

Appendix D2 Health Risk Assessment

Appendices

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June 2023 | Health Risk Assessment

IRWINDALE GATEWAY SPECIFIC PLAN

City of Irwindale

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1. Introduction

The 68.1-acre Irwindale Gateway Specific Plan (Specific Plan) area is at 13620 Live Oak Lane in the central portion of Irwindale (proposed project). The project would redevelop a former sand and gravel quarry and a former street-cleaning business with one of two site options: Option 1 which includes 954,796 square feet (SF) of industrial warehouse space and 28,000 SF of office space or Option 2 which includes 725,00 SF of industrial warehouse space, 36,000 SF of office space and a 16-acre Battery Energy Storage System (BESS).

The nearest air quality sensitive receptors to the project site include park users at Kare Youth League Irwindale approximately 300 feet to the north and single-family residence approximately 2,150 feet to the southeast. Operation of the proposed project would generate diesel particulate matter (DPM, a toxic air contaminant) emissions due to trucking- and warehouse-related activity in proximity to these nearby sensitive receptors. As recommended under the guidelines of “Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act” prepared by the Office of the Attorney General of California, an operational health risk assessment (HRA) was conducted to evaluate potential health risk impacts from project-related truck trips and other project-related sources of DPM to the nearby surrounding sensitive receptors (OAG, 2023). Guidance from the California Environmental Protection Agency (CalEPA), Office of Environmental Health Hazard Assessment (OEHHA), California Air Pollution Control Officers Association (CAPCOA), and the South Coast Air Quality Management District (South Coast AQMD) was used to complete the HRA.

In addition to project operation, project construction is anticipated to take place starting in July 2024 and be completed by August 2027. The nearby sensitive receptors could be potentially impacted from the proposed construction activities. Therefore, the health risk impacts from construction activities were also determined for nearby sensitive receptors.

This report presents the results of a construction and operational health risk assessment for the proposed project. This HRA considers the health impact to sensitive receptors from diesel trucks, transport refrigeration units (TRUs) and diesel-fueled off-road equipment (i.e., forklifts and yard trucks). Health impacts were based on conservative (i.e., health protective) assumptions. The United States Environmental Protection Agency (USEPA, 2005) and 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 do not necessarily represent actual risks experienced by populations near a site. The use of conservative assumptions tends to produce upper-bound estimates of risk and usually overestimate exposure and thus risk.

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

- It was assumed that maximum exposed children and adults stood outside at the site for 24 hours per day, 350 days per year. In reality, California residents typically spend, on average, 2 hours per day outdoors at their residences (USEPA, 2011). This would result in lower estimated risk values.
- The calculated risk for infants from third trimester to age 2 years is multiplied by a factor of 10 and for children from 2 to 16 years is multiplied by a factor of 3 to account for early life exposure and uncertainty in child versus adult exposure impacts (OEHHA, 2015).

For sports park receptors, the following conservative assumptions were used:

- It was assumed that park users at Kare Youth League Irwindale stood outside for 180 days per year, 4 hours per day for 14 years—ages 2 to 16 years. In reality, park users would be exposed for shorter overall durations during times they are enrolled in a specific seasonal league or camp.
- The calculated risk for children from ages 2 to 16 years is multiplied by a factor of 3 to account for early life exposure and uncertainty in child versus adult exposure impacts (OEHHA, 2015).

2. Project Description

The 68.1-acre Irwindale Gateway Specific Plan (Specific Plan or proposed project) area is at 13620 Live Oak Lane in the central portion of Irwindale. It is adjacent and to the east of Interstate 605 (I-605), approximately 1.5 miles south of I-210, and 2.7 miles north of I-10. The project site encompasses a former sand and gravel quarry, the NuWay Live Oak Inert Landfill (NuWay Landfill), and a former street-cleaning business. The site is bounded by I-605 to the west, Live Oak Lane to the north and east, and Live Oak Avenue to the south. The Specific Plan would provide a mix of industrial, business park, and commercial uses with site redevelopment.

Construction of the proposed project would occur in two parts, with the first starting in July 2024 through the end of December 2025 and the second beginning in September 2026 and to be completed in August 2027. The proposed operating hours of the potential business(es) that may occupy the building is 24 hours per day, seven days a week. Two potential site plans include a three industrial building option (Option 1) and a two industrial building option with a Battery Energy Storage System (Option 2). A land use comparison is shown in Table 1, *Proposed Land Use, Option 1 and Option 2*.

Table 1 Proposed Land Use, Option 1 and Option 2

Development Option	Land Use	Acres	Permitted Building/Structure Use	Square Feet/Other Details
Option 1	Industrial/Business Park	68.1 ac	General light industrial, manufacturing, warehouse/distribution, e-commerce fulfillment center	<ul style="list-style-type: none"> Up to 1,000,000 sf of building space Conceptual plan: 954,796 sf of warehouse space and 28,000 sf of office space
Option 2	Industrial/Business Park	39.3 ac	General light industrial, manufacturing, warehouse/distribution, e-commerce fulfillment center	<ul style="list-style-type: none"> Up to 725,000 sf of building space Conceptual plan: 668,070 sf of warehouse space and 36,000 sf of office space
	Battery Energy Storage System (BESS)	16 ac	Battery enclosure, generation step-up transformer, substation, overall facility area	<ul style="list-style-type: none"> Battery enclosure dimensions: 8'10" x 29'11" x 5'5"W Generation step-up transformer dimensions: 6'H x 8'6"L x 8'6"W Substation: 2 ac Overall facility area: 14 ac

The proposed site plans for the proposed project are shown in Figure 1, *Option 1 Site Plan*, and in Figure 2, *Option 2 Site Plan*. Option 1 would include 954,796 SF of warehouse space with 153 total loading docks, and Option 2 includes 731,886 SF of warehouse space with 128 loading docks. Under both site options, truck access will be provided via Live Oak Avenue, Live Oak Lane, and Arrow Highway. The project would be permitted to allow 24-hour daily operations.

Typically, industrial warehouse projects include indoor and outdoor cargo handling equipment to move containers short-distances on-site. For most industrial warehousing projects, all indoor cargo handling equipment (i.e., forklifts) would be electric consistent with industry standards. However, outdoor equipment such as yard trucks will have a mix of diesel-fueled and non-fueled engines. Warehouse projects typically have 3.6 yard trucks per million square feet of building space (South Coast AQMD, 2014). To provide conservative estimates of health risks from project operation, all modeled forklifts are assumed to be diesel-fueled.

The following TRU and off-road equipment assumptions were modeled as part of the Air Quality and Greenhouse Gas Emissions (GHG) evaluation for the Draft Environmental Impact Report (DEIR) for the project (PlaceWorks, 2023) and modeled for this HRA:

Option 1

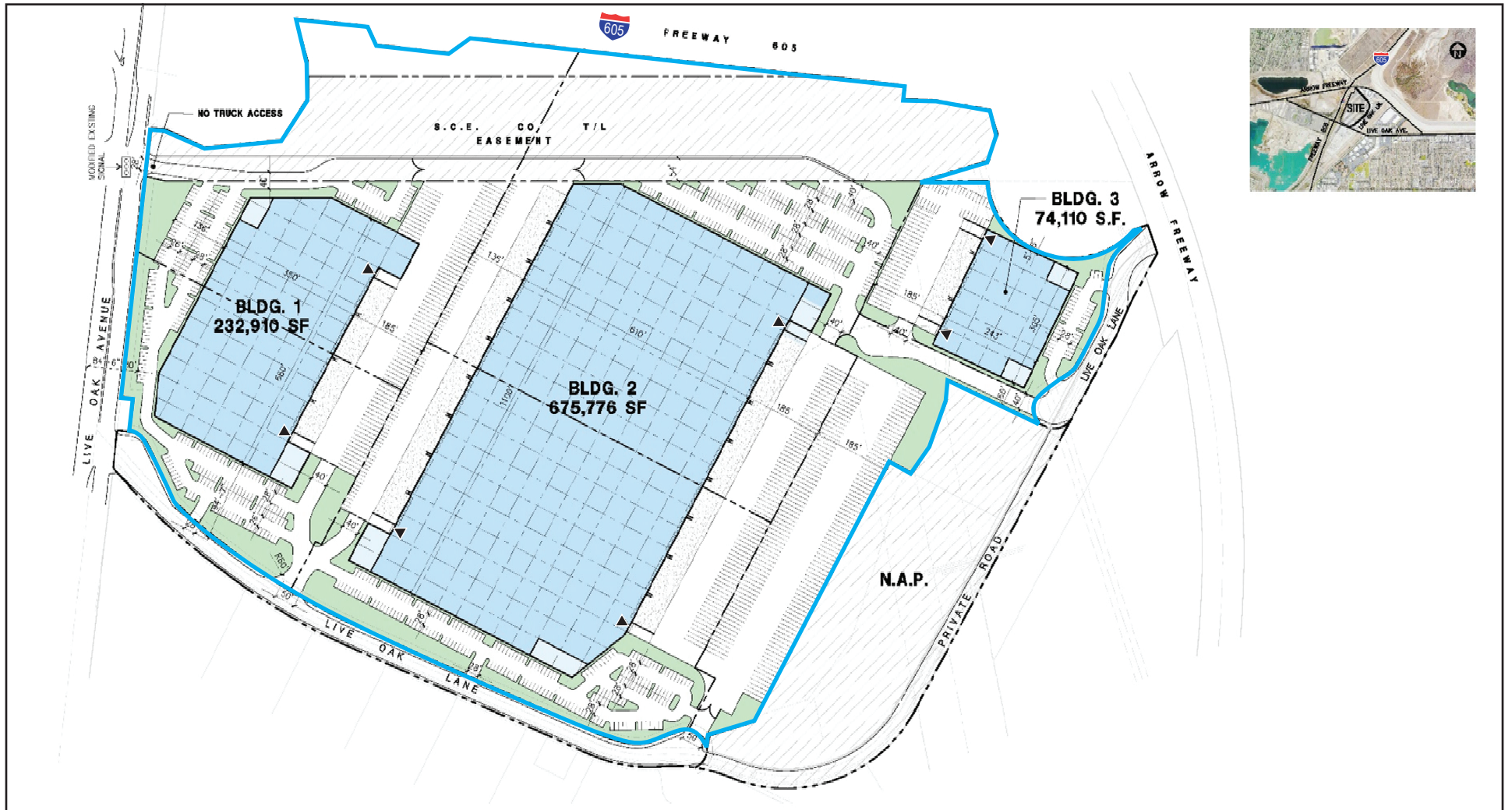
- Forklifts: 53 forklifts (all assumed diesel-fueled), operating 8 hours per day, 365 days per year at the project site.
- Yard Trucks: 4 diesel-fueled yard trucks, operating 8 hours per day, 365 days per year at the project site.
- TRUs: 214 truck trips with TRUs per day (107 round trips/day), idling 2 hours/day per truck.

Option 2

- Forklifts: 37 forklifts (all assumed diesel-fueled), operating 8 hours per day, 365 days per year at the project site.
- Yard Trucks: 3 diesel-fueled yard trucks, operating 8 hours per day, 365 days per year at the project site.
- TRUs: 230 truck trips with TRUs per day (115 round trips/day), idling 2 hours/day per truck.

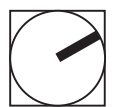
The proposed BESS for Option 2 would consist of 712 containers, each containing 8 battery racks with 6 battery cells (or modules) per rack (i.e., 48 modules per container). No toxic air contaminants (TACs) are emitted during normal operation of a BESS. However, there is potential for TAC emissions from a thermal runaway event in which a fire occurs within a container due to battery malfunction, elevated temperatures, and battery combustion. An evaluation of potential air toxic health risks from a thermal runaway event is included in the Air Quality Chapter of the Draft EIR for the proposed project (PlaceWorks, 2023). Based on the results of the health risk screening analysis, the BESS would not expose sensitive receptors to substantial pollutant concentrations and impacts would be less than significant. The evaluation of a thermal runaway emergency event was not included in this HRA report, which is intended to evaluate potential long-term health risk impacts from project construction and operation.

Figure 1 - Option 1 Site Plan



— Project Site Boundary Potential Office Warehouse

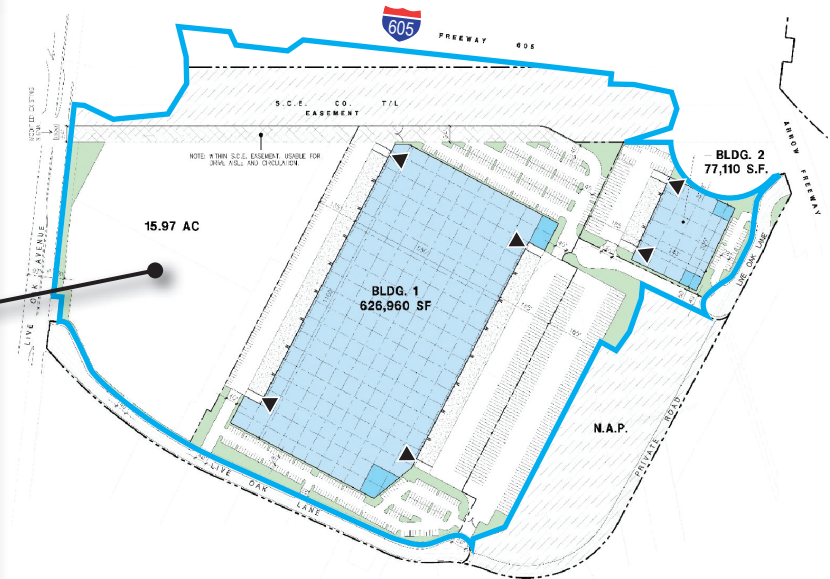
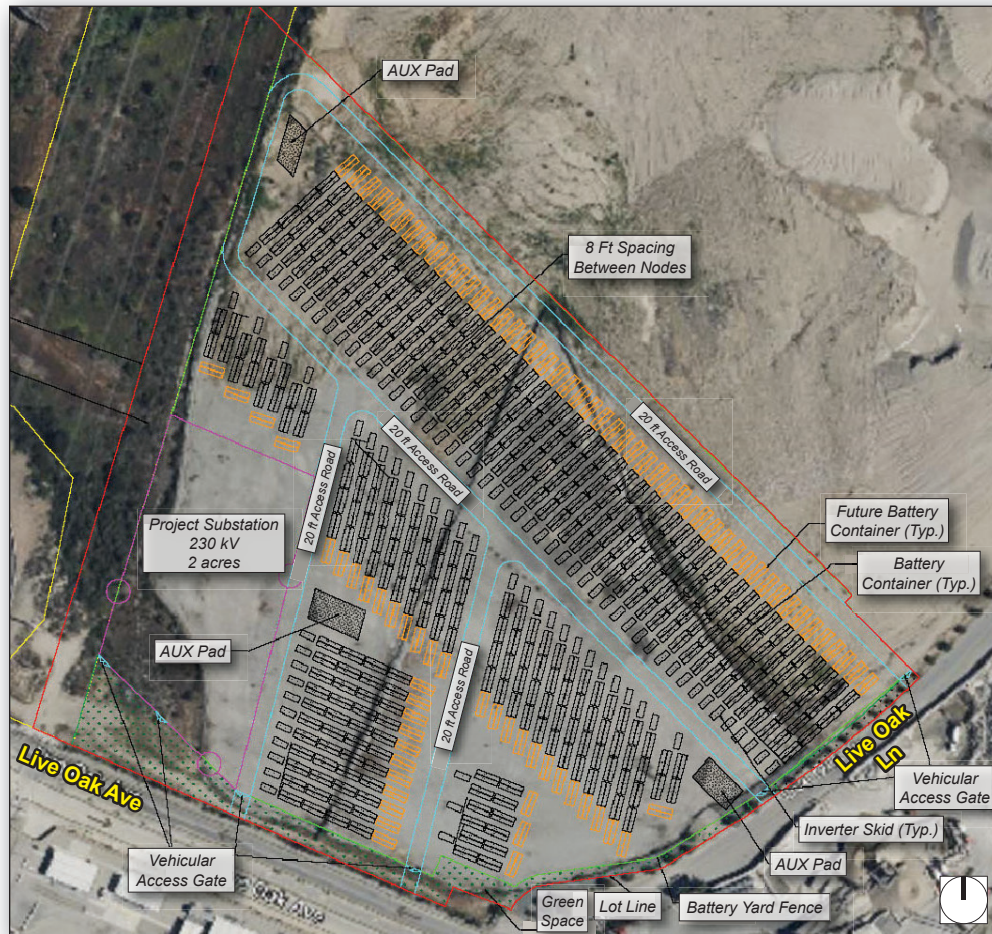
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Scale (Feet)



Source: HPA, 2023.

Figure 2 - Option 2 Site Plan

Battery Energy Storage System (BESS) Layout



Note: This is a conceptual plan. It is based on preliminary information which is not fully verified and may be incomplete. It is meant as a comparative aid in examining alternative development strategies and any quantities indicated are subject to revision as more reliable information becomes available.

— Project Site Boundary Potential Office with 2nd Floor Warehouse

0 1,000
Scale (Feet)



Source: HPA, 2023.

3. Existing Setting

3.1 SITE LOCATION

The project site is in the southeastern portion of the City of Irwindale in Los Angeles County. The city is approximately 20 miles east of downtown Los Angeles, with neighboring cities of West Covina, Baldwin Park, Vincent, Azusa, Duarte, El Monte, North El Monte, and Monrovia. The project site is at 13620 Live Oak Lane - it is bounded by I-605 to the west, Live Oak Lane to the north and east, and Live Oak Avenue to the south.

3.2 SURROUNDING USES

The project site is immediately surrounded by business and industrial uses. The Irwindale Speedway is located beyond I-605 to the southwest. Residential areas are approximately 2,150 feet to the southeast. The Kare Youth League Irwindale sports park is approximately 300 feet to the north. The proposed development site and the surrounding area are shown in Figure 3, *Aerial Photograph*.

3.3 DISADVANTAGED COMMUNITIES / ENVIRONMENTAL JUSTICE AREAS

In 2016, the California Legislature passed Senate Bill 1000 (SB 1000), Planning for Healthy Communities Act, to incorporate environmental justice into the local land use planning process. SB 1000's definition of a disadvantaged community includes areas that:

- Are disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation;
- And have concentrations of people with low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

The California Communities Environmental Health Screening Tool (CalEnviroScreen or CES) was developed by OEHHA on behalf of CalEPA. CES is a method for identifying communities that are disproportionately burdened by pollution and/or have disproportionately vulnerable populations in those communities.

CES generates a composite score that assesses disproportionate impacts on California communities. It uses 21 indicators across four categories—pollution exposure, environmental effects, sensitive populations, and socioeconomic factors. These categories are summed into two primary metrics—pollution burden and population characteristics—which CES multiplies to arrive at the CES composite score. Pollution burden represents the potential exposures to pollutants and the adverse environmental conditions caused by pollution. Population characteristics represent biological traits, health status, or community characteristics that can result

in increased vulnerability to pollution. The results for each census tract are measured against every other census tract in California.

Figure 4, *Pollution Burden*, shows the pollution burden for the project site and vicinity relative to California. The pollution burden map identifies communities that are exposed to pollution from human activities, such as air pollution (ozone, PM_{2.5}, DPM), water pollution (drinking water contaminants), and hazardous materials (pesticide use, children's lead exposure, toxic releases), and traffic density. This metric represents the potential exposures to pollutants and the adverse environmental conditions caused by pollution. As shown in Figure 4, the project site is in a census tract that ranks in the 80th to 90th percentile (85th percentile) for pollution burden.

Figure 3 - Aerial Photograph



— Project Site Boundary

- - - City Boundary

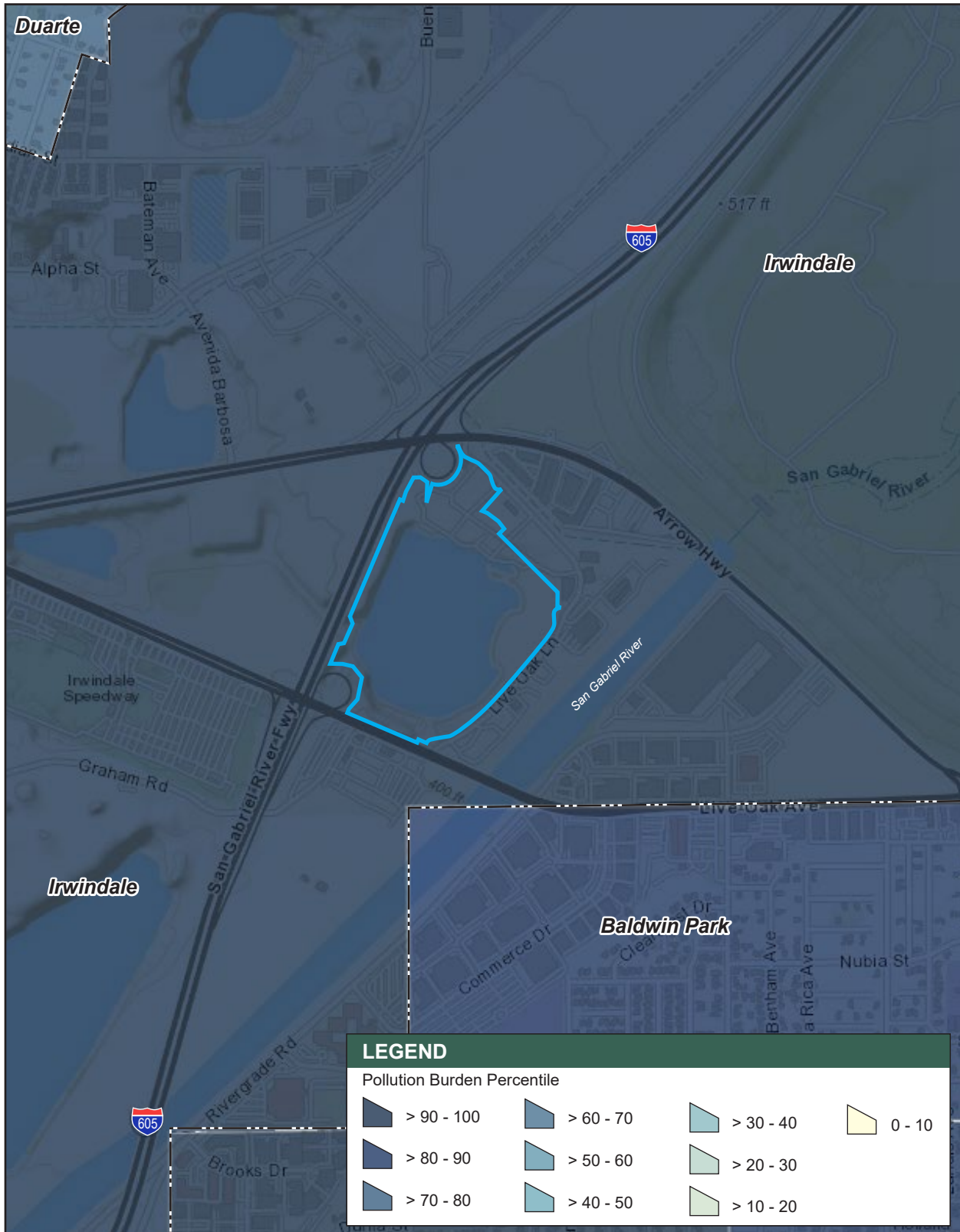
Source: Nearmap, Inc., 2023.

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Scale (Feet)



PlaceWorks

Figure 4 - Pollution Burden



— Project Site Boundary
- - - City Boundary

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Scale (Feet)



Source: CalEnviroScreen 4.0, 2023.

4. Emissions Inventory

4.1 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 2022.1 (CAPCOA, 2022). Construction modeling considered years 2024 and 2025 for construction phase/part 1 activities, and years 2026 and 2027 for construction phase/part 2 activities. DPM emissions were based on the CalEEMod construction runs, using annual exhaust PM₁₀ 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, and 2027). The off-site hauling emission rates were adjusted to evaluate localized emissions from the 1.03-mile haul route within 1,000 feet of the project site. The CalEEMod construction emissions output and emission rate calculations are provided in Attachment A of this HRA.

4.2 OPERATIONAL EMISSIONS

Operational emission sources evaluated in the HRA include the diesel trucks traveling on-site over the ingress and egress driveways and Live Oak Lane and idling at truck loading areas as well as the emissions from diesel trucks traveling to and from the site along surface streets (Arrow Highway and Live Oak Avenue). The evaluated truck volumes and truck fleet mix were prepared by Iteris and incorporated into the air quality and greenhouse gas emissions evaluation of the proposed project (Iteris, 2023). According to the traffic analysis, the project would generate 550 one-way truck trips per day (all assumed heavy-heavy duty trucks, HHDT) or 275 round trips per day for HHDT trucks for Option 1 and 418 one-way truck trips per day or 209 round trips per day for HHDT trucks for Option 2 (Iteris, 2023). The emission rate calculations are provided in Attachment B.

