Appendix C Construction Health Risk Assessment

Appendices

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1. Construction Health Risk Assessment

1.1 INTRODUCTION

The Chaffey Community College District (District) is proposing to relocate and expand the existing Fontana Campus at 11070 Sierra Avenue in the City of Fontana, San Bernardino County, California (proposed project or project). The approximately 14.3-acre project site is bounded by a shopping plaza to the north, Sierra Avenue to the east, vacant lots and residential uses to the west, and an existing stormwater detention basin and single-family residences to the south. The project is a community college relocation and expansion project that would result in construction of new school buildings on the project site. The proposed project would involve site preparation, grading, trenching, building construction, architectural coating, and paving. The following provides the background methodology used for the construction health risk assessment for the proposed project.

Project construction is anticipated to take place in two phases, with Phase 1 from September 2024 through September 2026 and Phase 2 starting in June 2027 with completion by June 2030 (approximately 1,197 total workdays over the 6-year span). The nearest sensitive receptors to the project site include the single-family residences and preschool students to the east of the project site. Guidance from the California Environmental Protection Agency (Cal/EPA), Office of Environmental Health Hazard Assessment (OEHHA), and California Air Pollution Control Officers Association (CAPCOA) recommend the completion of health risk assessments (HRA) to determine the impacts of hazardous air emissions upon sensitive receptors in the vicinity of the project. As a result, a site-specific construction health risk assessment (HRA) has been prepared for the proposed project. This HRA considers the health impact to sensitive receptors (adults and children in the nearby residences) of construction emissions at the project site from diesel equipment exhaust (diesel particulate matter or DPM).

1.2 METHODOLOGY AND SIGNIFICANCE THRESHOLDS

For this HRA, the South Coast Air Quality Management District (South Coast AQMD)significance thresholds were deemed to be appropriate and the thresholds that were used for this project are shown below:

- Excess cancer risk of more than 10 in a million
- Non-cancer hazard index (chronic or acute) greater than 1.0

The methodology used in this HRA is consistent with the following OEHHA guidance document:

- OEHHA. 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments.* February, 2015.

Potential exposures to DPM from project construction was evaluated for off-site sensitive receptors in close proximity to the site. Pollutant concentrations were estimated using an air dispersion model, and excess lifetime cancer risks and chronic non-cancer hazard indexes were calculated. These risks were then compared to the significance thresholds adopted for this HRA.

It should be noted that these health impacts are based on conservative (i.e., health protective) assumptions. The United States Environmental Protection Agency (USEPA, 2005) and the Office of Environmental Health Hazard Assessment (OEHHA, 2015) note that conservative assumptions used in a risk assessment are intended to ensure that the estimated risks do not underestimate the actual risks. Therefore, the estimated risks may not necessarily represent actual risks experienced by populations at or near a site. The use of conservative assumptions tends to produce upper-bound estimates of exposure and thus risk.

For residential-based receptors, the following conservative assumptions were used:

- It was assumed that maximum-exposed off-site residential receptors (both children and adults) stood outdoors and are subject to DPM at their residence for 8 hours per day, and approximately 260 construction days per year. In reality, California residents typically will spend on average 2 hours per day outdoors at their residences (USEPA, 2011). This would result in lower exposures to construction related DPM emissions and lower estimated risk values.

- The calculated risk for infants from third trimester to age 2 is multiplied by a factor of 10 to account for early life exposure and uncertainty in child versus adult exposure impacts (OEHHA, 2015).

For preschool-based receptors, the following conservative assumptions were used:

- It was assumed that maximum-exposed preschool receptors (Kiddie Academy at 11117 Sierra Ave, offering day-care, preschool through elementary school programs; 6 months to age 12) stood outdoors and are subject to DPM for 8 hours per day, and approximately 260 construction days per year. In reality, children and students are exposed to outdoor pollutant concentration levels for a portion of the day and are exposed to reduced indoor pollutant concentrations for the remaining hours. This would result in lower estimated risk values.

- The calculated risk for infants from age 6 months to age 2 is multiplied by a factor of 10 and for children age 2 to 9 is multiplied by a factor of 3 to account for early life exposure and uncertainty in child versus adult exposure impacts (OEHHA, 2015).

1.3 CONSTRUCTION EMISSIONS

Construction emissions were calculated as average daily emissions in pounds per day, using the proposed construction schedule and the latest version of California Emissions Estimation Model, known as CalEEMod Version 2020.4 (CAPCOA, 2021). Construction modeling considered years 2024 - 2026 for Phase 1 construction activities and years 2027 - 2030 for Phase 2. DPM emissions were based on the CalEEMod construction runs, using annual exhaust PM_{10} construction emissions presented in pounds (lbs) per day.

The average daily emission rates from construction equipment used during the proposed project were determined by dividing the annual average emissions for each construction year by the number of construction days per year for each calendar year of construction (i.e., 2024, 2025, 2026, 2027, 2028, 2029, and 2030). The off-site hauling emission rates were adjusted to evaluate localized emissions from the 0.85-mile haul route within 1,000 feet of the project site. The CalEEMod construction emissions output and emission rate calculations are provided in Appendix A of the HRA.

1.4 DISPERSION MODELING

Air quality modeling was performed using the AERMOD atmospheric dispersion model to assess the impact of emitted compounds on sensitive receptors near the project. The model is a steady state Gaussian plume model and is an approved model by South Coast AQMD for estimating ground level impacts from point and fugitive sources in simple and complex terrain. The on-site construction emissions for the project were modeled as poly-area sources and the off-site mobile sources were modeled as adjacent line volume sources. The model requires additional input parameters, including chemical emission data and local meteorology. Meteorological data obtained from the South Coast AQMD for the nearest representative meteorological station (Fontana Monitoring Station) with the five latest available years (2011-2013, 2015-2016) of record were used to represent local weather conditions and prevailing winds. The prevailing wind direction at the Fontana Monitoring Station is to the east-northeast, and the wind rose is provided in Appendix A.

The modeling analysis also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. To accommodate the model's Cartesian grid format, direction-dependent calculations were obtained by identifying the Universal Transverse Mercator (UTM) coordinates for each source location. In addition, digital elevation model (DEM) data for the area were obtained and included in the model runs to account for complex terrain. An emission release height of 4.15 meters was used as representative of the stack exhaust height for off-road construction equipment and diesel truck traffic, and an initial vertical dispersion parameter of 1.93 m was used, per California Air Resources Board (CARB) guidance (2000).

To determine contaminant impacts during construction hours, the model's Hour-By-Day-of-Week (HRDOW) scalar option was invoked to predict flagpole-level concentrations (0 m for ground-floor receptors and 6.1 m for 2nd-floor) for construction emissions generated between the hours of 7:00 AM and 4:00 PM with a 1-hour lunch break.

A unit emission rate of 1 gram per second was used for all modeling runs. The unit emission rates were proportioned over the poly-area sources for on-site construction emissions and divided between the volume sources for off-site hauling emissions. The maximum modeled concentrations from the output files were then multiplied by the emission rates calculated in Appendix A to obtain the maximum flagpole-level concentrations at the off-site maximum exposed individual resident (MEIR). As shown in Figure 1, the MEIR is the single-family residence east of the site along White Oak Lane. The MEIR location is the receptor location associated with the maximum AERMOD predicted DPM concentrations from the on-site emission source because the calculated on-site emission rates are approximately 2 orders of magnitude higher than the calculated off-site emission rates (see Appendix A). Therefore, the maximum concentrations associated with the on-site emission sources produce the highest overall ground-level MEIR concentrations and,

consequently, highest calculated health risks. The maximum exposed preschool receptor is at Kiddie Academy, approximately 500 feet east of the project site.

The air dispersion model output for the emission sources is presented in Appendix B. The DPM concentrations at the MEIR and maximum exposed preschool receptor are provided in Appendix C.

1.5 RISK CHARACTERIZATION

1.5.1 Carcinogenic Chemical Risk

Carcinogenic compounds are not considered to have threshold levels (i.e., dose levels below which there are no risks). Therefore, any exposure will have some associated risk. The South Coast AQMD has established a maximum incremental cancer risk of 10 in a million (1×10^{-5} or 10×10^{-6}) for CEQA projects and the OEHHA also sets a typical risk management level as 10 in a million (OEHHA, 2015).

Health risks associated with exposure to carcinogenic compounds can be defined in terms of the probability of developing cancer as a result of exposure to a chemical at a given concentration. The cancer risk probability is determined by multiplying the chemical's annual concentration by its cancer potency factor (CPF), a measure of the carcinogenic potential of a chemical when a dose is received through the inhalation pathway. It is an upper-limit estimate of the probability of contracting cancer as a result of continuous exposure to an ambient concentration of one microgram per cubic meter ($\mu g/m^3$), averaged over a lifetime of 70 years.

Recent guidance from OEHHA recommends a refinement to the standard point estimate approach with the use of age-specific breathing rates and age sensitivity factors (ASFs) to assess risk for susceptible subpopulations such as children. For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose for each age group. Once determined, contaminant dose is multiplied by the cancer potency factor in units of inverse dose expressed in milligrams per kilogram per day $(mg/kg/day)^{-1}$ to derive the cancer risk estimate. Therefore, the following dose algorithm was used to accommodate the unique exposures associated with each receptor type.

$$\text{Dose}_{\text{AIR,per age group}} = \left(C_{\text{air}} \times \text{EF} \times \left[\frac{\text{BR}}{\text{BW}}\right] \times \text{A} \times \text{CF}\right)$$

Where:

Dose_{AIR}	=	dose by inhalation (mg/kg-day), per age group
C_{air}	=	concentration of contaminant in air ($\mu g/m^3$)
EF	=	exposure frequency (number of days/365 days)
BR/BW	=	daily breathing rate normalized to body weight (L/kg-day)
A	=	inhalation absorption factor (default = 1)
CF	=	conversion factor ($1x10^{-6}$, μg to mg, L to m^3)

The inhalation absorption factor (A) is a unitless factor that is only used if the cancer potency factor included a correction for absorption across the lung. The default value of 1 was used for this assessment. For residential receptors, the exposure frequency (EF) of 0.96 is used to represent 350 days per year to allow for a

two-week period away from home each year (OEHHA, 2015). For preschool receptors at Kiddie Academy, an EF of 0.71 is used to represent the traditional workplace and day-care calendar of 260 days per year.

For construction analysis, the exposure duration spans the length of construction (e.g., 1,197 total workdays). In addition, the construction duration each year was considered in the risk calculations to account for the number of days residents are exposed to construction emissions from 2024 through 2030. As the length of construction is longer than 2.25 years, the third trimester, 0-2, and 2-9 age bins apply to the construction analysis for the off-site residential receptors. For residential receptors, the 95th percentile daily breathing rates (BR/BW), exposure duration (ED), age sensitivity factors (ASFs), and fraction of time at home (FAH) for the various age groups are provided herein:

Age Groups	BR/BW (L/kg-day)	ED	ASF	FAH
Third trimester	361	0.25	10	0.85
0-2 age group	1,090	1.75	10	0.85
2-9 age group	861	2.0	3	0.72

For children at Kiddie Academy, the 95th percentile 8-hour breathing rates (moderate intensity activity), ED, and ASF for the 0 to 2 and 2 to 16-year-old age group is provided herein:

Age Groups	BR/BW (L/kg-day)	ED	ASF
0-2 age group	1,200	2.0	10
2–16 age group	520	2.0	3

To calculate the overall cancer risk, the risk for each appropriate age group is calculated per the following equation:

$$\text{Cancer Risk}_{\text{AIR}} = \text{Dose}_{\text{AIR}} \times \text{CPF} \times \text{ASF} \times \text{FAH} \times \frac{\text{ED}}{AT}$$

Where:

Dose_{AIR}	=	dose by inhalation (mg/kg-day), per age group
CPF	=	cancer potency factor, chemical-specific $(\text{mg/kg-day})^{-1}$
ASF	=	age sensitivity factor, per age group
FAH	=	fraction of time at home, per age group (for residential receptors only)
ED	=	exposure duration (years)
AT	=	averaging time period over which exposure duration is averaged (70 years)

The CPFs used in the assessment were obtained from OEHHA guidance. The excess lifetime cancer risks during the construction period to the maximally exposed resident were calculated based on the factors provided above. The cancer risks for each age group are summed to estimate the total cancer risk for each toxic chemical species. The final step converts the cancer risk in scientific notation to a whole number that expresses the cancer risk in "chances per million" by multiplying the cancer risk by a factor of $1x10^6$ (i.e., 1 million).

The calculated results are provided in Appendix C.

1.5.2 Non-Carcinogenic Hazards

An evaluation was also conducted of the potential non-cancer effects of chronic chemical exposures. Adverse health effects are evaluated by comparing the annual receptor level concentration of each chemical compound with the appropriate reference exposure limit (REL). Available RELs promulgated by OEHHA were considered in the assessment.

The hazard index approach was used to quantify non-carcinogenic impacts. The hazard index assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint). Target organs presented in regulatory guidance were used for each discrete chemical exposure. To calculate the hazard index, each chemical concentration or dose is divided by the appropriate toxicity value. This ratio is summed for compounds affecting the same toxicological endpoint. A health hazard is presumed to exist where the total equals or exceeds one.

The chronic hazard analysis for DPM is provided in Appendix C. The calculations contain the relevant exposure concentrations and corresponding reference dose values used in the evaluation of non-carcinogenic exposures.

1.6 CONSTRUCTION HRA RESULTS

The calculated results are provided in Appendix C and the results are summarized in Table 1.

TABLE 1. CONSTRUCTION RISK SUMMARY - UNMITIGATED

Receptor	Cancer Risk (per million)	Chronic Hazards
Maximum Exposed Individual Resident (MEIR)	**15.8**	0.055
Maximum Exposed Preschool Receptor	3.3	0.011
South Coast AQMD Threshold	10	1.0
Exceeds Threshold?	**Yes**	**No**

Note: Cancer risk calculated using 2015 OEHHA HRA guidance.

Cancer risk for the MEIR from project-related construction activities was calculated to be 15.8 in a million and would exceed the 10 in a million-significance threshold. In accordance with the latest 2015 OEHHA guidance, the calculated total cancer risk conservatively assumes that the risk for the MEIR consists of a pregnant woman in the third trimester that subsequently gives birth to an infant during the approximately 5-year construction period; therefore, calculated risk values for the first 2.25 years were multiplied by a factor of 10 and the remaining risk values by a factor of 3. In addition, it was conservatively assumed that the residents were outdoors 8 hours a day and exposed to all of the daily construction emissions. The excess cancer risk for the maximum exposed preschool receptor was calculated to be 3.3 in a million and would not exceed the 10 in a million-significance threshold.

