rule 402 Nuisance, and Rule 403 Fugitive Dust in accordance with the Mojave Desert Planning Area PM₁₀ Attainment Plan.³
6. Set backs and buffer zones shall be provided between sensitive receptors (residences, schools, daycare centers, playgrounds and medical facilities) and point source emitters, such as highways, hazardous materials sites, and industrial development. Projects proposed for sites located within the specified distance to an existing or planned (zoned) sensitive receptor land use shall be evaluated to determine impacts to sensitive receptors including a health risk assessment for the following projects:

- Any industrial project within 1000 feet;
- A distribution center (40 or more trucks per day) within 1000 feet;
- A transportation project with 50,000 or more vehicles per day within 1000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

³ "Final Mojave Desert Planning Area Federal Particulate Matter (PM₁₀) Attainment Plan," prepared by the Mojave Desert Air Quality Management District, July 31, 1995.

7. The General Plan Land Use Plan shall be routinely updated to assure that air pollution point sources, such as those described above, are located a sufficient distance residential areas and other sensitive receptors, to the greatest extent practical.
8. The Town shall encourage the phasing of development projects and the staging of construction equipment to assure the lowest construction-related pollutant emission levels practical.
9. The Town shall strive to maintain a balance between housing, commercial, and industrial development, and shall encourage mixed-use development to reduce the length of vehicle trips and associated moving vehicle emissions.
10. The Town shall promote the development of pedestrian-oriented retail centers, community-wide trails, and dedicated bike lanes to encourage alternatives to vehicle travel. These components shall be integrated and periodically updated in the General Plan Circulation Element.
11. The Town shall pursue programs that create a diversified transportation system that minimizes vehicle miles traveled and associated air quality emissions.
12. The Town shall encourage the incorporation of energy-efficient design measures in site plans, including appropriate site orientation to assure solar access, and the use of shade and windbreak trees to enhance the use of alternative energy systems and reduce the need for excessive heating and cooling.
13. The Town shall encourage the use of clean burning energy sources for transportation, heating and cooling. Pilot studies and/or demonstration programs shall be initiated by the Town and/or local agencies to promote these uses. The following programs shall be pursued:
 - Replace Town and County vehicle fleet with alternative vehicles
 - Initiate ride sharing programs for employees and of telecommuter options
 - Utilize Town building rooftops for placement of Solar equipment
14. The Town shall continue to develop and coordinate mass transit services that link residential, commercial, shopping and industrial centers, and shall coordinate with regional transportation authorities to facilitate public transport outside Town limits.
15. As requested, the Town shall participate, through the San Bernardino Associated Governments and MDAQMD, in the routine monitoring of all pollutants of regional concern, and shall maintain records of regional air quality trends.
16. The Town shall create staff positions that emphasis the Town's commitment towards building a green and sustainable community including LEED certified personnel and interagency liaisons that work directly with the Town and utility providers to increase efficiency, initiate

programs, and develop incentives for water and energy conservation and reducing air quality emissions.

17. The Town shall coordinate with MDAQMD and the nearby SCAQMD in providing air quality management training to staff and volunteers.
18. The Town shall review individual projects under CEQA using the control efficiencies provided on pages 11-13 through 11-32 of the 1993 SCAQMD "CEQA Air Quality Handbook" to determine the effectiveness of proposed air quality mitigation measures for specific projects.
19. A PM₁₀ Management Plan for construction operations shall be submitted with all development proposal applications. Plans shall include dust management controls, which can reduce PM emission as shown in the table below:

**EIR Table III-23
 Particulate Matter Emission Reduction Techniques**

Mitigation Measure	Daily Reduction Factor for PM ₁₀
Apply non-toxic soil stabilizers to graded construction areas that are inactive for 10 days or more	30-65%
Replace ground cover immediately through seeding and watering	15-49%
Enclose, cover, water twice daily or apply soil binders to exposed piles with more than 5% silt content	30-74%
Water active site at least twice a day	34-68%
Water active site at least three times daily	45-85%
Cover soil haul trucks or maintain at least two feet of freeboard	7-14%
Conduct street sweeps at the end of each day	25-60%
Install wheel washers where vehicles enter and exist unpaved roads or wash off equipment leaving the site	40-70%
Enforce maximum speeds of less than 15 mph on all unpaved roads	40-70%
Pave construction roads that have more than 50 daily construction equipment trips or 150 total daily trips	92.5%
Pave construction site access roads at least 100 feet on to the site from the main road	92.5%
Pave construction roads that have less than 50 daily trips	92.5%

Source: "CEQA Air Quality Handbook," prepared by SCAQMD, 1993.

20. To reduce construction-related traffic congestion, developers and contractors shall implement the following mitigation measures:

- configure construction equipment parking to minimize traffic disturbance
- minimize obstruction of through-traffic lanes

- provide a flag person to ensure safety at construction sites, as necessary
 - schedule operations affecting roadways for off-peak traffic hours
 - provide rideshare incentives to construction personnel
21. To minimize construction equipment emissions, developers shall implement the following measures:
- wash off trucks leaving the site
 - require trucks to maintain two feet of freeboard
 - properly tune and maintain construction equipment
 - use low sulfur fuel for construction equipment
22. To minimize indirect-source emissions, developers may:
- implement energy conservation measures beyond state and local requirements
 - install low-polluting, high-efficiency appliances
 - install solar pool and water heaters, where feasible
 - landscape with appropriate drought-tolerant species to reduce water consumption and provide passive solar benefits
 - install energy-efficient street lighting
23. To minimize building energy consumption, developers shall be encouraged to implement the following:
- improve the thermal integrity of buildings
 - utilize window glazing, wall insulation, and efficient ventilation methods
 - introduce efficient heating and appliances, such as water heaters, cooking equipment, refrigerators, furnaces, and boiler units
 - incorporate appropriate passive solar design and solar heaters
 - use devices that minimize the combustion of fossil fuels

The following greenhouse gas mitigation measures are from pages III-39 through -43 of the 2009 GP EIR.

1. Design and implement land uses that encourage job/housing proximity or easy access to transit opportunities including high density development along transit corridors, compact mixed use projects, and urban villages that maximize affordable housing and encourage biking, walking, and the use of public transit. This can be accomplished through the implementation of the goals, policies and programs of the Medium Density Residential and Mixed Use land use designations and, as appropriate, implementation of specific plans in targeted areas where the opportunities for such development can be created through advance planning. Transit corridors to be focused on high density development are along Bear Valley Road, Highway 18, Dale Evans Parkway, Apple Valley Road, Navajo Road, Central Road, and Kiowa Road. Furthermore, high density development will be targeted for the future High Desert Corridor.