Localized (on-site) truck running and idling emissions were calculated for the HRA. CARB has developed the EMFAC2021 emission factor model to account for the emission standards representative of the California fleet (CARB, 2023a). On-site truck travel emissions were determined for a lot speed of 5 miles per hour (mph), whereas off-site truck travel emissions were determined for a speed of 25 mph for Arrow Highway and Live Oak Avenue. Idling emission rates for trucks idling within the building loading areas were determined using an idling time of 30 minutes per truck. The PM₁₀ emission factor for diesel-fueled vehicles was used as the surrogate for DPM (CARB, 2023a).

Emissions from forklifts, yard trucks and TRUs were determined for the air quality and greenhouse gas emissions evaluation (PlaceWorks, 2023). Forklift, yard truck, and TRU emissions were calculated as annual

average emissions in tons per year using the latest version of offroad equipment emissions model, OFFROAD2021, Version 1.0.4. The TRU idling emissions were added to the truck idling emissions to determine the total idling emissions at the loading docks.

Emission-rate calculations were based on EMFAC2021 and OFFROAD2021 emissions data for the project buildout year (2027). Using only the emission factors for the year 2027 is conservative because emissions are predicted to decline over time with implementation of CARB's Diesel Risk Reduction Plan and increasing emissions requirements for engines (CARB, 2000). For instance, CARB estimates DPM emissions in 2035 will be less than half those in 2010 (CARB, 2023b).

5. Air Dispersion Modeling

Air dispersion modeling was performed using the AERMOD atmospheric dispersion model (Lakes AERMOD View, version 11.2). The model is a steady-state Gaussian plume model and is approved 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 a poly-area source, and the haul route emissions were modeled as adjacent line volume sources. The on-site operational emissions from truck travel, forklifts, and yard trucks were modeled as poly-area sources, truck and TRU idling at the loading docks was modeled as point sources, and the off-site truck travel emissions were modeled as adjacent volume sources. The off-site truck route includes surface streets (Arrow Highway and Live Oak Avenue). A 20-meter by 20-meter receptor grid was used for park and residential receptors.

The model requires additional input parameters, including local meteorology and terrain. AERMOD-ready meteorological (met) data was obtained from South Coast AQMD for the nearest representative met station with the five latest available years of record (Azusa 2012–2016) to represent local weather conditions and prevailing winds. The prevailing wind direction at the Azusa met station is to the east-northeast, and the wind rose is provided in Attachment C.

The modeling also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. Digital elevation model data for the project site and surrounding area were obtained and included in the model runs to account for complex terrain. An emissions 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 meters was used, per CARB guidance (CARB, 2000).

To determine contaminant impacts during construction hours, the model's Hour-By-Day-of-Week (HRDOW) scalar option was invoked to predict ground-level concentrations for emissions generated between the hours of 7:00 AM and 4:00 PM, with a 1-hour lunch break, Monday to Friday. In addition, a scalar factor was applied to the risk calculations to account for the number of days residents are exposed to construction emissions per year. The operational model run evaluated emissions generated between the proposed work hours (24 hours per day, 7 days per week).

A unit emission rate of 1 gram per second was used for both construction and operational model runs. The unit emission rates were proportioned over the poly-area sources for on-site sources and between the number of adjacent volumes sources for the off-site truck routes. The maximum AERMOD concentrations from the output files were then multiplied by the emission rates calculated in Section 4.1 (and provided in Attachments A and B) to obtain the maximum ground-level concentrations at the maximum exposed individual resident (MEIR) and the maximum exposed sports park receptor. The AERMOD model output for the emission sources is presented in Attachment C for the construction model run and Attachment D for the operational model run. The model output DPM concentrations for the construction sources are provided in Attachment E. The model output concentrations for the operational phase sources are provided in Attachment F.

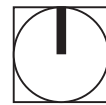
For the construction modeling, the receptor locations and construction haul route are presented in Figure 5. Figure 6 depicts the warehouse emission sources, truck haul route, and receptor locations used for the operational modeling.

Figure 5 - Construction Modeling – Source and Receptor Locations



- Project Boundary
- Receptors - Residential
- - - City Boundary
- ✱ Maximum Exposed Individual Resident (MEIR)
- ↔ Truck Route
- Receptors - Sports Park (Kare Youth League Irwindale)
- ◆ Maximum Exposed Receptor - Sports Park

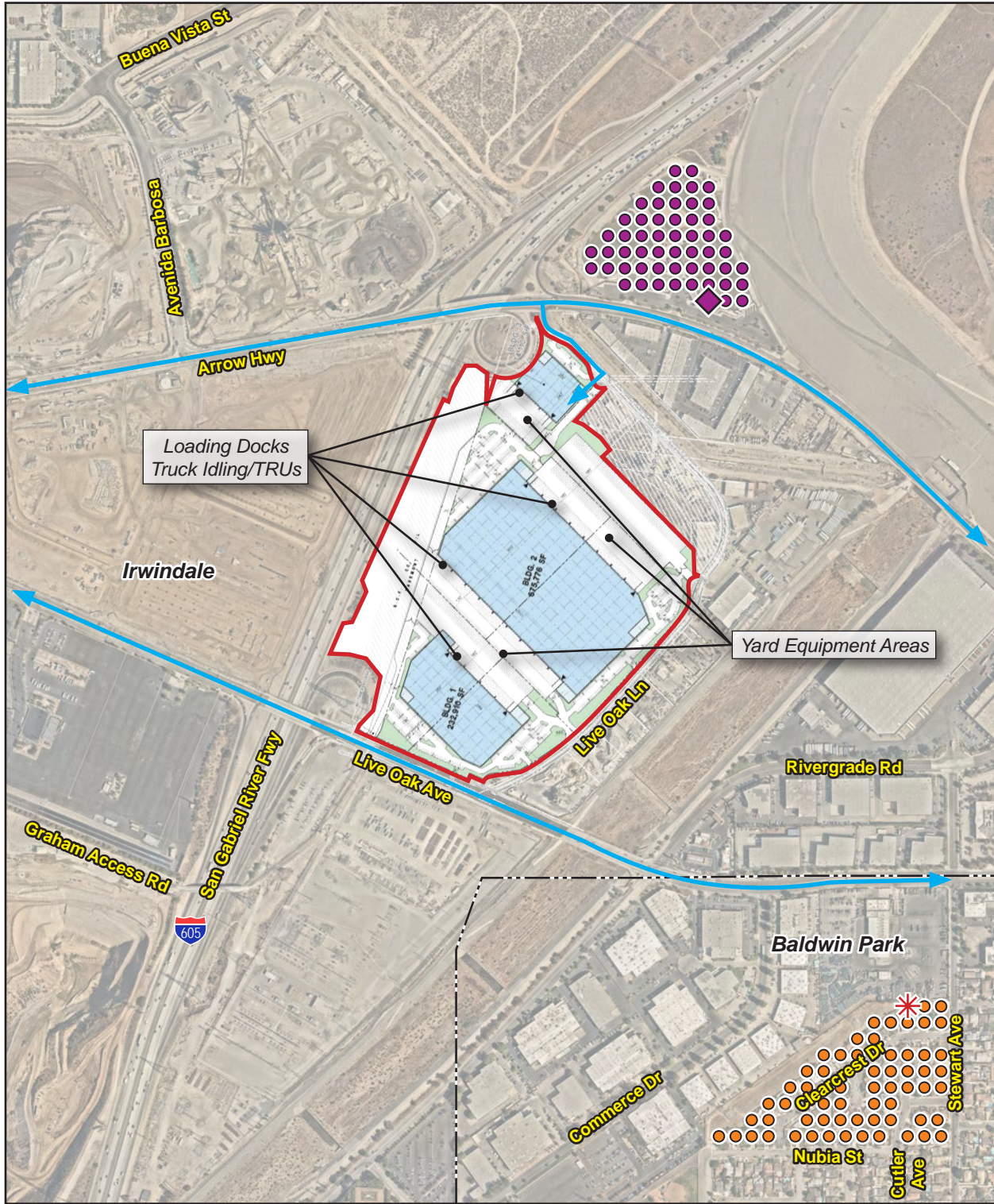
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Source: Nearmap, Inc., 2023.

PlaceWorks

Figure 6 - Operational Modeling – Source and Receptor Locations



- Project Boundary
- Receptors - Residential
- Receptors - Sports Park (Kare Youth League Irwindale)
- - - City Boundary
- ★ Maximum Exposed Individual Resident (MEIR)
- ◆ Maximum Exposed Receptor - Sports Park
- ↔ Truck Route

0 800
Scale (Feet)



Source: Nearmap, Inc., 2023.

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6. Risk Methodology

6.1 CARCINOGENIC CHEMICAL RISK

Carcinogenic compounds do not 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 California Environmental Quality Act (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 ($\mu\text{g}/\text{m}^3$) 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 (ASF) 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 ($\text{mg}/\text{kg}/\text{day}$)⁻¹ to derive the cancer risk estimate. Therefore, the following dose algorithm was used to accommodate the unique exposures associated with each receptor type.

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

where:

Dose_{AIR}	=	dose by inhalation ($\text{mg}/\text{kg}/\text{day}$), per age group
C_{air}	=	concentration of contaminant in air ($\mu\text{g}/\text{m}^3$)
EF	=	exposure frequency (number of days/365 days)
BR/BW	=	daily breathing rate normalized to body weight ($\text{L}/\text{kg}/\text{day}$)
A	=	inhalation absorption factor (default = 1)
CF	=	conversion factor (1×10^{-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). This timeline is considered appropriate for potential

workplace exposures established by OEHHA. The daily breathing rates (BR/BW), exposure duration (ED), age sensitivity factors (ASF), and fraction of time at home (FAH) for the various age groups follow:

<u>Age Groups</u>	<u>BR/BW (L/kg-day)</u>	<u>ED</u>	<u>ASF</u>	<u>FAH</u>
Third trimester	361	0.25	10	0.85
0–2 age group	1,090	2	10	0.85
2–9 age group	861	7	3	0.72
2–16 age group	745	14	3	0.72
16–30 age group	335	14	1	0.73

To represent the unique characteristics of users of the youth sports park (Kare Youth Interleague Irwindale), the assessment employed the USEPA’s guidance to develop viable dose estimates based on reasonable maximum exposure, defined as the “highest exposure that is reasonably expected to occur” for a given receptor population. Lifetime risk values for the sports park user population were adjusted to account for an exposure of 180 days per year, 4 hours per day for 14 years (ages 2 to 16). In addition, the calculated risk for students is multiplied by an ASF-weighting factor of 3 (for children ages 2 to 16) to account for early life sensitivity to pollutant exposures (OEHHA, 2015). For sports park users, the inhalation rate was taken as the 8-hour 95th percentile breathing rates multiplied by the mean METS (metabolic equivalent) distribution for walk/bike/jog of 5.8 to represent exercise at youth park (OEHHA, 2015).

For construction analysis, the exposure duration spans the length of construction (i.e., 2024 to 2027). To calculate the overall cancer risk, the risk for each appropriate age group is calculated per the following equation:

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

where:

- Dose_{AIR} = dose by inhalation (mg/kg/day), per age group
- CPF = cancer potency factor, chemical-specific (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 (always 70 years)

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 1x10⁶ (i.e., 1 million).

Incremental cancer risk (expressed in chances per million) was calculated for the MEIR and the maximum exposed sports park receptor. The assessment was based on reasonable maximum exposure, defined as the “highest exposure that is reasonably expected to occur” for a given receptor population. Per default exposure parameters, it was assumed that the MEIR spent 24 hours/day, 7 days/week, 350 days/year outside their residence. The evaluated sports park receptors were also assumed to spend 4 hours/day, 180 days/year outside.

For construction, the calculated results are provided in Attachment E. For the operational risk calculations, CARB's Hotspots Analysis and Reporting Program (HARP2) Risk Assessment Standalone Tool was used to calculate the cancer risk values for the MEIR (CARB, 2022), and the operational health risk calculations are provided in Attachment F.

6.2 NONCARCINOGENIC HAZARDS

An evaluation was also conducted of the potential noncancer effects of chronic DPM exposure. Adverse health effects are evaluated by comparing the annual ground-level concentration of DPM from project construction or operation with the appropriate reference exposure limit (REL). Examples of noncancer adverse health effects are asthma, chronic obstructive pulmonary disease, and local effects from chemical exposure to specific organs such as the eyes, kidneys, and reproductive system.

The hazard index approach was used to quantify noncarcinogenic impacts. The hazard index assumes that chronic subthreshold exposures adversely affect a specific organ or organ system (toxicological endpoint). For DPM, the target organ determined by OEHHA is the respiratory system. To calculate the hazard index, the DPM concentration is divided by the DPM's chronic REL. A hazard index of 1 or lower means air toxics are unlikely to cause adverse noncancer health effects, such as asthma, over a lifetime of exposure.

For construction, the chronic hazard analysis for DPM is provided in Attachment E. For the operational risk calculations, CARB's HARP2, Risk Assessment Standalone Tool was used to calculate the chronic health risk values (CARB, 2022) and is provided in Attachment F.

6.3 CUMULATIVE THRESHOLDS

The South Coast AQMD published a report on how to address cumulative impacts from air pollution: “White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution” (South Coast AQMD, 2003), which states:

...the South Coast AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR [i.e., air quality and greenhouse gas emissions]. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is $HI > 1.0$ while the cumulative (facility-wide) is $HI > 3.0$. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.

Projects that exceed the project-specific significance thresholds are considered by the South Coast AQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant. (p. D-3)

Therefore, the project would not result in cumulative impacts if the operation of the project would not exceed the project-specific significance thresholds.

7. Results and Conclusions

The following section summarizes the results and conclusion for this HRA report. For the construction and operational modeling, the maximum exposed receptor locations are presented in Figures 5 and 6, respectively.

7.1 CONSTRUCTION HEALTH RISKS

The calculated health risk values are based on the maximum modeled receptor concentration over the construction exposure period, conservatively assuming a 24-hour per day outdoor exposure and averaged over a 70-year lifetime. According to the modeling results and as shown in Figure 5, *Construction Modeling – Sources and Receptor Locations*, the MEIR is a single-family residence southeast of the project site fronting Clearcrest Drive and the maximum exposed sports park receptor is at the southeast corner of the Kare Youth League Irwindale park. Results of the health risk assessment shown in Table 2 indicate that the maximum incremental cancer risk during the construction phase of the project at the MEIR and maximum exposed sports park receptor are less than one per million for both Option 1 and Option 2, which are below the significance threshold of 10 per million. For non-carcinogenic effects, the chronic hazard indices identified for each toxicological endpoint totaled less than one for MEIR and maximum exposed sports park receptor for both Options 1 and 2. Thus, chronic non-carcinogenic hazards are below the significance threshold. 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.

Table 2 Construction Health Risk Summary

Site Option	Receptor	Cancer Risk (per million)	Chronic Hazards
Option 1	Maximum Exposed Individual Resident	0.3	0.001
	Maximum Exposed Receptor – Sports Park	0.6	0.019
Option 2	Maximum Exposed Individual Resident	0.3	0.001
	Maximum Exposed Receptor – Sports Park	0.6	0.019
South Coast AQMD Threshold		10	1.0
Exceeds Threshold?		No	No

7.2 OPERATIONAL HEALTH RISK RESULTS

Table 3 presents the results summary for the proposed project at the MEIR and maximum exposed sports park user for Options 1 and 2. As shown in Figure 6, *Operational Modeling – Sources and Receptor Locations*, the HRA predicted the MEIR is a single-family residence southeast of the project site fronting Clearcrest Drive and the maximum exposed sports park receptor is at the southeast corner of the Kare Youth League Irwindale park. The results in Table 3 indicate that the maximum incremental cancer risk at the MEIR is 5.9 per million for Option 1 and 4.4 per million for Option 2, which are each below the significance threshold of 10 per million. Similarly, the incremental cancer risk for the maximum exposed sports park receptor is 1.4 per million for Option 1 and 1.2 per million for Option 2, which also are each below the 10 in a million significance threshold. For noncarcinogenic effects, the chronic hazard indices identified for the respiratory system totaled well below the significance threshold of 1.0 for the MEIR and the maximum exposed sports park receptor for both site options.

Table 3 Operational Health Risk Summary

Site Option	Receptor	Cancer Risk (per million)	Chronic Hazards
Option 1	Maximum Exposed Individual Resident	5.9	0.002
	Maximum Exposed Receptor – Sports Park	1.4	0.008
Option 2	Maximum Exposed Individual Resident	4.4	0.001
	Maximum Exposed Receptor – Sports Park	1.2	0.007
South Coast AQMD Threshold		10	1.0
Exceeds Threshold?		No	No

Therefore, the proposed project would not expose off-site sensitive receptors to substantial concentrations of DPM emissions during project operation, and impacts would be less than significant.

It should be noted that the operational health risks provided in Table 3 include the assumption that all indoor and outdoor forklifts would be diesel-fueled. The diesel-fueled forklifts accounted for approximately 82 percent of the total calculated cancer risk for the project. As stated in Section 2, most industrial warehousing projects include non-diesel-fueled (i.e., electric or alternative fuel) indoor cargo handling equipment consistent with industry standards. If the project were to be modeled with electric forklifts, the calculated risks would reduce significantly from what is provided in Table 3. Therefore, the health risks provided in Table 3 for project operation provide a worst-case estimate of potential long-term health risks from the project.

7.3 CONSTRUCTION + OPERATIONAL RISK

Sensitive receptors proximate to the project site would be exposed to elevated levels of air pollutants during construction activities; and then subsequently, operational activities. As a result, the following evaluates the combined health risks from project-related construction and operational activities for a 30-year residential scenario.

The risks levels shown in Table 4 are based on the approximate 3 years of exposure to construction emissions and 30 years of exposure to operational emissions. This is conservative as OEHHA recommends determining residential risk over a 30 year period, which for this project would equate to 3 year of construction exposure and only 27 years of exposure to operational activities instead of the 30 years shown in Table 4. As shown in the table, total cancer risks from project-related construction and operational activities would be 6.2 in a million for Option 1 and 4.7 in a million for Option 2, which are each below the threshold value of 10 per million. For non-carcinogenic effects, the chronic hazard index identified for each toxicological endpoint totaled less than one for residents from each site option Similarly for the maximum exposed sports park user, the combined cancer risk of 2 in a million for Option 1 and 1.8 in a million for Option 2 would not exceed South Coast AQMD threshold.

Therefore, the combined construction and operation of the project would not expose off-site sensitive receptors to substantial concentrations of air pollutant emissions, and health risk impacts would be less than significant.

Table 4 Cumulative Analysis Results for Maximum Exposed Individual Resident

Site Option	Maximum Exposed Individual Resident (MEIR)	Cancer Risk (per million)	Chronic Hazards
Option 1	Project Construction	0.3	0.001
	Project Operation	5.9	0.002
	Combined Total	6.2	0.003
Option 2	Project Construction	0.3	0.001
	Project Operation	4.4	0.001
	Combined Total	4.7	0.002
South Coast AQMD Threshold		10	1.0
Exceeds Threshold?		No	No

7.4 CUMULATIVE DISCUSSION

As described in Section 6.3, the project-specific and cumulative significance thresholds are the same because the background risk in the South Coast Air Basin (SoCAB) is already high; therefore, the threshold is based on the potential for a project to cumulatively contribute to elevated levels of risk in the SoCAB (South Coast AQMD, 2003). Therefore, the project would not result in cumulative impacts since operation of the project would not exceed the project-specific significance thresholds.

AIR QUALITY TRENDS

The National Association of Industrial and Office Properties (NAIOP) prepared a white paper that describes air quality trends in the SoCAB (NAIOP, 2019). To summarize that report, air quality over the period from 1980 to 2018 has drastically improved and will continue to improve for the air basin, with emerging technologies being unveiled on a yearly basis as well as South Coast AQMD rule development, implementation programs, and air quality management plans. The NAIOP concludes that rigorous individualized review under CEQA on a project-by-project basis is the correct policy to enforce to ensure public health.

Overall cancer risk throughout the SoCAB has been on a declining trend since 1990. In April 2021, the South Coast AQMD “Multiple Air Toxics Exposure Study in the South Coast Air Basin (Basin),” MATES V, showed that the average cancer risk in the air basin of 454 per million had decreased by 54 percent since 2012 (South Coast AQMD, 2021). Additionally, CARB estimates DPM emissions in 2035 will be less than half those in 2010 (CARB, 2023b).

ENVIRONMENTAL JUSTICE CONCERNS

According to the recommendation of the Office of the Attorney General of California, the operational HRA was conducted to evaluate potential health risk impacts from project-related truck trips and other project-related sources of DPM to the nearby surrounding sensitive receptors. The HRA is an example best practice under the guidelines of the “Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act” (OAG, 2023). As discussed above, the project would not result in cumulative impacts to the nearby residents because operation of the project would not exceed the project-specific significance thresholds.

OTHER WAREHOUSE PROJECTS

For informational purposes, a review was conducted of recent and nearby approved or pending projects under the City’s cumulative project list. Table 5, *Health Risk Summary for City of Irwindale Approved and Pending Projects Within Two Miles of the Proposed Project*, provides the results of the Operational HRAs conducted for the approved or pending projects.

Table 5 Health Risk Summary for City of Irwindale Approved and Pending Projects Within Two Miles of the Proposed Project

ID	Project	Sensitive Receptors	Residential Cancer Risk
CITY OF IRWINDALE – Approved projects			
IRA1	5175 Vincent Avenue Project ¹ 545,737 SF Industrial	Residents 75 feet east of project	3.7 per million
IRA2	The Park @ Live Oak Specific Plan ² 78.3-acre Industrial Park/Retail	Residents 1,900 feet north of project	0.5 per million
IRA3	City of Hope Campus Plan ³ Medical Facility	Residents 50 feet west of project	5.1 per million (for construction)
IRA4	13131 Los Angeles Street ⁴ 528,710 SF Industrial	Residents 670 feet east of project	2.7 per million
IRA5	2200 Arrow Highway ⁵ – Materials Recovery Facility and Transfer Station; 17.22-acre	Residents 450 feet south of project	6.6 per million
CITY OF IRWINDALE – Pending projects			
IRP1	500 Speedway Drive – Speedway Commerce Center Specific Plan; 63.3 acre	Residents over 2,000 feet to north and southeast	pending

Note: SF = square feet

¹ City of Irwindale, 2021. *Draft Environmental Impact Report for 5175 Vincent Avenue Project*, dated February 2021. Prepared by De Novo Planning Group.

² Urban Crossroads, 2018. *Mobile Source Health Risk Assessment for The Park @ Live Oak*, dated July 5, 2018. Prepared for the City of Irwindale.

³ PlaceWorks, 2017. *Construction Health Risk Assessment for City of Hope Campus Plan* dated July 2017. Prepared for the City of Duarte.

Note: due to project type, health risks from project operation were not determined.

⁴ ECORP Consulting, Inc., 2019. *Health Risk Assessment for 13131 Los Angeles Street Industrial Project*, dated December 2019. Prepared for the City of Irwindale.

⁵ City of Irwindale, 2014. *Draft Environmental Impact Report for Irwindale Materials Recovery Facility and Transfer Station Project* dated April 2014.

As shown in Table 5, the results of the operational HRAs determined the maximum incremental cancer risk at the maximum exposed individual resident for each of the individual projects identified above would be less than 10 in a million (i.e., below the project level significance threshold).

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8. References

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Attachment A. Construction Emissions

Onsite Construction PM10 Exhaust Emissions - Option 1 Scenario 1

Year	# of Construction Days/Year	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/hr)	Emission Rate (g/s)	# of Workdays/Year	Construction Duration ²
2024	122	1.14	1.43E-01	1.80E-02	262	0.47
2025	261	4.59	5.74E-01	7.23E-02	261	1.00
2026	80	3.07	3.84E-01	4.84E-02	261	0.31
2027	161	2.75	3.43E-01	4.33E-02	261	0.62

Offsite Construction PM10 Exhaust Emissions - Option 1 Scenario 1

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	122	0.08	3.93E-03	4.92E-04	6.20E-05
2025	261	0.10	5.21E-03	6.51E-04	8.20E-05
2026	80	0.10	5.13E-03	6.42E-04	8.09E-05
2027	161	0.04	2.18E-03	2.72E-04	3.43E-05

Note: Emissions evenly distributed over 115 modeled volume sources.

Hauling Length (miles) ³	20.0	miles
Haul Length within 1,000 ft of Site (mile) ⁴	1.03	miles
Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks) ⁵	8	hours

¹ DPM emissions taken as PM₁₀ 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 0.51-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.