For non-carcinogenic effects, the chronic hazard index identified for each toxicological endpoint totaled less than one for all the off-site sensitive receptors. Therefore, chronic non-carcinogenic hazards are less than significant.

Because cancer risk for the MEIR would exceed South Coast AQMD significance threshold due to construction activities associated with the proposed project, the following mitigation measure is proposed:

> **Mitigation Measure AQ-1:** The proposed project's construction contractors shall use equipment that meets the United States Environmental Protection Agency Tier 4 interim emissions standards for off-road diesel-powered construction equipment with more than 50 horsepower, unless it can be demonstrated that such equipment is not available. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Tier 4 interim emissions standard for a similarly sized engine, as defined by the California Air Resources Board's regulations. The requirement to use Tier 4 interim equipment for engines over 50 horsepower shall be identified in construction bids.
>
> - Have engines that meet either US EPA or California Air Resources Board (CARB) Tier 4 Interim emission standards. Ensure that all construction plans clearly show the selected emission reduction strategy for construction equipment over 50 horsepower.
>
> - Maintain a list of all operating equipment in use on the project site for verification by the District. The construction equipment list shall state the makes, models, and number of construction equipment on-site. Ensure that all equipment shall be properly serviced and maintained in accordance with the manufacturer's recommendations.
>
> - Communicate with all sub-contractors in contracts and construction documents that all non-essential idling of construction equipment is restricted to 5 minutes or less in compliance with California Air Resources Board Rule 2449 and is responsible for ensuring that this requirement is met.

Mitigation Measure AQ-1 would reduce the project's localized construction emissions, as shown in the following table. The results indicate that, with mitigation, cancer risk would be less than the South Coast AQMD's significance thresholds for residential-based receptors. Additionally, the health risks to receptors at Kiddie Academy would be further reduced below South Coast AQMD's significance thresholds. Therefore, the project would not expose off-site sensitive receptors to substantial concentrations of air pollutant emissions during construction and impacts would be *less than significant* with mitigation.

TABLE 2. CONSTRUCTION RISK SUMMARY - MITIGATED

Receptor	Cancer Risk (per million)	Chronic Hazards
Maximum Exposed Individual Resident (MEIR)	1.8	0.005
Maximum Exposed Preschool Receptor	0.3	0.001
South Coast AQMD Threshold	10	1.0
Exceeds Threshold?	**No**	**No**

Risks incorporate Mitigation Measure AQ-1, which includes using construction equipment which meets USEPA Tier 4 Interim engine requirements for equipment over 50 horsepower.
Note: Cancer risk calculated using 2015 OEHHA HRA guidance.

2. References

California Air Pollution Control Officers Association (CAPCOA). 2021. California Emissions Estimator Model (CalEEMod). Version 2020.4. Prepared by: BREEZE Software, A Division of Trinity Consultants in collaboration with South Coast Air Quality Management District and the California Air Districts.

California Air Resources Board (CARB). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.*

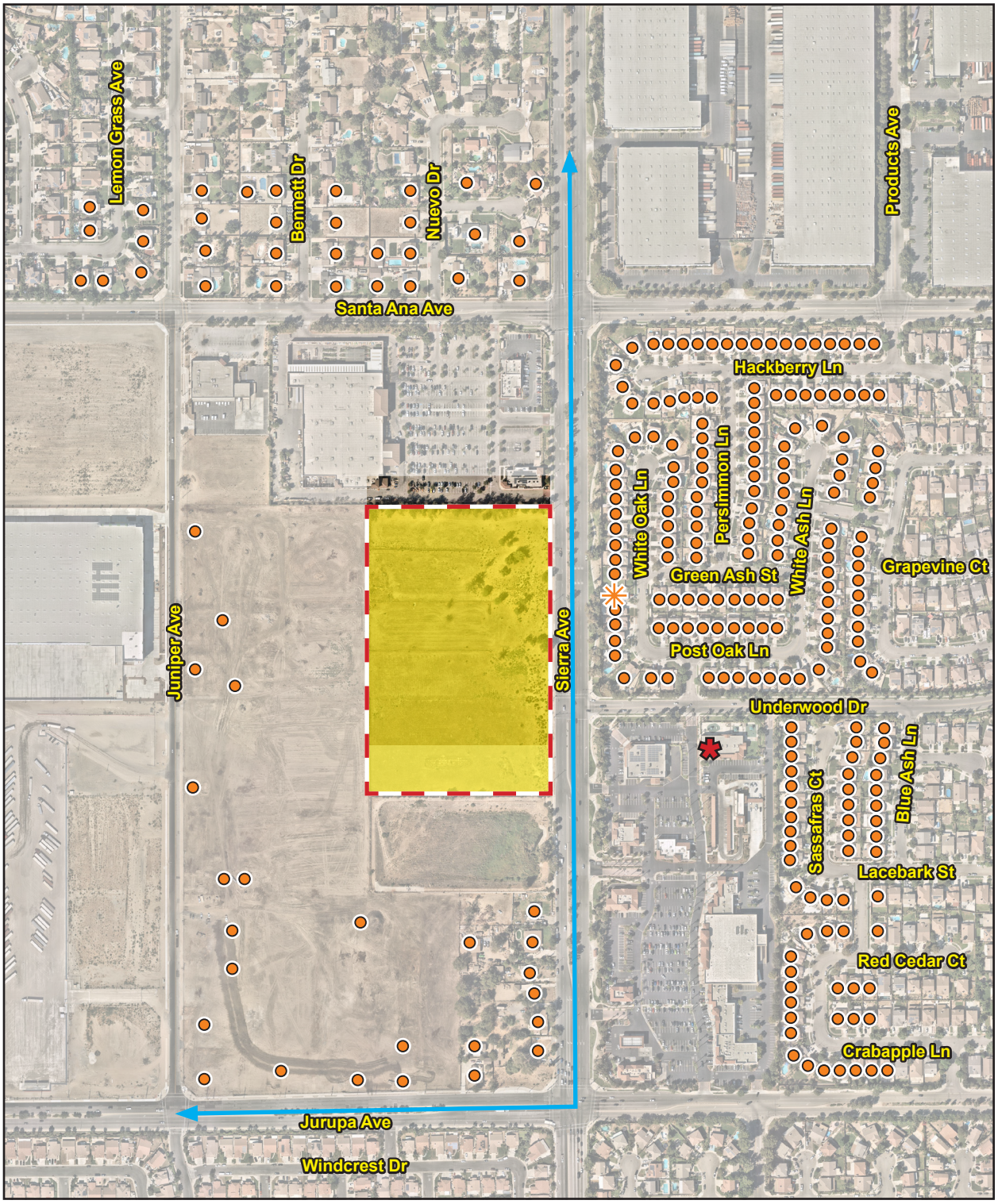
Office of Environmental Health Hazard Assessment (OEHHA). 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments.* Dated February 2015.

South Coast Air Quality Management District (South Coast AQMD). 2022, January 20 (accessed). 2011-2013, 2015-2016. Meteorological Data Set for Fontana Meteorological Station. http://www.aqmd.gov/home/air-quality/meteorological-data/data-for-aermod.

United States Environmental Protection Agency (USEPA). 2011. *Exposure Factors Handbook 2011 Edition (Final).* EPA/600/R-09/052F, 2011.

_____. 2005. *Guideline on Air Quality Models* (Revised). EPA-450/2-78-027R.

Figure 1 - Project Site and Off-Site Receptor Locations



Source: Nearmap, 2022

Appendix A. Emission Rate Calculations

Phase Name		Start Date	End Date	CalEEMod Days	Total Days
PHASE 1	Site Preparation	9/1/2024	10/9/2024	28	**38**
	Rough Grading	10/9/2024	2/3/2025	84	**117**
	Utilities Trenching	12/26/2024	2/3/2025	28	**39**
	Fine Grading	2/3/2025	4/4/2025	45	**60**
	Paving 1	4/4/2025	5/15/2025	30	**41**
	Building Construction	5/15/2025	9/1/2026	339	**474**
	Paving 2	7/31/2026	9/1/2026	23	**32**
	Architectural Coating	7/31/2026	9/1/2026	23	**32**
PHASE 2	Site Preparation	6/1/2027	6/10/2027	8	**9**
	Grading	6/10/2027	7/1/2027	16	**21**
	Building Construction	7/1/2027	6/1/2030	762	**1066**
	Architectural Coating (IB II)	6/7/2028	6/25/2028	13	**18**
	Architectural Coating (CTE/Training)	5/28/2029	6/13/2029	13	**16**
	Paving	5/15/2030	6/1/2030	13	**17**
	Architectural Coating (SCCC)	5/15/2030	6/1/2030	13	**17**

Number of Construction Days Per Year			
2024	9/1/2024	12/31/2024	87
2025	1/1/2025	12/31/2025	261
2026	1/1/2026	9/1/2026	174
2027	6/1/2027	12/31/2027	154
2028	1/1/2028	12/31/2028	260
2029	1/1/2029	12/31/2029	261
2030	1/1/2030	6/1/2030	109
		CONSTRUCTION DAYS	1197

Total Construction Days Per Year			
2024	1/1/2024	12/31/2024	262
2025	1/1/2025	12/31/2025	261
2026	1/1/2026	12/31/2026	261
2027	1/1/2027	12/31/2027	261
2028	1/1/2028	12/31/2028	260
2029	1/1/2029	12/31/2029	261
2030	1/1/2030	12/31/2030	261
		TOTAL DAYS	1566

Onsite Construction PM10 Exhaust Emissions - Unmitigated Scenario [1]

Year	Annual PM10 Exhaust Emissions (Tons/Year)	Annual PM10 Exhaust Emissions (lbs/Year)	# of Construction Days/Year	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/hr)	Emission Rate (g/s)	# of Total Workdays/ Year	Construction Duration[2]
2024	0.0574	114.88	87	1.32	1.65E-01	2.08E-02	262	0.33
2025	0.0896	179.20	261	0.69	8.58E-02	1.08E-02	261	1.00
2026	0.0513	102.60	174	0.59	7.37E-02	9.29E-03	261	0.67
2027	0.0194	38.70	154	0.25	3.14E-02	3.96E-03	261	0.59
2028	0.0321	64.12	260	0.25	3.08E-02	3.88E-03	260	1.00
2029	0.0318	63.66	261	0.24	3.05E-02	3.84E-03	261	1.00
2030	0.0045	9.00	109	0.08	1.03E-02	1.30E-03	261	0.42

Offsite Construction PM10 Exhaust Emissions - Unmitigated Scenario [1]

Year	Annual PM10 Exhaust Emissions (Tons/Year)	Annual PM10 Exhaust Emissions (lbs/Year)	# of Construction Days/Year	Average Daily Emissions (lbs/day)	Hauling Emissions w/in 1,000 ft (lbs/day) [3]	Emission Rate (lbs/hr)	Emission Rate (g/s)
2024	0.0011	2.28	87	2.62E-02	1.11E-03	1.39E-04	1.75E-05
2025	0.0039	7.84	261	3.00E-02	1.27E-03	1.59E-04	2.00E-05
2026	0.0039	7.72	174	4.44E-02	1.88E-03	2.35E-04	2.96E-05
2027	0.0003	0.64	154	4.16E-03	1.76E-04	2.20E-05	2.77E-06
2028	0.0006	1.12	260	4.31E-03	1.82E-04	2.28E-05	2.87E-06
2029	0.0006	1.10	261	4.21E-03	1.78E-04	2.23E-05	2.81E-06
2030	0.0002	0.44	109	4.04E-03	1.71E-04	2.14E-05	2.69E-06

Note: Emissions evenly distributed over 51 modeled volume sources.

Hauling Length (miles) [3]	20.0	miles
Haul Length within 1,000 ft of Site (mile) [4]	0.85	miles
Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks) [5]	8	hours

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] Construction durations determined for each year to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

[3] Based on CalEEMod default 20 mile hauling distance.

[4] Emissions from CalEEMod offsite average daily emissions, which is based on proportioned haul truck trip distances , are adjusted to evaluate emissions from the 0.85-mile route within 1,000 of the project site.

[5] Work hours applied in By Hour/Day (HRDOW) variable emissions module in air dispersion model (see App C - Air Dispersion Model Output Files).

[6] Based on CalEEMod default 20 mile hauling distance.

PHASE 1

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust					0.12	0.00	0.12	0.06	0.00	0.06
Off-Road	0.04	0.38	0.26	0.00		0.02	0.02		0.02	0.02
Total	0.04	0.38	0.26	0.00	0.12	0.02	0.13	0.06	0.02	0.08

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.2 Site Preparation Soil Haul - 2024

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling	0.00	0.09	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.09	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00

3.3 Rough Grading - 2024

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05
Off-Road	0.10	0.97	0.83	0.00		0.04	0.04		0.04	0.04
Total	0.10	0.97	0.83	0.00	0.13	0.04	0.17	0.05	0.04	0.09

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total	0.00	0.02	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00

3.3 Rough Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.09	0.00	0.09	0.02	0.00	0.02
Off-Road	0.03	0.34	0.32	0.00		0.01	0.01		0.01	0.01
Total	0.03	0.34	0.32	0.00	0.09	0.01	0.10	0.02	0.01	0.04

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4 Utilities Trenching - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.00	0.00	0.01	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.00	0.01	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4 Utilities Trenching - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.00	0.01	0.04	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.01	0.04	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5 Fine Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.09	0.00	0.09	0.04	0.00	0.04
Off-Road	0.07	0.63	0.59	0.00		0.03	0.03		0.02	0.02
Total	0.07	0.63	0.59	0.00	0.09	0.03	0.11	0.04	0.02	0.06

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.02	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

3.6 Paving 1 - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.01	0.13	0.22	0.00		0.01	0.01		0.01	0.01
Paving	0.01					0.00	0.00		0.00	0.00
Total	0.02	0.13	0.22	0.00		0.01	0.01		0.01	0.01

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.11	1.03	1.33	0.00		0.04	0.04		0.04	0.04
Total	0.11	1.03	1.33	0.00		0.04	0.04		0.04	0.04

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.35	0.14	0.00	0.06	0.00	0.06	0.02	0.00	0.02
Worker	0.07	0.05	0.68	0.00	0.25	0.00	0.25	0.07	0.00	0.07
Total	0.08	0.40	0.82	0.00	0.30	0.00	0.31	0.08	0.00	0.09

3.7 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.12	1.08	1.40	0.00		0.05	0.05		0.04	0.04
Total	0.12	1.08	1.40	0.00		0.05	0.05		0.04	0.04