2. Encourage infill, redevelopment, mixed use, and higher density development in appropriate areas of the Town where existing development can serve as the foundation for the creation of new urban villages. . Such development would be focused around the southern portion of the Town near the major intersections of Bear Valley Road, such as its intersections with Apple Valley Road, Kiowa Road and Navajo Road. Other areas targeted for development include those along Highway 18 and Dale Evans Parkway.
3. In order to reduce vehicle miles traveled and greenhouse gas emissions, mixed use projects with a maximum density of 30 dwelling units per acre shall be developed in the core of Apple Valley on infill lots and/or adjacent to transportation corridors (such as Bear Valley Road, Highway 18, and Dale Evans Parkway) and existing and future job centers.
4. Incentive programs shall be offered for affordable Medium Density Residential infill projects (maximum 20 dwelling units per acre) within the core of Apple Valley and/or adjacent to transportation corridors and existing and proposed job centers. This will help to reduce the vehicle miles traveled and greenhouse gas emissions.
5. Infill in the Mountain Vista Neighborhood is encouraged and incentives shall be offered by the Town for projects greater than 20 units in size. Infill and higher densities in this existing neighborhood will reduce the amount of vehicle miles traveled.
6. Mobile Home Park development shall be encouraged through the creation of the Mobile Home Park Land Use Designation. This will encourage higher density residential development along transportation corridors and adjacent to existing and future job centers. As a result, this should help reduce vehicle miles traveled and greenhouse gas emissions.
7. The Town shall encourage and promote the development of the North Apple Valley Industrial Specific Plan to create a job center with productive industries, which will reduce the vehicle miles traveled of high desert residents that typically have to drive to employment centers in the San Bernardino Valley, as well as the Riverside City and County portions of the Inland Empire for work. The Town shall reduce the approval time for entitlements and permit process for industrial projects within this area. The industrial development also supports a broad-based economy and encourages a jobs housing balance.
8. The Town shall permit childcare facilities in single-family and multi-family residential zones, as well as, in the commercial and industrial areas where employment is concentrated. This will encourage the reduction of vehicle miles traveled.
9. New developments shall be encouraged to include housing, recreational, and retail amenities, so as to limit the number of vehicle miles traveled by providing accessible and desirable amenities onsite.
10. All new development shall be required to install infrastructure prior to occupancy, which will encourage a well planned, orderly development pattern.
11. Advanced technology systems and effective management strategies shall be employed in order to improve the operational efficiency of transportation systems and the movement of people, goods, and services including synchronization of traffic lights and signals. New development that requires roadway and/or intersection improvements will be required to

install such improvements such that these advanced traffic management systems may be easily implemented by the Town.

12. New projects shall incorporate design parameters that allow for frequent, reliable, and convenient public transit.
13. The Town shall expand and develop an integrated and comprehensive bikeway, walking path and trail system. The expansion of a regional trail system shall be in consultation with neighboring communities to improve the overall Victor Valley system.
14. Street and travel corridors shall be monitored and maintained to assure that congested areas and intersections are rectified.
15. Idling time for commercial, delivery, and construction vehicles shall be regulated and limited.
16. Landscaping designs shall use trees and other vegetation to maximize the shading of buildings in order to reduce energy requirements for heating and cooling.
17. Planting and preserving existing trees shall be utilized as means of providing carbon storage. Preserving existing trees shall be encouraged during the development review of new projects. The Town shall formulate minimum tree planting standards to be applied during the development review of a project.
18. Tree planting in parks and open spaces will be encouraged. Tree planting programs shall be implemented by the Town. These programs shall include an educational component that emphasizes the importance of trees as means of providing carbon storage.
19. The Town shall promote the use of LEED (Leadership in Energy and Environmental Design) building practices for public and private development by considering the utilization of such building practices as a factor favoring project approval during the entitlement process. Sustainable or "green" building standards similar to LEED shall also be considered favorably. Alternative energy systems such as solar, thermal, photovoltaics and other clean energy systems shall be integrated in building design. Building design shall take advantage of shade, prevailing winds and sun screen to promote energy efficiency.
20. The Town shall encourage the use of energy saving measures beyond the requirements of Title 24 for residential and commercial projects. The incorporation of such measures shall be considered as a factor in favor of project approval during the entitlement process. An incentive program shall be developed for projects that exceed Title 24 requirements by 15% and/or achieve LEED certification or similar performance standards for building design. Incentives such as fee reductions or waivers of certain development standards shall be considered.
21. Promote the use of facilities for low/zero carbon fueled vehicles in new developments, such as the charging of electric vehicles from green electricity sources.
22. The Town will encourage and facilitate the exploitation of local renewable resources by supporting public and private initiatives to develop and operate alternative systems of electricity generation, using wind, solar and other renewable energies.
23. Promote educational programs directed at the public, schools, professional associations, businesses, and industries that offer strategies for reducing GHG emissions.

24. Initiate a program to replace existing traffic lights, street lights, and other electrical uses to energy efficient bulbs and appliances. Encourage new lighting to be energy efficient. The Town shall require that lighting in all Town facilities be replaced with energy efficient fixtures as existing fixtures fail and require replacement.
25. Utilize Energy Star equipment and appliances for new development and encourage replacement appliances to be energy efficient. The voluntary commitment to such a requirement by project applicants shall be considered a factor in favor of project approval.
26. Promote the use of on-site renewable energy production including installation of photovoltaic cells or other solar options. The Town shall encourage the use of solar cells in private development and consider such project features favorably during project review. The Town shall investigate the cost effectiveness of installing such solar cells on Town buildings for the purposes of powering Town facilities and possibly selling excess “clean” energy back to the SCE power grid, pursuant to state law.
27. Consider an Energy Savings Performance Contract with a private entity to retrofit public buildings, which will allow the private entity to fund all energy improvements in exchange for a share of the energy savings over a period of time.
28. Utilize the Collaborative for High Performance Schools (CHPS) best practices for school design, building, and operation.
29. Replace or retrofit municipal water and wastewater systems with energy efficient motors, pumps, and other equipment, and recover wastewater treatment methane for energy production.
30. Capture and utilize landfill gas for use as an energy source including fuel for vehicles, operating equipment, and heating buildings.
31. Promote the use of vehicles and buses that use alternative fuels or technologies such as hybrids, biodiesel, and ethanol. The Town’s vehicle fleet shall be transitioned to alternative fuels to the extent economically feasible.
32. The Town shall promote the use of mass transit services, coordinating with all agencies to link residential and commercial businesses and employment centers within the Town’s residential neighborhoods and nearby communities. Mass transit services shall be expanded as needed within the context of economic feasibility.
33. Ride sharing, carpooling, flexible work scheduling, telecommuting and Park & Ride programs shall be encouraged for public and private employers.
34. The Town shall assess the local transportation system annually with a view to gaining greater efficiency in the movement of people and goods through the community. Opportunities to expand the public transit system, using buses equipped with bicycle racks and fueled by compressed natural gas or hydrogen will be maximized. Widespread use of pedestrian pathways and alternative means of transportation, such as bicycles and electric hybrid vehicles will be facilitated and encouraged.
35. Offer incentives to private businesses for developing energy and water efficient features and building materials, such as expedited plan checks and reduced permit fees.

36. Offer rebates and low interest loans to residents that make energy saving improvements on their homes, including but not limited to the installation of solar cells and panels.
37. Incentives shall be provided for rehabilitation and remodeling of existing development. Assistance from the Town shall be provided through the Residential Rehabilitation Loan Program to improve energy efficiency of existing residences. Educational materials shall be provided to the public advising them of energy efficiency through available appliance programs and other energy conservation improvements that are eligible for the Residential Rehabilitation Loan Program.
38. The Town shall consider incentive programs, rebates and refunds for the use of energy efficient appliances, windows and building designs for new and remodeled structures. The incentive program could also include incentives for the use of recycled materials.
39. Encourage bicycle lanes and walking paths directed to the location of schools, parks, and other destination points. The provision of such facilities will be considered favorably during project review pursuant to the General Plan's Circulation Element.
40. The Town will implement a program to install photo voltaic systems on the buildings and carpools located at the Public Works facility and Town Hall/Police Department, which will provide electricity for the Civic Center and the Public Works/Animal Control facilities. This will improve the energy efficiency of these facilities
41. Prior to July 15, 2010, the Town shall develop and adopt a Climate Action Plan ("CAP") that enhances the General Plan's goals, policies and programs relating to meeting the greenhouse gas emission targets established in the California Global Warming Solutions Act, including reducing emissions to 1990 levels by including an emissions inventory; emission targets that apply at reasonable intervals through the life of the plan; enforceable GHG control measures; monitoring and reporting; and mechanisms to allow for the revision of the plan, if necessary, to stay on target. The goal of the CAP shall be to reduce greenhouse gas emissions within the Town's control the achieve the emission reduction goals required by AB 32, as further developed and quantified by the California Air Resources Board. The CAP shall quantify the approximate greenhouse gas emissions reductions of each measure developed with the CAP, and shall consider the mechanisms, strategies and techniques included above.