Option 1

3.19. Trenching (2024) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.93	1.62	13.45	13.84	0.03	0.64		0.64	0.59		0.59
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.93	1.62	13.45	13.84	0.03	0.64	0.00	0.64	0.59	0.00	0.59

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.07	0.07	0.07	1.13	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.02	0.01	0.23	0.11	0.00	0.00	0.05	0.05	0.00	0.01	0.02
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.09	0.07	0.30	1.24	0.00	0.00	0.25	0.25	0.00	0.06	0.06

3.5. Building Construction (2024) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.44	1.20	11.22	13.12	0.02	0.50		0.50	0.46		0.46
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.44	1.20	11.22	13.12	0.02	0.50	0.00	0.50	0.46	0.00	0.46

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		2.09	1.88	2.00	31.61	0.00	0.00	5.48	5.48	0.00	1.28	1.28
Vendor		0.42	0.16	6.21	3.05	0.04	0.07	1.40	1.47	0.07	0.39	0.46
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		2.50	2.04	8.21	34.66	0.04	0.07	6.88	6.95	0.07	1.67	1.74

3.7. Option 1 Building 1 Construction (2025) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.35	1.13	10.44	13.04	0.02	0.43		0.43	0.40		0.40
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.35	1.13	10.44	13.04	0.02	0.43	0.00	0.43	0.40	0.00	0.40

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		2.00	1.80	1.82	29.16	0.00	0.00	5.48	5.48	0.00	1.28	1.28
Vendor		0.37	0.15	5.90	2.88	0.04	0.07	1.40	1.47	0.04	0.39	0.42
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		2.38	1.95	7.71	32.04	0.04	0.07	6.88	6.95	0.04	1.67	1.71

3.13. Option 1 Building 1 Paving (2025) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.95	0.80	7.45	9.98	0.01	0.35		0.35	0.32		0.32
Paving			0.89									
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.95	1.69	7.45	9.98	0.01	0.35	0.00	0.35	0.32	0.00	0.32

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.07	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.07	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05

3.15. Option 1 Building 1 Architectural Coating (2025) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.15	0.13	0.88	1.14	0.00	0.03		0.03	0.03		0.03
Architectural Coatings			6.54									
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.15	6.67	0.88	1.14	0.00	0.03	0.00	0.03	0.03	0.00	0.03

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.80	0.72	0.73	11.66	0.00	0.00	2.19	2.19	0.00	0.51	0.51
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.80	0.72	0.73	11.66	0.00	0.00	2.19	2.19	0.00	0.51	0.51

3.1. Linear, Grubbing & Land Clearing (2025) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.46	0.39	3.39	3.49	0.00	0.21		0.21	0.19		0.19
Dust From Material M								0.21	0.21		0.02	0.02
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.46	0.39	3.39	3.49	0.00	0.21	0.21	0.42	0.19	0.02	0.22

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.02	0.02	0.02	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02
Vendor		0.01	0.00	0.15	0.07	0.00	0.00	0.03	0.04	0.00	0.01	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.03	0.02	0.17	0.37	0.00	0.00	0.10	0.10	0.00	0.02	0.03

3.3. Linear, Grading & Excavation (2025) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		3.71	3.11	27.29	29.40	0.06	1.21		1.21	1.11		1.11
Dust From Material Movement								1.24	1.24		0.13	0.13
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		3.71	3.11	27.29	29.40	0.06	1.21	1.24	2.45	1.11	0.13	1.24

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.14	0.13	0.13	2.09	0.00	0.00	0.39	0.39	0.00	0.09	0.09
Vendor		0.06	0.02	0.90	0.44	0.01	0.01	0.21	0.23	0.01	0.06	0.06
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.20	0.15	1.03	2.53	0.01	0.01	0.61	0.62	0.01	0.15	0.16

3.5. Linear, Drainage, Utilities, & Sub-Grade (2025) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		2.99	2.51	22.93	23.63	0.05	0.91		0.91	0.84		0.84
Dust From Material Movement								1.03	1.03		0.11	0.11
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		2.99	2.51	22.93	23.63	0.05	0.91	1.03	1.95	0.84	0.11	0.95

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.12	0.11	0.11	1.74	0.00	0.00	0.33	0.33	0.00	0.08	0.08
Vendor		0.04	0.02	0.65	0.32	0.00	0.01	0.15	0.16	0.00	0.04	0.05
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.16	0.12	0.76	2.06	0.00	0.01	0.48	0.49	0.00	0.12	0.12

3.7. Linear, Paving (2025) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.06	0.89	7.71	10.79	0.01	0.34		0.34	0.31		0.31
Dust From Material Movement		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.06	0.89	7.71	10.79	0.01	0.34	0.00	0.34	0.31	0.00	0.31

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.08	0.07	0.08	1.03	0.00	0.00	0.23	0.23	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.08	0.07	0.08	1.03	0.00	0.00	0.23	0.23	0.00	0.05	0.05

3.1. Sewer Main and Storm Drain Site Site Preparation (Public) (2025) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.42	1.19	10.86	10.97	0.03	0.47		0.47	0.43		0.43
Dust From Material Movement								0.62			0.07	0.07
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.42	1.19	10.86	10.97	0.03	0.47	0.62	1.09	0.43	0.07	0.50

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.04	0.03	0.04	0.44	0.00	0.00	0.10	0.10	0.00	0.02	0.02
Vendor		0.02	0.01	0.38	0.18	0.00	0.00	0.09	0.09	0.00	0.02	0.03
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.06	0.04	0.41	0.62	0.00	0.00	0.18	0.19	0.00	0.05	0.05

3.3. Sewer Main and Storm Drain Site Pipeline Construction (Public) (2025) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.95	0.79	7.00	8.10	0.02	0.27		0.27	0.25		0.25
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.95	0.79	7.00	8.10	0.02	0.27	0.00	0.27	0.25	0.00	0.25

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.03	0.03	0.03	0.42	0.00	0.00	0.08	0.08	0.00	0.02	0.02
Vendor		0.00	0.00	0.07	0.04	0.00	0.00	0.02	0.02	0.00	0.00	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.03	0.03	0.10	0.45	0.00	0.00	0.10	0.10	0.00	0.02	0.02

3.5. Sewer Main and Storm Drain Site Paving (Public) (2025) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.83	0.70	6.13	8.21	0.01	0.27		0.27	0.25		0.25
Paving			0.01									
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.83	0.71	6.13	8.21	0.01	0.27	0.00	0.27	0.25	0.00	0.25

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05

3.7. Sewer Main and Storm Drain Site Utilities Trenching (Public) (2025) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.41	0.34	2.96	3.77	0.01	0.10		0.10	0.09		0.09
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.41	0.34	2.96	3.77	0.01	0.10	0.00	0.10	0.09	0.00	0.09

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.05	0.04	0.04	0.70	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor		0.00	0.00	0.07	0.04	0.00	0.00	0.02	0.02	0.00	0.00	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.05	0.04	0.12	0.73	0.00	0.00	0.15	0.15	0.00	0.04	0.04

3.1. Option 1 Rough Grading (2026) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		3.62	3.04	27.23	27.57	0.06	1.12		1.12	1.03		1.03
Dust From Material Movement								3.59	3.59		1.42	1.42
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		3.62	3.04	27.23	27.57	0.06	1.12	3.59	4.71	1.03	1.42	2.46

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.08	0.07	0.08	1.29	0.00	0.00	0.26	0.26	0.00	0.06	0.06
Vendor		0.05	0.02	0.69	0.33	0.00	0.01	0.17	0.18	0.00	0.05	0.05
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.13	0.09	0.77	1.62	0.00	0.01	0.43	0.44	0.00	0.11	0.11

3.21. Option 1 Buildings 2 and 3 Utility Trenching (2026) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.76	1.48	11.37	13.67	0.03	0.51		0.51	0.47		0.47
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.76	1.48	11.37	13.67	0.03	0.51	0.00	0.51	0.47	0.00	0.47

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.06	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.01	0.01	0.22	0.10	0.00	0.00	0.05	0.05	0.00	0.01	0.02
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.08	0.06	0.28	0.93	0.00	0.00	0.25	0.25	0.00	0.06	0.06

3.9. Option 1 Buildings 2 and 3 Construction (2026) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.28	1.07	9.85	12.97	0.02	0.38		0.38	0.35		0.35
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.28	1.07	9.85	12.97	0.02	0.38	0.00	0.38	0.35	0.00	0.35

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		1.74	1.54	1.63	27.07	0.00	0.00	5.48	5.48	0.00	1.28	1.28
Vendor		0.37	0.15	5.62	2.72	0.04	0.07	1.40	1.47	0.04	0.39	0.42
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		2.11	1.70	7.25	29.78	0.04	0.07	6.88	6.95	0.04	1.67	1.71

3.9. Linear, Paving (2026) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.00	0.84	7.37	10.76	0.01	0.30		0.30	0.28		0.28
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.00	0.84	7.37	10.76	0.01	0.30	0.00	0.30	0.28	0.00	0.28

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.07	0.06	0.08	0.96	0.00	0.00	0.23	0.23	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.07	0.06	0.08	0.96	0.00	0.00	0.23	0.23	0.00	0.05	0.05

3.1. Sewer Main and Storm Drain Site Site Preparation (Private) (2026) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.34	1.13	9.84	10.82	0.03	0.42		0.42	0.39		0.39
Dust From Material Movement								0.62	0.62		0.07	0.07
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.34	1.13	9.84	10.82	0.03	0.42	0.62	1.04	0.39	0.07	0.46

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.03	0.03	0.03	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02
Vendor		0.02	0.01	0.34	0.17	0.00	0.00	0.09	0.09	0.00	0.02	0.03
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.05	0.04	0.37	0.65	0.00	0.00	0.18	0.19	0.00	0.05	0.05

3.3. Sewer Main and Storm Drain Site Pipeline Construction 2026 (Private) (2026) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.91	0.76	6.67	8.03	0.02	0.25		0.25	0.23		0.23
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.91	0.76	6.67	8.03	0.02	0.25	0.00	0.25	0.23	0.00	0.23

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.00	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	0.00
Hauling		0.03	0.03	0.24	0.29	0.00	0.01	0.01	0.01	0.01	0.01	0.01
Total		0.03	0.03	0.24	0.29	0.00	0.01	0.00	0.01	0.01	0.00	0.01

3.9. Sewer Main and Storm Drain Site Utility Trenching 2026 (Private) (2026) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.39	0.32	2.87	3.76	0.01	0.08		0.08	0.08		0.08
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.39	0.32	2.87	3.76	0.01	0.08	0.00	0.08	0.08	0.00	0.08

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.04	0.04	0.04	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor		0.00	0.00	0.07	0.03	0.00	0.00	0.02	0.02	0.00	0.00	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.05	0.04	0.11	0.68	0.00	0.00	0.15	0.15	0.00	0.04	0.04

3.11. Option 1 Buildings 2 and 3 Construction (2027) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.23	1.03	9.39	12.94	0.02	0.34		0.34	0.31		0.31
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.23	1.03	9.39	12.94	0.02	0.34	0.00	0.34	0.31	0.00	0.31

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		1.69	1.49	1.45	25.17	0.00	0.00	5.48	5.48	0.00	1.28	1.28
Vendor		0.33	0.15	5.38	2.56	0.04	0.04	1.40	1.44	0.04	0.39	0.42
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		2.01	1.64	6.83	27.73	0.04	0.04	6.88	6.91	0.04	1.67	1.71

3.13. Option 1 Buildings 2 and 3 Paving (2027) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.95	0.80	7.45	9.98	0.01	0.35		0.35	0.32		0.32
Paving			0.89									
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.95	1.69	7.45	9.98	0.01	0.35	0.00	0.35	0.32	0.00	0.32

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.07	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.07	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05

3.17. Option 1 Buildings 2 and 3 Architectural Coating (2027) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.14	0.11	0.83	1.13	0.00	0.02		0.02	0.02		0.02
Architectural Coatings			81.67									
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.14	81.78	0.83	1.13	0.00	0.02	0.00	0.02	0.02	0.00	0.02

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.68	0.60	0.58	10.09	0.00	0.00	2.20	2.20	0.00	0.51	0.51
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.68	0.60	0.58	10.09	0.00	0.00	2.20	2.20	0.00	0.51	0.51

3.3. Option 1 Fine Grading (2027) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		3.51	2.95	25.58	27.28	0.06	1.04		1.04	0.96		0.96
Dust From Material Iv								3.59	3.59		1.42	1.42
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		3.51	2.95	25.58	27.28	0.06	1.04	3.59	4.63	0.96	1.42	2.38

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.08	0.07	0.07	1.20	0.00	0.00	0.26	0.26	0.00	0.06	0.06
Vendor		0.04	0.02	0.66	0.31	0.00	0.00	0.17	0.17	0.00	0.05	0.05
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.12	0.09	0.73	1.51	0.00	0.00	0.43	0.44	0.00	0.11	0.11

3.23. Option 1 Finishing/Landscaping (2027) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.70	1.43	10.70	13.64	0.03	0.47		0.47	0.43		0.43
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.70	1.43	10.70	13.64	0.03	0.47	0.00	0.47	0.43	0.00	0.43

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.06	0.05	0.05	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.06	0.05	0.05	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05

3.5. Sewer Main and Storm Drain Site Pipeline Construction 2027 (Private) (2027) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.88	0.74	6.45	8.02	0.02	0.23		0.23	0.21		0.21
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.88	0.74	6.45	8.02	0.02	0.23	0.00	0.23	0.21	0.00	0.21

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.02	0.02	0.02	0.36	0.00	0.00	0.08	0.08	0.00	0.02	0.02
Vendor		0.00	0.00	0.07	0.03	0.00	0.00	0.02	0.02	0.00	0.00	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.03	0.02	0.09	0.39	0.00	0.00	0.10	0.10	0.00	0.02	0.02

3.11. Sewer Main and Storm Drain Site Utility Trenching 2027 (Private) (2027) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.37	0.31	2.80	3.75	0.01	0.07		0.07	0.07		0.07
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.37	0.31	2.80	3.75	0.01	0.07	0.00	0.07	0.07	0.00	0.07

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.04	0.04	0.03	0.60	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor		0.00	0.00	0.07	0.03	0.00	0.00	0.02	0.02	0.00	0.00	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.04	0.04	0.10	0.63	0.00	0.00	0.15	0.15	0.00	0.04	0.04

3.7. Sewer Main and Storm Drain Site Paving (Private) (2027) - Option 1

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.77	0.65	5.74	8.20	0.01	0.23		0.23	0.21		0.21
Paving			0.06									
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.77	0.71	5.74	8.20	0.01	0.23	0.00	0.23	0.21	0.00	0.21

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.06	0.05	0.05	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.06	0.05	0.05	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05

Onsite Construction PM10 Exhaust Emissions - Option 2 Scenario 1

Year	# of Construction Days/Year	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/hr)	Emission Rate (g/s)	# of Workdays/Year	Construction Duration ²
2024	122	1.14	1.43E-01	1.80E-02	262	0.47
2025	261	4.57	5.71E-01	7.19E-02	261	1.00
2026	80	3.07	3.84E-01	4.84E-02	261	0.31
2027	161	2.84	3.55E-01	4.48E-02	261	0.62

Offsite Construction PM10 Exhaust Emissions - Option 2 Scenario 1

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	122	0.05	2.82E-03	3.52E-04	4.44E-05
2025	261	0.08	4.09E-03	5.12E-04	6.45E-05
2026	80	0.08	4.02E-03	5.02E-04	6.33E-05
2027	161	0.03	1.62E-03	2.02E-04	2.55E-05

Note: Emissions evenly distributed over 115 modeled volume sources.

Hauling Length (miles)³ 20.0 miles

Haul Length within 1,000 ft of Site (miles)⁴ 1.03 miles

Hours per work day (7:00 AM to 4:00 PM, 1-hour of breaks)⁵ 8 hours

¹ DPM emissions taken as PM₁₀ 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 0.51-mile route within 1,000 of the project site.

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

⁶ Based on CalEEMod default 20 mile hauling distance.

Option 2

3.19. Option 2 BESS Utilities Trenching (2024) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment	1.93	1.93	1.62	13.45	13.84	0.03	0.64		0.64	0.59		0.59
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.93	1.93	1.62	13.45	13.84	0.03	0.64	0.00	0.64	0.59	0.00	0.59

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker	0.07	0.07	0.07	0.07	1.13	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor	0.02	0.02	0.01	0.23	0.11	0.00	0.00	0.05	0.05	0.00	0.01	0.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.09	0.09	0.07	0.30	1.24	0.00	0.00	0.25	0.25	0.00	0.06	0.06

3.5. Option 2 BESS Construction (2024) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment	1.44	1.44	1.20	11.22	13.12	0.02	0.50		0.50	0.46		0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.44	1.44	1.20	11.22	13.12	0.02	0.50	0.00	0.50	0.46	0.00	0.46

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker	1.47	1.47	1.33	1.41	22.31	0.00	0.00	3.87	3.87	0.00	0.91	0.91
Vendor	0.29	0.29	0.11	4.38	2.15	0.03	0.05	0.99	1.04	0.05	0.27	0.32
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.77	1.77	1.44	5.80	24.46	0.03	0.05	4.85	4.90	0.05	1.18	1.23

3.7. Option 2 BESS Construction (2025) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.35	1.13	10.44	13.04	0.02	0.43		0.43	0.40		0.40
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.35	1.13	10.44	13.04	0.02	0.43	0.00	0.43	0.40	0.00	0.40

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		1.41	1.27	1.28	20.57	0.00	0.00	3.87	3.87	0.00	0.91	0.91
Vendor		0.26	0.11	4.16	2.04	0.03	0.05	0.99	1.04	0.03	0.27	0.30
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.68	1.38	5.44	22.61	0.03	0.05	4.85	4.90	0.03	1.18	1.20

3.13. Option 2 BESS Construction Paving (2025) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.95	0.80	7.45	9.98	0.01	0.35		0.35	0.32		0.32
Paving			0.64									
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.95	1.43	7.45	9.98	0.01	0.35	0.00	0.35	0.32	0.00	0.32

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.07	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.07	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05

3.1. Linear, Grubbing & Land Clearing (2025) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.46	0.39	3.39	3.49	0.00	0.21		0.21	0.19		0.19
Dust From Material M								0.21	0.21		0.02	0.02
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.46	0.39	3.39	3.49	0.00	0.21	0.21	0.42	0.19	0.02	0.22

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.02	0.02	0.02	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02
Vendor		0.01	0.00	0.15	0.07	0.00	0.00	0.03	0.04	0.00	0.01	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.03	0.02	0.17	0.37	0.00	0.00	0.10	0.10	0.00	0.02	0.03

3.3. Linear, Grading & Excavation (2025) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		3.71	3.11	27.29	29.40	0.06	1.21		1.21	1.11		1.11
Dust From Material Movement								1.24	1.24		0.13	0.13
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		3.71	3.11	27.29	29.40	0.06	1.21	1.24	2.45	1.11	0.13	1.24

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.14	0.13	0.13	2.09	0.00	0.00	0.39	0.39	0.00	0.09	0.09
Vendor		0.06	0.02	0.90	0.44	0.01	0.01	0.21	0.23	0.01	0.06	0.06
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.20	0.15	1.03	2.53	0.01	0.01	0.61	0.62	0.01	0.15	0.16

3.5. Linear, Drainage, Utilities, & Sub-Grade (2025) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		2.99	2.51	22.93	23.63	0.05	0.91		0.91	0.84		0.84
Dust From Material Movement								1.03	1.03		0.11	0.11
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		2.99	2.51	22.93	23.63	0.05	0.91	1.03	1.95	0.84	0.11	0.95

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.12	0.11	0.11	1.74	0.00	0.00	0.33	0.33	0.00	0.08	0.08
Vendor		0.04	0.02	0.65	0.32	0.00	0.01	0.15	0.16	0.00	0.04	0.05
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.16	0.12	0.76	2.06	0.00	0.01	0.48	0.49	0.00	0.12	0.12

3.7. Linear, Paving (2025) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.06	0.89	7.71	10.79	0.01	0.34		0.34	0.31		0.31
Dust From Material Movement		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.06	0.89	7.71	10.79	0.01	0.34	0.00	0.34	0.31	0.00	0.31

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.08	0.07	0.08	1.03	0.00	0.00	0.23	0.23	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.08	0.07	0.08	1.03	0.00	0.00	0.23	0.23	0.00	0.05	0.05

3.1. Sewer Main and Storm Drain Site Site Preparation (Public) (2025) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.42	1.19	10.86	10.97	0.03	0.47		0.47	0.43		0.43
Dust From Material Movement								0.62	0.62		0.07	0.07
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.42	1.19	10.86	10.97	0.03	0.47	0.62	1.09	0.43	0.07	0.50

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.04	0.03	0.04	0.44	0.00	0.00	0.10	0.10	0.00	0.02	0.02
Vendor		0.02	0.01	0.38	0.18	0.00	0.00	0.09	0.09	0.00	0.02	0.03
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.06	0.04	0.41	0.62	0.00	0.00	0.18	0.19	0.00	0.05	0.05

3.3. Sewer Main and Storm Drain Site Pipeline Construction (Public) (2025) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.95	0.79	7.00	8.10	0.02	0.27		0.27	0.25		0.25
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.95	0.79	7.00	8.10	0.02	0.27	0.00	0.27	0.25	0.00	0.25

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.03	0.03	0.03	0.42	0.00	0.00	0.08	0.08	0.00	0.02	0.02
Vendor		0.00	0.00	0.07	0.04	0.00	0.00	0.02	0.02	0.00	0.00	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.03	0.03	0.10	0.45	0.00	0.00	0.10	0.10	0.00	0.02	0.02

3.5. Sewer Main and Storm Drain Site Paving (Public) (2025) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.83	0.70	6.13	8.21	0.01	0.27		0.27	0.25		0.25
Paving			0.01									
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.83	0.71	6.13	8.21	0.01	0.27	0.00	0.27	0.25	0.00	0.25

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.07	0.06	0.07	0.88	0.00	0.00	0.20	0.20	0.00	0.05	0.05

3.7. Sewer Main and Storm Drain Site Utilities Trenching (Public) (2025) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.41	0.34	2.96	3.77	0.01	0.10		0.10	0.09		0.09
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.41	0.34	2.96	3.77	0.01	0.10	0.00	0.10	0.09	0.00	0.09

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.05	0.04	0.04	0.70	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor		0.00	0.00	0.07	0.04	0.00	0.00	0.02	0.02	0.00	0.00	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.05	0.04	0.12	0.73	0.00	0.00	0.15	0.15	0.00	0.04	0.04

3.1. Option 2 Rough Grading (2026) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		3.62	3.04	27.23	27.57	0.06	1.12		1.12	1.03		1.03
Dust From Material Movement								3.59	3.59		1.42	1.42
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		3.62	3.04	27.23	27.57	0.06	1.12	3.59	4.71	1.03	1.42	2.46

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.08	0.07	0.08	1.29	0.00	0.00	0.26	0.26	0.00	0.06	0.06
Vendor		0.05	0.02	0.69	0.33	0.00	0.01	0.17	0.18	0.00	0.05	0.05
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.13	0.09	0.77	1.62	0.00	0.01	0.43	0.44	0.00	0.11	0.11

3.21. Option 2 Buildings 1 and 2 Utility Trenching (2026) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.76	1.48	11.37	13.67	0.03	0.51		0.51	0.47		0.47
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.76	1.48	11.37	13.67	0.03	0.51	0.00	0.51	0.47	0.00	0.47

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.06	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.01	0.01	0.22	0.10	0.00	0.00	0.05	0.05	0.00	0.01	0.02
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.08	0.06	0.28	0.93	0.00	0.00	0.25	0.25	0.00	0.06	0.06

3.9. Option 2 Buildings 1 and 2 (2026) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.28	1.07	9.85	12.97	0.02	0.38		0.38	0.35		0.35
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.28	1.07	9.85	12.97	0.02	0.38	0.00	0.38	0.35	0.00	0.35

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		1.23	1.09	1.15	19.10	0.00	0.00	3.87	3.87	0.00	0.91	0.91
Vendor		0.26	0.11	3.97	1.92	0.03	0.05	0.99	1.04	0.03	0.27	0.30
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.49	1.20	5.11	21.02	0.03	0.05	4.85	4.90	0.03	1.18	1.20

3.9. Linear, Paving (2026) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.00	0.84	7.37	10.76	0.01	0.30		0.30	0.28		0.28
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.00	0.84	7.37	10.76	0.01	0.30	0.00	0.30	0.28	0.00	0.28

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.07	0.06	0.08	0.96	0.00	0.00	0.23	0.23	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.07	0.06	0.08	0.96	0.00	0.00	0.23	0.23	0.00	0.05	0.05