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.37	0.14	0.00	0.06	0.00	0.06	0.02	0.00	0.02
Worker	0.07	0.05	0.67	0.00	0.26	0.00	0.26	0.07	0.00	0.07
Total	0.08	0.42	0.82	0.00	0.32	0.00	0.32	0.09	0.00	0.09

3.8 Paving 2 - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.01	0.10	0.17	0.00		0.00	0.00		0.00	0.00
Paving	0.01					0.00	0.00		0.00	0.00
Total	0.02	0.10	0.17	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Archit. Coating	0.35					0.00	0.00		0.00	0.00
Off-Road	0.00	0.01	0.02	0.00		0.00	0.00		0.00	0.00
Total	0.35	0.01	0.02	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

PHASE 2

3.2 Site Preparation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.02	0.02	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3 Grading - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.02	0.00	0.02	0.01	0.00	0.01
Off-Road	0.01	0.07	0.04	0.00		0.00	0.00		0.00	0.00
Total	0.01	0.07	0.04	0.00	0.02	0.00	0.02	0.01	0.00	0.01

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4 Building Construction - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.04	0.36	0.46	0.00		0.02	0.02		0.01	0.01
Total	0.04	0.36	0.46	0.00		0.02	0.02		0.01	0.01

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.00	0.05	0.00	0.02	0.00	0.02	0.01	0.00	0.01
Total	0.01	0.03	0.06	0.00	0.02	0.00	0.03	0.01	0.00	0.01

3.4 Building Construction - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.07	0.71	0.91	0.00		0.03	0.03		0.03	0.03
Total	0.07	0.71	0.91	0.00		0.03	0.03		0.03	0.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.06	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.04	0.00	0.04	0.01	0.00	0.01
Total	0.01	0.06	0.11	0.00	0.05	0.00	0.05	0.01	0.00	0.01

3.4 Building Construction - 2029

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.07	0.72	0.92	0.00		0.03	0.03		0.03	0.03
Total	0.07	0.72	0.92	0.00		0.03	0.03		0.03	0.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.06	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.04	0.00	0.04	0.01	0.00	0.01
Total	0.01	0.06	0.11	0.00	0.05	0.00	0.05	0.01	0.00	0.01

3.4 Building Construction - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.03	0.18	0.39	0.00		0.00	0.00		0.00	0.00
Total	0.03	0.18	0.39	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.02	0.00	0.02	0.00	0.00	0.00
Total	0.00	0.03	0.04	0.00	0.02	0.00	0.02	0.01	0.00	0.01

3.5 Architectural Coating (IB II) - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Archit. Coating	0.04					0.00	0.00		0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00
Total	0.04	0.01	0.01	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6 Architectural Coating (CTE/Training) - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Archit. Coating	0.07					0.00	0.00		0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00
Total	0.08	0.01	0.01	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7 Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.00	0.03	0.05	0.00		0.00	0.00		0.00	0.00
Paving	0.00					0.00	0.00		0.00	0.00
Total	0.00	0.03	0.05	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.8 Architectural Coating (SCCC) - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Archit. Coating	0.05					0.00	0.00		0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00
Total	0.05	0.01	0.01	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Onsite Construction PM10 Exhaust Emissions - Mitigated Scenario 1

Year	Annual PM10 Exhaust Emissions (Tons/Year)	Annual PM10 Exhaust Emissions (lbs/Year)	# of Construction Days/Year	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/hr)	Emission Rate (g/s)	# of Total Workdays/ Year	Construction Duration[2]
2024	0.0039	7.88	87	0.09	1.13E-02	1.43E-03	262	0.33
2025	0.0107	21.32	261	0.08	1.02E-02	1.29E-03	261	1.00
2026	0.0073	14.66	174	0.08	1.05E-02	1.33E-03	261	0.67
2027	0.0015	2.94	154	0.02	2.39E-03	3.01E-04	261	0.59
2028	0.0024	4.84	260	0.02	2.33E-03	2.93E-04	260	1.00
2029	0.0025	4.92	261	0.02	2.36E-03	2.97E-04	261	1.00
2030	0.0011	2.28	109	0.02	2.61E-03	3.29E-04	261	0.42

Offsite Construction PM10 Exhaust Emissions - Mitigated Scenario 1

Year	Annual PM10 Exhaust Emissions (Tons/Year)	Annual PM10 Exhaust Emissions (lbs/Year)	# of Construction Days/Year	Average Daily Emissions (lbs/day)	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	Emission Rate (lbs/hr)	Emission Rate (g/s)
2024	0.0011	2.28	87	2.62E-02	1.11E-03	1.39E-04	1.75E-05
2025	0.0039	7.84	261	3.00E-02	1.27E-03	1.59E-04	2.00E-05
2026	0.0039	7.72	174	4.44E-02	1.88E-03	2.35E-04	2.96E-05
2027	0.0003	0.64	154	4.16E-03	1.76E-04	2.20E-05	2.77E-06
2028	0.0006	1.12	260	4.31E-03	1.82E-04	2.28E-05	2.87E-06
2029	0.0006	1.10	261	4.21E-03	1.78E-04	2.23E-05	2.81E-06
2030	0.0002	0.44	109	4.04E-03	1.71E-04	2.14E-05	2.69E-06

Note: Emissions evenly distributed over 51 modeled volume sources.

Hauling Length (miles)[3]	20.0	miles
Haul Length within 1,000 ft of Site (mile)[4]	0.85	miles
Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks)[5]	8	hours

[1] DPM emissions taken as PM_{10} exhaust emissions from CalEEMod average daily emissions.

[2] Construction durations determined for each year to adjust receptor exposures to the exposure durations for each construction year (see App C - Risk Calculations).

[3] Based on CalEEMod default 20 mile hauling distance.

[4] Emissions from CalEEMod offsite average daily emissions, which is based on proportioned haul truck trip distances , are adjusted to evaluate emissions from the 0.85-mile route within 1,000 of the project site.

[5] Work hours applied in By Hour/Day (HRDOW) variable emissions module in air dispersion model (see App C - Air Dispersion Model Output Files).

[6] Based on CalEEMod default 20 mile hauling distance.

PHASE 1

3.2 Site Preparation - 2024

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust					0.12	0.00	0.12	0.06	0.00	0.06
Off-Road	0.01	0.17	0.32	0.00		0.00	0.00		0.00	0.00
Total	0.01	0.17	0.32	0.00	0.12	0.00	0.12	0.06	0.00	0.06

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.2 Site Preparation Soil Haul - 2024

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling	0.00	0.09	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.09	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00

3.3 Rough Grading - 2024

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust					0.13	0.00	0.13	0.05	0.00	0.05
Off-Road	0.03	0.58	1.10	0.00		0.00	0.00		0.00	0.00
Total	0.03	0.58	1.10	0.00	0.13	0.00	0.14	0.05	0.00	0.05

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total	0.00	0.02	0.03	0.00	0.01	0.00	0.01	0.00	0.00	0.00

3.3 Rough Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.09	0.00	0.09	0.02	0.00	0.02
Off-Road	0.01	0.23	0.44	0.00		0.00	0.00		0.00	0.00
Total	0.01	0.23	0.44	0.00	0.09	0.00	0.09	0.02	0.00	0.02

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4 Utilities Trenching - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.00	0.00	0.01	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.00	0.01	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4 Utilities Trenching - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.00	0.03	0.05	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.03	0.05	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5 Fine Grading - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.09	0.00	0.09	0.04	0.00	0.04
Off-Road	0.02	0.43	0.83	0.00		0.00	0.00		0.00	0.00
Total	0.02	0.43	0.83	0.00	0.09	0.00	0.09	0.04	0.00	0.04

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.02	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

3.6 Paving 1 - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.01	0.15	0.26	0.00		0.00	0.00		0.00	0.00
Paving	0.01					0.00	0.00		0.00	0.00
Total	0.01	0.15	0.26	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7 Building Construction - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.06	0.87	1.49	0.00		0.01	0.01		0.01	0.01
Total	0.06	0.87	1.49	0.00		0.01	0.01		0.01	0.01

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.35	0.14	0.00	0.06	0.00	0.06	0.02	0.00	0.02
Worker	0.07	0.05	0.68	0.00	0.25	0.00	0.25	0.07	0.00	0.07
Total	0.08	0.40	0.82	0.00	0.30	0.00	0.31	0.08	0.00	0.09

3.7 Building Construction - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.06	0.92	1.57	0.00		0.01	0.01		0.01	0.01
Total	0.06	0.92	1.57	0.00		0.01	0.01		0.01	0.01

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.37	0.14	0.00	0.06	0.00	0.06	0.02	0.00	0.02
Worker	0.07	0.05	0.67	0.00	0.26	0.00	0.26	0.07	0.00	0.07
Total	0.08	0.42	0.82	0.00	0.32	0.00	0.32	0.09	0.00	0.09

3.8 Paving 2 - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.00	0.12	0.20	0.00		0.00	0.00		0.00	0.00
Paving	0.01					0.00	0.00		0.00	0.00
Total	0.01	0.12	0.20	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9 Architectural Coating - 2026

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Archit. Coating	0.35					0.00	0.00		0.00	0.00
Off-Road	0.00	0.01	0.02	0.00		0.00	0.00		0.00	0.00
Total	0.35	0.01	0.02	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Total	0.00	0.00	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00

PHASE 2

3.2 Site Preparation - 2027

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.00	0.01	0.02	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.01	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3 Grading - 2027

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Fugitive Dust					0.02	0.00	0.02	0.01	0.00	0.01
Off-Road	0.00	0.03	0.06	0.00		0.00	0.00		0.00	0.00
Total	0.00	0.03	0.06	0.00	0.02	0.00	0.02	0.01	0.00	0.01

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4 Building Construction - 2027

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road	0.02	0.30	0.53	0.00		0.00	0.00		0.00	0.00
Total	0.02	0.30	0.53	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.03	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.01	0.00	0.05	0.00	0.02	0.00	0.02	0.01	0.00	0.01
Total	0.01	0.03	0.06	0.00	0.02	0.00	0.03	0.01	0.00	0.01

3.4 Building Construction - 2028

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road	0.03	0.58	1.04	0.00		0.00	0.00		0.00	0.00
Total	0.03	0.58	1.04	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.06	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.04	0.00	0.04	0.01	0.00	0.01
Total	0.01	0.06	0.11	0.00	0.05	0.00	0.05	0.01	0.00	0.01

3.4 Building Construction - 2029

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road	0.03	0.58	1.04	0.00		0.00	0.00		0.00	0.00
Total	0.03	0.58	1.04	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.06	0.02	0.00	0.01	0.00	0.01	0.00	0.00	0.00
Worker	0.01	0.01	0.09	0.00	0.04	0.00	0.04	0.01	0.00	0.01
Total	0.01	0.06	0.11	0.00	0.05	0.00	0.05	0.01	0.00	0.01

3.4 Building Construction - 2030

Unmitigated Construction On-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Off-Road	0.01	0.24	0.43	0.00		0.00	0.00		0.00	0.00
Total	0.01	0.24	0.43	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

Category	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.03	0.00	0.02	0.00	0.02	0.00	0.00	0.00
Total	0.00	0.03	0.04	0.00	0.02	0.00	0.02	0.01	0.00	0.01

3.5 Architectural Coating (IB II) - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Archit. Coating	0.04					0.00	0.00		0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00
Total	0.04	0.01	0.01	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.6 Architectural Coating (CTE/Training) - 2028

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Archit. Coating	0.07					0.00	0.00		0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00
Total	0.07	0.01	0.01	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7 Paving - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Off-Road	0.00	0.03	0.04	0.00		0.00	0.00		0.00	0.00
Paving	0.00					0.00	0.00		0.00	0.00
Total	0.00	0.03	0.04	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.8 Architectural Coating (SCCC) - 2030

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Archit. Coating	0.05					0.00	0.00		0.00	0.00
Off-Road	0.00	0.01	0.01	0.00		0.00	0.00		0.00	0.00
Total	0.05	0.01	0.01	0.00		0.00	0.00		0.00	0.00

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Category										
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Appendix B. Air Dispersion Model Output

```
 *** AERMOD - VERSION  19191 ***   *** CCCD-01.2 Construction HRA                                                ***
01/13/22
 *** AERMET - VERSION  16216 ***   *** Fontana                                                                   ***
14:57:48

PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  FLGPOL  URBAN  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -

 **Model Is Setup For Calculation of Average CONCentration Values.

   --  DEPOSITION LOGIC  --
 **NO GAS DEPOSITION Data Provided.
 **NO PARTICLE DEPOSITION Data Provided.
 **Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
 **Model Uses NO WET DEPLETION.  WETDPLT  =  F

 **Model Uses URBAN Dispersion Algorithm for the SBL for    52 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =   2180000.0 ;  Urban Roughness Length =  1.000 m

 **Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        ADJ_U*   - Use ADJ_U* option for SBL in AERMET
        TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Accepts FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  OTHER

 **Model Calculates PERIOD Averages Only

 **This Run Includes:     52 Source(s);       2 Source Group(s); and     488 Receptor(s)

               with:      0 POINT(s), including
```

```
                    0 POINTCAP(s) and      0 POINTHOR(s)
               and:     51 VOLUME source(s)
               and:      1 AREA type source(s)
               and:      0 LINE source(s)
               and:      0 RLINE/RLINEXT source(s)
               and:      0 OPENPIT source(s)
               and:      0 BUOYANT LINE source(s) with      0 line(s)


**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date:  16216

**Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   367.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.6 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   CCCD-01.err
**File for Summary of Results:   CCCD-01.sum
```