For consistency with and to assure compliance with existing Climate Action Plan reduction measures, the following Project specific mitigation measures shall be included as conditions of approval to the Project:

GHG-1: Establish an employee carpooling program, including incentives (preferred parking, flex time incentives, etc.) for participating employees.

GHG-2: Provide employees with free or discounted public transit passes.

AIR QUALITY & GREENHOUSE GAS ASSESSMENT CONCLUSION

Results of the assessment indicate that the Project is not anticipated to result in any new significant impacts during construction and operational activities associated with air quality and

greenhouse gas emissions and would not result in a greater impact than what was studied in the 2009 GP EIR.

ATTACHMENT A
CALEEMOD SCENARIO 1 (2009 GENERAL PLAN EIR BUILDOUT)
EMISSIONS MODEL OUTPUTS

14722 Scenario 1 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	14722 Scenario 1
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	5.00
Precipitation (days)	12.4
Location	34.621882379156204, -117.20120788063686
County	San Bernardino-Mojave Desert
City	Apple Valley
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5160
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.
App Version	2022.1.1.25

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
Unrefrigerated Warehouse-No Rail	15,270	1000sqft	1,779	15,270,350	2,290,553	—	—	—

Industrial Park	45,811	1000sqft	5,336	45,811,050	6,871,658	—	—	—
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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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3,171	2,968	7,571	13,389	63.3	192	3,135	3,327	186	826	1,012	45,401	7,670,385	7,715,785	4,792	643	41,467	8,068,716
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2,611	2,444	7,915	9,337	62.0	188	3,135	3,322	182	826	1,008	45,401	7,538,096	7,583,497	4,795	647	12,691	7,908,968
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2,633	2,472	6,126	9,259	47.9	159	2,376	2,535	155	625	779	45,401	6,076,118	6,121,518	4,780	480	21,351	6,405,490
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	481	451	1,118	1,690	8.75	29.0	434	463	28.2	114	142	7,517	1,005,971	1,013,487	791	79.5	3,535	1,060,502

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1,206	1,093	6,567	9,908	57.3	113	3,135	3,248	108	826	934	—	5,944,577	5,944,577	80.3	617	29,542	6,160,134
Area	1,857	1,821	22.4	2,656	0.16	4.72	—	4.72	3.57	—	3.57	—	10,924	10,924	0.46	0.09	—	10,964
Energy	108	54.0	982	825	5.89	74.6	—	74.6	74.6	—	74.6	—	1,694,435	1,694,435	153	8.21	—	1,700,710
Water	—	—	—	—	—	—	—	—	—	—	—	7,050	20,448	27,498	725	17.4	—	50,807
Waste	—	—	—	—	—	—	—	—	—	—	—	38,351	0.00	38,351	3,833	0.00	—	134,176
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,925	11,925
Total	3,171	2,968	7,571	13,389	63.3	192	3,135	3,327	186	826	1,012	45,401	7,670,385	7,715,785	4,792	643	41,467	8,068,716
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1,118	1,005	6,933	8,512	56.1	113	3,135	3,248	108	826	934	—	5,823,212	5,823,212	83.6	622	766	6,011,349
Area	1,385	1,385	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	108	54.0	982	825	5.89	74.6	—	74.6	74.6	—	74.6	—	1,694,435	1,694,435	153	8.21	—	1,700,710
Water	—	—	—	—	—	—	—	—	—	—	—	7,050	20,448	27,498	725	17.4	—	50,807
Waste	—	—	—	—	—	—	—	—	—	—	—	38,351	0.00	38,351	3,833	0.00	—	134,176
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,925	11,925
Total	2,611	2,444	7,915	9,337	62.0	188	3,135	3,322	182	826	1,008	45,401	7,538,096	7,583,497	4,795	647	12,691	7,908,968
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	908	819	5,133	7,124	42.0	82.2	2,376	2,458	78.4	625	703	—	4,355,847	4,355,847	68.6	455	9,427	4,502,465

Area	1,618	1,600	11.0	1,310	0.08	2.33	—	2.33	1.76	—	1.76	—	5,387	5,387	0.23	0.05	—	5,407
Energy	108	54.0	982	825	5.89	74.6	—	74.6	74.6	—	74.6	—	1,694,435	1,694,435	153	8.21	—	1,700,710
Water	—	—	—	—	—	—	—	—	—	—	—	7,050	20,448	27,498	725	17.4	—	50,807
Waste	—	—	—	—	—	—	—	—	—	—	—	38,351	0.00	38,351	3,833	0.00	—	134,176
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,925	11,925
Total	2,633	2,472	6,126	9,259	47.9	159	2,376	2,535	155	625	779	45,401	6,076,118	6,121,518	4,780	480	21,351	6,405,490
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	166	149	937	1,300	7.66	15.0	434	449	14.3	114	128	—	721,160	721,160	11.4	75.3	1,561	745,434
Area	295	292	2.01	239	0.01	0.42	—	0.42	0.32	—	0.32	—	892	892	0.04	0.01	—	895
Energy	19.7	9.86	179	151	1.08	13.6	—	13.6	13.6	—	13.6	—	280,533	280,533	25.4	1.36	—	281,572
Water	—	—	—	—	—	—	—	—	—	—	—	1,167	3,385	4,553	120	2.88	—	8,412
Waste	—	—	—	—	—	—	—	—	—	—	—	6,349	0.00	6,349	635	0.00	—	22,214
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,974	1,974
Total	481	451	1,118	1,690	8.75	29.0	434	463	28.2	114	142	7,517	1,005,971	1,013,487	791	79.5	3,535	1,060,502

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

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

Unrefrigerated	381	320	6,224	3,641	46.0	108	2,112	2,220	103	568	671	—	4,808,589	4,808,589	26.1	584	25,566	5,008,719
Industrial Park	825	773	343	6,267	11.2	5.08	1,023	1,028	4.69	258	262	—	1,135,987	1,135,987	54.2	33.9	3,976	1,151,415
Total	1,206	1,093	6,567	9,908	57.3	113	3,135	3,248	108	826	934	—	5,944,577	5,944,577	80.3	617	29,542	6,160,134
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	371	311	6,555	3,587	46.0	108	2,112	2,220	103	568	671	—	4,809,656	4,809,656	25.7	586	663	4,985,501
Industrial Park	747	694	378	4,926	10.0	5.08	1,023	1,028	4.69	258	262	—	1,013,557	1,013,557	57.9	36.0	103	1,025,849
Total	1,118	1,005	6,933	8,512	56.1	113	3,135	3,248	108	826	934	—	5,823,212	5,823,212	83.6	622	766	6,011,349
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	49.0	41.1	876	471	6.06	14.2	276	291	13.6	74.4	88.0	—	574,677	574,677	3.08	70.1	1,319	596,950
Industrial Park	117	108	61.1	829	1.60	0.79	157	158	0.73	39.6	40.3	—	146,483	146,483	8.28	5.21	241	148,485
Total	166	149	937	1,300	7.66	15.0	434	449	14.3	114	128	—	721,160	721,160	11.4	75.3	1,561	745,434

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	63,448	63,448	6.01	0.73	—	63,815
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	459,453	459,453	43.5	5.27	—	462,111
Total	—	—	—	—	—	—	—	—	—	—	—	—	522,901	522,901	49.5	6.00	—	525,926
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	63,448	63,448	6.01	0.73	—	63,815
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	459,453	459,453	43.5	5.27	—	462,111
Total	—	—	—	—	—	—	—	—	—	—	—	—	522,901	522,901	49.5	6.00	—	525,926
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	10,505	10,505	0.99	0.12	—	10,565
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	76,068	76,068	7.20	0.87	—	76,508
Total	—	—	—	—	—	—	—	—	—	—	—	—	86,572	86,572	8.19	0.99	—	87,073