3.1. Sewer Main and Storm Drain Site Site Preparation (Private) (2026) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.34	1.13	9.84	10.82	0.03	0.42		0.42	0.39		0.39
Dust From Material Movement								0.62	0.62		0.07	0.07
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.34	1.13	9.84	10.82	0.03	0.42	0.62	1.04	0.39	0.07	0.46

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.03	0.03	0.03	0.48	0.00	0.00	0.10	0.10	0.00	0.02	0.02
Vendor		0.02	0.01	0.34	0.17	0.00	0.00	0.09	0.09	0.00	0.02	0.03
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.05	0.04	0.37	0.65	0.00	0.00	0.18	0.19	0.00	0.05	0.05

3.3. Sewer Main and Storm Drain Site Pipeline Construction 2026 (Private) (2026) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.91	0.76	6.67	8.03	0.02	0.25		0.25	0.23		0.23
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.91	0.76	6.67	8.03	0.02	0.25	0.00	0.25	0.23	0.00	0.23

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.00	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	0.00
Hauling		0.03	0.03	0.24	0.29	0.00	0.01		0.01	0.01		0.01
Total		0.03	0.03	0.24	0.29	0.00	0.01	0.00	0.01	0.01	0.00	0.01

3.9. Sewer Main and Storm Drain Site Utility Trenching 2026 (Private) (2026) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.39	0.32	2.87	3.76	0.01	0.08		0.08	0.08		0.08
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.39	0.32	2.87	3.76	0.01	0.08	0.00	0.08	0.08	0.00	0.08

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.04	0.04	0.04	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor		0.00	0.00	0.07	0.03	0.00	0.00	0.02	0.02	0.00	0.00	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.05	0.04	0.11	0.68	0.00	0.00	0.15	0.15	0.00	0.04	0.04

3.11. Option 2 Buildings 1 and 2 Construction (2027) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.23	1.03	9.39	12.94	0.02	0.34		0.34	0.31		0.31
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.23	1.03	9.39	12.94	0.02	0.34	0.00	0.34	0.31	0.00	0.31

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		1.19	1.05	1.02	17.76	0.00	0.00	3.87	3.87	0.00	0.91	0.91
Vendor		0.23	0.11	3.80	1.81	0.03	0.03	0.99	1.01	0.03	0.27	0.30
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.42	1.16	4.82	19.57	0.03	0.03	4.85	4.88	0.03	1.18	1.20

3.13. Option 2 Buildings 1 and 2 Paving (2027) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.95	0.80	7.45	9.98	0.01	0.35		0.35	0.32		0.32
Paving			0.64									
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.95	1.43	7.45	9.98	0.01	0.35	0.00	0.35	0.32	0.00	0.32

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.07	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.07	0.06	0.06	1.04	0.00	0.00	0.20	0.20	0.00	0.05	0.05

3.17. Option 2 Buildings 1 and 2 Architectural Coating (2027) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.82	0.68	4.99	6.75	0.01	0.11		0.11	0.11		0.11
Architectural Coatings			63.54									
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.82	64.22	4.99	6.75	0.01	0.11	0.00	0.11	0.11	0.00	0.11

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.48	0.42	0.41	7.10	0.00	0.00	1.55	1.55	0.00	0.36	0.36
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.48	0.42	0.41	7.10	0.00	0.00	1.55	1.55	0.00	0.36	0.36

3.3. Option 2 Fine Grading (2027) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		3.51	2.95	25.58	27.28	0.06	1.04		1.04	0.96		0.96
Dust From Material H								3.59	3.59		1.42	1.42
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		3.51	2.95	25.58	27.28	0.06	1.04	3.59	4.63	0.96	1.42	2.38

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.08	0.07	0.07	1.20	0.00	0.00	0.26	0.26	0.00	0.06	0.06
Vendor		0.04	0.02	0.66	0.31	0.00	0.00	0.17	0.18	0.00	0.05	0.05
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.12	0.09	0.73	1.51	0.00	0.00	0.43	0.44	0.00	0.11	0.11

3.23. Option 2 Finishing/Landscaping (2027) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		1.70	1.43	10.70	13.64	0.03	0.47		0.47	0.43		0.43
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		1.70	1.43	10.70	13.64	0.03	0.47	0.00	0.47	0.43	0.00	0.43

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.06	0.05	0.05	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.06	0.05	0.05	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05

3.5. Sewer Main and Storm Drain Site Pipeline Construction 2027 (Private) (2027) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.88	0.74	6.45	8.02	0.02	0.23		0.23	0.21		0.21
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.88	0.74	6.45	8.02	0.02	0.23	0.00	0.23	0.21	0.00	0.21

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.02	0.02	0.02	0.36	0.00	0.00	0.08	0.08	0.00	0.02	0.02
Vendor		0.00	0.00	0.07	0.03	0.00	0.00	0.02	0.02	0.00	0.00	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.03	0.02	0.09	0.39	0.00	0.00	0.10	0.10	0.00	0.02	0.02

3.11. Sewer Main and Storm Drain Site Utility Trenching 2027 (Private) (2027) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.37	0.31	2.80	3.75	0.01	0.07		0.07	0.07		0.07
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.37	0.31	2.80	3.75	0.01	0.07	0.00	0.07	0.07	0.00	0.07

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.04	0.04	0.03	0.60	0.00	0.00	0.13	0.13	0.00	0.03	0.03
Vendor		0.00	0.00	0.07	0.03	0.00	0.00	0.02	0.02	0.00	0.00	0.01
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.04	0.04	0.10	0.63	0.00	0.00	0.15	0.15	0.00	0.04	0.04

3.7. Sewer Main and Storm Drain Site Paving (Private) (2027) - Option 2

Unmitigated Construction On-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Off-Road Equipment		0.77	0.65	5.74	8.20	0.01	0.23		0.23	0.21		0.21
Paving			0.06									
Onsite truck		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.77	0.71	5.74	8.20	0.01	0.23	0.00	0.23	0.21	0.00	0.21

Unmitigated Construction Off-Site

Category	lbs/day	TOG	ROG	NOx	CO	SO ₂	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Worker		0.06	0.05	0.05	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05
Vendor		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.06	0.05	0.05	0.90	0.00	0.00	0.20	0.20	0.00	0.05	0.05

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Attachment B. Operational Emissions

**Health Risk Assessment, Emissions Inventory
Diesel Trucks, Forklifts, and Yard Trucks
Irwindale Gateway Specific Plan - Option 1**

Operation: Industrial Warehousing

Year:	2027	Buildout
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Temporal Profile:	hours	days	weeks	Site Operation
	24	7	52	

Truck Activity: ⁽¹⁾

HHDT Trucks	550	trips per day	275	trucks per day (round-trip)
HHDT Trucks w/ TRUs	214	trips per day	107	trucks per day (round-trip)
On-site Ingress/Egress Travel Length			2880	m
Idling Duration			30	min
Truck Bays			157	

Running Emissions:	Veh Category	Emission Factor (g/mi) ⁽²⁾	Emission Factor (g/mi) ⁽³⁾	On-site Running g/s	Off-site Running g/s
HHDT Trucks	HHDT	0.01390	0.00665	7.91E-05	
	Off-site Roadway Segments				
		Percent ⁽⁴⁾	Length (m)		
1	Arrow Highway East	15%	1160.4		2.29E-06
2	Arrow Highway West	6%	1118.6		8.82E-07
3	Live Oak Avenue East	30%	764.8		3.02E-06
4	Live Oak Avenue, Site Frontage	60%	423.3		3.34E-06
5	Live Oak Avenue West	35%	697.5		3.21E-06
	TOTAL				

Idling Emissions:	Veh Category	Emission Factor ⁽⁵⁾ lbs/day	g/hr	Idling Emissions g/s	Idling Emissions g/s/bay
Trucks	HHDT		0.01395	2.22E-05	
Transport Refrigeration Units (TRUs)		2.12E-01		1.11E-03	
TOTAL				1.13E-03	7.23E-06

Yard DPM Emissions: ⁽¹⁾	lbs/day	g/s
Forklift Emissions	1.43E+00	7.53E-03
Yard Truck Emissions	1.13E-01	5.95E-04
Total		8.12E-03

(1) Truck activity, forklift, yard truck and TRU emissions from DEIR Air Quality Appendix, PlaceWorks, May 2023. Exhaust PM10 emissions used as surrogate for diesel particulate matter (DPM), per South Coast AQMD guidance.

(2) PM10 running emission factors (g/mi) for diesel-fueled trucks obtained from CARB (EMFAC2021) for analysis years 2027 (5 mph).

(3) PM10 running emission factors (g/mi) for diesel-fueled trucks obtained from CARB (EMFAC2021) for analysis years 2027 (25 mph).

(4) Roadway segment percentages from Traffic Impact Analysis (TIA) for the Project, prepared by Iteris, Inc., dated May 1, 2023.

(5) PM10 idling emission factors (g/day) for diesel-fueled trucks obtained from CARB (EMFAC2021) for analysis years 2027.

	Option 1	Unit Emission Rate - Adjustments due to multiple modeled sources
truck area	PAREA3	7027.9 0.10
	PAREA1	64217.1 0.90
yard area		71245
	PAREA4	4789.6 0.09
	PAREA5	27473.8 0.49
	PAREA6	23675.6 0.42
	55939	

**Health Risk Assessment, Emissions Inventory
Diesel Trucks, Forklifts, and Yard Trucks
Irwindale Gateway Specific Plan - Option 2**

Operation: Industrial Warehousing

Year:	2027	Buildout
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Temporal Profile:	hours	days	weeks	Site Operation
	24	7	52	

Truck Activity: ⁽¹⁾

HHDT Trucks	418	trips per day	209	trucks per day (round-trip)
HHDT Trucks w/ TRUs	230	trips per day	115	trucks per day (round-trip)
On-site Ingress/Egress Travel Length			2880	m
Idling Duration			30	min
Truck Bays			128	

Running Emissions:	Veh Category	Emission Factor (g/mi) ⁽²⁾	Emission Factor (g/mi) ⁽³⁾	On-site Running g/s	Off-site Running g/s
HHDT Trucks	HHDT	0.01390	0.00665	6.01E-05	
Off-site Roadway Segments	Percent ⁽⁴⁾	Length (m)			
1 Arrow Highway East	15%	1160.4			1.74E-06
2 Arrow Highway West	6%	1118.6			6.71E-07
3 Live Oak Avenue East	30%	764.8			2.29E-06
4 Live Oak Avenue, Site Frontage	60%	423.3			2.54E-06
5 Live Oak Avenue West	35%	697.5			2.44E-06
TOTAL					

Idling Emissions:	Veh Category	Emission Factor ⁽⁵⁾ lbs/day	g/hr	Idling Emissions g/s	Idling Emissions g/s/bay
Trucks	HHDT		0.01395	1.69E-05	
Transport Refrigeration Units (TRUs)		2.28E-01		1.20E-03	
TOTAL				1.21E-03	9.47E-06

Yard DPM Emissions: ⁽¹⁾	lbs/day	g/s
Forklift Emissions	1.00E+00	5.25E-03
Yard Truck Emissions	8.00E-02	4.20E-04
Total		5.67E-03

(1) Truck activity, forklift, yard truck and TRU emissions from DEIR Air Quality Appendix, PlaceWorks, May 2023. Exhaust PM10 emissions used as surrogate for diesel particulate matter (DPM), per South Coast AQMD guidance.

(2) PM10 running emission factors (g/mi) for diesel-fueled trucks obtained from CARB (EMFAC2021) for analysis years 2027 (5 mph).

(3) PM10 running emission factors (g/mi) for diesel-fueled trucks obtained from CARB (EMFAC2021) for analysis years 2027 (25 mph).

(4) Roadway segment percentages from Traffic Impact Analysis (TIA) for the Project, prepared by Iteris, Inc., dated May 1, 2023.

(5) PM10 idling emission factors (g/day) for diesel-fueled trucks obtained from CARB (EMFAC2021) for analysis years 2027.

	Option 1	Unit Emission Rate - Adjustments due to multiple modeled sources
truck area	PAREA3	7027.9 0.12
	PAREA7	50046.9 0.88
		57074.8
yard area	PAREA4	4789.6 0.11
	PAREA5	27473.8 0.63
	PAREA8	11448.7 0.26
		43712.1

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Attachment C. Air Dispersion Model Output - Construction

**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) = 182.00 ; 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 = 3.7 MB of RAM.

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

**Detailed Error/Message File: IRW-04.err
**File for Summary of Results: IRW-04.sum

*** AERMOD - VERSION 21112 *** *** IRW-04 Construction HRA
 *** AERMET - VERSION 16216 *** *** Irwindale

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*** 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	0.86957E-02	409774.1	3775333.0	128.8	4.15	6.71	3.26	YES	HRDOW
L0000002	0	0.86957E-02	409788.3	3775335.9	126.9	4.15	6.71	3.26	YES	HRDOW
L0000003	0	0.86957E-02	409802.4	3775338.7	125.6	4.15	6.71	3.26	YES	HRDOW
L0000004	0	0.86957E-02	409816.6	3775341.5	124.3	4.15	6.71	3.26	YES	HRDOW
L0000005	0	0.86957E-02	409830.7	3775344.3	124.2	4.15	6.71	3.26	YES	HRDOW
L0000006	0	0.86957E-02	409845.1	3775345.0	124.5	4.15	6.71	3.26	YES	HRDOW
L0000007	0	0.86957E-02	409859.5	3775345.4	125.2	4.15	6.71	3.26	YES	HRDOW
L0000008	0	0.86957E-02	409874.0	3775345.9	127.7	4.15	6.71	3.26	YES	HRDOW
L0000009	0	0.86957E-02	409888.4	3775346.3	130.8	4.15	6.71	3.26	YES	HRDOW
L0000010	0	0.86957E-02	409902.8	3775346.7	130.5	4.15	6.71	3.26	YES	HRDOW
L0000011	0	0.86957E-02	409917.2	3775347.2	130.0	4.15	6.71	3.26	YES	HRDOW
L0000012	0	0.86957E-02	409931.6	3775347.6	129.5	4.15	6.71	3.26	YES	HRDOW
L0000013	0	0.86957E-02	409944.3	3775346.4	129.0	4.15	6.71	3.26	YES	HRDOW
L0000014	0	0.86957E-02	409942.9	3775332.1	129.0	4.15	6.71	3.26	YES	HRDOW
L0000015	0	0.86957E-02	409942.3	3775317.7	128.7	4.15	6.71	3.26	YES	HRDOW
L0000016	0	0.86957E-02	409947.7	3775304.6	128.0	4.15	6.71	3.26	YES	HRDOW
L0000017	0	0.86957E-02	409958.2	3775294.9	127.7	4.15	6.71	3.26	YES	HRDOW
L0000018	0	0.86957E-02	409969.2	3775285.5	127.7	4.15	6.71	3.26	YES	HRDOW
L0000019	0	0.86957E-02	409981.3	3775277.7	127.8	4.15	6.71	3.26	YES	HRDOW
L0000020	0	0.86957E-02	409993.7	3775270.3	127.8	4.15	6.71	3.26	YES	HRDOW
L0000021	0	0.86957E-02	410003.8	3775260.0	128.3	4.15	6.71	3.26	YES	HRDOW
L0000022	0	0.86957E-02	410013.9	3775249.7	128.5	4.15	6.71	3.26	YES	HRDOW
L0000023	0	0.86957E-02	410024.1	3775239.4	127.5	4.15	6.71	3.26	YES	HRDOW
L0000024	0	0.86957E-02	410034.2	3775229.1	127.7	4.15	6.71	3.26	YES	HRDOW
L0000025	0	0.86957E-02	410044.3	3775218.9	127.2	4.15	6.71	3.26	YES	HRDOW
L0000026	0	0.86957E-02	410054.4	3775208.6	126.6	4.15	6.71	3.26	YES	HRDOW
L0000027	0	0.86957E-02	410064.5	3775198.2	127.4	4.15	6.71	3.26	YES	HRDOW
L0000028	0	0.86957E-02	410074.3	3775187.7	126.9	4.15	6.71	3.26	YES	HRDOW
L0000029	0	0.86957E-02	410084.2	3775177.1	126.7	4.15	6.71	3.26	YES	HRDOW
L0000030	0	0.86957E-02	410094.1	3775166.6	127.2	4.15	6.71	3.26	YES	HRDOW
L0000031	0	0.86957E-02	410103.9	3775156.1	126.8	4.15	6.71	3.26	YES	HRDOW
L0000032	0	0.86957E-02	410113.8	3775145.6	127.0	4.15	6.71	3.26	YES	HRDOW
L0000033	0	0.86957E-02	410123.7	3775135.0	127.7	4.15	6.71	3.26	YES	HRDOW
L0000034	0	0.86957E-02	410133.5	3775124.5	127.9	4.15	6.71	3.26	YES	HRDOW
L0000035	0	0.86957E-02	410143.4	3775114.0	128.0	4.15	6.71	3.26	YES	HRDOW
L0000036	0	0.86957E-02	410153.2	3775103.4	128.5	4.15	6.71	3.26	YES	HRDOW
L0000037	0	0.86957E-02	410163.1	3775092.9	128.9	4.15	6.71	3.26	YES	HRDOW
L0000038	0	0.86957E-02	410173.0	3775082.4	128.9	4.15	6.71	3.26	YES	HRDOW

L0000039 0 0.86957E-02 410182.8 3775071.8 129.5 4.15 6.71 3.26 YES HRDOW
L0000040 0 0.86957E-02 410192.7 3775061.3 129.7 4.15 6.71 3.26 YES HRDOW
*** AERMOD - VERSION 21112 *** *** IRW-04 Construction HRA ***
*** AERMET - VERSION 16216 *** *** Irwindale ***

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*** MODELOPTs: RegDEFAULT 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	0.86957E-02	410202.6	3775050.8	129.2	4.15	6.71	3.26	YES	HRDOW
L0000042	0	0.86957E-02	410212.1	3775040.0	128.4	4.15	6.71	3.26	YES	HRDOW
L0000043	0	0.86957E-02	410219.7	3775027.7	128.0	4.15	6.71	3.26	YES	HRDOW
L0000044	0	0.86957E-02	410223.0	3775013.7	127.9	4.15	6.71	3.26	YES	HRDOW
L0000045	0	0.86957E-02	410226.1	3774999.6	127.8	4.15	6.71	3.26	YES	HRDOW
L0000046	0	0.86957E-02	410229.3	3774985.5	127.8	4.15	6.71	3.26	YES	HRDOW
L0000047	0	0.86957E-02	410228.3	3774971.3	127.6	4.15	6.71	3.26	YES	HRDOW
L0000048	0	0.86957E-02	410225.6	3774957.2	127.4	4.15	6.71	3.26	YES	HRDOW
L0000049	0	0.86957E-02	410220.2	3774943.8	127.2	4.15	6.71	3.26	YES	HRDOW
L0000050	0	0.86957E-02	410213.9	3774930.9	127.1	4.15	6.71	3.26	YES	HRDOW
L0000051	0	0.86957E-02	410205.6	3774919.1	127.0	4.15	6.71	3.26	YES	HRDOW
L0000052	0	0.86957E-02	410197.8	3774907.0	126.8	4.15	6.71	3.26	YES	HRDOW
L0000053	0	0.86957E-02	410190.8	3774894.3	126.6	4.15	6.71	3.26	YES	HRDOW
L0000054	0	0.86957E-02	410185.1	3774881.1	126.6	4.15	6.71	3.26	YES	HRDOW
L0000055	0	0.86957E-02	410179.4	3774867.9	126.6	4.15	6.71	3.26	YES	HRDOW
L0000056	0	0.86957E-02	410173.6	3774854.6	126.4	4.15	6.71	3.26	YES	HRDOW
L0000057	0	0.86957E-02	410167.4	3774841.7	126.1	4.15	6.71	3.26	YES	HRDOW
L0000058	0	0.86957E-02	410158.3	3774830.5	125.8	4.15	6.71	3.26	YES	HRDOW
L0000059	0	0.86957E-02	410149.2	3774819.3	125.5	4.15	6.71	3.26	YES	HRDOW
L0000060	0	0.86957E-02	410140.1	3774808.1	125.2	4.15	6.71	3.26	YES	HRDOW
L0000061	0	0.86957E-02	410131.0	3774796.9	125.2	4.15	6.71	3.26	YES	HRDOW
L0000062	0	0.86957E-02	410121.9	3774785.7	125.2	4.15	6.71	3.26	YES	HRDOW
L0000063	0	0.86957E-02	410112.8	3774774.5	125.0	4.15	6.71	3.26	YES	HRDOW
L0000064	0	0.86957E-02	410103.7	3774763.3	125.0	4.15	6.71	3.26	YES	HRDOW
L0000065	0	0.86957E-02	410094.6	3774752.1	125.0	4.15	6.71	3.26	YES	HRDOW
L0000066	0	0.86957E-02	410085.5	3774740.9	124.8	4.15	6.71	3.26	YES	HRDOW
L0000067	0	0.86957E-02	410076.4	3774729.7	124.8	4.15	6.71	3.26	YES	HRDOW
L0000068	0	0.86957E-02	410067.3	3774718.5	124.7	4.15	6.71	3.26	YES	HRDOW
L0000069	0	0.86957E-02	410058.1	3774707.3	124.6	4.15	6.71	3.26	YES	HRDOW
L0000070	0	0.86957E-02	410048.9	3774696.3	124.6	4.15	6.71	3.26	YES	HRDOW
L0000071	0	0.86957E-02	410038.5	3774686.3	124.5	4.15	6.71	3.26	YES	HRDOW
L0000072	0	0.86957E-02	410028.1	3774676.2	124.5	4.15	6.71	3.26	YES	HRDOW
L0000073	0	0.86957E-02	410017.8	3774666.2	124.4	4.15	6.71	3.26	YES	HRDOW
L0000074	0	0.86957E-02	410006.9	3774656.7	124.3	4.15	6.71	3.26	YES	HRDOW
L0000075	0	0.86957E-02	409995.9	3774647.4	123.8	4.15	6.71	3.26	YES	HRDOW
L0000076	0	0.86957E-02	409984.8	3774638.1	123.2	4.15	6.71	3.26	YES	HRDOW

L0000077	0	0.86957E-02	409973.8	3774628.9	123.6	4.15	6.71	3.26	YES	HRDOW
L0000078	0	0.86957E-02	409961.8	3774620.8	123.4	4.15	6.71	3.26	YES	HRDOW
L0000079	0	0.86957E-02	409949.8	3774612.8	123.0	4.15	6.71	3.26	YES	HRDOW
L0000080	0	0.86957E-02	409937.8	3774604.8	123.2	4.15	6.71	3.26	YES	HRDOW

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 *** AERMET - VERSION 16216 *** *** Irwindale

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*** 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
L0000081	0	0.86957E-02	409925.8	3774596.8	122.9	4.15	6.71	3.26	YES	HRDOW
L0000082	0	0.86957E-02	409913.8	3774588.7	122.4	4.15	6.71	3.26	YES	HRDOW
L0000083	0	0.86957E-02	409901.8	3774580.7	122.2	4.15	6.71	3.26	YES	HRDOW
L0000084	0	0.86957E-02	409889.1	3774573.9	122.5	4.15	6.71	3.26	YES	HRDOW
L0000085	0	0.86957E-02	409876.3	3774567.2	122.5	4.15	6.71	3.26	YES	HRDOW
L0000086	0	0.86957E-02	409863.5	3774560.5	122.1	4.15	6.71	3.26	YES	HRDOW
L0000087	0	0.86957E-02	409850.6	3774554.2	121.6	4.15	6.71	3.26	YES	HRDOW
L0000088	0	0.86957E-02	409837.0	3774554.4	121.4	4.15	6.71	3.26	YES	HRDOW
L0000089	0	0.86957E-02	409823.9	3774560.3	121.5	4.15	6.71	3.26	YES	HRDOW
L0000090	0	0.86957E-02	409810.7	3774566.2	121.3	4.15	6.71	3.26	YES	HRDOW
L0000091	0	0.86957E-02	409797.5	3774572.1	121.0	4.15	6.71	3.26	YES	HRDOW
L0000092	0	0.86957E-02	409784.4	3774578.0	120.8	4.15	6.71	3.26	YES	HRDOW
L0000093	0	0.86957E-02	409771.2	3774583.9	120.8	4.15	6.71	3.26	YES	HRDOW
L0000094	0	0.86957E-02	409758.0	3774589.8	121.0	4.15	6.71	3.26	YES	HRDOW
L0000095	0	0.86957E-02	409744.8	3774595.7	121.1	4.15	6.71	3.26	YES	HRDOW
L0000096	0	0.86957E-02	409731.7	3774601.6	120.9	4.15	6.71	3.26	YES	HRDOW
L0000097	0	0.86957E-02	409718.5	3774607.5	120.6	4.15	6.71	3.26	YES	HRDOW
L0000098	0	0.86957E-02	409705.3	3774613.4	120.5	4.15	6.71	3.26	YES	HRDOW
L0000099	0	0.86957E-02	409692.2	3774619.3	120.6	4.15	6.71	3.26	YES	HRDOW
L0000100	0	0.86957E-02	409679.0	3774625.2	120.7	4.15	6.71	3.26	YES	HRDOW
L0000101	0	0.86957E-02	409665.8	3774631.1	120.6	4.15	6.71	3.26	YES	HRDOW
L0000102	0	0.86957E-02	409652.6	3774637.0	120.5	4.15	6.71	3.26	YES	HRDOW
L0000103	0	0.86957E-02	409639.5	3774642.9	120.5	4.15	6.71	3.26	YES	HRDOW
L0000104	0	0.86957E-02	409626.3	3774648.8	120.4	4.15	6.71	3.26	YES	HRDOW
L0000105	0	0.86957E-02	409613.1	3774654.7	120.4	4.15	6.71	3.26	YES	HRDOW
L0000106	0	0.86957E-02	409600.0	3774660.5	120.5	4.15	6.71	3.26	YES	HRDOW
L0000107	0	0.86957E-02	409586.8	3774666.4	120.6	4.15	6.71	3.26	YES	HRDOW
L0000108	0	0.86957E-02	409573.6	3774672.3	120.4	4.15	6.71	3.26	YES	HRDOW
L0000109	0	0.86957E-02	409560.4	3774678.2	116.5	4.15	6.71	3.26	YES	HRDOW
L0000110	0	0.86957E-02	409547.3	3774684.1	112.9	4.15	6.71	3.26	YES	HRDOW
L0000111	0	0.86957E-02	409534.1	3774690.0	112.9	4.15	6.71	3.26	YES	HRDOW
L0000112	0	0.86957E-02	409520.9	3774695.9	113.0	4.15	6.71	3.26	YES	HRDOW
L0000113	0	0.86957E-02	409507.8	3774701.8	113.4	4.15	6.71	3.26	YES	HRDOW
L0000114	0	0.86957E-02	409494.6	3774707.7	114.9	4.15	6.71	3.26	YES	HRDOW
L0000115	0	0.86957E-02	409481.4	3774713.6	118.5	4.15	6.71	3.26	YES	HRDOW