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000001	0	0.19608E-01	459796.0	3768564.3	326.2	4.15	12.53	3.26	YES	HRDOW
L0000002	0	0.19608E-01	459796.1	3768537.3	326.0	4.15	12.53	3.26	YES	HRDOW
L0000003	0	0.19608E-01	459796.2	3768510.4	325.7	4.15	12.53	3.26	YES	HRDOW
L0000004	0	0.19608E-01	459796.4	3768483.4	325.5	4.15	12.53	3.26	YES	HRDOW
L0000005	0	0.19608E-01	459796.5	3768456.5	325.2	4.15	12.53	3.26	YES	HRDOW
L0000006	0	0.19608E-01	459796.6	3768429.5	324.9	4.15	12.53	3.26	YES	HRDOW
L0000007	0	0.19608E-01	459796.8	3768402.6	324.6	4.15	12.53	3.26	YES	HRDOW
L0000008	0	0.19608E-01	459796.9	3768375.6	324.3	4.15	12.53	3.26	YES	HRDOW
L0000009	0	0.19608E-01	459797.0	3768348.7	324.1	4.15	12.53	3.26	YES	HRDOW
L0000010	0	0.19608E-01	459797.2	3768321.7	323.8	4.15	12.53	3.26	YES	HRDOW
L0000011	0	0.19608E-01	459797.3	3768294.8	323.5	4.15	12.53	3.26	YES	HRDOW
L0000012	0	0.19608E-01	459797.4	3768267.8	323.3	4.15	12.53	3.26	YES	HRDOW
L0000013	0	0.19608E-01	459797.6	3768240.9	323.1	4.15	12.53	3.26	YES	HRDOW
L0000014	0	0.19608E-01	459797.7	3768213.9	322.8	4.15	12.53	3.26	YES	HRDOW
L0000015	0	0.19608E-01	459797.9	3768187.0	322.6	4.15	12.53	3.26	YES	HRDOW
L0000016	0	0.19608E-01	459798.0	3768160.0	322.4	4.15	12.53	3.26	YES	HRDOW
L0000017	0	0.19608E-01	459798.1	3768133.1	322.2	4.15	12.53	3.26	YES	HRDOW
L0000018	0	0.19608E-01	459798.3	3768106.1	321.9	4.15	12.53	3.26	YES	HRDOW
L0000019	0	0.19608E-01	459798.4	3768079.2	321.7	4.15	12.53	3.26	YES	HRDOW
L0000020	0	0.19608E-01	459798.5	3768052.2	321.5	4.15	12.53	3.26	YES	HRDOW
L0000021	0	0.19608E-01	459798.7	3768025.3	321.3	4.15	12.53	3.26	YES	HRDOW
L0000022	0	0.19608E-01	459798.8	3767998.3	321.1	4.15	12.53	3.26	YES	HRDOW
L0000023	0	0.19608E-01	459798.9	3767971.4	320.9	4.15	12.53	3.26	YES	HRDOW
L0000024	0	0.19608E-01	459799.1	3767944.4	320.8	4.15	12.53	3.26	YES	HRDOW
L0000025	0	0.19608E-01	459799.2	3767917.5	320.5	4.15	12.53	3.26	YES	HRDOW
L0000026	0	0.19608E-01	459799.3	3767890.5	320.1	4.15	12.53	3.26	YES	HRDOW
L0000027	0	0.19608E-01	459799.5	3767863.6	319.8	4.15	12.53	3.26	YES	HRDOW
L0000028	0	0.19608E-01	459799.6	3767836.6	319.8	4.15	12.53	3.26	YES	HRDOW

L0000029	0	0.19608E-01	459799.8	3767809.7	319.9	4.15	12.53	3.26	YES	HRDOW
L0000030	0	0.19608E-01	459799.9	3767782.7	319.9	4.15	12.53	3.26	YES	HRDOW
L0000031	0	0.19608E-01	459800.0	3767755.8	320.1	4.15	12.53	3.26	YES	HRDOW
L0000032	0	0.19608E-01	459800.2	3767728.8	320.3	4.15	12.53	3.26	YES	HRDOW
L0000033	0	0.19608E-01	459800.3	3767701.9	320.6	4.15	12.53	3.26	YES	HRDOW
L0000034	0	0.19608E-01	459800.4	3767674.9	320.9	4.15	12.53	3.26	YES	HRDOW
L0000035	0	0.19608E-01	459800.6	3767648.0	321.5	4.15	12.53	3.26	YES	HRDOW
L0000036	0	0.19608E-01	459800.7	3767621.0	322.0	4.15	12.53	3.26	YES	HRDOW
L0000037	0	0.19608E-01	459782.6	3767611.7	322.1	4.15	12.53	3.26	YES	HRDOW
L0000038	0	0.19608E-01	459755.7	3767611.0	321.8	4.15	12.53	3.26	YES	HRDOW
L0000039	0	0.19608E-01	459728.8	3767610.3	321.5	4.15	12.53	3.26	YES	HRDOW
L0000040	0	0.19608E-01	459701.8	3767609.5	321.2	4.15	12.53	3.26	YES	HRDOW

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000041	0	0.19608E-01	459674.9	3767608.8	320.9	4.15	12.53	3.26	YES	HRDOW
L0000042	0	0.19608E-01	459647.9	3767608.1	320.7	4.15	12.53	3.26	YES	HRDOW
L0000043	0	0.19608E-01	459621.0	3767607.4	320.5	4.15	12.53	3.26	YES	HRDOW
L0000044	0	0.19608E-01	459594.1	3767606.7	320.3	4.15	12.53	3.26	YES	HRDOW
L0000045	0	0.19608E-01	459567.1	3767605.9	320.2	4.15	12.53	3.26	YES	HRDOW
L0000046	0	0.19608E-01	459540.2	3767605.2	320.1	4.15	12.53	3.26	YES	HRDOW
L0000047	0	0.19608E-01	459513.2	3767604.5	319.9	4.15	12.53	3.26	YES	HRDOW
L0000048	0	0.19608E-01	459486.3	3767603.8	319.7	4.15	12.53	3.26	YES	HRDOW
L0000049	0	0.19608E-01	459459.4	3767603.0	319.6	4.15	12.53	3.26	YES	HRDOW
L0000050	0	0.19608E-01	459432.4	3767602.3	319.4	4.15	12.53	3.26	YES	HRDOW
L0000051	0	0.19608E-01	459405.5	3767601.6	319.3	4.15	12.53	3.26	YES	HRDOW

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
1	0	0.17505E-04	459596.8	3768228.5	322.9	4.15	4	1.93	YES	HRDOW

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ONSITE	1 ,
OFFSITE	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
	L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
	L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
	L0000025 , L0000026 , L0000027 , L0000028 , L0000029 , L0000030 , L0000031 , L0000032 ,
	L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 , L0000039 , L0000040 ,
	L0000041 , L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 ,
	L0000049 , L0000050 , L0000051 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	2180000.	1 , L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 ,
		L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 ,
		L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 ,
		L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , L0000029 , L0000030 , L0000031 ,
		L0000032 , L0000033 , L0000034 , L0000035 , L0000036 , L0000037 , L0000038 , L0000039 ,
		L0000040 , L0000041 , L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 ,
		L0000048 , L0000049 , L0000050 , L0000051 ,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = 1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000001 TO L0000051 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.1000E+01
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.0000E+00	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000001	459769.8	3768564.5	-0.80
L0000001	459769.8	3768564.5	-0.80
L0000040	459707.8	3767635.9	0.13

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54,   3.09,   5.14,   8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: FontanaADJU\FONT_V9_ADJU\FONT_v9.SFC Met Version: 16216
Profile file: FontanaADJU\FONT_V9_ADJU\FONT_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 3102 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2011 Year: 2011

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
11	01	01	1	01	-18.5	0.194	-9.000	-9.000	-999.	204.	41.2	0.25	2.82	1.00	1.80	69.	9.1	276.4	5.5
11	01	01	1	02	-23.8	0.239	-9.000	-9.000	-999.	281.	63.0	0.25	2.82	1.00	2.20	52.	9.1	275.4	5.5
11	01	01	1	03	-18.5	0.194	-9.000	-9.000	-999.	205.	41.2	0.25	2.82	1.00	1.80	32.	9.1	275.4	5.5
11	01	01	1	04	-1.4	0.067	-9.000	-9.000	-999.	57.	18.3	0.25	2.82	1.00	0.40	27.	9.1	274.2	5.5
11	01	01	1	05	-18.6	0.194	-9.000	-9.000	-999.	204.	41.2	0.25	2.82	1.00	1.80	51.	9.1	274.2	5.5
11	01	01	1	06	-29.7	0.296	-9.000	-9.000	-999.	387.	96.6	0.25	2.82	1.00	2.70	53.	9.1	274.2	5.5
11	01	01	1	07	-24.0	0.239	-9.000	-9.000	-999.	282.	63.0	0.25	2.82	1.00	2.20	70.	9.1	274.2	5.5
11	01	01	1	08	-8.4	0.138	-9.000	-9.000	-999.	127.	27.3	0.25	2.82	0.54	1.30	72.	9.1	275.4	5.5
11	01	01	1	09	44.3	0.280	0.571	0.005	147.	356.	-43.5	0.25	2.82	0.32	2.20	67.	9.1	277.5	5.5
11	01	01	1	10	122.7	0.264	0.952	0.005	247.	326.	-13.2	0.25	2.82	0.25	1.80	83.	9.1	279.9	5.5
11	01	01	1	11	179.8	0.316	1.733	0.005	1017.	426.	-15.4	0.25	2.82	0.22	2.20	58.	9.1	282.0	5.5
11	01	01	1	12	206.0	0.320	1.940	0.008	1244.	435.	-14.0	0.25	2.82	0.21	2.20	115.	9.1	283.1	5.5
11	01	01	1	13	132.6	0.214	1.733	0.009	1377.	243.	-6.5	0.25	2.82	0.21	1.30	147.	9.1	284.2	5.5
11	01	01	1	14	147.0	0.216	1.818	0.009	1431.	242.	-6.0	0.25	2.82	0.23	1.30	219.	9.1	284.9	5.5
11	01	01	1	15	104.0	0.208	1.633	0.009	1468.	228.	-7.6	0.25	2.82	0.26	1.30	126.	9.1	285.4	5.5
11	01	01	1	16	26.4	0.140	1.037	0.009	1477.	127.	-9.1	0.25	2.82	0.35	0.90	151.	9.1	284.9	5.5
11	01	01	1	17	-9.0	0.137	-9.000	-9.000	-999.	121.	24.9	0.25	2.82	0.63	1.30	69.	9.1	283.1	5.5
11	01	01	1	18	-33.4	0.342	-9.000	-9.000	-999.	481.	129.0	0.25	2.82	1.00	3.10	81.	9.1	281.4	5.5
11	01	01	1	19	-33.6	0.342	-9.000	-9.000	-999.	481.	128.9	0.25	2.82	1.00	3.10	51.	9.1	279.9	5.5
11	01	01	1	20	-23.6	0.239	-9.000	-9.000	-999.	287.	63.1	0.25	2.82	1.00	2.20	77.	9.1	278.8	5.5
11	01	01	1	21	-18.5	0.194	-9.000	-9.000	-999.	205.	41.2	0.25	2.82	1.00	1.80	53.	9.1	277.5	5.5
11	01	01	1	22	-23.7	0.239	-9.000	-9.000	-999.	281.	63.0	0.25	2.82	1.00	2.20	58.	9.1	277.5	5.5
11	01	01	1	23	-18.5	0.194	-9.000	-9.000	-999.	205.	41.2	0.25	2.82	1.00	1.80	64.	9.1	277.5	5.5

```
11 01 01   1 24   -4.5  0.094 -9.000 -9.000 -999.   74.     16.3  0.25   2.82   1.00    0.90   52.    9.1  277.0    5.5
```

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
11	01	01	01	5.5	0	-999.	-99.00	276.5	99.0	-99.00	-99.00
11	01	01	01	9.1	1	69.	1.80	-999.0	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC		X-COORD (M)	Y-COORD (M)	CONC
459864.83	3768050.82	3.84219		459889.25	3768048.46	2.84272
459909.25	3768048.46	2.29448		459949.25	3768048.46	1.57543
459969.25	3768048.46	1.33276		459981.88	3768047.58	1.20186
460009.25	3768048.46	0.98595		460029.25	3768048.46	0.85968
460049.25	3768048.46	0.75540		460064.66	3768060.37	0.72176
460110.16	3768197.93	0.75815		460120.78	3768052.35	0.50944
459851.90	3768072.59	4.79791		460074.80	3768077.30	0.72373
460107.48	3768064.93	0.57454		459851.90	3768092.59	4.94569
459895.37	3768098.83	3.03107		459911.55	3768098.48	2.58430
459931.55	3768098.48	2.15332		459943.04	3768098.27	1.94962
459963.04	3768098.27	1.65580		459974.73	3768097.85	1.51041
459988.77	3768097.85	1.35983		460008.77	3768097.85	1.17915
460021.45	3768098.13	1.08237		460071.90	3768092.59	0.77448
460107.48	3768084.93	0.61689		459851.90	3768112.59	5.04338
460071.90	3768112.59	0.81961		460105.40	3768101.11	0.65619
459851.90	3768132.59	5.09348	Res MER	459895.71	3768132.94	3.14655
459911.90	3768132.59	2.70102		459931.90	3768132.59	2.26748
459943.38	3768132.38	2.06176		459963.38	3768132.38	1.76208
459975.08	3768131.95	1.61323		459989.12	3768131.95	1.45752
460009.12	3768131.95	1.26952		460021.67	3768131.74	1.16782
460071.55	3768126.69	0.84932		460105.40	3768121.11	0.69225
459851.90	3768152.59	5.09237		460071.90	3768152.59	0.88904
460108.17	3768147.70	0.72140		459851.90	3768172.59	5.02657
459906.89	3768173.59	2.84382		459935.73	3768172.59	2.23485
459991.90	3768172.59	1.48587		460022.13	3768172.59	1.22274
460071.90	3768172.59	0.91127		460109.21	3768163.54	0.73586
459851.90	3768187.74	4.91598		459906.89	3768193.59	2.78466

459935.73	3768192.59	2.20602	459935.69	3768220.00	2.11003
459991.90	3768192.59	1.48566	460022.13	3768192.59	1.22970
460071.90	3768184.93	0.92047	460109.21	3768183.54	0.75340
459852.59	3768217.10	4.44016	459907.18	3768206.81	2.71090
459936.03	3768205.81	2.16286	459906.81	3768219.78	2.63117
459991.40	3768207.33	1.47788	460028.14	3768223.61	1.17127
460071.90	3768204.93	0.92763	459851.90	3768232.59	4.10378
459906.89	3768233.59	2.51275	459935.69	3768234.65	2.03221
459999.66	3768224.07	1.38025	460028.14	3768236.60	1.15532
460075.87	3768240.61	0.89835	460121.63	3768232.59	0.72259
459852.78	3768245.52	3.71006	459911.90	3768252.59	2.24129
459852.04	3768201.02	4.75118	459944.83	3768252.59	1.80855
459999.92	3768238.56	1.34866	460028.14	3768256.60	1.12062