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	27.0	13.5	245	206	1.47	18.7	—	18.7	18.7	—	18.7	—	292,884	292,884	25.9	0.55	—	293,696
Industrial Park	81.0	40.5	736	619	4.42	56.0	—	56.0	56.0	—	56.0	—	878,651	878,651	77.8	1.65	—	881,088
Total	108	54.0	982	825	5.89	74.6	—	74.6	74.6	—	74.6	—	1,171,535	1,171,535	104	2.21	—	1,174,784
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	27.0	13.5	245	206	1.47	18.7	—	18.7	18.7	—	18.7	—	292,884	292,884	25.9	0.55	—	293,696
Industrial Park	81.0	40.5	736	619	4.42	56.0	—	56.0	56.0	—	56.0	—	878,651	878,651	77.8	1.65	—	881,088
Total	108	54.0	982	825	5.89	74.6	—	74.6	74.6	—	74.6	—	1,171,535	1,171,535	104	2.21	—	1,174,784
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	4.93	2.46	44.8	37.6	0.27	3.40	—	3.40	3.40	—	3.40	—	48,490	48,490	4.29	0.09	—	48,625
Industrial Park	14.8	7.39	134	113	0.81	10.2	—	10.2	10.2	—	10.2	—	145,471	145,471	12.9	0.27	—	145,874
Total	19.7	9.86	179	151	1.08	13.6	—	13.6	13.6	—	13.6	—	193,961	193,961	17.2	0.37	—	194,499

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1,307	1,307	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	77.6	77.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	472	436	22.4	2,656	0.16	4.72	—	4.72	3.57	—	3.57	—	10,924	10,924	0.46	0.09	—	10,964
Total	1,857	1,821	22.4	2,656	0.16	4.72	—	4.72	3.57	—	3.57	—	10,924	10,924	0.46	0.09	—	10,964
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1,307	1,307	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	77.6	77.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1,385	1,385	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	239	239	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	14.2	14.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Landscape Equipment	42.5	39.2	2.01	239	0.01	0.42	—	0.42	0.32	—	0.32	—	892	892	0.04	0.01	—	895
Total	295	292	2.01	239	0.01	0.42	—	0.42	0.32	—	0.32	—	892	892	0.04	0.01	—	895

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,763	5,112	6,875	181	4.35	—	12,702
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	5,288	15,336	20,624	544	13.1	—	38,106
Total	—	—	—	—	—	—	—	—	—	—	—	7,050	20,448	27,498	725	17.4	—	50,807
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,763	5,112	6,875	181	4.35	—	12,702
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	5,288	15,336	20,624	544	13.1	—	38,106

Total	—	—	—	—	—	—	—	—	—	—	—	7,050	20,448	27,498	725	17.4	—	50,807
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	292	846	1,138	30.0	0.72	—	2,103
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	875	2,539	3,414	90.0	2.16	—	6,309
Total	—	—	—	—	—	—	—	—	—	—	—	1,167	3,385	4,553	120	2.88	—	8,412

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	7,736	0.00	7,736	773	0.00	—	27,066
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	30,615	0.00	30,615	3,060	0.00	—	107,111
Total	—	—	—	—	—	—	—	—	—	—	—	38,351	0.00	38,351	3,833	0.00	—	134,176
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	7,736	0.00	7,736	773	0.00	—	27,066
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	30,615	0.00	30,615	3,060	0.00	—	107,111
Total	—	—	—	—	—	—	—	—	—	—	—	38,351	0.00	38,351	3,833	0.00	—	134,176
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,281	0.00	1,281	128	0.00	—	4,481
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	5,069	0.00	5,069	507	0.00	—	17,733
Total	—	—	—	—	—	—	—	—	—	—	—	6,349	0.00	6,349	635	0.00	—	22,214

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,925	11,925
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,925	11,925
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,925	11,925
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,925	11,925
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,974	1,974
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,974	1,974

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Unrefrigerated Warehouse-No Rail	61,014	2,291	916	16,074,367	2,440,550	91,622	36,649	642,974,663
Industrial Park	183,041	116,360	56,806	56,750,827	1,475,312	937,862	457,854	457,411,663

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	91,622,100	30,540,700	—

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)
Unrefrigerated Warehouse-No Rail	66,426,022	349	0.0330	0.0040	913,875,474
Industrial Park	481,016,025	349	0.0330	0.0040	2,741,626,423

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	919,773,243	13,208,065
Industrial Park	2,759,319,729	39,624,196

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	14,354	—
Industrial Park	56,806	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

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

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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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
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	34.1	annual days of extreme heat
Extreme Precipitation	0.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.80	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (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	5	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	5	1	1	4
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	80.0
AQ-PM	7.52
AQ-DPM	21.9
Drinking Water	34.9
Lead Risk Housing	27.7
Pesticides	0.00
Toxic Releases	37.1
Traffic	59.7
Effect Indicators	—
CleanUp Sites	52.1
Groundwater	44.8
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	51.2

Solid Waste	84.7
Sensitive Population	—
Asthma	88.0
Cardio-vascular	89.5
Low Birth Weights	91.9
Socioeconomic Factor Indicators	—
Education	26.9
Housing	11.6
Linguistic	—
Poverty	52.5
Unemployment	90.6

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	44.97626075
Employed	30.46323624
Median HI	35.0442705
Education	—
Bachelor's or higher	42.93596818
High school enrollment	100
Preschool enrollment	39.79212113
Transportation	—
Auto Access	85.40998332
Active commuting	24.00872578
Social	—

2-parent households	51.18696266
Voting	75.34967278
Neighborhood	—
Alcohol availability	88.37418196
Park access	16.65597331
Retail density	8.469138971
Supermarket access	2.399589375
Tree canopy	0.71859361
Housing	—
Homeownership	62.60746824
Housing habitability	64.39112024
Low-inc homeowner severe housing cost burden	17.8108559
Low-inc renter severe housing cost burden	77.19748492
Uncrowded housing	68.66418581
Health Outcomes	—
Insured adults	64.22430386
Arthritis	4.4
Asthma ER Admissions	7.6
High Blood Pressure	8.9
Cancer (excluding skin)	9.1
Asthma	30.0
Coronary Heart Disease	6.8
Chronic Obstructive Pulmonary Disease	13.3
Diagnosed Diabetes	35.6
Life Expectancy at Birth	34.2
Cognitively Disabled	41.3
Physically Disabled	11.3

Heart Attack ER Admissions	2.7
Mental Health Not Good	48.5
Chronic Kidney Disease	20.1
Obesity	46.5
Pedestrian Injuries	48.3
Physical Health Not Good	39.9
Stroke	15.1
Health Risk Behaviors	—
Binge Drinking	57.0
Current Smoker	46.7
No Leisure Time for Physical Activity	58.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	58.1
Elderly	16.8
English Speaking	81.5
Foreign-born	11.0
Outdoor Workers	47.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	90.2
Traffic Density	37.9
Traffic Access	23.0
Other Indices	—
Hardship	32.7
Other Decision Support	—
2016 Voting	75.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	46.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	Trip rates adjusted based on Project traffic study. For analysis purposes it was assumed that all warehouse trips were long-haul truck trips for distribution, and all industrial park trips were passenger vehicles. Passenger vehicle trip lengths were derived from the 2009 EIR (Average 8.06 miles), and trip lengths for long-haul truck trips assumed a 40-mile trip length derived from the Southern California Association of Government's (SCAG) estimation of average truck trip length in its 2016 Regional Transportation Plan.
Land Use	Taken from 2009 General Plan and NAVISP acreages
Operations: Energy Use	Taken from assumptions provided from the General Plan
Operations: Water and Waste Water	Based on Water usage from General Plan

Operations: Fleet Mix

Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on CalEEMod defaults for 2, 3 and 4 axle trucks