*** AERMOD - VERSION 21112 *** *** IRW-04 Construction HRA
 *** AERMET - VERSION 16216 *** *** Irwindale
 *** MODELOPTs: RegDEFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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*** 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	,	L0000052	,	L0000053	,	L0000054	,	L0000055	,	L0000056	,
		L0000057	,	L0000058	,	L0000059	,	L0000060	,	L0000061	,	L0000062	,	L0000063	,	L0000064	,
		L0000065	,	L0000066	,	L0000067	,	L0000068	,	L0000069	,	L0000070	,	L0000071	,	L0000072	,
		L0000073	,	L0000074	,	L0000075	,	L0000076	,	L0000077	,	L0000078	,	L0000079	,	L0000080	,
		L0000081	,	L0000082	,	L0000083	,	L0000084	,	L0000085	,	L0000086	,	L0000087	,	L0000088	,
		L0000089	,	L0000090	,	L0000091	,	L0000092	,	L0000093	,	L0000094	,	L0000095	,	L0000096	,
		L0000097	,	L0000098	,	L0000099	,	L0000100	,	L0000101	,	L0000102	,	L0000103	,	L0000104	,
		L0000105	,	L0000106	,	L0000107	,	L0000108	,	L0000109	,	L0000110	,	L0000111	,	L0000112	,
		L0000113	,	L0000114	,	L0000115	,										

*** AERMOD - VERSION 21112 *** *** IRW-04 Construction HRA
 *** AERMET - VERSION 16216 *** *** Irwindale
 *** MODELOPTs: RegDFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

URBAN ID	URBAN POP	SOURCE IDs
-----	-----	-----
L0000007	9830000. 1	, L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 ,
		, 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 , L0000052 , L0000053 , L0000054 , L0000055 ,
		L0000056 , L0000057 , L0000058 , L0000059 , L0000060 , L0000061 , L0000062 , L0000063 ,
		L0000064 , L0000065 , L0000066 , L0000067 , L0000068 , L0000069 , L0000070 , L0000071 ,
		L0000072 , L0000073 , L0000074 , L0000075 , L0000076 , L0000077 , L0000078 , L0000079 ,
		L0000080 , L0000081 , L0000082 , L0000083 , L0000084 , L0000085 , L0000086 , L0000087 ,
		L0000088 , L0000089 , L0000090 , L0000091 , L0000092 , L0000093 , L0000094 , L0000095 ,
		L0000096 , L0000097 , L0000098 , L0000099 , L0000100 , L0000101 , L0000102 , L0000103 ,
		L0000104 , L0000105 , L0000106 , L0000107 , L0000108 , L0000109 , L0000110 , L0000111 ,
		L0000112 , L0000113 , L0000114 , L0000115 ,

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*** AERMOD - VERSION 21112 ***   *** IRW-04 Construction HRA   ***   05/03/23
*** AERMET - VERSION 16216 ***   *** Irwindale   ***   12:03:41
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*** MODELOPTs:   RegDEFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

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SOURCE ID = 1           ; SOURCE TYPE = AREAPOLY :

```

HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	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

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*** AERMOD - VERSION 21112 ***   *** IRW-04 Construction HRA   ***   05/03/23
*** AERMET - VERSION 16216 ***   *** Irwindale   ***   12:03:41
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*** MODELOPTs:   RegDEFAULT CONC ELEV FLGPOL URBAN ADJ_U*

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