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
460022.09	3768207.50	1.22561	460086.64	3768257.35	0.83990
460123.63	3768246.33	0.71336	459852.78	3768265.52	3.13011
459913.08	3768267.29	2.07125	459946.01	3768267.29	1.70145
460000.17	3768269.33	1.25881	460031.90	3768272.59	1.06546
460000.05	3768256.56	1.29982	460091.90	3768272.59	0.80536
460123.63	3768266.33	0.70457	459851.31	3768286.11	2.59275
459871.90	3768292.59	2.20471	459891.90	3768292.59	1.99625
459911.90	3768292.59	1.80526	459943.39	3768281.69	1.62412
459951.90	3768292.59	1.47960	460000.17	3768289.33	1.18694
460031.90	3768292.59	1.01528	460000.55	3768317.89	1.06888
460091.90	3768292.59	0.78132	460123.63	3768286.33	0.69036
459951.90	3768312.59	1.33970	460000.42	3768302.07	1.13559
460040.92	3768308.58	0.93300	460071.90	3768312.59	0.81265
459871.90	3768332.59	1.53924	459891.90	3768332.59	1.46116
459911.90	3768332.59	1.37440	459936.41	3768340.57	1.20668
459956.41	3768340.57	1.13231	460000.17	3768329.33	1.02167
460021.04	3768342.02	0.89775	460037.79	3768341.43	0.84743
460054.26	3768341.73	0.79818	460068.66	3768340.84	0.76036
460098.97	3768340.55	0.68355	460112.78	3768341.73	0.64934
460132.78	3768341.73	0.60566	459851.90	3768352.59	1.32191
459921.84	3768339.41	1.27178	460000.70	3768349.35	0.93459
460082.51	3768340.80	0.72397	459851.90	3768372.59	1.09455
459871.90	3768392.59	0.91301	459891.90	3768392.59	0.90383
459911.90	3768392.59	0.88653	459924.96	3768392.59	0.87180
459954.35	3768395.45	0.81590	459970.68	3768395.45	0.79121
459985.78	3768395.45	0.76690	460001.29	3768395.04	0.74279
460028.23	3768394.63	0.69843	460048.23	3768394.63	0.66420

460062.11	3768394.22	0.64183	460088.23	3768394.63	0.59802
460108.23	3768394.63	0.56659	460123.33	3768395.04	0.54297
459938.84	3768395.86	0.83491	460016.80	3768395.04	0.71652
460076.39	3768393.82	0.61904	459996.72	3768047.39	1.07399
460071.56	3768141.39	0.87452	460104.51	3768134.11	0.71645
459756.37	3768458.00	0.41962	459688.81	3768464.02	0.30591
459755.66	3768502.92	0.29947	459707.20	3768511.41	0.23881
459769.81	3768564.46	0.21230	459705.08	3768562.34	0.17574
459643.89	3768555.27	0.14691	459643.19	3768522.02	0.17398
459642.13	3768490.90	0.20672	459638.23	3768459.42	0.24750
459606.05	3768490.19	0.17632	459603.93	3768468.26	0.19767
459553.70	3768458.71	0.16382	459554.41	3768490.54	0.14067
459504.54	3768521.67	0.10070	459503.48	3768490.19	0.11321

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
459498.88	3768457.30	0.12714	459423.19	3768459.42	0.09200
459418.95	3768491.96	0.08137	459423.90	3768520.96	0.07560
459420.36	3768560.22	0.06668	459472.35	3768553.15	0.08034
459505.25	3768558.45	0.08845	459554.41	3768556.68	0.10583
459554.76	3768522.02	0.12235	459412.92	3768056.81	0.39377
459452.88	3768106.45	0.49496	459416.04	3768205.74	0.24997
459416.14	3767937.06	0.46388	459447.53	3767779.66	0.45705
459448.73	3767741.98	0.41204	459435.57	3767691.73	0.34057
459431.38	3767634.90	0.28527	459766.34	3767805.76	0.58381
459762.67	3767775.27	0.46601	459697.64	3767768.29	0.57196
459760.83	3767746.24	0.38512	459706.82	3767667.25	0.29489
459770.75	3767668.72	0.24372	459770.75	3767694.81	0.27678
459767.81	3767724.20	0.32790	459580.19	3767784.94	0.72783
459633.08	3767668.49	0.35076	459634.61	3767642.05	0.30604
459707.83	3767635.95	0.25242	459582.09	3767639.83	0.32253
459508.12	3767644.21	0.32732	459441.01	3767844.53	0.51159
459466.22	3767844.70	0.59759	459468.35	3768041.30	0.67841
460052.24	3767644.63	0.09551	460072.24	3767644.63	0.09062
460087.72	3767642.88	0.08672	460103.45	3767643.38	0.08347
460036.01	3767659.11	0.10366	460116.31	3767642.27	0.08065
460131.54	3767641.27	0.07756	460036.01	3767679.11	0.10964
460036.01	3767699.11	0.11645	460083.80	3767692.83	0.10003
460100.79	3767692.07	0.09543	460120.79	3767692.07	0.09066
460038.02	3767724.89	0.12605	460037.17	3767711.57	0.12079
460036.01	3767739.11	0.13347	460083.80	3767732.83	0.11357
460100.79	3767732.07	0.10812	460120.79	3767732.07	0.10251
460036.01	3767759.11	0.14433	460056.01	3767779.11	0.14774

460072.39	3767782.42	0.14259	460092.39	3767782.42	0.13435
460126.86	3767779.11	0.12012	460124.14	3767867.84	0.18694
460038.33	3767831.28	0.20466	460056.01	3767819.11	0.17977
460076.01	3767819.11	0.16828	460091.33	3767818.86	0.16002
460124.88	3767820.58	0.14553	460035.77	3767889.36	0.30230
460090.88	3767883.70	0.23162	460036.01	3767859.11	0.24549
460092.81	3767867.24	0.20816	460125.13	3767883.00	0.20294
460035.77	3767876.40	0.27611	460091.33	3767898.57	0.25354
460124.39	3767898.81	0.22294	460035.52	3767904.77	0.33790
460090.35	3767914.87	0.28206	460125.13	3767911.92	0.23997
460036.01	3767919.11	0.37384	460091.58	3767930.93	0.31032
460125.13	3767931.92	0.26968	460036.01	3767939.11	0.43139
460092.81	3767947.24	0.34135	460126.60	3767946.74	0.29190

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC		X-COORD (M)	Y-COORD (M)	CONC
460035.77	3767966.00	0.51988		460094.29	3767963.29	0.37334
460129.81	3767964.53	0.31805		460036.01	3767979.11	0.56541
460101.68	3767979.35	0.39484		460130.55	3767976.89	0.33905
460036.01	3767999.11	0.63890		460096.01	3767999.11	0.45286
460130.55	3767996.89	0.37634		459298.24	3768462.48	0.06022
459309.77	3768517.24	0.05433		459324.90	3768464.64	0.06494
459357.33	3768475.45	0.06988		459368.86	3768504.27	0.06683
459365.98	3768531.66	0.06155		459309.29	3768545.14	0.05081
459942.02	3767965.68	0.99888	Student Receptor	459864.83	3768050.82	3.52989
459889.25	3768048.46	2.65193		459909.25	3768048.46	2.15915
459949.25	3768048.46	1.49486		459969.25	3768048.46	1.26677
459981.88	3768047.58	1.14413		460009.25	3768048.46	0.94126
460029.25	3768048.46	0.82161		460049.25	3768048.46	0.72223
460064.66	3768060.37	0.69091		460110.16	3768197.93	0.73282
460120.78	3768052.35	0.48564		459851.90	3768072.59	4.35806
460074.80	3768077.30	0.69386		460107.48	3768064.93	0.54817
459851.90	3768092.59	4.47749		459895.37	3768098.83	2.84051
459911.55	3768098.48	2.43147		459931.55	3768098.48	2.03565
459943.04	3768098.27	1.84757		459963.04	3768098.27	1.57500
459974.73	3768097.85	1.43933		459988.77	3768097.85	1.29841
460008.77	3768097.85	1.12854		460021.45	3768098.13	1.03735
460071.90	3768092.59	0.74356		460107.48	3768084.93	0.59008
459851.90	3768112.59	4.56573		460071.90	3768112.59	0.78806
460105.40	3768101.11	0.62855		459851.90	3768132.59	4.61223
459895.71	3768132.94	2.95237		459911.90	3768132.59	2.53940
459931.90	3768132.59	2.14255		459943.38	3768132.38	1.95325
459963.38	3768132.38	1.67906		459975.08	3768131.95	1.54019

459989.12	3768131.95	1.39425	460009.12	3768131.95	1.21769
460021.67	3768131.74	1.12186	460071.55	3768126.69	0.81757
460105.40	3768121.11	0.66439	459851.90	3768152.59	4.61398
460071.90	3768152.59	0.85723	460108.17	3768147.70	0.69420
459851.90	3768172.59	4.56268	459906.89	3768173.59	2.67961
459935.73	3768172.59	2.12110	459991.90	3768172.59	1.42267
460022.13	3768172.59	1.17567	460071.90	3768172.59	0.87867
460109.21	3768163.54	0.70903	459851.90	3768187.74	4.47460
459906.89	3768193.59	2.63076	459935.73	3768192.59	2.09741
459935.69	3768220.00	2.01102	459991.90	3768192.59	1.42398
460022.13	3768192.59	1.18291	460071.90	3768184.93	0.88839
460109.21	3768183.54	0.72726	459852.59	3768217.10	4.08680
459907.18	3768206.81	2.56640	459936.03	3768205.81	2.05902

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
459906.81	3768219.78	2.49599	459991.40	3768207.33	1.41779
460028.14	3768223.61	1.12850	460071.90	3768204.93	0.89642
459851.90	3768232.59	3.79755	459906.89	3768233.59	2.38830
459935.69	3768234.65	1.93900	459999.66	3768224.07	1.32608
460028.14	3768236.60	1.11337	460075.87	3768240.61	0.86902
460121.63	3768232.59	0.69951	459852.78	3768245.52	3.45005
459911.90	3768252.59	2.13537	459852.04	3768201.02	4.34319
459944.83	3768252.59	1.72865	459999.92	3768238.56	1.29651
460028.14	3768256.60	1.08025	460022.09	3768207.50	1.17936
460086.64	3768257.35	0.81254	460123.63	3768246.33	0.69092
459852.78	3768265.52	2.91719	459913.08	3768267.29	1.97373
459946.01	3768267.29	1.62604	460000.17	3768269.33	1.21014
460031.90	3768272.59	1.02736	460000.05	3768256.56	1.24995
460091.90	3768272.59	0.77898	460123.63	3768266.33	0.68259
459851.31	3768286.11	2.40426	459871.90	3768292.59	2.06879
459891.90	3768292.59	1.88690	459911.90	3768292.59	1.71362
459943.39	3768281.69	1.54920	459951.90	3768292.59	1.41289
460000.17	3768289.33	1.14011	460031.90	3768292.59	0.97803
460000.55	3768317.89	1.02510	460091.90	3768292.59	0.75531
460123.63	3768286.33	0.66852	459951.90	3768312.59	1.27670
460000.42	3768302.07	1.08972	460040.92	3768308.58	0.89816
460071.90	3768312.59	0.78394	459871.90	3768332.59	1.43744
459891.90	3768332.59	1.37255	459911.90	3768332.59	1.29777
459936.41	3768340.57	1.14487	459956.41	3768340.57	1.07820
460000.17	3768329.33	0.97939	460021.04	3768342.02	0.86210
460037.79	3768341.43	0.81508	460054.26	3768341.73	0.76878
460068.66	3768340.84	0.73317	460098.97	3768340.55	0.66044

460112.78	3768341.73	0.62790	460132.78	3768341.73	0.58627
459851.90	3768352.59	1.22747	459921.84	3768339.41	1.20312
460000.70	3768349.35	0.89522	460082.51	3768340.80	0.69876
459851.90	3768372.59	1.01757	459871.90	3768392.59	0.85356
459891.90	3768392.59	0.84851	459911.90	3768392.59	0.83566
459924.96	3768392.59	0.82385	459954.35	3768395.45	0.77505
459970.68	3768395.45	0.75356	459985.78	3768395.45	0.73205
460001.29	3768395.04	0.71052	460028.23	3768394.63	0.67021
460048.23	3768394.63	0.63869	460062.11	3768394.22	0.61798
460088.23	3768394.63	0.57703	460108.23	3768394.63	0.54748
460123.33	3768395.04	0.52517	459938.84	3768395.86	0.79102
460016.80	3768395.04	0.68669	460076.39	3768393.82	0.59676
459996.72	3768047.39	1.02422	460071.56	3768141.39	0.84274

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
460104.51	3768134.11	0.68842	459756.37	3768458.00	0.39053
459688.81	3768464.02	0.28399	459755.66	3768502.92	0.28140
459707.20	3768511.41	0.22419	459769.81	3768564.46	0.20186
459705.08	3768562.34	0.16653	459643.89	3768555.27	0.13839
459643.19	3768522.02	0.16311	459642.13	3768490.90	0.19282
459638.23	3768459.42	0.22942	459606.05	3768490.19	0.16443
459603.93	3768468.26	0.18366	459553.70	3768458.71	0.15246
459554.41	3768490.54	0.13150	459504.54	3768521.67	0.09512
459503.48	3768490.19	0.10663	459498.88	3768457.30	0.11934
459423.19	3768459.42	0.08720	459418.95	3768491.96	0.07754
459423.90	3768520.96	0.07227	459420.36	3768560.22	0.06402
459472.35	3768553.15	0.07650	459505.25	3768558.45	0.08376
459554.41	3768556.68	0.09960	459554.76	3768522.02	0.11477
460052.24	3767644.63	0.09349	460072.24	3767644.63	0.08876
460087.72	3767642.88	0.08491	460103.45	3767643.38	0.08172
460036.01	3767659.11	0.10137	460116.31	3767642.27	0.07896
460131.54	3767641.27	0.07594	460036.01	3767679.11	0.10712
460036.01	3767699.11	0.11360	460083.80	3767692.83	0.09760
460100.79	3767692.07	0.09302	460120.79	3767692.07	0.08837
460038.02	3767724.89	0.12264	460037.17	3767711.57	0.11770
460036.01	3767739.11	0.12961	460083.80	3767732.83	0.11051
460100.79	3767732.07	0.10513	460120.79	3767732.07	0.09968
460036.01	3767759.11	0.13955	460056.01	3767779.11	0.14235
460072.39	3767782.42	0.13750	460092.39	3767782.42	0.12982
460126.86	3767779.11	0.11613	460124.14	3767867.84	0.17903
460038.33	3767831.28	0.19526	460056.01	3767819.11	0.17212
460076.01	3767819.11	0.16160	460091.33	3767818.86	0.15397