ATTACHMENT B
CALEEMOD SCENARIO 2 CURRENT LAND USE CONDITIONS (2024)
INCLUDING THE PROJECT EMISSIONS MODEL OUTPUTS

14722 Scenario 2 Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	14722 Scenario 2
Operational Year	2040
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	5.00
Precipitation (days)	12.4
Location	34.621882379156204, -117.20120788063686
County	San Bernardino-Mojave Desert
City	Apple Valley
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5160
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.
App Version	2022.1.1.25

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
Unrefrigerated Warehouse-No Rail	14,490	1000sqft	333	14,490,083	2,173,512	—	—	—

Industrial Park	43,470	1000sqft	998	43,470,248	6,520,537	—	—	—
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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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2,338	2,242	3,340	7,307	41.8	104	2,763	2,867	99.8	724	824	36,769	5,165,415	5,202,184	3,827	468	16,331	5,453,750
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,857	1,796	3,481	4,069	40.8	99.5	2,763	2,863	96.4	724	821	36,769	5,068,386	5,105,155	3,828	470	11,446	5,352,338
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,994	1,923	2,677	4,793	31.4	82.7	2,104	2,187	79.9	551	631	36,769	4,077,807	4,114,576	3,822	346	12,901	4,326,087
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	364	351	489	875	5.72	15.1	384	399	14.6	100	115	6,087	675,128	681,215	633	57.3	2,136	716,233

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	532	492	2,925	4,455	39.3	69.5	2,763	2,833	66.4	724	791	—	4,093,817	4,093,817	33.9	457	5,016	4,235,986
Area	1,763	1,728	21.2	2,521	0.15	4.48	—	4.48	3.38	—	3.38	—	10,366	10,366	0.43	0.09	—	10,403
Energy	43.4	21.7	394	331	2.37	30.0	—	30.0	30.0	—	30.0	—	1,060,421	1,060,421	116	9.93	—	1,066,288
Water	—	—	—	—	—	—	—	—	—	—	—	378	811	1,188	38.8	0.93	—	2,437
Waste	—	—	—	—	—	—	—	—	—	—	—	36,391	0.00	36,391	3,637	0.00	—	127,320
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,315	11,315
Total	2,338	2,242	3,340	7,307	41.8	104	2,763	2,867	99.8	724	824	36,769	5,165,415	5,202,184	3,827	468	16,331	5,453,750
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	500	460	3,087	3,737	38.4	69.6	2,763	2,833	66.4	724	791	—	4,007,155	4,007,155	35.3	459	130	4,144,978
Area	1,314	1,314	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	43.4	21.7	394	331	2.37	30.0	—	30.0	30.0	—	30.0	—	1,060,421	1,060,421	116	9.93	—	1,066,288
Water	—	—	—	—	—	—	—	—	—	—	—	378	811	1,188	38.8	0.93	—	2,437
Waste	—	—	—	—	—	—	—	—	—	—	—	36,391	0.00	36,391	3,637	0.00	—	127,320
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,315	11,315
Total	1,857	1,796	3,481	4,069	40.8	99.5	2,763	2,863	96.4	724	821	36,769	5,068,386	5,105,155	3,828	470	11,446	5,352,338
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	415	383	2,272	3,219	28.9	50.5	2,104	2,155	48.2	551	599	—	3,011,464	3,011,464	29.5	335	1,586	3,113,597
Area	1,535	1,518	10.5	1,243	0.07	2.21	—	2.21	1.67	—	1.67	—	5,112	5,112	0.21	0.04	—	5,130

Energy	43.4	21.7	394	331	2.37	30.0	—	30.0	30.0	—	30.0	—	1,060,42	1,060,42	116	9.93	—	1,066,28
Water	—	—	—	—	—	—	—	—	—	—	—	378	811	1,188	38.8	0.93	—	2,437
Waste	—	—	—	—	—	—	—	—	—	—	—	36,391	0.00	36,391	3,637	0.00	—	127,320
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,315	11,315
Total	1,994	1,923	2,677	4,793	31.4	82.7	2,104	2,187	79.9	551	631	36,769	4,077,807	4,114,576	3,822	346	12,901	4,326,087
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	75.7	69.8	415	587	5.28	9.22	384	393	8.80	100	109	—	498,582	498,582	4.89	55.5	263	515,491
Area	280	277	1.91	227	0.01	0.40	—	0.40	0.30	—	0.30	—	846	846	0.04	0.01	—	849
Energy	7.92	3.96	72.0	60.5	0.43	5.47	—	5.47	5.47	—	5.47	—	175,565	175,565	19.3	1.64	—	176,536
Water	—	—	—	—	—	—	—	—	—	—	—	62.5	134	197	6.43	0.15	—	403
Waste	—	—	—	—	—	—	—	—	—	—	—	6,025	0.00	6,025	602	0.00	—	21,079
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,873	1,873
Total	364	351	489	875	5.72	15.1	384	399	14.6	100	115	6,087	675,128	681,215	633	57.3	2,136	716,233

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

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

Unrefrigerated Warehouse-No Rail	111	95.4	2,780	1,179	31.1	67.6	1,853	1,921	64.6	495	560	—	3,267,687	3,267,687	8.09	438	4,649	3,402,937
Industrial Park	420	396	145	3,276	8.17	1.98	910	912	1.82	229	231	—	826,130	826,130	25.8	19.8	367	833,049
Total	532	492	2,925	4,455	39.3	69.5	2,763	2,833	66.4	724	791	—	4,093,817	4,093,817	33.9	457	5,016	4,235,986
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	107	91.6	2,928	1,177	31.1	67.6	1,853	1,921	64.6	495	560	—	3,268,954	3,268,954	7.96	438	121	3,399,818
Industrial Park	393	369	158	2,560	7.30	1.98	910	912	1.82	229	231	—	738,202	738,202	27.3	21.0	9.50	745,160
Total	500	460	3,087	3,737	38.4	69.6	2,763	2,833	66.4	724	791	—	4,007,155	4,007,155	35.3	459	130	4,144,978
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	14.4	12.3	389	154	4.10	8.91	243	252	8.52	64.9	73.4	—	390,824	390,824	0.96	52.4	240	406,698
Industrial Park	61.4	57.5	25.8	433	1.17	0.31	141	142	0.29	35.6	35.9	—	107,759	107,759	3.93	3.07	22.5	108,793
Total	75.7	69.8	415	587	5.28	9.22	384	393	8.80	100	109	—	498,582	498,582	4.89	55.5	263	515,491

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	47,817	47,817	6.05	0.73	—	48,187
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	542,038	542,038	68.6	8.31	—	546,230
Total	—	—	—	—	—	—	—	—	—	—	—	—	589,855	589,855	74.6	9.05	—	594,417
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	47,817	47,817	6.05	0.73	—	48,187
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	542,038	542,038	68.6	8.31	—	546,230
Total	—	—	—	—	—	—	—	—	—	—	—	—	589,855	589,855	74.6	9.05	—	594,417
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	7,917	7,917	1.00	0.12	—	7,978
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	89,741	89,741	11.4	1.38	—	90,435
Total	—	—	—	—	—	—	—	—	—	—	—	—	97,657	97,657	12.4	1.50	—	98,413