```

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SOURCE ID = ALL VOLUME SOURCES ; SOURCE TYPE = VOLUME :

```

HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	SCALAR	HRDOW	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

*** AERMOD - VERSION 21112 ***
 *** AERMET - VERSION 16216 ***

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

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

Surface file: met data - 182 m\AZUS_V9_ADJU\AZUS_v9.SFC
 Profile file: met data - 182 m\AZUS_V9_ADJU\AZUS_v9.PFL
 Surface format: FREE
 Profile format: FREE
 Surface station no.: 3179
 Name: UNKNOWN
 Year: 2012

Met Version: 16216

Upper air station no.: 3190
 Name: UNKNOWN
 Year: 2012

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
12	01	01	1	01	-21.3	0.224	-9.000	-9.000	-999.	255.	55.3	0.36	1.68	1.00	1.80	20.	9.1	293.1	5.5			
12	01	01	1	02	-32.6	0.342	-9.000	-9.000	-999.	481.	128.9	0.36	1.68	1.00	2.70	99.	9.1	293.1	5.5			
12	01	01	1	03	-26.4	0.277	-9.000	-9.000	-999.	351.	84.1	0.36	1.68	1.00	2.20	14.	9.1	292.0	5.5			
12	01	01	1	04	-32.6	0.342	-9.000	-9.000	-999.	480.	128.9	0.36	1.68	1.00	2.70	10.	9.1	292.5	5.5			
12	01	01	1	05	-26.4	0.277	-9.000	-9.000	-999.	351.	84.1	0.36	1.68	1.00	2.20	12.	9.1	292.5	5.5			
12	01	01	1	06	-21.6	0.224	-9.000	-9.000	-999.	256.	55.2	0.36	1.68	1.00	1.80	118.	9.1	289.2	5.5			
12	01	01	1	07	-26.6	0.277	-9.000	-9.000	-999.	349.	84.1	0.36	1.68	1.00	2.20	64.	9.1	290.9	5.5			
12	01	01	1	08	-1.3	0.062	-9.000	-9.000	-999.	124.	16.5	0.36	1.68	0.55	0.40	36.	9.1	290.9	5.5			
12	01	01	1	09	38.1	0.160	0.348	0.008	39.	153.	-9.5	0.36	1.68	0.32	0.90	124.	9.1	293.8	5.5			
12	01	01	1	10	99.5	0.179	0.693	0.007	119.	181.	-5.1	0.36	1.68	0.25	0.90	21.	9.1	298.1	5.5			
12	01	01	1	11	142.6	0.494	1.086	0.005	321.	832.	-75.2	0.36	1.68	0.22	3.60	141.	9.1	299.9	5.5			
12	01	01	1	12	162.8	0.442	1.385	0.005	582.	709.	-47.3	0.36	1.68	0.21	3.10	122.	9.1	299.9	5.5			
12	01	01	1	13	164.4	0.298	1.634	0.005	946.	405.	-14.3	0.36	1.68	0.21	1.80	114.	9.1	300.9	5.5			
12	01	01	1	14	142.7	0.293	1.718	0.005	1265.	382.	-15.8	0.36	1.68	0.22	1.80	93.	9.1	302.5	5.5			
12	01	01	1	15	96.7	0.283	1.575	0.005	1438.	361.	-20.7	0.36	1.68	0.26	1.80	110.	9.1	303.8	5.5			
12	01	01	1	16	41.5	0.207	1.201	0.005	1485.	228.	-18.9	0.36	1.68	0.35	1.30	113.	9.1	304.2	5.5			
12	01	01	1	17	-37.8	0.464	-9.000	-9.000	-999.	757.	236.3	0.36	1.68	0.62	3.60	251.	9.1	300.9	5.5			
12	01	01	1	18	-26.1	0.277	-9.000	-9.000	-999.	379.	84.2	0.36	1.68	1.00	2.20	8.	9.1	296.4	5.5			
12	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-999999.0	0.36	1.68	1.00	999.00	999.	-9.0	295.9	5.5			
12	01	01	1	20	-5.7	0.107	-9.000	-9.000	-999.	84.	19.3	0.36	1.68	1.00	0.90	35.	9.1	295.4	5.5			
12	01	01	1	21	-21.3	0.224	-9.000	-9.000	-999.	255.	55.3	0.36	1.68	1.00	1.80	213.	9.1	293.8	5.5			
12	01	01	1	22	-21.3	0.224	-9.000	-9.000	-999.	255.	55.3	0.36	1.68	1.00	1.80	52.	9.1	293.8	5.5			
12	01	01	1	23	-26.3	0.277	-9.000	-9.000	-999.	349.	84.2	0.36	1.68	1.00	2.20	58.	9.1	293.8	5.5			
12	01	01	1	24	-21.4	0.224	-9.000	-9.000	-999.	256.	55.3	0.36	1.68	1.00	1.80	83.	9.1	292.5	5.5			

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB	TMP	sigmaA	sigmaW	sigmaV
12	01	01	01	5.5	0	-999.	-99.00	293.2	99.0	-99.00	-99.00	-99.00
12	01	01	01	9.1	1	20.	1.80	-999.0	99.0	-99.00	-99.00	-99.00

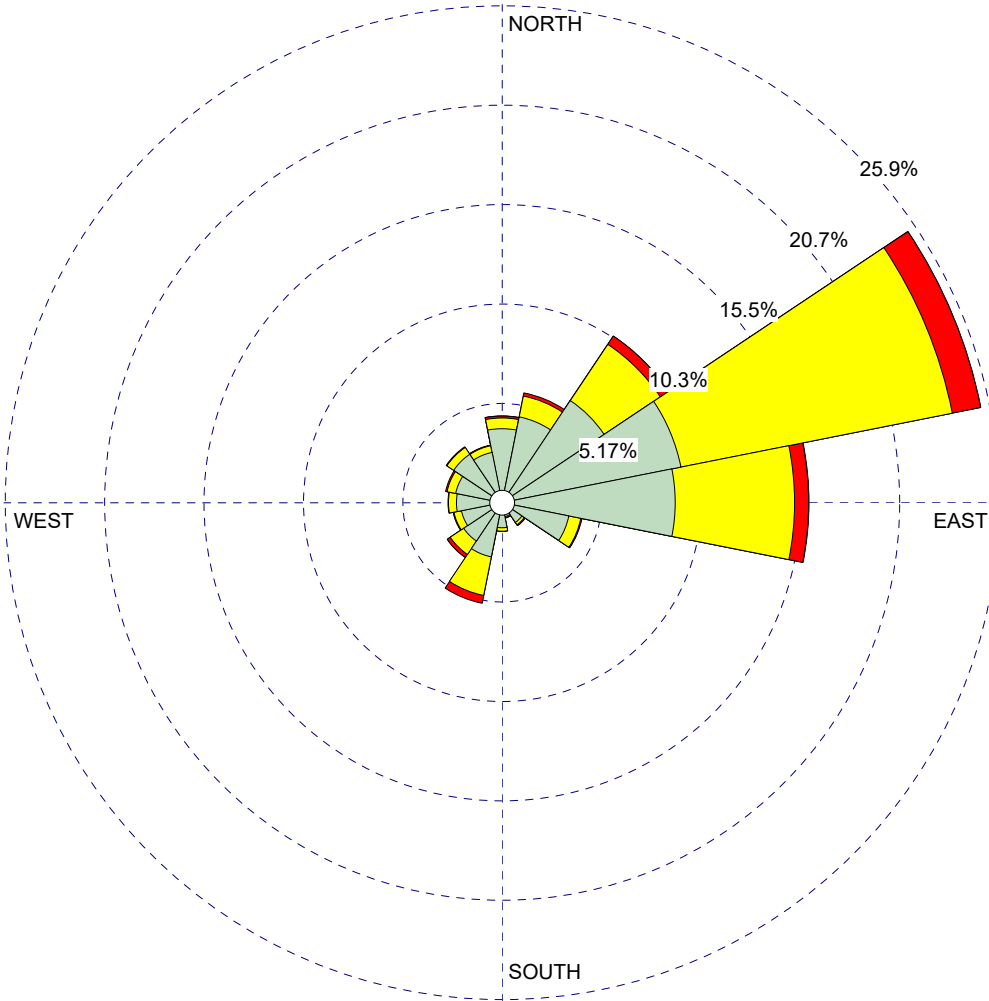
F indicates top of profile (=1) or below (=0)

WIND ROSE PLOT:

**Azusa Monitoring Station
2012-2016**

DISPLAY:

**Wind Speed
Flow Vector (blowing to)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 3.80%

COMMENTS:

Construction Hours
7AM-4PM

DATA PERIOD:

**Start Date: 1/1/2012 - 07:00
End Date: 12/31/2016 - 16:00**

COMPANY NAME:

PlaceWorks

MODELER:

SB

CALM WINDS:

3.80%

TOTAL COUNT:

17802 hrs.

AVG. WIND SPEED:

1.79 m/s

DATE:

5/31/2023

PROJECT NO.:

IRW-04

*** AERMOD - VERSION 21112 ***
*** AERMET - VERSION 16216 ***

*** IRW-04 Construction HRA
*** Irwindale

*** 05/03/23
*** 12:03:41
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*** MODELOPTs: RegDEFAULT 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
410227.56	3773999.13	0.01751	410247.56	3773999.13	0.01681
410267.56	3773999.13	0.01618	410287.56	3773999.13	0.01563
410327.56	3773999.13	0.01472	410347.56	3773999.13	0.01436
410367.56	3773999.13	0.01405	410387.56	3773999.13	0.01379
410407.56	3773999.13	0.01357	410427.56	3773999.13	0.01339
410447.56	3773999.13	0.01324	410467.56	3773999.13	0.01312
410487.56	3773999.13	0.01303	410527.56	3773999.13	0.01292
410547.56	3773999.13	0.01290	410567.56	3773999.13	0.01288
410267.56	3774019.13	0.01687	410287.56	3774019.13	0.01630
410327.56	3774019.13	0.01537	410347.56	3774019.13	0.01500
410367.56	3774019.13	0.01468	410387.56	3774019.13	0.01442
410407.56	3774019.13	0.01420	410427.56	3774019.13	0.01401
410447.56	3774019.13	0.01386	410467.56	3774019.13	0.01375
410487.56	3774019.13	0.01366	410529.05	3774026.09	0.01377
410549.05	3774026.09	0.01374	410569.05	3774026.09	0.01373
410287.56	3774039.13	0.01704	410307.56	3774039.13	0.01653
410367.56	3774039.13	0.01538	410387.56	3774039.13	0.01510
410407.56	3774039.13	0.01488	410427.56	3774039.13	0.01469
410447.56	3774039.13	0.01454	410467.56	3774039.13	0.01442
410487.56	3774039.13	0.01433	410307.56	3774059.13	0.01732
410327.56	3774059.13	0.01686	410347.56	3774059.13	0.01647
410387.56	3774059.13	0.01585	410407.56	3774059.13	0.01562
410447.56	3774059.13	0.01528	410467.56	3774059.13	0.01516
410487.56	3774059.13	0.01506	410327.56	3774079.13	0.01771
410347.56	3774079.13	0.01731	410367.56	3774079.13	0.01696
410407.56	3774079.13	0.01644	410447.56	3774079.13	0.01608
410467.56	3774079.13	0.01596	410487.56	3774079.13	0.01586
410530.05	3774073.66	0.01551	410550.05	3774073.66	0.01547
410570.05	3774073.66	0.01546	410367.56	3774099.13	0.01788
410387.56	3774099.13	0.01758	410407.56	3774099.13	0.01733
410447.56	3774099.13	0.01697	410467.56	3774099.13	0.01684
410487.56	3774099.13	0.01674	410507.56	3774099.13	0.01666
410530.05	3774093.66	0.01635	410550.05	3774093.66	0.01631
410570.05	3774093.66	0.01629	410387.56	3774119.13	0.01858
410407.56	3774119.13	0.01832	410427.56	3774119.13	0.01811
410467.56	3774119.13	0.01780	410487.56	3774119.13	0.01769
410507.56	3774119.13	0.01761	410527.56	3774119.13	0.01755

410547.56	3774119.13	0.01750
410427.56	3774139.13	0.01919
410467.56	3774139.13	0.01886

410567.56	3774119.13	0.01746
410447.56	3774139.13	0.01901
410507.56	3774139.13	0.01865

*** AERMOD - VERSION 21112 ***
 *** AERMET - VERSION 16216 ***

*** IRW-04 Construction HRA
 *** Irwindale

*** 05/03/23
 *** 12:03:41
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*** MODELOPTs: RegDEFAULT 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
410527.56	3774139.13	0.01858	410547.56	3774139.13	0.01852
410567.56	3774139.13	0.01848	410447.56	3774159.13	0.02019
410467.56	3774159.13	0.02003	410487.56	3774159.13	0.01990
410487.56	3774179.13	0.02118	410507.56	3774179.13	0.02106
410527.56	3774179.13	0.02096	410547.56	3774179.13	0.02087
410567.56	3774179.13	0.02080	410587.56	3774179.13	0.02073
410507.56	3774199.13	0.02244	410527.56	3774199.13	0.02232
410547.56	3774199.13	0.02222	410567.56	3774199.13	0.02212
410587.56	3774199.13	0.02204	410220.28	3775328.17	0.51649
410240.28	3775328.17	0.48982	410260.28	3775328.17	0.46511
410200.28	3775348.17	0.48197	410220.28	3775348.17	0.45970
410240.28	3775348.17	0.43870	410260.28	3775348.17	0.41910
410100.28	3775368.17	0.52483	410120.28	3775368.17	0.50295
410140.28	3775368.17	0.48187	410160.28	3775368.17	0.46219
410180.28	3775368.17	0.44353	410200.28	3775368.17	0.42573
410220.28	3775368.17	0.40883	410240.28	3775368.17	0.39272
410260.28	3775368.17	0.37747	410020.28	3775388.17	0.47717
410040.28	3775388.17	0.47333	410060.28	3775388.17	0.46476
410080.28	3775388.17	0.45363	410100.28	3775388.17	0.44128
410120.28	3775388.17	0.42821	410140.28	3775388.17	0.41487
410160.28	3775388.17	0.40181	410180.28	3775388.17	0.38898
410200.28	3775388.17	0.37622	410220.28	3775388.17	0.36371
410240.28	3775388.17	0.35160	410000.28	3775408.17	0.37066
410020.28	3775408.17	0.37958	410040.28	3775408.17	0.38340
410060.28	3775408.17	0.38258	410080.28	3775408.17	0.37884
410100.28	3775408.17	0.37318	410120.28	3775408.17	0.36613
410140.28	3775408.17	0.35850	410160.28	3775408.17	0.35025
410180.28	3775408.17	0.34162	410200.28	3775408.17	0.33282
410220.28	3775408.17	0.32380	410240.28	3775408.17	0.31484
410000.28	3775428.17	0.30031	410020.28	3775428.17	0.30991
410040.28	3775428.17	0.31641	410060.28	3775428.17	0.31920
410080.28	3775428.17	0.31949	410100.28	3775428.17	0.31798
410120.28	3775428.17	0.31493	410140.28	3775428.17	0.31098
410160.28	3775428.17	0.30616	410180.28	3775428.17	0.30071
410200.28	3775428.17	0.29487	410220.28	3775428.17	0.28857
410240.28	3775428.17	0.28123	410020.28	3775448.17	0.25900
410040.28	3775448.17	0.26583	410060.28	3775448.17	0.27000

410080.28	3775448.17	0.27231	410100.28	3775448.17	0.27316
410120.28	3775448.17	0.27256	410140.28	3775448.17	0.27118
410160.28	3775448.17	0.26859	410180.28	3775448.17	0.26533

*** AERMOD - VERSION 21112 ***
 *** AERMET - VERSION 16216 ***

*** IRW-04 Construction HRA
 *** Irwindale

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*** 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
410200.28	3775448.17	0.26175	410220.28	3775448.17	0.25756
410040.28	3775468.17	0.22678	410060.28	3775468.17	0.23136
410080.28	3775468.17	0.23460	410100.28	3775468.17	0.23662
410120.28	3775468.17	0.23748	410140.28	3775468.17	0.23755
410160.28	3775468.17	0.23664	410180.28	3775468.17	0.23510
410200.28	3775468.17	0.23298	410220.28	3775468.17	0.22910
410060.28	3775488.17	0.20082	410080.28	3775488.17	0.20421
410100.28	3775488.17	0.20670	410120.28	3775488.17	0.20841
410140.28	3775488.17	0.20755	410160.28	3775488.17	0.20683
410180.28	3775488.17	0.20691	410200.28	3775488.17	0.20731
410220.28	3775488.17	0.20411	410080.28	3775508.17	0.17955
410100.28	3775508.17	0.18090	410120.28	3775508.17	0.18351
410140.28	3775508.17	0.18133	410160.28	3775508.17	0.18110
410180.28	3775508.17	0.18253	410200.28	3775508.17	0.18489
410220.28	3775508.17	0.18277	410120.28	3775528.17	0.16330
410140.28	3775528.17	0.16414	410160.28	3775528.17	0.16488
410180.28	3775528.17	0.16589	410200.28	3775528.17	0.16685
410140.28	3775548.17	0.14700	410160.28	3775548.17	0.14822
410180.28	3775548.17	0.14908	410260.01	3775389.35	0.33720

410407.56	3774119.13	0.05460	410427.56	3774119.13	0.05335
410467.56	3774119.13	0.05093	410487.56	3774119.13	0.04976
410507.56	3774119.13	0.04862	410527.56	3774119.13	0.04753
410547.56	3774119.13	0.04648	410567.56	3774119.13	0.04545
410427.56	3774139.13	0.05549	410447.56	3774139.13	0.05416
410467.56	3774139.13	0.05286	410507.56	3774139.13	0.05041

410200.28	3775428.17	0.37775	410220.28	3775428.17	0.35436
410240.28	3775428.17	0.33243	410020.28	3775448.17	0.65287
410040.28	3775448.17	0.60488	410060.28	3775448.17	0.55873
410080.28	3775448.17	0.51659	410100.28	3775448.17	0.47950
410120.28	3775448.17	0.44598	410140.28	3775448.17	0.41714
410160.28	3775448.17	0.38991	410180.28	3775448.17	0.36573

*** AERMOD - VERSION 21112 ***
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*** IRW-04 Construction HRA
 *** Irwindale

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*** MODELOPTs: RegDEFAULT 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
Maximum Sports Park Receptor									
ONSITE	1ST HIGHEST VALUE IS		0.52483	AT (	410100.28,	3775368.17,	128.71,	1648.19,	0.00) DC
	2ND HIGHEST VALUE IS		0.51649	AT (	410220.28,	3775328.17,	129.20,	1648.19,	0.00) DC
	3RD HIGHEST VALUE IS		0.50295	AT (	410120.28,	3775368.17,	128.94,	1648.19,	0.00) DC
	4TH HIGHEST VALUE IS		0.48982	AT (	410240.28,	3775328.17,	129.32,	1648.19,	0.00) DC
	5TH HIGHEST VALUE IS		0.48197	AT (	410200.28,	3775348.17,	129.36,	1648.19,	0.00) DC
	6TH HIGHEST VALUE IS		0.48187	AT (	410140.28,	3775368.17,	129.38,	1648.19,	0.00) DC
	7TH HIGHEST VALUE IS		0.47717	AT (	410020.28,	3775388.17,	127.92,	1648.19,	0.00) DC
	8TH HIGHEST VALUE IS		0.47333	AT (	410040.28,	3775388.17,	127.32,	1648.19,	0.00) DC
	9TH HIGHEST VALUE IS		0.46511	AT (	410260.28,	3775328.17,	129.60,	1648.19,	0.00) DC
	10TH HIGHEST VALUE IS		0.46476	AT (	410060.28,	3775388.17,	128.06,	1648.19,	0.00) DC
OFFSITE	1ST HIGHEST VALUE IS		1.19196	AT (	410020.28,	3775388.17,	127.92,	1648.19,	0.00) DC
	2ND HIGHEST VALUE IS		1.11804	AT (	410000.28,	3775408.17,	127.99,	1648.19,	0.00) DC
	3RD HIGHEST VALUE IS		1.02001	AT (	410040.28,	3775388.17,	127.32,	1648.19,	0.00) DC
	4TH HIGHEST VALUE IS		0.97316	AT (	410020.28,	3775408.17,	128.19,	1648.19,	0.00) DC
	5TH HIGHEST VALUE IS		0.88879	AT (	410060.28,	3775388.17,	128.06,	1648.19,	0.00) DC
	6TH HIGHEST VALUE IS		0.88110	AT (	410000.28,	3775428.17,	127.98,	1648.19,	0.00) DC
	7TH HIGHEST VALUE IS		0.85738	AT (	410040.28,	3775408.17,	127.52,	1648.19,	0.00) DC
	8TH HIGHEST VALUE IS		0.79853	AT (	410100.28,	3775368.17,	128.71,	1648.19,	0.00) DC
	9TH HIGHEST VALUE IS		0.79501	AT (	410020.28,	3775428.17,	128.23,	1648.19,	0.00) DC
	10TH HIGHEST VALUE IS		0.78617	AT (	410080.28,	3775388.17,	128.66,	1648.19,	0.00) DC

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

*** AERMOD - VERSION 21112 *** *** IRW-04 Construction HRA
*** AERMET - VERSION 16216 *** *** Irwindale

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*** 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 2 Warning Message(s)
A Total of 1684 Informational Message(s)

A Total of 43848 Hours Were Processed

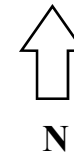
A Total of 75 Calm Hours Identified

A Total of 1609 Missing Hours Identified (3.67 Percent)

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

***** WARNING MESSAGES *****
ME W186 1775 MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used 0.50
ME W187 1775 MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

*** AERMOD Finishes Successfully ***



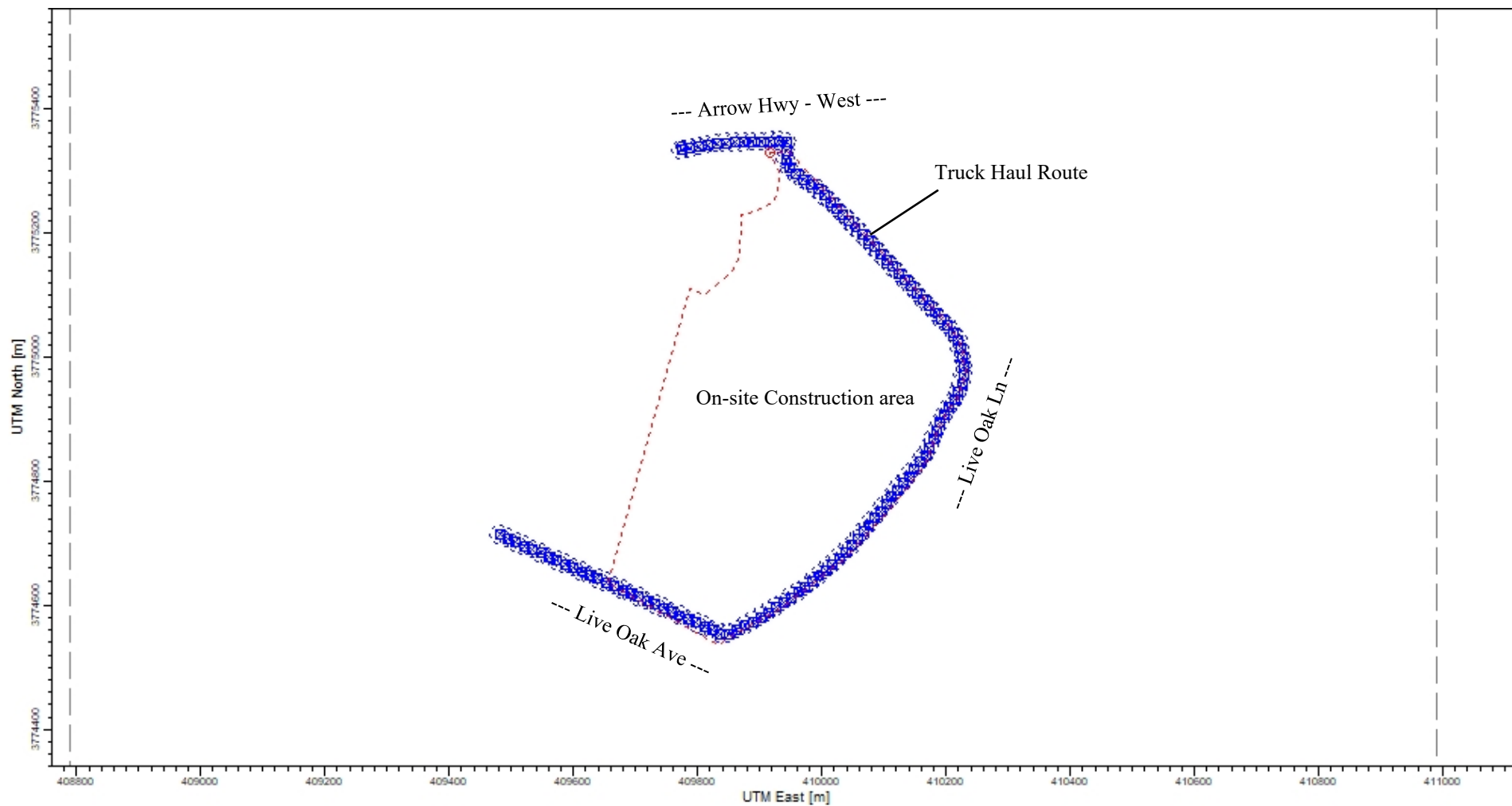
Irwindale Gateway Specific Plan - Construction

Irwindale, CA

Sources:

On-site Sources: Off-road Equipment

Off-site Sources: Truck/Vendor trips along roadways to freeway on/offramps



- Release height of 4.15 m and initial vertical dimension (δy) of 1.93 m is based upon California Air Resources Board's "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles" (2000).

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Attachment D. Air Dispersion Model Output - Operation

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) = 182.00 ; 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 = 4.6 MB of RAM.

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

**Detailed Error/Message File: IRW04Op.err
**File for Summary of Results: IRW04Op.sum

STCK39 0 0.10000E+01 410013.4 3774942.7 125.1 4.15 366.00 51.70 0.10 YES YES NO
 STCK40 0 0.10000E+01 410016.6 3774939.5 125.1 4.15 366.00 51.70 0.10 YES YES NO
 *** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA ***
 *** AERMET - VERSION 16216 *** *** Irwindale, CA ***

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
STCK41	0	0.10000E+01	410020.4	3774936.0	125.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK42	0	0.10000E+01	409933.3	3775022.2	127.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK43	0	0.10000E+01	409936.2	3775019.7	127.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK44	0	0.10000E+01	409939.1	3775017.0	127.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK45	0	0.10000E+01	409942.2	3775014.2	127.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK46	0	0.10000E+01	409945.4	3775012.1	127.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK47	0	0.10000E+01	409948.5	3775008.9	127.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK48	0	0.10000E+01	409952.4	3775005.4	127.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK49	0	0.10000E+01	410023.3	3774931.8	125.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK50	0	0.10000E+01	410026.3	3774929.3	125.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK51	0	0.10000E+01	410029.2	3774926.6	125.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK52	0	0.10000E+01	410032.3	3774923.8	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK53	0	0.10000E+01	410035.4	3774921.7	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK54	0	0.10000E+01	410038.6	3774918.5	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK55	0	0.10000E+01	410042.5	3774915.0	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK56	0	0.10000E+01	410044.7	3774910.4	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK57	0	0.10000E+01	410047.6	3774907.9	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK58	0	0.10000E+01	410050.5	3774905.2	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK59	0	0.10000E+01	410053.6	3774902.4	125.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK60	0	0.10000E+01	410056.8	3774900.3	125.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK61	0	0.10000E+01	410059.9	3774897.2	125.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK62	0	0.10000E+01	410063.8	3774893.7	125.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK63	0	0.10000E+01	410067.9	3774886.9	125.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK64	0	0.10000E+01	410070.8	3774884.4	126.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK65	0	0.10000E+01	410073.7	3774881.7	126.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK66	0	0.10000E+01	410076.8	3774878.9	126.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK67	0	0.10000E+01	410080.0	3774876.8	126.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK68	0	0.10000E+01	409929.1	3775025.2	126.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK69	0	0.10000E+01	409767.5	3774917.4	121.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK70	0	0.10000E+01	409770.5	3774914.9	121.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK71	0	0.10000E+01	409773.3	3774912.2	121.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK72	0	0.10000E+01	409776.4	3774909.4	122.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK73	0	0.10000E+01	409778.3	3774906.6	122.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK74	0	0.10000E+01	409808.6	3774876.7	123.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK75	0	0.10000E+01	409811.5	3774874.2	123.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK76	0	0.10000E+01	409814.4	3774871.5	123.1	4.15	366.00	51.70	0.10	YES	YES	NO	

STCK77	0	0.10000E+01	409817.5	3774868.7	123.2	4.15	366.00	51.70	0.10	YES	YES	NO
STCK78	0	0.10000E+01	409820.6	3774866.6	123.3	4.15	366.00	51.70	0.10	YES	YES	NO
STCK79	0	0.10000E+01	409823.8	3774863.4	123.4	4.15	366.00	51.70	0.10	YES	YES	NO
STCK80	0	0.10000E+01	409827.7	3774859.9	123.5	4.15	366.00	51.70	0.10	YES	YES	NO

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA *** 05/22/23
 *** AERMET - VERSION 16216 *** *** Irwindale, CA *** 13:08:27
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*** MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ_U*

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG. K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/HOR	EMIS RATE SCALAR VARY BY
STCK81	0	0.10000E+01	409830.6	3774854.3	123.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK82	0	0.10000E+01	409833.5	3774851.8	123.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK83	0	0.10000E+01	409836.4	3774849.1	123.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK84	0	0.10000E+01	409839.5	3774846.3	123.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK85	0	0.10000E+01	409842.7	3774844.2	123.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK86	0	0.10000E+01	409845.8	3774841.0	123.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK87	0	0.10000E+01	409849.7	3774837.6	124.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK88	0	0.10000E+01	409853.6	3774831.0	123.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK89	0	0.10000E+01	409856.5	3774828.5	124.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK90	0	0.10000E+01	409859.4	3774825.8	124.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK91	0	0.10000E+01	409862.5	3774823.0	125.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK92	0	0.10000E+01	409865.7	3774820.9	126.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK93	0	0.10000E+01	409868.8	3774817.7	127.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK94	0	0.10000E+01	409872.7	3774814.2	129.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK95	0	0.10000E+01	409877.2	3774809.1	122.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK96	0	0.10000E+01	409790.2	3774896.6	122.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK97	0	0.10000E+01	409793.0	3774893.9	122.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK98	0	0.10000E+01	409796.1	3774891.1	122.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK99	0	0.10000E+01	409799.3	3774889.0	122.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK100	0	0.10000E+01	409802.5	3774885.9	122.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK101	0	0.10000E+01	409806.3	3774882.4	123.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK102	0	0.10000E+01	409876.7	3774807.5	130.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK103	0	0.10000E+01	409879.6	3774805.0	131.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK104	0	0.10000E+01	409882.5	3774802.3	133.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK105	0	0.10000E+01	409885.6	3774799.5	133.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK106	0	0.10000E+01	409888.8	3774797.4	133.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK107	0	0.10000E+01	409891.9	3774794.2	133.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK108	0	0.10000E+01	409895.8	3774790.7	133.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK109	0	0.10000E+01	409898.0	3774786.1	132.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK110	0	0.10000E+01	409901.0	3774783.6	133.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK111	0	0.10000E+01	409903.9	3774780.9	133.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK112	0	0.10000E+01	409907.0	3774778.1	133.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK113	0	0.10000E+01	409910.1	3774776.0	134.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK114	0	0.10000E+01	409913.3	3774772.9	134.0	4.15	366.00	51.70	0.10	YES	YES	NO	