460124.88	3767820.58	0.14025	460035.77	3767889.36	0.28545
460090.88	3767883.70	0.22033	460036.01	3767859.11	0.23295
460092.81	3767867.24	0.19844	460125.13	3767883.00	0.19408
460035.77	3767876.40	0.26119	460091.33	3767898.57	0.24087
460124.39	3767898.81	0.21286	460035.52	3767904.77	0.31866
460090.35	3767914.87	0.26778	460125.13	3767911.92	0.22896
460036.01	3767919.11	0.35241	460091.58	3767930.93	0.29459
460125.13	3767931.92	0.25712	460036.01	3767939.11	0.40684
460092.81	3767947.24	0.32417	460126.60	3767946.74	0.27833
460035.77	3767966.00	0.49146	460094.29	3767963.29	0.35493
460129.81	3767964.53	0.30366	460036.01	3767979.11	0.53553
460101.68	3767979.35	0.37616	460130.55	3767976.89	0.32403
460036.01	3767999.11	0.60720	460096.01	3767999.11	0.43183

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ONSITE ***
INCLUDING SOURCE(S): 1 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
460130.55	3767996.89	0.36000	459298.24	3768462.48	0.05731
459309.77	3768517.24	0.05205	459324.90	3768464.64	0.06177
459357.33	3768475.45	0.06648	459368.86	3768504.27	0.06387
459365.98	3768531.66	0.05905	459309.29	3768545.14	0.04888

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC		X-COORD (M)	Y-COORD (M)	CONC
459864.83	3768050.82	2.51382		459889.25	3768048.46	1.82072
459909.25	3768048.46	1.47485		459949.25	3768048.46	1.05539
459969.25	3768048.46	0.91908		459981.88	3768047.58	0.84862
460009.25	3768048.46	0.72434		460029.25	3768048.46	0.65235
460049.25	3768048.46	0.59186		460064.66	3768060.37	0.54960
460110.16	3768197.93	0.43570		460120.78	3768052.35	0.43654
459851.90	3768072.59	3.10673		460074.80	3768077.30	0.52306
460107.48	3768064.93	0.45846		459851.90	3768092.59	3.09487
459895.37	3768098.83	1.68194		459911.55	3768098.48	1.42615
459931.55	3768098.48	1.19496		459943.04	3768098.27	1.09101
459963.04	3768098.27	0.94470		459974.73	3768097.85	0.87479
459988.77	3768097.85	0.80216		460008.77	3768097.85	0.71565
460021.45	3768098.13	0.66889		460071.90	3768092.59	0.52731
460107.48	3768084.93	0.45599		459851.90	3768112.59	3.08382
460071.90	3768112.59	0.52416		460105.40	3768101.11	0.45767
459851.90	3768132.59	3.07252	Res MER	459895.71	3768132.94	1.66453
459911.90	3768132.59	1.41106		459931.90	3768132.59	1.18206
459943.38	3768132.38	1.07915		459963.38	3768132.38	0.93419
459975.08	3768131.95	0.86485		459989.12	3768131.95	0.79290
460009.12	3768131.95	0.70727		460021.67	3768131.74	0.66156

460071.55	3768126.69	0.52271	460105.40	3768121.11	0.45498
459851.90	3768152.59	3.06148	460071.90	3768152.59	0.51774
460108.17	3768147.70	0.44639	459851.90	3768172.59	3.05032
459906.89	3768173.59	1.46924	459935.73	3768172.59	1.13523
459991.90	3768172.59	0.77103	460022.13	3768172.59	0.65193
460071.90	3768172.59	0.51444	460109.21	3768163.54	0.44234
459851.90	3768187.74	3.04193	459906.89	3768193.59	1.46316
459935.73	3768192.59	1.12985	459935.69	3768220.00	1.12261
459991.90	3768192.59	0.76662	460022.13	3768192.59	0.64787
460071.90	3768184.93	0.51238	460109.21	3768183.54	0.43945
459852.59	3768217.10	2.98749	459907.18	3768206.81	1.45484
459936.03	3768205.81	1.12350	459906.81	3768219.78	1.45618
459991.40	3768207.33	0.76556	460028.14	3768223.61	0.62175
460071.90	3768204.93	0.50896	459851.90	3768232.59	3.01642
459906.89	3768233.59	1.45058	459935.69	3768234.65	1.11836
459999.66	3768224.07	0.72561	460028.14	3768236.60	0.61900
460075.87	3768240.61	0.49388	460121.63	3768232.59	0.41180
459852.78	3768245.52	2.96088	459911.90	3768252.59	1.37465
459852.04	3768201.02	3.02652	459944.83	3768252.59	1.03519
459999.92	3768238.56	0.72114	460028.14	3768256.60	0.61461

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
460022.09	3768207.50	0.64493	460086.64	3768257.35	0.46870
460123.63	3768246.33	0.40658	459852.78	3768265.52	2.94931
459913.08	3768267.29	1.35401	459946.01	3768267.29	1.02147
460000.17	3768269.33	0.71258	460031.90	3768272.59	0.59931
460000.05	3768256.56	0.71625	460091.90	3768272.59	0.45575
460123.63	3768266.33	0.40334	459851.31	3768286.11	3.01895
459871.90	3768292.59	2.16354	459891.90	3768292.59	1.67857
459911.90	3768292.59	1.35951	459943.39	3768281.69	1.03788
459951.90	3768292.59	0.96925	460000.17	3768289.33	0.70735
460031.90	3768292.59	0.59457	460000.55	3768317.89	0.69767
460091.90	3768292.59	0.45190	460123.63	3768286.33	0.39995
459951.90	3768312.59	0.96276	460000.42	3768302.07	0.70280
460040.92	3768308.58	0.56454	460071.90	3768312.59	0.48777
459871.90	3768332.59	2.15229	459891.90	3768332.59	1.66366
459911.90	3768332.59	1.34542	459936.41	3768340.57	1.07544
459956.41	3768340.57	0.92050	460000.17	3768329.33	0.69568
460021.04	3768342.02	0.61545	460037.79	3768341.43	0.56459
460054.26	3768341.73	0.52117	460068.66	3768340.84	0.48809
460098.97	3768340.55	0.42911	460112.78	3768341.73	0.40600
460132.78	3768341.73	0.37651	459851.90	3768352.59	2.94941

459921.84	3768339.41	1.22101	460000.70	3768349.35	0.68683
460082.51	3768340.80	0.45944	459851.90	3768372.59	2.92693
459871.90	3768392.59	2.09944	459891.90	3768392.59	1.62236
459911.90	3768392.59	1.30944	459924.96	3768392.59	1.15794
459954.35	3768395.45	0.90930	459970.68	3768395.45	0.80939
459985.78	3768395.45	0.73312	460001.29	3768395.04	0.66726
460028.23	3768394.63	0.57496	460048.23	3768394.63	0.52002
460062.11	3768394.22	0.48726	460088.23	3768394.63	0.43443
460108.23	3768394.63	0.40056	460123.33	3768395.04	0.37788
459938.84	3768395.86	1.02626	460016.80	3768395.04	0.61107
460076.39	3768393.82	0.45722	459996.72	3768047.39	0.77712
460071.56	3768141.39	0.52033	460104.51	3768134.11	0.45479
459756.37	3768458.00	2.91252	459688.81	3768464.02	0.74574
459755.66	3768502.92	2.69351	459707.20	3768511.41	0.85943
459769.81	3768564.46	1.57199	459705.08	3768562.34	0.62656
459643.89	3768555.27	0.32586	459643.19	3768522.02	0.36911
459642.13	3768490.90	0.40341	459638.23	3768459.42	0.42155
459606.05	3768490.19	0.29632	459603.93	3768468.26	0.30806
459553.70	3768458.71	0.22565	459554.41	3768490.54	0.21150
459504.54	3768521.67	0.15297	459503.48	3768490.19	0.16228

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
459498.88	3768457.30	0.16922	459423.19	3768459.42	0.12375
459418.95	3768491.96	0.11574	459423.90	3768520.96	0.11176
459420.36	3768560.22	0.10275	459472.35	3768553.15	0.12471
459505.25	3768558.45	0.14110	459554.41	3768556.68	0.17880
459554.76	3768522.02	0.19668	459412.92	3768056.81	0.18882
459452.88	3768106.45	0.20931	459416.04	3768205.74	0.16462
459416.14	3767937.06	0.22379	459447.53	3767779.66	0.42066
459448.73	3767741.98	0.55619	459435.57	3767691.73	0.92122
459431.38	3767634.90	3.52142	459766.34	3767805.76	4.07961
459762.67	3767775.27	3.75964	459697.64	3767768.29	1.45053
459760.83	3767746.24	3.70944	459706.82	3767667.25	3.22895
459770.75	3767668.72	5.91025	459770.75	3767694.81	5.32363
459767.81	3767724.20	4.60522	459580.19	3767784.94	0.71253
459633.08	3767668.49	2.65956	459634.61	3767642.05	4.72101
459707.83	3767635.95	4.57101	459582.09	3767639.83	4.67471
459508.12	3767644.21	3.61693	459441.01	3767844.53	0.30617
459466.22	3767844.70	0.33822	459468.35	3768041.30	0.23772
460052.24	3767644.63	0.41209	460072.24	3767644.63	0.36872
460087.72	3767642.88	0.33750	460103.45	3767643.38	0.31263
460036.01	3767659.11	0.48160	460116.31	3767642.27	0.29279

460131.54	3767641.27	0.27212	460036.01	3767679.11	0.51779
460036.01	3767699.11	0.55023	460083.80	3767692.83	0.40848
460100.79	3767692.07	0.37238	460120.79	3767692.07	0.33702
460038.02	3767724.89	0.57799	460037.17	3767711.57	0.56405
460036.01	3767739.11	0.60109	460083.80	3767732.83	0.45116
460100.79	3767732.07	0.41182	460120.79	3767732.07	0.37260
460036.01	3767759.11	0.61894	460056.01	3767779.11	0.56422
460072.39	3767782.42	0.51810	460092.39	3767782.42	0.46720
460126.86	3767779.11	0.39320	460124.14	3767867.84	0.43009
460038.33	3767831.28	0.64358	460056.01	3767819.11	0.58218
460076.01	3767819.11	0.52500	460091.33	3767818.86	0.48648
460124.88	3767820.58	0.41600	460035.77	3767889.36	0.65583
460090.88	3767883.70	0.50114	460036.01	3767859.11	0.65495
460092.81	3767867.24	0.49472	460125.13	3767883.00	0.43072
460035.77	3767876.40	0.65615	460091.33	3767898.57	0.50122
460124.39	3767898.81	0.43398	460035.52	3767904.77	0.65572
460090.35	3767914.87	0.50397	460125.13	3767911.92	0.43377
460036.01	3767919.11	0.65269	460091.58	3767930.93	0.50122
460125.13	3767931.92	0.43480	460036.01	3767939.11	0.65019
460092.81	3767947.24	0.49808	460126.60	3767946.74	0.43250

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC		X-COORD (M)	Y-COORD (M)	CONC
460035.77	3767966.00	0.64677		460094.29	3767963.29	0.49408
460129.81	3767964.53	0.42690		460036.01	3767979.11	0.64367
460101.68	3767979.35	0.47786		460130.55	3767976.89	0.42536
460036.01	3767999.11	0.63995		460096.01	3767999.11	0.48764
460130.55	3767996.89	0.42456		459298.24	3768462.48	0.08465
459309.77	3768517.24	0.08120		459324.90	3768464.64	0.09063
459357.33	3768475.45	0.09792		459368.86	3768504.27	0.09719
459365.98	3768531.66	0.09246		459309.29	3768545.14	0.07802
459942.02	3767965.68	1.14367	Student Receptor	459864.83	3768050.82	2.25583
459889.25	3768048.46	1.69428		459909.25	3768048.46	1.39383
459949.25	3768048.46	1.01015		459969.25	3768048.46	0.88129
459981.88	3768047.58	0.81550		460009.25	3768048.46	0.69806
460029.25	3768048.46	0.62931		460049.25	3768048.46	0.57089
460064.66	3768060.37	0.52999		460110.16	3768197.93	0.42045
460120.78	3768052.35	0.42040		459851.90	3768072.59	2.69824
460074.80	3768077.30	0.50429		460107.48	3768064.93	0.44126
459851.90	3768092.59	2.69409		459895.37	3768098.83	1.57743
459911.55	3768098.48	1.34656		459931.55	3768098.48	1.13540
459943.04	3768098.27	1.03957		459963.04	3768098.27	0.90375
459974.73	3768097.85	0.83837		459988.77	3768097.85	0.77052

460008.77	3768097.85	0.68886	460021.45	3768098.13	0.64464
460071.90	3768092.59	0.50862	460107.48	3768084.93	0.43913
459851.90	3768112.59	2.69006	460071.90	3768112.59	0.50571
460105.40	3768101.11	0.44057	459851.90	3768132.59	2.68701
459895.71	3768132.94	1.56506	459911.90	3768132.59	1.33413
459931.90	3768132.59	1.12401	459943.38	3768132.38	1.02884
459963.38	3768132.38	0.89411	459975.08	3768131.95	0.82916
459989.12	3768131.95	0.76173	460009.12	3768131.95	0.68102
460021.67	3768131.74	0.63785	460071.55	3768126.69	0.50454
460105.40	3768121.11	0.43808	459851.90	3768152.59	2.68314
460071.90	3768152.59	0.49972	460108.17	3768147.70	0.43012
459851.90	3768172.59	2.67906	459906.89	3768173.59	1.38896
459935.73	3768172.59	1.08196	459991.90	3768172.59	0.74002
460022.13	3768172.59	0.62835	460071.90	3768172.59	0.49663
460109.21	3768163.54	0.42617	459851.90	3768187.74	2.67544
459906.89	3768193.59	1.38431	459935.73	3768192.59	1.07649
459935.69	3768220.00	1.06904	459991.90	3768192.59	0.73521
460022.13	3768192.59	0.62356	460071.90	3768184.93	0.49483
460109.21	3768183.54	0.42372	459852.59	3768217.10	2.63967
459907.18	3768206.81	1.37662	459936.03	3768205.81	1.07051