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	8.14	4.07	74.0	62.2	0.44	5.62	—	5.62	5.62	—	5.62	—	88,283	88,283	7.81	0.17	—	88,528
Industrial Park	35.2	17.6	320	269	1.92	24.3	—	24.3	24.3	—	24.3	—	382,283	382,283	33.8	0.72	—	383,343
Total	43.4	21.7	394	331	2.37	30.0	—	30.0	30.0	—	30.0	—	470,566	470,566	41.6	0.89	—	471,871
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	8.14	4.07	74.0	62.2	0.44	5.62	—	5.62	5.62	—	5.62	—	88,283	88,283	7.81	0.17	—	88,528
Industrial Park	35.2	17.6	320	269	1.92	24.3	—	24.3	24.3	—	24.3	—	382,283	382,283	33.8	0.72	—	383,343
Total	43.4	21.7	394	331	2.37	30.0	—	30.0	30.0	—	30.0	—	470,566	470,566	41.6	0.89	—	471,871
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.49	0.74	13.5	11.3	0.08	1.03	—	1.03	1.03	—	1.03	—	14,616	14,616	1.29	0.03	—	14,657
Industrial Park	6.43	3.22	58.5	49.1	0.35	4.44	—	4.44	4.44	—	4.44	—	63,291	63,291	5.60	0.12	—	63,467

Total	7.92	3.96	72.0	60.5	0.43	5.47	—	5.47	5.47	—	5.47	—	77,908	77,908	6.89	0.15	—	78,124
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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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1,240	1,240	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	73.6	73.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	449	414	21.2	2,521	0.15	4.48	—	4.48	3.38	—	3.38	—	10,366	10,366	0.43	0.09	—	10,403
Total	1,763	1,728	21.2	2,521	0.15	4.48	—	4.48	3.38	—	3.38	—	10,366	10,366	0.43	0.09	—	10,403
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1,240	1,240	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	73.6	73.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	1,314	1,314	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	226	226	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	13.4	13.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	40.4	37.3	1.91	227	0.01	0.40	—	0.40	0.30	—	0.30	—	846	846	0.04	0.01	—	849
Total	280	277	1.91	227	0.01	0.40	—	0.40	0.30	—	0.30	—	846	846	0.04	0.01	—	849

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	94.4	203	297	9.71	0.23	—	609
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	283	608	891	29.1	0.70	—	1,828
Total	—	—	—	—	—	—	—	—	—	—	—	378	811	1,188	38.8	0.93	—	2,437
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	94.4	203	297	9.71	0.23	—	609
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	283	608	891	29.1	0.70	—	1,828
Total	—	—	—	—	—	—	—	—	—	—	—	378	811	1,188	38.8	0.93	—	2,437
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	15.6	33.6	49.2	1.61	0.04	—	101
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	46.9	101	148	4.82	0.12	—	303
Total	—	—	—	—	—	—	—	—	—	—	—	62.5	134	197	6.43	0.15	—	403

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	7,341	0.00	7,341	734	0.00	—	25,683
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	29,050	0.00	29,050	2,903	0.00	—	101,638

Total	—	—	—	—	—	—	—	—	—	—	—	36,391	0.00	36,391	3,637	0.00	—	127,320
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	7,341	0.00	7,341	734	0.00	—	25,683
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	29,050	0.00	29,050	2,903	0.00	—	101,638
Total	—	—	—	—	—	—	—	—	—	—	—	36,391	0.00	36,391	3,637	0.00	—	127,320
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,215	0.00	1,215	121	0.00	—	4,252
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	4,810	0.00	4,810	481	0.00	—	16,827
Total	—	—	—	—	—	—	—	—	—	—	—	6,025	0.00	6,025	602	0.00	—	21,079

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,315	11,315

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,315	11,315
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,315	11,315
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11,315	11,315
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,873	1,873
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,873	1,873

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

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

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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
Unrefrigerated Warehouse-No Rail	54,303	2,174	869	14,316,299	2,172,130	86,940	34,776	572,651,978
Industrial Park	162,910	110,414	53,903	51,040,885	1,313,053	889,940	434,459	411,389,532

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	86,940,497	28,980,166	—

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)
Unrefrigerated Warehouse-No Rail	66,925,391	261	0.0330	0.0040	275,466,321
Industrial Park	758,637,875	261	0.0330	0.0040	1,192,824,358

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	49,266,280	0.00
Industrial Park	147,798,843	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	13,621	—
Industrial Park	53,903	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

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

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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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
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	34.1	annual days of extreme heat
Extreme Precipitation	0.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.80	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (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	5	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	5	1	1	4
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	80.0
AQ-PM	7.52
AQ-DPM	21.9
Drinking Water	34.9
Lead Risk Housing	27.7
Pesticides	0.00
Toxic Releases	37.1
Traffic	59.7
Effect Indicators	—
CleanUp Sites	52.1

Groundwater	44.8
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	51.2
Solid Waste	84.7
Sensitive Population	—
Asthma	88.0
Cardio-vascular	89.5
Low Birth Weights	91.9
Socioeconomic Factor Indicators	—
Education	26.9
Housing	11.6
Linguistic	—
Poverty	52.5
Unemployment	90.6

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	44.97626075
Employed	30.46323624
Median HI	35.0442705
Education	—
Bachelor's or higher	42.93596818
High school enrollment	100
Preschool enrollment	39.79212113
Transportation	—

Auto Access	85.40998332
Active commuting	24.00872578
Social	—
2-parent households	51.18696266
Voting	75.34967278
Neighborhood	—
Alcohol availability	88.37418196
Park access	16.65597331
Retail density	8.469138971
Supermarket access	2.399589375
Tree canopy	0.71859361
Housing	—
Homeownership	62.60746824
Housing habitability	64.39112024
Low-inc homeowner severe housing cost burden	17.8108559
Low-inc renter severe housing cost burden	77.19748492
Uncrowded housing	68.66418581
Health Outcomes	—
Insured adults	64.22430386
Arthritis	4.4
Asthma ER Admissions	7.6
High Blood Pressure	8.9
Cancer (excluding skin)	9.1
Asthma	30.0
Coronary Heart Disease	6.8
Chronic Obstructive Pulmonary Disease	13.3
Diagnosed Diabetes	35.6

Life Expectancy at Birth	34.2
Cognitively Disabled	41.3
Physically Disabled	11.3
Heart Attack ER Admissions	2.7
Mental Health Not Good	48.5
Chronic Kidney Disease	20.1
Obesity	46.5
Pedestrian Injuries	48.3
Physical Health Not Good	39.9
Stroke	15.1
Health Risk Behaviors	—
Binge Drinking	57.0
Current Smoker	46.7
No Leisure Time for Physical Activity	58.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	58.1
Elderly	16.8
English Speaking	81.5
Foreign-born	11.0
Outdoor Workers	47.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	90.2
Traffic Density	37.9
Traffic Access	23.0
Other Indices	—

Hardship	32.7
Other Decision Support	—
2016 Voting	75.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	46.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Operations: Vehicle Data	<p>Trip rates adjusted based on Project traffic study.</p> <p>For analysis purposes it was assumed that all warehouse trips were long-haul truck trips for distribution, and all industrial park trips were passenger vehicles. Passenger vehicle trip lengths were derived from the 2009 EIR (Average 8.06 miles), and trip lengths for long-haul truck trips assumed a 40-mile trip length derived from the Southern California Association of Government's (SCAG) estimation of average truck trip length in its 2016 Regional Transportation Plan.</p>

Land Use	Taken from 2009 General Plan and NAVISP acreages
Operations: Energy Use	Taken from assumptions provided from the General Plan
Operations: Water and Waste Water	Indoor water demand was estimated using a demand factor of 3.4 gallons per square foot per year from the U.S. Energy Information Administration 2012 Commercial Buildings Energy Consumption Survey
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on CalEEMod defaults for 2, 3 and 4 axle trucks

ATTACHMENT C
CALEEMOD PROPOSED PROJECT EMISSIONS MODEL OUTPUTS

14722 - Watson Apple Valley Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	14722 - Watson Apple Valley
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	5.00
Precipitation (days)	12.4
Location	34.587309, -117.194026
County	San Bernardino-Mojave Desert
City	Apple Valley
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5160
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.
App Version	2022.1.1.29

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
Unrefrigerated Warehouse-No Rail	3,170	1000sqft	72.8	3,169,730	1,475,000	—	—	Truck Trips