STCK115	0	0.10000E+01	409917.1	3774769.4	133.9	4.15	366.00	51.70	0.10	YES	YES	NO
STCK116	0	0.10000E+01	409944.5	3774739.5	133.7	4.15	366.00	51.70	0.10	YES	YES	NO
STCK117	0	0.10000E+01	409947.5	3774737.0	133.7	4.15	366.00	51.70	0.10	YES	YES	NO
STCK118	0	0.10000E+01	409950.4	3774734.3	133.8	4.15	366.00	51.70	0.10	YES	YES	NO
STCK119	0	0.10000E+01	409953.5	3774731.5	133.8	4.15	366.00	51.70	0.10	YES	YES	NO
STCK120	0	0.10000E+01	409956.6	3774729.4	133.9	4.15	366.00	51.70	0.10	YES	YES	NO

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
STCK121	0	0.10000E+01	409781.4	3774903.4	122.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK122	0	0.10000E+01	409920.9	3774763.3	133.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK123	0	0.10000E+01	409923.8	3774760.8	133.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK124	0	0.10000E+01	409926.7	3774758.1	133.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK125	0	0.10000E+01	409929.8	3774755.3	133.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK126	0	0.10000E+01	409933.0	3774753.2	133.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK127	0	0.10000E+01	409936.1	3774750.0	133.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK128	0	0.10000E+01	409940.0	3774746.5	133.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK129	0	0.10000E+01	409788.1	3774767.1	122.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK130	0	0.10000E+01	409790.2	3774764.6	122.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK131	0	0.10000E+01	409793.8	3774762.0	122.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK132	0	0.10000E+01	409795.3	3774759.7	122.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK133	0	0.10000E+01	409798.5	3774757.2	122.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK134	0	0.10000E+01	409801.3	3774753.8	122.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK135	0	0.10000E+01	409804.2	3774751.4	122.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK136	0	0.10000E+01	409810.2	3774745.6	122.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK137	0	0.10000E+01	409812.3	3774743.0	122.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK138	0	0.10000E+01	409816.0	3774740.5	122.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK139	0	0.10000E+01	409817.4	3774738.1	122.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK140	0	0.10000E+01	409820.6	3774735.6	123.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK141	0	0.10000E+01	409823.4	3774732.2	123.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK142	0	0.10000E+01	409826.4	3774729.8	123.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK143	0	0.10000E+01	409829.5	3774725.9	123.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK144	0	0.10000E+01	409835.8	3774720.3	123.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK145	0	0.10000E+01	409837.9	3774717.7	123.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK146	0	0.10000E+01	409841.5	3774715.2	123.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK147	0	0.10000E+01	409843.0	3774712.8	123.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK148	0	0.10000E+01	409846.2	3774710.3	123.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK149	0	0.10000E+01	409849.0	3774706.9	123.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK150	0	0.10000E+01	409851.9	3774704.5	123.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK151	0	0.10000E+01	409855.1	3774700.6	123.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK152	0	0.10000E+01	409860.5	3774696.1	123.5	4.15	366.00	51.70	0.10	YES	YES	NO	

STCK153	0	0.10000E+01	409861.9	3774693.8	123.5	4.15	366.00	51.70	0.10	YES	YES	NO
STCK154	0	0.10000E+01	409865.1	3774691.3	123.5	4.15	366.00	51.70	0.10	YES	YES	NO
STCK155	0	0.10000E+01	409867.9	3774687.9	123.5	4.15	366.00	51.70	0.10	YES	YES	NO
STCK156	0	0.10000E+01	409870.9	3774685.5	123.6	4.15	366.00	51.70	0.10	YES	YES	NO
STCK157	0	0.10000E+01	409874.0	3774681.6	123.6	4.15	366.00	51.70	0.10	YES	YES	NO

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*** MODELOPTs: RegDFAULT CONC ELEV 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	0.27778E-01	409862.2	3774537.8	121.7	4.15	9.77	3.26	YES	
L0000002	0	0.27778E-01	409881.3	3774529.2	122.5	4.15	9.77	3.26	YES	
L0000003	0	0.27778E-01	409900.4	3774520.5	123.0	4.15	9.77	3.26	YES	
L0000004	0	0.27778E-01	409919.6	3774511.9	123.1	4.15	9.77	3.26	YES	
L0000005	0	0.27778E-01	409938.7	3774503.2	124.0	4.15	9.77	3.26	YES	
L0000006	0	0.27778E-01	409957.9	3774494.6	124.3	4.15	9.77	3.26	YES	
L0000007	0	0.27778E-01	409977.0	3774486.0	121.0	4.15	9.77	3.26	YES	
L0000008	0	0.27778E-01	409996.1	3774477.3	119.6	4.15	9.77	3.26	YES	
L0000009	0	0.27778E-01	410015.3	3774468.7	119.3	4.15	9.77	3.26	YES	
L0000010	0	0.27778E-01	410034.4	3774460.1	119.4	4.15	9.77	3.26	YES	
L0000011	0	0.27778E-01	410053.6	3774451.4	120.0	4.15	9.77	3.26	YES	
L0000012	0	0.27778E-01	410072.7	3774442.8	121.8	4.15	9.77	3.26	YES	
L0000013	0	0.27778E-01	410091.8	3774434.1	123.9	4.15	9.77	3.26	YES	
L0000014	0	0.27778E-01	410111.0	3774425.5	124.2	4.15	9.77	3.26	YES	
L0000015	0	0.27778E-01	410131.2	3774420.2	123.6	4.15	9.77	3.26	YES	
L0000016	0	0.27778E-01	410151.7	3774415.6	123.3	4.15	9.77	3.26	YES	
L0000017	0	0.27778E-01	410172.2	3774411.0	123.0	4.15	9.77	3.26	YES	
L0000018	0	0.27778E-01	410192.7	3774406.4	122.7	4.15	9.77	3.26	YES	
L0000019	0	0.27778E-01	410213.3	3774403.2	122.6	4.15	9.77	3.26	YES	
L0000020	0	0.27778E-01	410234.3	3774403.2	122.6	4.15	9.77	3.26	YES	
L0000021	0	0.27778E-01	410255.3	3774403.2	122.7	4.15	9.77	3.26	YES	
L0000022	0	0.27778E-01	410276.3	3774403.2	122.9	4.15	9.77	3.26	YES	
L0000023	0	0.27778E-01	410297.3	3774403.2	123.2	4.15	9.77	3.26	YES	
L0000024	0	0.27778E-01	410318.2	3774404.9	123.6	4.15	9.77	3.26	YES	
L0000025	0	0.27778E-01	410339.1	3774407.5	123.9	4.15	9.77	3.26	YES	
L0000026	0	0.27778E-01	410359.9	3774410.1	124.2	4.15	9.77	3.26	YES	
L0000027	0	0.27778E-01	410380.8	3774412.4	124.4	4.15	9.77	3.26	YES	
L0000028	0	0.27778E-01	410401.8	3774412.4	124.5	4.15	9.77	3.26	YES	
L0000029	0	0.27778E-01	410422.8	3774412.4	124.5	4.15	9.77	3.26	YES	
L0000030	0	0.27778E-01	410443.8	3774412.4	124.6	4.15	9.77	3.26	YES	
L0000031	0	0.27778E-01	410464.8	3774412.4	124.7	4.15	9.77	3.26	YES	
L0000032	0	0.27778E-01	410485.8	3774412.4	124.7	4.15	9.77	3.26	YES	

L0000033	0	0.27778E-01	410506.8	3774412.4	124.7	4.15	9.77	3.26	YES
L0000034	0	0.27778E-01	410527.8	3774412.4	124.8	4.15	9.77	3.26	YES
L0000035	0	0.27778E-01	410548.8	3774412.4	124.9	4.15	9.77	3.26	YES
L0000036	0	0.27778E-01	410569.8	3774412.4	125.1	4.15	9.77	3.26	YES
L0000037	0	0.50000E-01	409461.6	3774714.0	120.2	4.15	9.77	3.26	YES
L0000038	0	0.50000E-01	409480.9	3774705.7	118.3	4.15	9.77	3.26	YES
L0000039	0	0.50000E-01	409500.2	3774697.5	113.4	4.15	9.77	3.26	YES
L0000040	0	0.50000E-01	409519.5	3774689.2	112.9	4.15	9.77	3.26	YES

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
 *** AERMET - VERSION 16216 *** *** Irwindale, CA

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*** MODELOPTs: RegDFAULT CONC ELEV 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	0.50000E-01	409538.8	3774680.9	112.9	4.15	9.77	3.26	YES	
L0000042	0	0.50000E-01	409558.1	3774672.6	116.6	4.15	9.77	3.26	YES	
L0000043	0	0.50000E-01	409577.4	3774664.4	120.6	4.15	9.77	3.26	YES	
L0000044	0	0.50000E-01	409596.7	3774656.1	120.5	4.15	9.77	3.26	YES	
L0000045	0	0.50000E-01	409616.0	3774647.8	120.4	4.15	9.77	3.26	YES	
L0000046	0	0.50000E-01	409635.3	3774639.6	120.4	4.15	9.77	3.26	YES	
L0000047	0	0.50000E-01	409654.6	3774631.3	120.5	4.15	9.77	3.26	YES	
L0000048	0	0.50000E-01	409673.9	3774623.0	120.6	4.15	9.77	3.26	YES	
L0000049	0	0.50000E-01	409693.2	3774614.7	120.5	4.15	9.77	3.26	YES	
L0000050	0	0.50000E-01	409712.5	3774606.5	120.5	4.15	9.77	3.26	YES	
L0000051	0	0.50000E-01	409731.8	3774598.2	120.8	4.15	9.77	3.26	YES	
L0000052	0	0.50000E-01	409751.1	3774589.9	121.0	4.15	9.77	3.26	YES	
L0000053	0	0.50000E-01	409770.4	3774581.6	120.7	4.15	9.77	3.26	YES	
L0000054	0	0.50000E-01	409789.7	3774573.4	120.8	4.15	9.77	3.26	YES	
L0000055	0	0.50000E-01	409809.0	3774565.1	121.2	4.15	9.77	3.26	YES	
L0000056	0	0.50000E-01	409828.3	3774556.8	121.4	4.15	9.77	3.26	YES	
L0000057	0	0.35714E-01	408812.2	3775011.8	115.1	4.15	11.40	3.26	YES	
L0000058	0	0.35714E-01	408834.5	3775001.7	113.8	4.15	11.40	3.26	YES	
L0000059	0	0.35714E-01	408856.8	3774991.5	115.2	4.15	11.40	3.26	YES	
L0000060	0	0.35714E-01	408879.1	3774981.3	116.1	4.15	11.40	3.26	YES	
L0000061	0	0.35714E-01	408901.4	3774971.2	115.8	4.15	11.40	3.26	YES	
L0000062	0	0.35714E-01	408923.7	3774961.0	115.7	4.15	11.40	3.26	YES	
L0000063	0	0.35714E-01	408946.0	3774950.8	115.8	4.15	11.40	3.26	YES	
L0000064	0	0.35714E-01	408968.3	3774940.6	115.9	4.15	11.40	3.26	YES	
L0000065	0	0.35714E-01	408990.6	3774930.5	115.9	4.15	11.40	3.26	YES	
L0000066	0	0.35714E-01	409012.9	3774920.3	116.1	4.15	11.40	3.26	YES	
L0000067	0	0.35714E-01	409035.1	3774910.1	116.1	4.15	11.40	3.26	YES	
L0000068	0	0.35714E-01	409057.4	3774900.0	116.3	4.15	11.40	3.26	YES	
L0000069	0	0.35714E-01	409079.7	3774889.8	116.5	4.15	11.40	3.26	YES	
L0000070	0	0.35714E-01	409102.0	3774879.6	116.7	4.15	11.40	3.26	YES	

L0000071	0	0.35714E-01	409124.3	3774869.5	116.9	4.15	11.40	3.26	YES
L0000072	0	0.35714E-01	409146.6	3774859.3	117.1	4.15	11.40	3.26	YES
L0000073	0	0.35714E-01	409168.9	3774849.1	117.5	4.15	11.40	3.26	YES
L0000074	0	0.35714E-01	409191.2	3774839.0	117.7	4.15	11.40	3.26	YES
L0000075	0	0.35714E-01	409213.5	3774828.8	117.6	4.15	11.40	3.26	YES
L0000076	0	0.35714E-01	409235.8	3774818.6	117.9	4.15	11.40	3.26	YES
L0000077	0	0.35714E-01	409258.0	3774808.5	118.0	4.15	11.40	3.26	YES
L0000078	0	0.35714E-01	409280.3	3774798.3	118.1	4.15	11.40	3.26	YES
L0000079	0	0.35714E-01	409302.6	3774788.1	118.3	4.15	11.40	3.26	YES
L0000080	0	0.35714E-01	409324.9	3774777.9	118.3	4.15	11.40	3.26	YES

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
 *** AERMET - VERSION 16216 *** *** Irwindale, CA

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*** MODELOPTs: RegDEFAULT CONC ELEV 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
L0000081	0	0.35714E-01	409347.2	3774767.8	118.8	4.15	11.40	3.26	YES	
L0000082	0	0.35714E-01	409369.5	3774757.6	119.2	4.15	11.40	3.26	YES	
L0000083	0	0.35714E-01	409391.8	3774747.4	119.4	4.15	11.40	3.26	YES	
L0000084	0	0.35714E-01	409414.1	3774737.3	119.5	4.15	11.40	3.26	YES	
L0000085	0	0.12821E-01	410022.8	3775212.1	127.4	4.15	6.88	3.26	YES	
L0000086	0	0.12821E-01	410018.6	3775226.2	127.5	4.15	6.88	3.26	YES	
L0000087	0	0.12821E-01	410012.5	3775239.2	128.0	4.15	6.88	3.26	YES	
L0000088	0	0.12821E-01	410001.1	3775248.7	127.9	4.15	6.88	3.26	YES	
L0000089	0	0.12821E-01	409989.7	3775258.1	127.4	4.15	6.88	3.26	YES	
L0000090	0	0.12821E-01	409978.4	3775267.6	127.5	4.15	6.88	3.26	YES	
L0000091	0	0.12821E-01	409965.4	3775274.8	127.4	4.15	6.88	3.26	YES	
L0000092	0	0.12821E-01	409952.3	3775281.7	127.3	4.15	6.88	3.26	YES	
L0000093	0	0.12821E-01	409939.2	3775288.6	127.3	4.15	6.88	3.26	YES	
L0000094	0	0.12821E-01	409934.6	3775301.8	128.0	4.15	6.88	3.26	YES	
L0000095	0	0.12821E-01	409931.8	3775316.3	128.9	4.15	6.88	3.26	YES	
L0000096	0	0.12821E-01	409928.9	3775330.8	129.4	4.15	6.88	3.26	YES	
L0000097	0	0.12821E-01	409934.4	3775338.0	129.3	4.15	6.88	3.26	YES	
L0000098	0	0.12821E-01	409949.1	3775336.8	128.9	4.15	6.88	3.26	YES	
L0000099	0	0.12821E-01	409963.9	3775335.7	128.6	4.15	6.88	3.26	YES	
L0000100	0	0.12821E-01	409978.6	3775334.5	127.1	4.15	6.88	3.26	YES	
L0000101	0	0.12821E-01	409993.4	3775333.4	125.9	4.15	6.88	3.26	YES	
L0000102	0	0.12821E-01	410008.1	3775332.2	127.2	4.15	6.88	3.26	YES	
L0000103	0	0.12821E-01	410022.9	3775331.1	128.0	4.15	6.88	3.26	YES	
L0000104	0	0.12821E-01	410037.5	3775328.5	127.9	4.15	6.88	3.26	YES	
L0000105	0	0.12821E-01	410052.0	3775325.9	127.9	4.15	6.88	3.26	YES	
L0000106	0	0.12821E-01	410066.6	3775323.3	127.9	4.15	6.88	3.26	YES	
L0000107	0	0.12821E-01	410081.2	3775320.7	128.0	4.15	6.88	3.26	YES	
L0000108	0	0.12821E-01	410095.7	3775318.1	128.2	4.15	6.88	3.26	YES	

L0000109	0	0.12821E-01	410110.2	3775314.8	128.4	4.15	6.88	3.26	YES
L0000110	0	0.12821E-01	410124.5	3775311.1	128.6	4.15	6.88	3.26	YES
L0000111	0	0.12821E-01	410138.9	3775307.5	128.6	4.15	6.88	3.26	YES
L0000112	0	0.12821E-01	410153.2	3775303.9	128.8	4.15	6.88	3.26	YES
L0000113	0	0.12821E-01	410167.5	3775300.2	129.2	4.15	6.88	3.26	YES
L0000114	0	0.12821E-01	410181.6	3775295.7	129.0	4.15	6.88	3.26	YES
L0000115	0	0.12821E-01	410195.3	3775290.1	128.6	4.15	6.88	3.26	YES
L0000116	0	0.12821E-01	410209.0	3775284.6	128.9	4.15	6.88	3.26	YES
L0000117	0	0.12821E-01	410222.7	3775279.0	129.1	4.15	6.88	3.26	YES
L0000118	0	0.12821E-01	410236.4	3775273.4	129.3	4.15	6.88	3.26	YES
L0000119	0	0.12821E-01	410250.1	3775267.8	129.5	4.15	6.88	3.26	YES
L0000120	0	0.12821E-01	410263.9	3775262.2	129.3	4.15	6.88	3.26	YES

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*** MODELOPTs: RegDFault CONC ELEV 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
L0000121	0	0.12821E-01	410277.6	3775256.6	129.1	4.15	6.88	3.26	YES	
L0000122	0	0.12821E-01	410291.3	3775251.1	129.3	4.15	6.88	3.26	YES	
L0000123	0	0.12821E-01	410304.1	3775243.8	129.5	4.15	6.88	3.26	YES	
L0000124	0	0.12821E-01	410316.6	3775235.9	129.5	4.15	6.88	3.26	YES	
L0000125	0	0.12821E-01	410329.1	3775228.0	129.3	4.15	6.88	3.26	YES	
L0000126	0	0.12821E-01	410341.7	3775220.1	129.5	4.15	6.88	3.26	YES	
L0000127	0	0.12821E-01	410354.2	3775212.2	129.7	4.15	6.88	3.26	YES	
L0000128	0	0.12821E-01	410366.7	3775204.3	129.7	4.15	6.88	3.26	YES	
L0000129	0	0.12821E-01	410378.8	3775195.9	129.6	4.15	6.88	3.26	YES	
L0000130	0	0.12821E-01	410389.8	3775186.0	129.8	4.15	6.88	3.26	YES	
L0000131	0	0.12821E-01	410400.9	3775176.2	129.9	4.15	6.88	3.26	YES	
L0000132	0	0.12821E-01	410411.9	3775166.3	130.0	4.15	6.88	3.26	YES	
L0000133	0	0.12821E-01	410422.9	3775156.4	130.0	4.15	6.88	3.26	YES	
L0000134	0	0.12821E-01	410434.0	3775146.6	130.2	4.15	6.88	3.26	YES	
L0000135	0	0.12821E-01	410445.0	3775136.7	130.4	4.15	6.88	3.26	YES	
L0000136	0	0.12821E-01	410456.1	3775126.9	130.6	4.15	6.88	3.26	YES	
L0000137	0	0.12821E-01	410467.1	3775117.0	130.9	4.15	6.88	3.26	YES	
L0000138	0	0.12821E-01	410478.1	3775107.1	131.4	4.15	6.88	3.26	YES	
L0000139	0	0.12821E-01	410489.2	3775097.3	131.1	4.15	6.88	3.26	YES	
L0000140	0	0.12821E-01	410500.2	3775087.4	130.3	4.15	6.88	3.26	YES	
L0000141	0	0.12821E-01	410511.2	3775077.6	130.5	4.15	6.88	3.26	YES	
L0000142	0	0.12821E-01	410522.3	3775067.7	131.6	4.15	6.88	3.26	YES	
L0000143	0	0.12821E-01	410533.3	3775057.8	131.1	4.15	6.88	3.26	YES	
L0000144	0	0.12821E-01	410544.4	3775048.0	128.1	4.15	6.88	3.26	YES	
L0000145	0	0.12821E-01	410555.4	3775038.1	124.5	4.15	6.88	3.26	YES	
L0000146	0	0.12821E-01	410566.4	3775028.3	124.9	4.15	6.88	3.26	YES	

L0000147	0	0.12821E-01	410577.5	3775018.4	124.5	4.15	6.88	3.26	YES
L0000148	0	0.12821E-01	410588.5	3775008.5	127.8	4.15	6.88	3.26	YES
L0000149	0	0.12821E-01	410599.5	3774998.7	131.6	4.15	6.88	3.26	YES
L0000150	0	0.12821E-01	410610.6	3774988.8	132.2	4.15	6.88	3.26	YES
L0000151	0	0.12821E-01	410621.6	3774979.0	132.0	4.15	6.88	3.26	YES
L0000152	0	0.12821E-01	410632.7	3774969.1	131.2	4.15	6.88	3.26	YES
L0000153	0	0.12821E-01	410643.7	3774959.2	130.9	4.15	6.88	3.26	YES
L0000154	0	0.12821E-01	410654.7	3774949.4	131.1	4.15	6.88	3.26	YES
L0000155	0	0.12821E-01	410665.8	3774939.5	130.5	4.15	6.88	3.26	YES
L0000156	0	0.12821E-01	410676.8	3774929.7	130.3	4.15	6.88	3.26	YES
L0000157	0	0.12821E-01	410687.8	3774919.8	130.4	4.15	6.88	3.26	YES
L0000158	0	0.12821E-01	410698.9	3774909.9	129.8	4.15	6.88	3.26	YES
L0000159	0	0.12821E-01	410709.9	3774900.1	130.0	4.15	6.88	3.26	YES
L0000160	0	0.12821E-01	410721.0	3774890.2	130.1	4.15	6.88	3.26	YES

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*** MODELOPTs: RegDFAULT CONC ELEV 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
L0000161	0	0.12821E-01	410732.0	3774880.4	129.9	4.15	6.88	3.26	YES	
L0000162	0	0.12821E-01	410743.0	3774870.5	130.3	4.15	6.88	3.26	YES	
L0000163	0	0.18868E-01	408818.6	3775175.0	116.7	4.15	9.77	3.26	YES	
L0000164	0	0.18868E-01	408839.4	3775178.1	117.0	4.15	9.77	3.26	YES	
L0000165	0	0.18868E-01	408860.2	3775181.3	117.5	4.15	9.77	3.26	YES	
L0000166	0	0.18868E-01	408880.9	3775184.4	117.5	4.15	9.77	3.26	YES	
L0000167	0	0.18868E-01	408901.7	3775187.5	117.7	4.15	9.77	3.26	YES	
L0000168	0	0.18868E-01	408922.5	3775190.7	117.9	4.15	9.77	3.26	YES	
L0000169	0	0.18868E-01	408943.2	3775193.8	118.2	4.15	9.77	3.26	YES	
L0000170	0	0.18868E-01	408964.0	3775196.9	118.5	4.15	9.77	3.26	YES	
L0000171	0	0.18868E-01	408984.8	3775200.1	118.7	4.15	9.77	3.26	YES	
L0000172	0	0.18868E-01	409005.5	3775203.2	118.8	4.15	9.77	3.26	YES	
L0000173	0	0.18868E-01	409026.3	3775206.3	119.0	4.15	9.77	3.26	YES	
L0000174	0	0.18868E-01	409047.1	3775209.5	119.6	4.15	9.77	3.26	YES	
L0000175	0	0.18868E-01	409067.8	3775212.6	119.6	4.15	9.77	3.26	YES	
L0000176	0	0.18868E-01	409088.6	3775215.7	119.8	4.15	9.77	3.26	YES	
L0000177	0	0.18868E-01	409109.4	3775218.9	120.1	4.15	9.77	3.26	YES	
L0000178	0	0.18868E-01	409130.1	3775222.0	120.2	4.15	9.77	3.26	YES	
L0000179	0	0.18868E-01	409150.9	3775225.1	120.0	4.15	9.77	3.26	YES	
L0000180	0	0.18868E-01	409171.6	3775228.3	120.0	4.15	9.77	3.26	YES	
L0000181	0	0.18868E-01	409192.4	3775231.4	120.0	4.15	9.77	3.26	YES	
L0000182	0	0.18868E-01	409213.2	3775234.6	120.0	4.15	9.77	3.26	YES	
L0000183	0	0.18868E-01	409233.9	3775237.7	120.1	4.15	9.77	3.26	YES	
L0000184	0	0.18868E-01	409254.7	3775240.8	120.3	4.15	9.77	3.26	YES	

L0000185	0	0.18868E-01	409275.5	3775244.0	120.5	4.15	9.77	3.26	YES
L0000186	0	0.18868E-01	409296.2	3775247.1	120.8	4.15	9.77	3.26	YES
L0000187	0	0.18868E-01	409317.0	3775250.2	121.2	4.15	9.77	3.26	YES
L0000188	0	0.18868E-01	409337.8	3775253.4	121.4	4.15	9.77	3.26	YES
L0000189	0	0.18868E-01	409358.5	3775256.5	121.5	4.15	9.77	3.26	YES
L0000190	0	0.18868E-01	409379.3	3775259.6	121.6	4.15	9.77	3.26	YES
L0000191	0	0.18868E-01	409400.1	3775262.8	121.7	4.15	9.77	3.26	YES
L0000192	0	0.18868E-01	409420.8	3775265.9	121.8	4.15	9.77	3.26	YES
L0000193	0	0.18868E-01	409441.6	3775269.1	122.0	4.15	9.77	3.26	YES
L0000194	0	0.18868E-01	409462.3	3775272.2	122.3	4.15	9.77	3.26	YES
L0000195	0	0.18868E-01	409483.1	3775275.4	122.8	4.15	9.77	3.26	YES
L0000196	0	0.18868E-01	409503.9	3775278.5	123.0	4.15	9.77	3.26	YES
L0000197	0	0.18868E-01	409524.6	3775281.7	123.0	4.15	9.77	3.26	YES
L0000198	0	0.18868E-01	409545.4	3775284.8	123.2	4.15	9.77	3.26	YES
L0000199	0	0.18868E-01	409566.2	3775288.0	123.7	4.15	9.77	3.26	YES
L0000200	0	0.18868E-01	409586.9	3775291.1	124.3	4.15	9.77	3.26	YES

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*** MODELOPTs: RegDFault CONC ELEV URBAN ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X Y		BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
			(METERS)	(METERS)						
L0000201	0	0.18868E-01	409607.7	3775294.3	124.7	4.15	9.77	3.26	YES	
L0000202	0	0.18868E-01	409628.4	3775297.4	125.4	4.15	9.77	3.26	YES	
L0000203	0	0.18868E-01	409649.2	3775300.6	126.4	4.15	9.77	3.26	YES	
L0000204	0	0.18868E-01	409670.0	3775303.7	127.3	4.15	9.77	3.26	YES	
L0000205	0	0.18868E-01	409690.7	3775306.9	127.6	4.15	9.77	3.26	YES	
L0000206	0	0.18868E-01	409711.5	3775310.0	127.3	4.15	9.77	3.26	YES	
L0000207	0	0.18868E-01	409732.3	3775313.2	128.4	4.15	9.77	3.26	YES	
L0000208	0	0.18868E-01	409753.0	3775316.3	129.6	4.15	9.77	3.26	YES	
L0000209	0	0.18868E-01	409773.8	3775319.3	127.1	4.15	9.77	3.26	YES	
L0000210	0	0.18868E-01	409794.6	3775322.3	124.1	4.15	9.77	3.26	YES	
L0000211	0	0.18868E-01	409815.4	3775325.3	123.6	4.15	9.77	3.26	YES	
L0000212	0	0.18868E-01	409836.2	3775328.2	123.4	4.15	9.77	3.26	YES	
L0000213	0	0.18868E-01	409857.0	3775331.2	126.5	4.15	9.77	3.26	YES	
L0000214	0	0.18868E-01	409877.7	3775334.2	129.1	4.15	9.77	3.26	YES	
L0000215	0	0.18868E-01	409898.6	3775336.2	130.4	4.15	9.77	3.26	YES	

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X Y (METERS) (METERS)		BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
PAREA3	0	0.14229E-04	410011.1	3775205.9	127.3	4.15	15	1.93	YES	
PAREA1	0	0.14015E-04	409836.9	3774557.7	121.6	4.15	38	1.93	YES	
PAREA4	0	0.18791E-04	409883.7	3775201.6	125.5	4.15	4	1.93	YES	
PAREA5	0	0.17835E-04	409907.1	3775046.5	126.5	4.15	4	1.93	YES	
PAREA6	0	0.17740E-04	409763.3	3774928.6	120.3	4.15	10	1.93	YES	

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs															