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
459906.81	3768219.78	1.37889	459991.40	3768207.33	0.73424
460028.14	3768223.61	0.59772	460071.90	3768204.93	0.49150
459851.90	3768232.59	2.66136	459906.89	3768233.59	1.37494
459935.69	3768234.65	1.06512	459999.66	3768224.07	0.69574
460028.14	3768236.60	0.59480	460075.87	3768240.61	0.47622
460121.63	3768232.59	0.39707	459852.78	3768245.52	2.62340
459911.90	3768252.59	1.30542	459852.04	3768201.02	2.66721
459944.83	3768252.59	0.98657	459999.92	3768238.56	0.69121
460028.14	3768256.60	0.59018	460022.09	3768207.50	0.61999
460086.64	3768257.35	0.45129	460123.63	3768246.33	0.39190
459852.78	3768265.52	2.61326	459913.08	3768267.29	1.28665
459946.01	3768267.29	0.97316	460000.17	3768269.33	0.68255
460031.90	3768272.59	0.57547	460000.05	3768256.56	0.68644
460091.90	3768272.59	0.43840	460123.63	3768266.33	0.38867
459851.31	3768286.11	2.64239	459871.90	3768292.59	1.98959
459891.90	3768292.59	1.57481	459911.90	3768292.59	1.28674
459943.39	3768281.69	0.98729	459951.90	3768292.59	0.92389
460000.17	3768289.33	0.67752	460031.90	3768292.59	0.57069
460000.55	3768317.89	0.66723	460091.90	3768292.59	0.43456
460123.63	3768286.33	0.38506	459951.90	3768312.59	0.91496

460000.42	3768302.07	0.67271	460040.92	3768308.58	0.54031
460071.90	3768312.59	0.46704	459871.90	3768332.59	1.93025
459891.90	3768332.59	1.53493	459911.90	3768332.59	1.25709
459936.41	3768340.57	1.01748	459956.41	3768340.57	0.87736
460000.17	3768329.33	0.66552	460021.04	3768342.02	0.58844
460037.79	3768341.43	0.53973	460054.26	3768341.73	0.49831
460068.66	3768340.84	0.46679	460098.97	3768340.55	0.41096
460112.78	3768341.73	0.38910	460132.78	3768341.73	0.36106
459851.90	3768352.59	2.53172	459921.84	3768339.41	1.14838
460000.70	3768349.35	0.65814	460082.51	3768340.80	0.43966
459851.90	3768372.59	2.52376	459871.90	3768392.59	1.90142
459891.90	3768392.59	1.50240	459911.90	3768392.59	1.22652
459924.96	3768392.59	1.08989	459954.35	3768395.45	0.86087
459970.68	3768395.45	0.76780	459985.78	3768395.45	0.69620
460001.29	3768395.04	0.63439	460028.23	3768394.63	0.54769
460048.23	3768394.63	0.49581	460062.11	3768394.22	0.46488
460088.23	3768394.63	0.41509	460108.23	3768394.63	0.38321
460123.33	3768395.04	0.36194	459938.84	3768395.86	0.96870
460016.80	3768395.04	0.58160	460076.39	3768393.82	0.43657
459996.72	3768047.39	0.74819	460071.56	3768141.39	0.50243

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
460104.51	3768134.11	0.43797	459756.37	3768458.00	2.13398
459688.81	3768464.02	0.63648	459755.66	3768502.92	1.95119
459707.20	3768511.41	0.71028	459769.81	3768564.46	1.09795
459705.08	3768562.34	0.51581	459643.89	3768555.27	0.28106
459643.19	3768522.02	0.31871	459642.13	3768490.90	0.34968
459638.23	3768459.42	0.36796	459606.05	3768490.19	0.25975
459603.93	3768468.26	0.27094	459553.70	3768458.71	0.20094
459554.41	3768490.54	0.18799	459504.54	3768521.67	0.13656
459503.48	3768490.19	0.14506	459498.88	3768457.30	0.15147
459423.19	3768459.42	0.11156	459418.95	3768491.96	0.10409
459423.90	3768520.96	0.10033	459420.36	3768560.22	0.09208
459472.35	3768553.15	0.11131	459505.25	3768558.45	0.12580
459554.41	3768556.68	0.15853	459554.76	3768522.02	0.17467
460052.24	3767644.63	0.39265	460072.24	3767644.63	0.35169
460087.72	3767642.88	0.32183	460103.45	3767643.38	0.29828
460036.01	3767659.11	0.46041	460116.31	3767642.27	0.27938
460131.54	3767641.27	0.25974	460036.01	3767679.11	0.49759
460036.01	3767699.11	0.53067	460083.80	3767692.83	0.39337
460100.79	3767692.07	0.35816	460120.79	3767692.07	0.32414
460038.02	3767724.89	0.55923	460037.17	3767711.57	0.54495

460036.01	3767739.11	0.58222	460083.80	3767732.83	0.43726
460100.79	3767732.07	0.39857	460120.79	3767732.07	0.36054
460036.01	3767759.11	0.59973	460056.01	3767779.11	0.54699
460072.39	3767782.42	0.50269	460092.39	3767782.42	0.45405
460126.86	3767779.11	0.38172	460124.14	3767867.84	0.41864
460038.33	3767831.28	0.62349	460056.01	3767819.11	0.56473
460076.01	3767819.11	0.51046	460091.33	3767818.86	0.47355
460124.88	3767820.58	0.40525	460035.77	3767889.36	0.63297
460090.88	3767883.70	0.48604	460036.01	3767859.11	0.63366
460092.81	3767867.24	0.48023	460125.13	3767883.00	0.41904
460035.77	3767876.40	0.63402	460091.33	3767898.57	0.48565
460124.39	3767898.81	0.42192	460035.52	3767904.77	0.63216
460090.35	3767914.87	0.48793	460125.13	3767911.92	0.42141
460036.01	3767919.11	0.62866	460091.58	3767930.93	0.48484
460125.13	3767931.92	0.42193	460036.01	3767939.11	0.62562
460092.81	3767947.24	0.48143	460126.60	3767946.74	0.41930
460035.77	3767966.00	0.62221	460094.29	3767963.29	0.47747
460129.81	3767964.53	0.41392	460036.01	3767979.11	0.61953
460101.68	3767979.35	0.46206	460130.55	3767976.89	0.41247
460036.01	3767999.11	0.61671	460096.01	3767999.11	0.47104

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: OFFSITE ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
460130.55	3767996.89	0.41136	459298.24	3768462.48	0.07790
459309.77	3768517.24	0.07414	459324.90	3768464.64	0.08328
459357.33	3768475.45	0.08946	459368.86	3768504.27	0.08847
459365.98	3768531.66	0.08408	459309.29	3768545.14	0.07098

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF OTHER IN MICROGRAMS/M**3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ONSITE	1ST HIGHEST VALUE IS	5.09348 AT (459851.90, 3768132.59, 322.01, 500.17, 0.00)	DC	
	2ND HIGHEST VALUE IS	5.09237 AT (459851.90, 3768152.59, 322.10, 500.17, 0.00)	DC	
	3RD HIGHEST VALUE IS	5.04338 AT (459851.90, 3768112.59, 321.93, 500.17, 0.00)	DC	
	4TH HIGHEST VALUE IS	5.02657 AT (459851.90, 3768172.59, 322.19, 500.17, 0.00)	DC	
	5TH HIGHEST VALUE IS	4.94569 AT (459851.90, 3768092.59, 321.84, 500.17, 0.00)	DC	
	6TH HIGHEST VALUE IS	4.91598 AT (459851.90, 3768187.74, 322.27, 500.17, 0.00)	DC	
	7TH HIGHEST VALUE IS	4.79791 AT (459851.90, 3768072.59, 321.76, 500.17, 0.00)	DC	
	8TH HIGHEST VALUE IS	4.75118 AT (459852.04, 3768201.02, 322.33, 500.17, 0.00)	DC	
	9TH HIGHEST VALUE IS	4.61398 AT (459851.90, 3768152.59, 322.10, 500.17, 6.10)	DC	
	10TH HIGHEST VALUE IS	4.61223 AT (459851.90, 3768132.59, 322.01, 500.17, 6.10)	DC	
OFFSITE	1ST HIGHEST VALUE IS	5.91025 AT (459770.75, 3767668.72, 320.74, 500.17, 0.00)	DC	
	2ND HIGHEST VALUE IS	5.32363 AT (459770.75, 3767694.81, 320.28, 500.17, 0.00)	DC	
	3RD HIGHEST VALUE IS	4.72101 AT (459634.61, 3767642.05, 319.53, 500.17, 0.00)	DC	
	4TH HIGHEST VALUE IS	4.67471 AT (459582.09, 3767639.83, 319.22, 500.17, 0.00)	DC	
	5TH HIGHEST VALUE IS	4.60522 AT (459767.81, 3767724.20, 319.76, 500.17, 0.00)	DC	
	6TH HIGHEST VALUE IS	4.57101 AT (459707.83, 3767635.95, 320.40, 500.17, 0.00)	DC	
	7TH HIGHEST VALUE IS	4.07961 AT (459766.34, 3767805.76, 318.94, 500.17, 0.00)	DC	
	8TH HIGHEST VALUE IS	3.75964 AT (459762.67, 3767775.27, 319.12, 500.17, 0.00)	DC	
	9TH HIGHEST VALUE IS	3.70944 AT (459760.83, 3767746.24, 319.30, 500.17, 0.00)	DC	
	10TH HIGHEST VALUE IS	3.61693 AT (459508.12, 3767644.21, 318.55, 500.17, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

*** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of   0 Fatal Error Message(s)
A Total of   7 Warning Message(s)
A Total of   838 Informational Message(s)

A Total of   43848 Hours Were Processed

A Total of   40 Calm Hours Identified

A Total of   798 Missing Hours Identified (1.82 Percent)

******** FATAL ERROR MESSAGES ********
           *** NONE ***

********   WARNING MESSAGES   ********
ME W186   831   MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used   0.50
ME W187   831   MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET
MX W438   8800   METQA: Convective Velocity Data Out-of-Range. KURDAT =   12010216
MX W438   11536   METQA: Convective Velocity Data Out-of-Range. KURDAT =   12042516
MX W420   16779   METQA: Wind Speed Out-of-Range.   KURDAT =   12113003
MX W450   26305   CHKDAT: Record Out of Sequence in Meteorological File at: 15010101
MX W450   26305   CHKDAT: Record Out of Sequence in Meteorological File at: 1 year gap

****
*** AERMOD Finishes Successfully ***
****

Results Summary

CCCD-01.2 Construction HRA
Fontana

Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		5.91025	ug/m^3	459770.75	3767668.72	320.74	0.00	500.17	

Concentration - Source Group: ONSITE

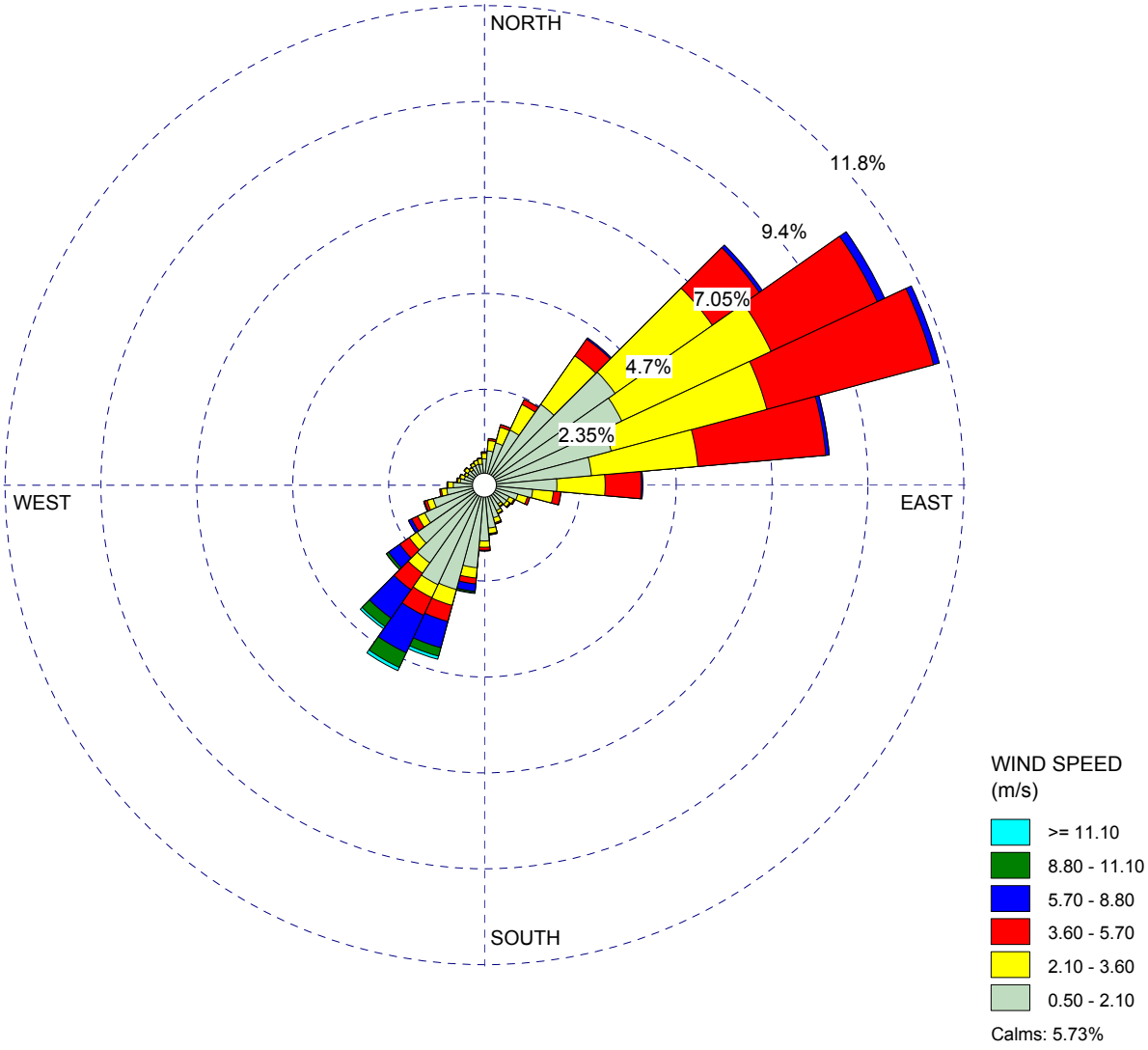
Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
PERIOD		5.09348	ug/m^3	459851.90	3768132.59	322.01	0.00	500.17	

WIND ROSE PLOT:

Station #3102

DISPLAY:

Wind Speed
Flow Vector (blowing to)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/2011 - 00:00** **End Date: 12/31/2016 - 23:59**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **5.73%**	TOTAL COUNT: **43273 hrs.**	
	AVG. WIND SPEED: **2.32 m/s**	DATE: **1/12/2022**	PROJECT NO.:

WRPLOT View - Lakes Environmental Software

Appendix C. Construction Risk Calculations

Table C1
Residential MER Concentrations for Risk Calculations

Contaminant	Source		Model Output [1] ($\mu g/m^3$)	Emission Rates [2] (g/s)	MEIR Conc. ($\mu g/m^3$)	Total MEIR Conc. Annual Average ($\mu g/m^3$)	Model Output [1] ($\mu g/m^3$)	Emission Rates [2] (g/s)	MEIR Conc. ($\mu g/m^3$)	Total MEIR Conc. Annual Average ($\mu g/m^3$)
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
Residential Receptors			**Unmitigated**				**Mitigated, Tier 4 Interim > 50 hp**			
DPM	2024	On-Site Emissions	5.09	2.08E-02	1.06E-01	1.06E-01	5.09	1.43E-03	7.27E-03	7.32E-03
		Truck Route	3.07	1.75E-05	5.37E-05		3.07	1.75E-05	5.37E-05	
	2025	On-Site Emissions	5.09	1.08E-02	5.51E-02	5.51E-02	5.09	1.29E-03	6.55E-03	6.61E-03
		Truck Route	3.07	2.00E-05	6.16E-05		3.07	2.00E-05	6.16E-05	
	2026	On-Site Emissions	5.09	9.29E-03	4.73E-02	4.74E-02	5.09	1.33E-03	6.76E-03	6.85E-03
		Truck Route	3.07	2.96E-05	9.09E-05		3.07	2.96E-05	9.09E-05	
	2027	On-Site Emissions	5.09	3.96E-03	2.02E-02	2.02E-02	5.09	3.01E-04	1.53E-03	1.54E-03
		Truck Route	3.07	2.77E-06	8.52E-06		3.07	2.77E-06	8.52E-06	
	2028	On-Site Emissions	5.09	3.88E-03	1.98E-02	1.98E-02	5.09	2.93E-04	1.49E-03	1.50E-03
		Truck Route	3.07	2.87E-06	8.83E-06		3.07	2.87E-06	8.83E-06	
	2029	On-Site Emissions	5.09	3.84E-03	1.96E-02	1.96E-02	5.09	2.97E-04	1.51E-03	1.52E-03
		Truck Route	3.07	2.81E-06	8.64E-06		3.07	2.81E-06	8.64E-06	
	2030	On-Site Emissions	5.09	1.30E-03	6.62E-03	6.63E-03	5.09	3.29E-04	1.68E-03	1.69E-03
		Truck Route	3.07	2.69E-06	8.27E-06		3.07	2.69E-06	8.27E-06	

Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations

Maximum Exposed Individual Resident (MEIR) UTM coordinates: 459851.90 E, 3768132.59 N

[1] Model Output at the MEIR based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C2
Residential Health Risk Calculations
Unmitigated Scenario

Source		MEIR	Weight	Contaminant			Dose (by age bin)			Carcinogenic Risks (by age bin)			**Total Cancer Risk**	**Chronic Hazards [3]**	
		Conc. ($\mu g/m^3$)	Fraction		URF $(\mu g/m^3)^{-1}$	CPF $(mg/kg/day)^{-1}$	3rd Trimester (mg/kg-day)	0 < 2 years (mg/kg-day)	2 < 9 years (mg/kg-day)	3rd Trimester per million	0 < 2 years per million	2 < 9 years per million	per million	REL ($\mu g/m^3$)	RESP
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Residential Receptors - Unmitigated															
2024	On & Off-Site Emissions	1.06E-01	1.0E+00	DPM	3.0E-04	1.1E+00	3.67E-05	1.11E-04		1.17E+00	1.16E+00		2.3	5.0E+00	2.12E-02
2025		5.51E-02						5.76E-05			7.35E+00		7.3		1.10E-02
2026		4.74E-02						4.95E-05			4.21E+00		4.2		9.48E-03
2027		2.02E-02							1.67E-05			3.18E-01	0.3		4.03E-03
2028		1.98E-02							1.63E-05			5.29E-01	0.5		3.96E-03
2029		1.96E-02							1.62E-05			5.24E-01	0.5		3.92E-03
2030		6.63E-03							5.48E-06			5.34E-01	0.5		1.33E-03
												Total	**15.8**		**0.055**

Maximum Exposed Individual Resident (MEIR) UTM coordinates: 459851.90 E, 3768132.59 N

		3rd Trimester	0 < 2 years	2 < 9 years
	OEHHA age bin	3rd Trimester	0 < 2 years	2 < 9 years
	exposure year(s)	2024	2024-2026	2027-2029
Dose Exposure Factors:	exposure frequency (days/year)	350	350	350
	inhalation rate (L/kg-day) [1]	361	1090	861
	inhalation absorption factor	1	1	1
	conversion factor (mg/µg; m^3/L)	1.0E-06	1.0E-06	1.0E-06
Risk Calculation Factors:	age sensitivity factor	10	10	3
	averaging time (years)	70	70	70
	per million	1.0E+06	1.0E+06	1.0E+06
	fraction of time at home	0.85	0.85	0.72

exposure durations per age bin		exposure durations (year)		
Construction Year	Const Duration [2]	3rd Trimester	0 < 2 years	2 < 9 years
2024	0.33	0.25	0.08	
2025	1.00		1.00	
2026	0.67		0.67	
2027	0.59			0.59
2028	1.00			1.00
2029	1.00			1.00
2030	0.42			0.42
Total	5.01	0.25	1.7	3.01

[1] Inhalation rate taken as the 95th percentile breathing rates (OEHHA, 2015).

[2] Construction durations determined for each year to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions).

[3] Chronic Hazards for DPM using the chronic reference exposure level (REL) for the Respiratory Toxicological Endpoint.

Table C3
Residential Health Risk Calculations
Mitigation - Tier 4 Interim Engines Eq. > 50 hp

Source		MEIR	Weight	Contaminant			Dose (by age bin)			Carcinogenic Risks (by age bin)			**Total Cancer Risk**	**Chronic Hazards [3]**	
		Conc.	Fraction		URF	CPF	3rd Trimester	0 < 2 years	2 < 9 years	3rd Trimester	0 < 2 years	2 < 9 years		REL	RESP
		($\mu g/m^3$)			$(\mu g/m^3)^{-1}$	$(mg/kg/day)^{-1}$	(mg/kg-day)	(mg/kg-day)	(mg/kg-day)	per million	per million	per million	per million	($\mu g/m^3$)	
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)
Residential Receptors - Mitigated, Tier 4 Interim Engines for Eq. > 50 HP															
2024	On & Off-Site Emissions	7.32E-03	1.0E+00	DPM	3.0E-04	1.1E+00	2.53E-06	7.65E-06		8.08E-02	8.00E-02		0.16	5.0E+00	1.46E-03
2025		6.61E-03						6.91E-06			8.81E-01		0.88		1.32E-03
2026		6.85E-03						7.16E-06			6.09E-01		0.61		1.37E-03
2027		1.54E-03							1.27E-06			2.43E-02	0.02		3.08E-04
2028		1.50E-03							1.24E-06			4.02E-02	0.04		3.00E-04
2029		1.52E-03							1.26E-06			4.07E-02	0.04		3.04E-04
2029		1.69E-03							1.39E-06			1.88E-02	0.02		3.37E-04
												Total	**1.8**		**0.005**

Maximum Exposed Individual Resident (MEIR) UTM coordinates: 459851.90 E, 3768132.59 N

		OEHHA age bin	3rd Trimester	0 < 2 years	2 < 9 years
		exposure year(s)	2024	2024-2026	2027-2029
Dose Exposure Factors:		exposure frequency (days/year)	350	350	350
		inhalation rate (L/kg-day) [1]	361	1090	861
		inhalation absorption factor	1	1	1
		conversion factor (mg/µg; m^3/L)	1.0E-06	1.0E-06	1.0E-06
Risk Calculation Factors:		age sensitivity factor	10	10	3
		averaging time (years)	70	70	70
		per million	1.0E+06	1.0E+06	1.0E+06
		fraction of time at home	0.85	0.85	0.72

exposure durations per age bin		exposure durations (year)		
Construction Year	Const Duration [2]	3rd Trimester	0 < 2 years	2 < 9 years
2024	0.33	0.25	0.08	
2025	1.00		1.00	
2026	0.67		0.67	
2027	0.59			0.59
2028	1.00			1.00
2029	1.00			1.00
2030	0.42			0.42
Total	5.01	0.25	1.75	3.01

[1] Inhalation rate taken as the 95th percentile breathing rates (OEHHA, 2015).

[2] Construction durations determined for each year to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions).

[3] Chronic Hazards for DPM using the chronic reference exposure level (REL) for the Respiratory Toxicological Endpoint.

Table C4
Preschool MER Concentrations for Risk Calculations

Contaminant	Source		Model Output [1] ($\mu g/m^3$)	Emission Rates [2] (g/s)	MEIR Conc. ($\mu g/m^3$)	Total MEIR Conc. Annual Average ($\mu g/m^3$)	Emission Rates [2] (g/s)	MEIR Conc. ($\mu g/m^3$)	Total MEIR Conc. Annual Average ($\mu g/m^3$)
(a)	(b)		(c)	(d)	(e)	(f)	(g)	(h)	(i)
Preschool Receptors - Unmitigated							**Mitigated, Tier 4 Interim > 50 hp**		
DPM	2024	On-Site Emissions	1.00	2.08E-02	2.08E-02	2.08E-02	1.43E-03	1.42E-03	1.44E-03
		Truck Route	1.14	1.75E-05	2.00E-05		1.75E-05	2.00E-05	
	2025	On-Site Emissions	1.00	1.08E-02	1.08E-02	1.08E-02	1.29E-03	1.29E-03	1.31E-03
		Truck Route	1.14	2.00E-05	2.29E-05		2.00E-05	2.29E-05	
	2026	On-Site Emissions	1.00	9.29E-03	9.28E-03	9.31E-03	1.33E-03	1.33E-03	1.36E-03
		Truck Route	1.14	2.96E-05	3.38E-05		2.96E-05	3.38E-05	
	2027	On-Site Emissions	1.00	3.96E-03	3.95E-03	3.96E-03	3.01E-04	3.00E-04	3.04E-04
		Truck Route	1.14	2.77E-06	3.17E-06		2.77E-06	3.17E-06	
	2028	On-Site Emissions	1.00	3.88E-03	3.88E-03	3.88E-03	2.93E-04	2.93E-04	2.96E-04
		Truck Route	1.14	2.87E-06	3.29E-06		2.87E-06	3.29E-06	
	2029	On-Site Emissions	1.00	3.84E-03	3.84E-03	3.84E-03	2.97E-04	2.97E-04	3.00E-04
		Truck Route	1.14	2.81E-06	3.22E-06		2.81E-06	3.22E-06	
	2029	On-Site Emissions	1.00	1.30E-03	1.30E-03	1.30E-03	3.29E-04	3.29E-04	3.32E-04
		Truck Route	1.14	2.69E-06	3.08E-06		2.69E-06	3.08E-06	

Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations

Maximum Exposed Preschool Receptor (MEIR) UTM coordinates: 459942.02 E, 3767965.68 N

[1] Model Output at the MEIR based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Construction Emissions).

Table C5
Preschool Health Risk Calculations

Source		MEIR	Weight	Contaminant			Dose (by age bin)		Carcinogenic Risks (by age bin)		**Total Cancer Risk**	**Chronic Hazards [3]**	
		Conc. ($\mu g/m^3$)	Fraction		URF $(\mu g/m^3)^{-1}$	CPF $(mg/kg/day)^{-1}$	0 < 2 years (mg/kg-day)	2 < 16 years (mg/kg-day)	0 < 2 years per million	2 < 16 years per million	per million	REL ($\mu g/m^3$)	RESP
(a)		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)
Preschool Receptors - Unmitigated													
2024	On & Off-Site Emissions	2.08E-02	1.0E+00	DPM	3.0E-04	1.1E+00	1.78E-05		8.85E-01		0.9	5.0E+00	4.16E-03
2025		1.08E-02					9.25E-06		1.39E+00		1.4		2.16E-03
2026		9.31E-03					7.96E-06		7.96E-01		0.8		1.86E-03
2027		3.96E-03						1.47E-06		3.89E-02	0.0		7.91E-04
2028		3.88E-03						1.44E-06		6.47E-02	0.1		7.77E-04
2029		3.84E-03						1.42E-06		6.40E-02	0.1		7.68E-04
2029		1.30E-03						4.82E-07		6.53E-02	0.1		2.60E-04
										Total	**3.3**		**0.011**
Preschool Receptors - Mitigated, Tier 4 Interim Engines for Eq. > 50 HP													
2024	On & Off-Site Emissions	1.44E-03	1.0E+00	DPM	3.0E-04	1.1E+00	1.24E-06		6.15E-02		0.1	5.0E+00	2.89E-04
2025		1.31E-03					1.12E-06		1.68E-01		0.2		2.62E-04
2026		1.36E-03					1.16E-06		1.16E-01				
2027		3.04E-04						1.12E-07		2.99E-03			
2028		2.96E-04						1.10E-07		4.94E-03			
2029		3.00E-04						1.11E-07		5.00E-03	0.0		6.00E-05
2029		3.32E-04						1.23E-07		1.67E-02	0.0		6.64E-05
										Total	**0.3**		**0.001**

Maximum Exposed Preschool Receptor (MEIR) UTM coordinates: 459942.02 E, 3767965.68 N

		OEHHA age bin	0 < 2 years	2 < 16 years
		exposure year(s)	2024-2026	2027-2029
Dose Exposure Factors:		exposure frequency (days/year)	260	260
		8-hour inhalation rate (L/kg-day) [1]	1200	520
		inhalation absorption factor	1	1
		conversion factor (mg/µg; m^3/L)	1.0E-06	1.0E-06
Risk Calculation Factors:		age sensitivity factor	10	3
		averaging time (years)	70	70
		per million	1.0E+06	1.0E+06

[1] Inhalation rate taken as the 8-hour 95th percentile breathing rates, Moderate Activity (OEHHA, 2015).

[2] Construction durations determined for each year to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions).

[3] Chronic Hazards for DPM using the chronic reference exposure level (REL) for the Respiratory Toxicological Endpoint.

exposure durations per age bin		exposure durations (year)	
Construction Year	Const Duration [2]	0 < 2 years	2 < 16 years
2024	0.33	0.33	
2025	1.00	1.00	
2026	0.67	0.67	
2027	0.59		0.59
2028	1.00		1.00
2029	1.00		1.00
2030	0.42		0.42
Total	5.01	2.00	3.01