Refrigerated Warehouse-No Rail	559	1000sqft	12.8	559,365	0.00	—	—	Truck Trips
Parking Lot	3,267	Space	24.8	0.00	0.00	—	—	—
Other Asphalt Surfaces	90.0	Acre	90.0	0.00	0.00	—	—	—
User Defined Industrial	3,729	User Defined Unit	0.00	0.00	0.00	—	—	PC Trips

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	146	139	154	513	1.90	4.53	99.7	104	4.33	25.7	30.1	3,542	239,999	243,540	366	22.9	1,098	260,614
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	115	110	160	277	1.83	4.24	99.7	104	4.12	25.7	29.8	3,542	232,534	236,076	366	23.0	584	252,673
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	121	116	125	301	1.38	3.66	72.3	76.0	3.53	18.7	22.2	3,542	186,315	189,856	365	18.1	737	205,111
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	22.1	21.3	22.8	55.0	0.25	0.67	13.2	13.9	0.64	3.41	4.05	586	30,847	31,433	60.5	2.99	122	33,958

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	32.2	29.2	132	334	1.77	2.71	99.7	102	2.58	25.7	28.3	—	184,057	184,057	2.47	18.5	528	190,153
Area	111	109	1.36	162	0.01	0.29	—	0.29	0.22	—	0.22	—	667	667	0.03	0.01	—	669
Energy	2.22	1.11	20.1	16.9	0.12	1.53	—	1.53	1.53	—	1.53	—	50,434	50,434	4.64	0.35	—	50,654
Water	—	—	—	—	—	—	—	—	—	—	—	1,652	4,841	6,493	170	4.08	—	11,957
Waste	—	—	—	—	—	—	—	—	—	—	—	1,889	0.00	1,889	189	0.00	—	6,610
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	570	570
Total	146	139	154	513	1.90	4.53	99.7	104	4.33	25.7	30.1	3,542	239,999	243,540	366	22.9	1,098	260,614
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	29.8	26.8	140	260	1.71	2.71	99.7	102	2.59	25.7	28.3	—	177,260	177,260	2.54	18.6	13.7	182,882
Area	82.5	82.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	2.22	1.11	20.1	16.9	0.12	1.53	—	1.53	1.53	—	1.53	—	50,434	50,434	4.64	0.35	—	50,654
Water	—	—	—	—	—	—	—	—	—	—	—	1,652	4,841	6,493	170	4.08	—	11,957
Waste	—	—	—	—	—	—	—	—	—	—	—	1,889	0.00	1,889	189	0.00	—	6,610
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	570	570
Total	115	110	160	277	1.83	4.24	99.7	104	4.12	25.7	29.8	3,542	232,534	236,076	366	23.0	584	252,673
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	22.0	19.7	104	205	1.26	1.98	72.3	74.3	1.89	18.7	20.6	—	130,711	130,711	1.89	13.6	167	134,989
Area	96.7	95.6	0.67	80.0	< 0.005	0.14	—	0.14	0.11	—	0.11	—	329	329	0.01	< 0.005	—	330
Energy	2.22	1.11	20.1	16.9	0.12	1.53	—	1.53	1.53	—	1.53	—	50,434	50,434	4.64	0.35	—	50,654
Water	—	—	—	—	—	—	—	—	—	—	—	1,652	4,841	6,493	170	4.08	—	11,957
Waste	—	—	—	—	—	—	—	—	—	—	—	1,889	0.00	1,889	189	0.00	—	6,610

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	570	570
Total	121	116	125	301	1.38	3.66	72.3	76.0	3.53	18.7	22.2	3,542	186,315	189,856	365	18.1	737	205,111
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.01	3.60	19.0	37.3	0.23	0.36	13.2	13.6	0.34	3.41	3.75	—	21,641	21,641	0.31	2.26	27.6	22,349
Area	17.6	17.4	0.12	14.6	< 0.005	0.03	—	0.03	0.02	—	0.02	—	54.5	54.5	< 0.005	< 0.005	—	54.6
Energy	0.40	0.20	3.68	3.09	0.02	0.28	—	0.28	0.28	—	0.28	—	8,350	8,350	0.77	0.06	—	8,386
Water	—	—	—	—	—	—	—	—	—	—	—	274	801	1,075	28.1	0.68	—	1,980
Waste	—	—	—	—	—	—	—	—	—	—	—	313	0.00	313	31.3	0.00	—	1,094
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	94.4	94.4
Total	22.1	21.3	22.8	55.0	0.25	0.67	13.2	13.9	0.64	3.41	4.05	586	30,847	31,433	60.5	2.99	122	33,958

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	2.36	1.96	75.2	20.8	0.76	1.59	25.3	26.9	1.52	6.75	8.27	—	80,089	80,089	0.19	11.3	211	83,680
Refrigerated Warehouse-No Rail	1.70	1.43	42.8	15.8	0.39	0.88	14.7	15.5	0.84	3.93	4.77	—	41,089	41,089	0.12	5.69	132	42,920

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	28.2	25.8	14.4	297	0.62	0.25	59.7	60.0	0.23	15.0	15.3	—	62,879	62,879	2.16	1.46	185	63,553	
Total	32.2	29.2	132	334	1.77	2.71	99.7	102	2.58	25.7	28.3	—	184,057	184,057	2.47	18.5	528	190,153	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Unrefrigerated Warehouse-No Rail	2.26	1.87	79.2	20.9	0.76	1.59	25.3	26.9	1.52	6.75	8.27	—	80,119	80,119	0.19	11.3	5.47	83,509	
Refrigerated Warehouse-No Rail	1.64	1.37	45.0	15.7	0.39	0.88	14.7	15.5	0.84	3.93	4.77	—	41,104	41,104	0.12	5.70	3.43	42,809	
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	25.9	23.6	15.9	223	0.55	0.25	59.7	60.0	0.23	15.0	15.3	—	56,037	56,037	2.24	1.56	4.79	56,564	
Total	29.8	26.8	140	260	1.71	2.71	99.7	102	2.59	25.7	28.3	—	177,260	177,260	2.54	18.6	13.7	182,882	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Unrefrigerated Warehouse-No Rail	0.31	0.25	10.7	2.76	0.10	0.21	3.35	3.57	0.20	0.90	1.10	—	9,695	9,695	0.02	1.37	11.0	10,116	

Refriger Warehouse-No Rail	0.22	0.19	6.07	2.08	0.05	0.12	1.94	2.06	0.11	0.52	0.63	—	4,975	4,975	0.01	0.69	6.90	5,188
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	3.48	3.16	2.22	32.5	0.08	0.03	7.90	7.94	0.03	1.99	2.02	—	6,971	6,971	0.27	0.20	9.65	7,045
Total	4.01	3.60	19.0	37.3	0.23	0.36	13.2	13.6	0.34	3.41	3.75	—	21,641	21,641	0.31	2.26	27.6	22,349

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	13,886	13,886	1.32	0.16	—	13,967
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	11,617	11,617	1.11	0.13	—	11,684
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	897	897	0.09	0.01	—	902

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	26,399	26,399	2.52	0.31	—	26,553
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	13,886	13,886	1.32	0.16	—	13,967
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	11,617	11,617	1.11	0.13	—	11,684
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	897	897	0.09	0.01	—	902
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	26,399	26,399	2.52	0.31	—	26,553
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,299	2,299	0.22	0.03	—	2,312

Refrigerated Warehouse-No	—	—	—	—	—	—	—	—	—	—	—	—	1,923	1,923	0.18	0.02	—	1,934
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	148	148	0.01	< 0.005	—	149
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	4,371	4,371	0.42	0.05	—	4,396

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.78	0.89	16.2	13.6	0.10	1.23	—	1.23	1.23	—	1.23	—	19,312	19,312	1.71	0.04	—	19,366
Refrigerated Warehouse-No Rail	0.44	0.22	3.96	3.32	0.02	0.30	—	0.30	0.30	—	0.30	—	4,723	4,723	0.42	0.01	—	4,736
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.22	1.11	20.1	16.9	0.12	1.53	—	1.53	1.53	—	1.53	—	24,035	24,035	2.13	0.05	—	24,101
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	1.78	0.89	16.2	13.6	0.10	1.23	—	1.23	1.23	—	1.23	—	19,312	19,312	1.71	0.04	—	19,366
Refrigerated Warehouse-No Rail	0.44	0.22	3.96	3.32	0.02	0.30	—	0.30	0.30	—	0.30	—	4,723	4,723	0.42	0.01	—	4,736
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	2.22	1.11	20.1	16.9	0.12	1.53	—	1.53	1.53	—	1.53	—	24,035	24,035	2.13	0.05	—	24,101
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.32	0.16	2.95	2.48	0.02	0.22	—	0.22	0.22	—	0.22	—	3,197	3,197	0.28	0.01	—	3,206
Refrigerated Warehouse-No Rail	0.08	0.04	0.72	0.61	< 0.005	0.05	—	0.05	0.05	—	0.05	—	782	782	0.07	< 0.005	—	784

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.40	0.20	3.68	3.09	0.02	0.28	—	0.28	0.28	—	0.28	—	3,979	3,979	0.35	0.01	—	3,990

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	80.2	80.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.28	2.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	28.9	26.6	1.36	162	0.01	0.29	—	0.29	0.22	—	0.22	—	667	667	0.03	0.01	—	669
Total	111	109	1.36	162	0.01	0.29	—	0.29	0.22	—	0.22	—	667	667	0.03	0.01	—	669
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	80.2	80.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	2.28	2.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	82.5	82.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	14.6	14.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.42	0.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.60	2.40	0.12	14.6	< 0.005	0.03	—	0.03	0.02	—	0.02	—	54.5	54.5	< 0.005	< 0.005	—	54.6
Total	17.6	17.4	0.12	14.6	< 0.005	0.03	—	0.03	0.02	—	0.02	—	54.5	54.5	< 0.005	< 0.005	—	54.6

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,405	4,134	5,539	144	3.47	—	10,184

Refriger Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	248	706	954	25.5	0.61	—	1,774
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,652	4,841	6,493	170	4.08	—	11,957
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,405	4,134	5,539	144	3.47	—	10,184
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	248	706	954	25.5	0.61	—	1,774
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,652	4,841	6,493	170	4.08	—	11,957
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	233	685	917	23.9	0.57	—	1,686
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	41.0	117	158	4.22	0.10	—	294
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	274	801	1,075	28.1	0.68	—	1,980

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,606	0.00	1,606	160	0.00	—	5,618

Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	283	0.00	283	28.3	0.00	—	991
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,889	0.00	1,889	189	0.00	—	6,610
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	1,606	0.00	1,606	160	0.00	—	5,618
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	283	0.00	283	28.3	0.00	—	991
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	1,889	0.00	1,889	189	0.00	—	6,610
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrig Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	266	0.00	266	26.6	0.00	—	930
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	46.9	0.00	46.9	4.69	0.00	—	164
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	313	0.00	313	31.3	0.00	—	1,094

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	570	570
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	570	570
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refriger Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	570	570
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	570	570
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	94.4	94.4
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	94.4	94.4

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.8. 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)

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

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

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

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

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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
Unrefrigerated Warehouse-No Rail	729	60.2	25.4	194,533	29,162	2,409	1,014	7,781,325
Refrigerated Warehouse-No Rail	420	35.8	14.0	112,118	16,803	1,432	559	4,484,701
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	5,773	481	194	1,540,206	86,188	7,182	2,895	22,995,815

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	5,593,643	1,864,548	299,858

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)
Unrefrigerated Warehouse-No Rail	14,640,042	346	0.0330	0.0040	60,258,720
Refrigerated Warehouse-No Rail	12,247,543	346	0.0330	0.0040	14,736,042
Parking Lot	945,569	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
User Defined Industrial	0.00	346	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)
Unrefrigerated Warehouse-No Rail	733,000,063	32,654,342
Refrigerated Warehouse-No Rail	129,353,156	0.00
Parking Lot	0.00	0.00

Other Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	2,980	—
Refrigerated Warehouse-No Rail	526	—
Parking Lot	0.00	—
Other Asphalt Surfaces	0.00	—
User Defined Industrial	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
Refrigerated Warehouse-No Rail	Cold storage	User Defined	150	7.50	7.50	7.50	25.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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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
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5.16.2. Process Boilers

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

Equipment Type	Fuel Type
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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
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	34.1	annual days of extreme heat
Extreme Precipitation	0.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.80	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	5	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	5	1	1	4
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	80.0
AQ-PM	7.52

AQ-DPM	21.9
Drinking Water	34.9
Lead Risk Housing	27.7
Pesticides	0.00
Toxic Releases	37.1
Traffic	59.7
Effect Indicators	—
CleanUp Sites	52.1
Groundwater	44.8
Haz Waste Facilities/Generators	16.6
Impaired Water Bodies	51.2
Solid Waste	84.7
Sensitive Population	—
Asthma	88.0
Cardio-vascular	89.5
Low Birth Weights	91.9
Socioeconomic Factor Indicators	—
Education	26.9
Housing	11.6
Linguistic	—
Poverty	52.5
Unemployment	90.6

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	44.97626075

Employed	30.46323624
Median HI	35.0442705
Education	—
Bachelor's or higher	42.93596818
High school enrollment	100
Preschool enrollment	39.79212113
Transportation	—
Auto Access	85.40998332
Active commuting	24.00872578
Social	—
2-parent households	51.18696266
Voting	75.34967278
Neighborhood	—
Alcohol availability	88.37418196
Park access	16.65597331
Retail density	8.469138971
Supermarket access	2.399589375
Tree canopy	0.71859361
Housing	—
Homeownership	62.60746824
Housing habitability	64.39112024
Low-inc homeowner severe housing cost burden	17.8108559
Low-inc renter severe housing cost burden	77.19748492
Uncrowded housing	68.66418581
Health Outcomes	—
Insured adults	64.22430386
Arthritis	4.4
Asthma ER Admissions	7.6

High Blood Pressure	8.9
Cancer (excluding skin)	9.1
Asthma	30.0
Coronary Heart Disease	6.8
Chronic Obstructive Pulmonary Disease	13.3
Diagnosed Diabetes	35.6
Life Expectancy at Birth	34.2
Cognitively Disabled	41.3
Physically Disabled	11.3
Heart Attack ER Admissions	2.7
Mental Health Not Good	48.5
Chronic Kidney Disease	20.1
Obesity	46.5
Pedestrian Injuries	48.3
Physical Health Not Good	39.9
Stroke	15.1
Health Risk Behaviors	—
Binge Drinking	57.0
Current Smoker	46.7
No Leisure Time for Physical Activity	58.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	58.1
Elderly	16.8
English Speaking	81.5
Foreign-born	11.0
Outdoor Workers	47.0

Climate Change Adaptive Capacity	—
Impervious Surface Cover	90.2
Traffic Density	37.9
Traffic Access	23.0
Other Indices	—
Hardship	32.7
Other Decision Support	—
2016 Voting	75.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	65.0
Healthy Places Index Score for Project Location (b)	46.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
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Land Use	Taken from site plan
Operations: Vehicle Data	Trip Characteristics based on information provided in the Traffic Analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks
Operations: Architectural Coatings	10g/l assumed for interior space
Operations: Refrigerants	As of 1 January 2022, new commercial refrigeration equipment may not use refrigerants with a GWP of 150 or greater. Further, R-404A (the CalEEMod default) is unacceptable for new supermarket and cold storage systems as of 1 January 2019 and 2023, respectively.