-----	-----															
B3_IDLE	STCK1	,	STCK2	,	STCK3	,	STCK4	,	STCK5	,	STCK6	,	STCK7	,	STCK8	,
	STCK9	,	STCK10	,	STCK11	,	STCK12	,	STCK13	,	STCK14	,	STCK15	,		
B2_IDLE	STCK16	,	STCK17	,	STCK18	,	STCK19	,	STCK20	,	STCK21	,	STCK22	,	STCK23	,
	STCK24	,	STCK25	,	STCK26	,	STCK27	,	STCK28	,	STCK29	,	STCK30	,	STCK31	,
	STCK32	,	STCK33	,	STCK34	,	STCK35	,	STCK36	,	STCK37	,	STCK38	,	STCK39	,
	STCK40	,	STCK41	,	STCK42	,	STCK43	,	STCK44	,	STCK45	,	STCK46	,	STCK47	,
	STCK48	,	STCK49	,	STCK50	,	STCK51	,	STCK52	,	STCK53	,	STCK54	,	STCK55	,
	STCK56	,	STCK57	,	STCK58	,	STCK59	,	STCK60	,	STCK61	,	STCK62	,	STCK63	,
	STCK64	,	STCK65	,	STCK66	,	STCK67	,	STCK68	,	STCK69	,	STCK70	,	STCK71	,
	STCK72	,	STCK73	,	STCK74	,	STCK75	,	STCK76	,	STCK77	,	STCK78	,	STCK79	,
	STCK80	,	STCK81	,	STCK82	,	STCK83	,	STCK84	,	STCK85	,	STCK86	,	STCK87	,
	STCK88	,	STCK89	,	STCK90	,	STCK91	,	STCK92	,	STCK93	,	STCK94	,	STCK95	,
	STCK96	,	STCK97	,	STCK98	,	STCK99	,	STCK100	,	STCK101	,	STCK102	,	STCK103	,
	STCK104	,	STCK105	,	STCK106	,	STCK107	,	STCK108	,	STCK109	,	STCK110	,	STCK111	,
	STCK112	,	STCK113	,	STCK114	,	STCK115	,	STCK116	,	STCK117	,	STCK118	,	STCK119	,
	STCK120	,	STCK121	,	STCK122	,	STCK123	,	STCK124	,	STCK125	,	STCK126	,	STCK127	,
	STCK128	,														
B1_IDLE	STCK129	,	STCK130	,	STCK131	,	STCK132	,	STCK133	,	STCK134	,	STCK135	,	STCK136	,
	STCK137	,	STCK138	,	STCK139	,	STCK140	,	STCK141	,	STCK142	,	STCK143	,	STCK144	,
	STCK145	,	STCK146	,	STCK147	,	STCK148	,	STCK149	,	STCK150	,	STCK151	,	STCK152	,

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs															
-----	-----															
	STCK153	,	STCK154	,	STCK155	,	STCK156	,	STCK157	,						
TR_RUNEX	PAREA3	,	PAREA1	,												
YARD_EMS	PAREA4	,	PAREA5	,	PAREA6	,										
LIVEOAKE	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	,								
LIVEOAKW	L0000057	,	L0000058	,	L0000059	,	L0000060	,	L0000061	,	L0000062	,	L0000063	,	L0000064	,
	L0000065	,	L0000066	,	L0000067	,	L0000068	,	L0000069	,	L0000070	,	L0000071	,	L0000072	,
	L0000073	,	L0000074	,	L0000075	,	L0000076	,	L0000077	,	L0000078	,	L0000079	,	L0000080	,
	L0000081	,	L0000082	,	L0000083	,	L0000084	,								
LIVEOAKF	L0000037	,	L0000038	,	L0000039	,	L0000040	,	L0000041	,	L0000042	,	L0000043	,	L0000044	,
	L0000045	,	L0000046	,	L0000047	,	L0000048	,	L0000049	,	L0000050	,	L0000051	,	L0000052	,
	L0000053	,	L0000054	,	L0000055	,	L0000056	,								
ARROWH_E	L0000085	,	L0000086	,	L0000087	,	L0000088	,	L0000089	,	L0000090	,	L0000091	,	L0000092	,
	L0000093	,	L0000094	,	L0000095	,	L0000096	,	L0000097	,	L0000098	,	L0000099	,	L0000100	,
	L0000101	,	L0000102	,	L0000103	,	L0000104	,	L0000105	,	L0000106	,	L0000107	,	L0000108	,
	L0000109	,	L0000110	,	L0000111	,	L0000112	,	L0000113	,	L0000114	,	L0000115	,	L0000116	,
	L0000117	,	L0000118	,	L0000119	,	L0000120	,	L0000121	,	L0000122	,	L0000123	,	L0000124	,

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
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*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID -----	SOURCE IDs -----								
	L0000125	, L0000126	, L0000127	, L0000128	, L0000129	, L0000130	, L0000131	, L0000132	,
	L0000133	, L0000134	, L0000135	, L0000136	, L0000137	, L0000138	, L0000139	, L0000140	,
	L0000141	, L0000142	, L0000143	, L0000144	, L0000145	, L0000146	, L0000147	, L0000148	,
	L0000149	, L0000150	, L0000151	, L0000152	, L0000153	, L0000154	, L0000155	, L0000156	,
	L0000157	, L0000158	, L0000159	, L0000160	, L0000161	, L0000162	,		
ARROWH_W	L0000163	, L0000164	, L0000165	, L0000166	, L0000167	, L0000168	, L0000169	, L0000170	,
	L0000171	, L0000172	, L0000173	, L0000174	, L0000175	, L0000176	, L0000177	, L0000178	,
	L0000179	, L0000180	, L0000181	, L0000182	, L0000183	, L0000184	, L0000185	, L0000186	,
	L0000187	, L0000188	, L0000189	, L0000190	, L0000191	, L0000192	, L0000193	, L0000194	,
	L0000195	, L0000196	, L0000197	, L0000198	, L0000199	, L0000200	, L0000201	, L0000202	,
	L0000203	, L0000204	, L0000205	, L0000206	, L0000207	, L0000208	, L0000209	, L0000210	,
	L0000211	, L0000212	, L0000213	, L0000214	, L0000215	,			

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

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

URBAN ID	URBAN POP	SOURCE IDs									
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
STCK8	9818605.	STCK1	, STCK2	, STCK3	, STCK4	, STCK5	, STCK6	, STCK7	,		
		STCK9	, STCK10	, STCK11	, STCK12	, STCK13	, STCK14	, STCK15	, STCK16	,	
		STCK17	, STCK18	, STCK19	, STCK20	, STCK21	, STCK22	, STCK23	, STCK24	,	
		STCK25	, STCK26	, STCK27	, STCK28	, STCK29	, STCK30	, STCK31	, STCK32	,	
		STCK33	, STCK34	, STCK35	, STCK36	, STCK37	, STCK38	, STCK39	, STCK40	,	
		STCK41	, STCK42	, STCK43	, STCK44	, STCK45	, STCK46	, STCK47	, STCK48	,	
		STCK49	, STCK50	, STCK51	, STCK52	, STCK53	, STCK54	, STCK55	, STCK56	,	
		STCK57	, STCK58	, STCK59	, STCK60	, STCK61	, STCK62	, STCK63	, STCK64	,	
		STCK65	, STCK66	, STCK67	, STCK68	, STCK69	, STCK70	, STCK71	, STCK72	,	
		STCK73	, STCK74	, STCK75	, STCK76	, STCK77	, STCK78	, STCK79	, STCK80	,	
		STCK81	, STCK82	, STCK83	, STCK84	, STCK85	, STCK86	, STCK87	, STCK88	,	
		STCK89	, STCK90	, STCK91	, STCK92	, STCK93	, STCK94	, STCK95	, STCK96	,	
		STCK97	, STCK98	, STCK99	, STCK100	, STCK101	, STCK102	, STCK103	, STCK104	,	
		STCK105	, STCK106	, STCK107	, STCK108	, STCK109	, STCK110	, STCK111	, STCK112	,	
		STCK113	, STCK114	, STCK115	, STCK116	, STCK117	, STCK118	, STCK119	, STCK120	,	
		STCK121	, STCK122	, STCK123	, STCK124	, STCK125	, STCK126	, STCK127	, STCK128	,	
		STCK129	, STCK130	, STCK131	, STCK132	, STCK133	, STCK134	, STCK135	, STCK136	,	
		STCK137	, STCK138	, STCK139	, STCK140	, STCK141	, STCK142	, STCK143	, STCK144	,	
		STCK145	, STCK146	, STCK147	, STCK148	, STCK149	, STCK150	, STCK151	, STCK152	,	
		STCK153	, STCK154	, STCK155	, STCK156	, STCK157	, PAREA3	, PAREA1	, PAREA4	,	

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

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

URBAN ID	URBAN POP	SOURCE IDs							
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
PAREA5	, PAREA6	, 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	, L0000052	, L0000053	, L0000054	,	
L0000055	, L0000056	, L0000057	, L0000058	, L0000059	, L0000060	, L0000061	, L0000062	,	
L0000063	, L0000064	, L0000065	, L0000066	, L0000067	, L0000068	, L0000069	, L0000070	,	
L0000071	, L0000072	, L0000073	, L0000074	, L0000075	, L0000076	, L0000077	, L0000078	,	
L0000079	, L0000080	, L0000081	, L0000082	, L0000083	, L0000084	, L0000085	, L0000086	,	
L0000087	, L0000088	, L0000089	, L0000090	, L0000091	, L0000092	, L0000093	, L0000094	,	
L0000095	, L0000096	, L0000097	, L0000098	, L0000099	, L0000100	, L0000101	, L0000102	,	
L0000103	, L0000104	, L0000105	, L0000106	, L0000107	, L0000108	, L0000109	, L0000110	,	
L0000111	, L0000112	, L0000113	, L0000114	, L0000115	, L0000116	, L0000117	, L0000118	,	
L0000119	, L0000120	, L0000121	, L0000122	, L0000123	, L0000124	, L0000125	, L0000126	,	
L0000127	, L0000128	, L0000129	, L0000130	, L0000131	, L0000132	, L0000133	, L0000134	,	
L0000135	, L0000136	, L0000137	, L0000138	, L0000139	, L0000140	, L0000141	, L0000142	,	
L0000143	, L0000144	, L0000145	, L0000146	, L0000147	, L0000148	, L0000149	, L0000150	,	
L0000151	, L0000152	, L0000153	, L0000154	, L0000155	, L0000156	, L0000157	, L0000158	,	

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
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*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
-----	-----	-----
L0000159	,	L0000160 , L0000161 , L0000162 , L0000163 , L0000164 , L0000165 , L0000166 ,
L0000167	,	L0000168 , L0000169 , L0000170 , L0000171 , L0000172 , L0000173 , L0000174 ,
L0000175	,	L0000176 , L0000177 , L0000178 , L0000179 , L0000180 , L0000181 , L0000182 ,
L0000183	,	L0000184 , L0000185 , L0000186 , L0000187 , L0000188 , L0000189 , L0000190 ,
L0000191	,	L0000192 , L0000193 , L0000194 , L0000195 , L0000196 , L0000197 , L0000198 ,
L0000199	,	L0000200 , L0000201 , L0000202 , L0000203 , L0000204 , L0000205 , L0000206 ,
L0000207	,	L0000208 , L0000209 , L0000210 , L0000211 , L0000212 , L0000213 , L0000214 ,
L0000215	,	

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DIRECTION SPECIFIC BUILDING DIMENSIONS ***

SOURCE ID: STCK1

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	9.1,	117.4,	111.6,	-41.6,	-51.2,	2	9.1,	113.9,	103.3,	-28.7,	-48.0,
3	9.1,	106.9,	91.9,	-14.9,	-43.4,	4	9.1,	96.7,	77.7,	-0.6,	-37.5,
5	9.1,	100.7,	83.1,	1.7,	-30.7,	6	9.1,	109.8,	96.3,	-0.3,	-22.6,
7	9.1,	115.6,	106.7,	-2.3,	-13.7,	8	9.1,	117.8,	113.8,	-4.2,	-4.5,
9	9.1,	116.5,	117.4,	-6.0,	4.9,	10	9.1,	111.6,	117.4,	-7.5,	14.2,
11	9.1,	103.3,	113.9,	-8.9,	23.0,	12	9.1,	91.9,	106.9,	-10.0,	31.1,
13	9.1,	77.7,	96.7,	-10.8,	38.2,	14	9.1,	83.1,	100.7,	-19.7,	43.3,
15	9.1,	96.3,	109.8,	-32.3,	47.9,	16	9.1,	106.7,	115.6,	-44.0,	51.1,
17	9.1,	113.8,	117.8,	-54.4,	52.7,	18	9.1,	117.4,	116.5,	-63.1,	52.7,
19	9.1,	117.4,	111.6,	-69.9,	51.2,	20	9.1,	113.9,	103.3,	-74.6,	48.0,
21	9.1,	106.9,	91.9,	-77.0,	43.4,	22	9.1,	96.7,	77.7,	-77.1,	37.5,
23	9.1,	100.7,	83.1,	-84.8,	30.7,	24	9.1,	109.8,	96.3,	-96.1,	22.6,
25	9.1,	115.6,	106.7,	-104.4,	13.7,	26	9.1,	117.8,	113.8,	-109.6,	4.5,
27	9.1,	116.5,	117.4,	-111.4,	-4.9,	28	9.1,	111.6,	117.4,	-109.9,	-14.2,
29	9.1,	103.3,	113.9,	-105.0,	-23.0,	30	9.1,	91.9,	106.9,	-96.9,	-31.1,
31	9.1,	77.7,	96.7,	-85.9,	-38.2,	32	9.1,	83.1,	100.7,	-81.1,	-43.3,
33	9.1,	96.3,	109.8,	-77.5,	-47.9,	34	9.1,	106.7,	115.6,	-71.5,	-51.1,
35	9.1,	113.8,	117.8,	-63.4,	-52.7,	36	9.1,	117.4,	116.5,	-53.3,	-52.7,

SOURCE ID: STCK2

IFV	BH	BW	BL	XADJ	YADJ	IFV	BH	BW	BL	XADJ	YADJ
1	9.1,	117.4,	111.6,	-39.0,	-47.5,	2	9.1,	113.9,	103.3,	-26.8,	-44.0,
3	9.1,	106.9,	91.9,	-13.7,	-39.1,	4	9.1,	96.7,	77.7,	-0.2,	-33.1,
5	9.1,	100.7,	83.1,	1.3,	-26.3,	6	9.1,	109.8,	96.3,	-1.4,	-18.2,
7	9.1,	115.6,	106.7,	-4.1,	-9.7,	8	9.1,	117.8,	113.8,	-6.7,	-0.8,
9	9.1,	116.5,	117.4,	-9.1,	8.1,	10	9.1,	111.6,	117.4,	-11.2,	16.7,
11	9.1,	103.3,	113.9,	-13.0,	24.9,	12	9.1,	91.9,	106.9,	-14.4,	32.2,
13	9.1,	77.7,	96.7,	-15.3,	38.6,	14	9.1,	83.1,	100.7,	-24.1,	42.9,
15	9.1,	96.3,	109.8,	-36.7,	46.8,	16	9.1,	106.7,	115.6,	-48.1,	49.2,
17	9.1,	113.8,	117.8,	-58.1,	50.1,	18	9.1,	117.4,	116.5,	-66.3,	49.6,
19	9.1,	117.4,	111.6,	-72.5,	47.5,	20	9.1,	113.9,	103.3,	-76.5,	44.0,
21	9.1,	106.9,	91.9,	-78.2,	39.1,	22	9.1,	96.7,	77.7,	-77.5,	33.1,
23	9.1,	100.7,	83.1,	-84.4,	26.3,	24	9.1,	109.8,	96.3,	-94.9,	18.2,
25	9.1,	115.6,	106.7,	-102.5,	9.7,	26	9.1,	117.8,	113.8,	-107.0,	0.8,
27	9.1,	116.5,	117.4,	-108.3,	-8.1,	28	9.1,	111.6,	117.4,	-106.2,	-16.7,
29	9.1,	103.3,	113.9,	-100.9,	-24.9,	30	9.1,	91.9,	106.9,	-92.6,	-32.2,
31	9.1,	77.7,	96.7,	-81.4,	-38.6,	32	9.1,	83.1,	100.7,	-76.6,	-42.9,
33	9.1,	96.3,	109.8,	-73.2,	-46.8,	34	9.1,	106.7,	115.6,	-67.5,	-49.2,
35	9.1,	113.8,	117.8,	-59.7,	-50.1,	36	9.1,	117.4,	116.5,	-50.1,	-49.6,

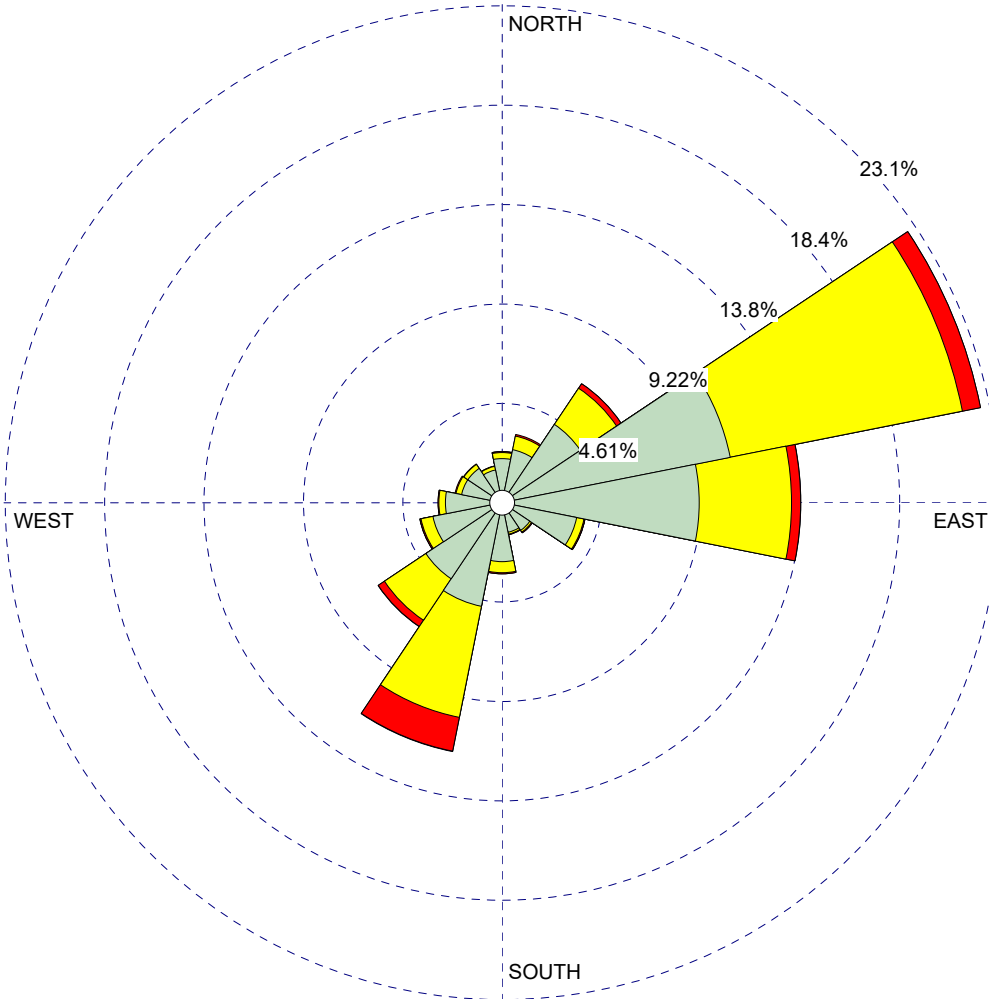
REMAINING STACKS BPIP REPORT OMITTED FROM THIS ATTACHMENT DUE TO LENGTH BUT CAN BE PROVIDED UPON REQUEST

WIND ROSE PLOT:

**Azusa Monitoring Station
2012-2016**

DISPLAY:

**Wind Speed
Flow Vector (blowing to)**



WIND SPEED
(m/s)

- >= 11.10
 - 8.80 - 11.10
 - 5.70 - 8.80
 - 3.60 - 5.70
 - 2.10 - 3.60
 - 0.50 - 2.10
- Calms: 7.08%

COMMENTS:

All Hours

DATA PERIOD:

**Start Date: 1/1/2012 - 00:00
End Date: 12/31/2016 - 23:59**

COMPANY NAME:

PlaceWorks

MODELER:

SB

CALM WINDS:

7.08%

TOTAL COUNT:

42845 hrs.

AVG. WIND SPEED:

1.67 m/s

DATE:

5/31/2023

PROJECT NO.:

IRW-04

410467.56	3774119.13	11.61009	410487.56	3774119.13	11.46088
410507.56	3774119.13	11.31226	410527.56	3774119.13	11.16078
410547.56	3774119.13	11.00754	410567.56	3774119.13	10.85544
410427.56	3774139.13	12.22219	410447.56	3774139.13	12.06452
410467.56	3774139.13	11.90717	410507.56	3774139.13	11.58574

410240.28	3775428.17	165.30524	410020.28	3775448.17	150.73494
410040.28	3775448.17	156.42533	410060.28	3775448.17	150.74927
410080.28	3775448.17	147.65871	410100.28	3775448.17	146.69700
410120.28	3775448.17	146.60226	410140.28	3775448.17	147.76890
410160.28	3775448.17	146.36362	410180.28	3775448.17	144.92553

410407.56	3774119.13	149.47011
410467.56	3774119.13	138.56732
410507.56	3774119.13	131.84193
410547.56	3774119.13	125.33100
410427.56	3774139.13	150.98301
410467.56	3774139.13	143.40845

410427.56	3774119.13	145.70354
410487.56	3774119.13	135.16334
410527.56	3774119.13	128.54930
410567.56	3774119.13	122.20175
410447.56	3774139.13	147.13091
410507.56	3774139.13	136.14323

410200.28	3775428.17	282.13781	410220.28	3775428.17	277.80103
410240.28	3775428.17	269.30270	410020.28	3775448.17	303.79587
410040.28	3775448.17	309.55831	410060.28	3775448.17	297.74545
410080.28	3775448.17	288.37308	410100.28	3775448.17	283.48805
410120.28	3775448.17	277.30107	410140.28	3775448.17	277.00525
410160.28	3775448.17	268.94223	410180.28	3775448.17	264.27619

10TH HIGHEST VALUE IS	1.33507	AT (	410327.56,	3774059.13,	120.78,	1648.19,	0.00)	DC
			Maximum Sports Park Receptor					
ARROWH_E 1ST HIGHEST VALUE IS	36.19524	AT (	410220.28,	3775328.17,	129.20,	1648.19,	0.00)	DC
2ND HIGHEST VALUE IS	33.32869	AT (	410100.28,	3775368.17,	128.71,	1648.19,	0.00)	DC
3RD HIGHEST VALUE IS	31.68636	AT (	410240.28,	3775328.17,	129.32,	1648.19,	0.00)	DC
4TH HIGHEST VALUE IS	30.92685	AT (	410120.28,	3775368.17,	128.94,	1648.19,	0.00)	DC
5TH HIGHEST VALUE IS	29.50038	AT (	410200.28,	3775348.17,	129.36,	1648.19,	0.00)	DC
6TH HIGHEST VALUE IS	29.16319	AT (	410020.28,	3775388.17,	127.92,	1648.19,	0.00)	DC
7TH HIGHEST VALUE IS	28.65635	AT (	410140.28,	3775368.17,	129.38,	1648.19,	0.00)	DC
8TH HIGHEST VALUE IS	28.20019	AT (	410040.28,	3775388.17,	127.32,	1648.19,	0.00)	DC
9TH HIGHEST VALUE IS	28.07567	AT (	410260.28,	3775328.17,	129.60,	1648.19,	0.00)	DC
10TH HIGHEST VALUE IS	27.12199	AT (	410060.28,	3775388.17,	128.06,	1648.19,	0.00)	DC

*** AERMOD - VERSION 22112 *** *** Option 2 - Irwindale Gateway Operational HRA *** 05/23/23
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*** MODELOPTs: RegDFault CONC ELEV 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
ARROWH_W 1ST HIGHEST VALUE IS	6.56930	AT (410000.28, 3775408.17,	127.99,	1648.19, 0.00) DC
2ND HIGHEST VALUE IS	6.08436	AT (410000.28, 3775428.17,	127.98,	1648.19, 0.00) DC
3RD HIGHEST VALUE IS	6.05974	AT (410020.28, 3775388.17,	127.92,	1648.19, 0.00) DC
4TH HIGHEST VALUE IS	5.78870	AT (410020.28, 3775408.17,	128.19,	1648.19, 0.00) DC
5TH HIGHEST VALUE IS	5.46166	AT (410020.28, 3775428.17,	128.23,	1648.19, 0.00) DC
6TH HIGHEST VALUE IS	5.29472	AT (410040.28, 3775388.17,	127.32,	1648.19, 0.00) DC
7TH HIGHEST VALUE IS	5.11661	AT (410020.28, 3775448.17,	128.23,	1648.19, 0.00) DC
8TH HIGHEST VALUE IS	5.10531	AT (410040.28, 3775408.17,	127.52,	1648.19, 0.00) DC
9TH HIGHEST VALUE IS	4.86409	AT (410040.28, 3775428.17,	127.38,	1648.19, 0.00) DC
10TH HIGHEST VALUE IS	4.74629	AT (410060.28, 3775388.17,	128.06,	1648.19, 0.00) DC

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

410407.56	3774119.13	41.94227	410427.56	3774119.13	40.64165
410467.56	3774119.13	38.23802	410487.56	3774119.13	37.11122
410507.56	3774119.13	36.03696	410527.56	3774119.13	34.99600
410547.56	3774119.13	33.99073	410567.56	3774119.13	33.02889
410427.56	3774139.13	42.03593	410447.56	3774139.13	40.71112
410467.56	3774139.13	39.44708	410507.56	3774139.13	37.06263

410200.28	3775428.17	38.20567	410220.28	3775428.17	37.69407
410240.28	3775428.17	36.56114	410020.28	3775448.17	41.41894
410040.28	3775448.17	42.49623	410060.28	3775448.17	40.53779
410080.28	3775448.17	39.22187	410100.28	3775448.17	38.56942
410120.28	3775448.17	37.73963	410140.28	3775448.17	37.74521
410160.28	3775448.17	36.68428	410180.28	3775448.17	36.10186


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*** AERMOD - VERSION 22112 ***   *** Option 1 - Irwindale Gateway Operational HRA   ***   05/22/23
*** AERMET - VERSION 16216 ***   *** Irwindale, CA   ***   13:08:27
*** MODELOPTs:   RegDFAULT CONC ELEV URBAN ADJ_U*   ***   PAGE 73

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*** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: TR_RUNEX ***
INCLUDING SOURCE(S):   PAREA3   , PAREA1   ,

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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

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X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
410227.56	3773999.13	0.97068	410247.56	3773999.13	0.93822
410267.56	3773999.13	0.90766	410287.56	3773999.13	0.87893
410327.56	3773999.13	0.82687	410347.56	3773999.13	0.80338
410367.56	3773999.13	0.78147	410387.56	3773999.13	0.76106
410407.56	3773999.13	0.74207	410427.56	3773999.13	0.72437
410447.56	3773999.13	0.70789	410467.56	3773999.13	0.69256
410487.56	3773999.13	0.67830	410527.56	3773999.13	0.65263
410547.56	3773999.13	0.64107	410567.56	3773999.13	0.63026
410267.56	3774019.13	0.93785	410287.56	3774019.13	0.90795
410327.56	3774019.13	0.85388	410347.56	3774019.13	0.82955
410367.56	3774019.13	0.80686	410387.56	3774019.13	0.78575
410407.56	3774019.13	0.76619	410427.56	3774019.13	0.74794
410447.56	3774019.13	0.73095	410467.56	3774019.13	0.71517
410487.56	3774019.13	0.70049	410529.05	3774026.09	0.68096
410549.05	3774026.09	0.66903	410569.05	3774026.09	0.65787
410287.56	3774039.13	0.93876	410307.56	3774039.13	0.90970
410367.56	3774039.13	0.83385	410387.56	3774039.13	0.81202
410407.56	3774039.13	0.79182	410427.56	3774039.13	0.77298
410447.56	3774039.13	0.75549	410467.56	3774039.13	0.73921
410487.56	3774039.13	0.72411	410307.56	3774059.13	0.94135
410327.56	3774059.13	0.91318	410347.56	3774059.13	0.88695
410387.56	3774059.13	0.84006	410407.56	3774059.13	0.81912
410447.56	3774059.13	0.78164	410467.56	3774059.13	0.76489
410487.56	3774059.13	0.74931	410327.56	3774079.13	0.94579
410347.56	3774079.13	0.91861	410367.56	3774079.13	0.89336
410407.56	3774079.13	0.84831	410447.56	3774079.13	0.80961
410467.56	3774079.13	0.79232	410487.56	3774079.13	0.77625
410530.05	3774073.66	0.73844	410550.05	3774073.66	0.72565
410570.05	3774073.66	0.71366	410367.56	3774099.13	0.92627
410387.56	3774099.13	0.90210	410407.56	3774099.13	0.87962
410447.56	3774099.13	0.83957	410467.56	3774099.13	0.82170
410487.56	3774099.13	0.80508	410507.56	3774099.13	0.78965
410530.05	3774093.66	0.76573	410550.05	3774093.66	0.75246
410570.05	3774093.66	0.74008	410387.56	3774119.13	0.93653
410407.56	3774119.13	0.91326	410427.56	3774119.13	0.89170
410467.56	3774119.13	0.85323	410487.56	3774119.13	0.83601
410507.56	3774119.13	0.81995	410527.56	3774119.13	0.80501

410547.56	3774119.13	0.79108
410427.56	3774139.13	0.92703
410467.56	3774139.13	0.88710

410567.56	3774119.13	0.77803
410447.56	3774139.13	0.90633
410507.56	3774139.13	0.85263

410080.28	3775448.17	1.40236	410100.28	3775448.17	1.44581
410120.28	3775448.17	1.48495	410140.28	3775448.17	1.53322
410160.28	3775448.17	1.56315	410180.28	3775448.17	1.59734

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*** AERMOD - VERSION 22112 ***    *** Option 1 - Irwindale Gateway Operational HRA    ***    05/22/23
*** AERMET - VERSION 16216 ***    *** Irwindale, CA    ***    13:08:27
*** MODELOPTs:   RegDFAULT  CONC  ELEV  URBAN  ADJ_U*    ***    PAGE 75

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*** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION    VALUES FOR SOURCE GROUP: TR_RUNEX ***
INCLUDING SOURCE(S):    PAREA3    , PAREA1    ,

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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

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X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
410200.28	3775448.17	1.64423	410220.28	3775448.17	1.67434
410040.28	3775468.17	1.18015	410060.28	3775468.17	1.21697
410080.28	3775468.17	1.25484	410100.28	3775468.17	1.29344
410120.28	3775468.17	1.32991	410140.28	3775468.17	1.37222
410160.28	3775468.17	1.40698	410180.28	3775468.17	1.44042
410200.28	3775468.17	1.47411	410220.28	3775468.17	1.49569
410060.28	3775488.17	1.09567	410080.28	3775488.17	1.12836
410100.28	3775488.17	1.15915	410120.28	3775488.17	1.19437
410140.28	3775488.17	1.22133	410160.28	3775488.17	1.25135
410180.28	3775488.17	1.28649	410200.28	3775488.17	1.32537
410220.28	3775488.17	1.34593	410080.28	3775508.17	1.01934
410100.28	3775508.17	1.04413	410120.28	3775508.17	1.07821
410140.28	3775508.17	1.09475	410160.28	3775508.17	1.05847
410180.28	3775508.17	1.15510	410200.28	3775508.17	1.19805
410220.28	3775508.17	1.21784	410120.28	3775528.17	0.98201
410140.28	3775528.17	1.00741	410160.28	3775528.17	1.03387
410180.28	3775528.17	1.06328	410200.28	3775528.17	1.09430
410140.28	3775548.17	0.92006	410160.28	3775548.17	0.94516
410180.28	3775548.17	0.97010	410260.01	3775389.35	2.35187

410547.56	3774119.13	0.72204	410567.56	3774119.13	0.71069
410427.56	3774139.13	0.83871	410447.56	3774139.13	0.82084
410467.56	3774139.13	0.80425	410507.56	3774139.13	0.77447

410080.28	3775448.17	1.59342	410100.28	3775448.17	1.65135
410120.28	3775448.17	1.70686	410140.28	3775448.17	1.76651
410160.28	3775448.17	1.81629	410180.28	3775448.17	1.86711

410407.56	3774119.13	5.90403	410427.56	3774119.13	5.77909
410467.56	3774119.13	5.49311	410487.56	3774119.13	5.33282
410507.56	3774119.13	5.16260	410527.56	3774119.13	4.98314
410547.56	3774119.13	4.79650	410567.56	3774119.13	4.60531
410427.56	3774139.13	6.34549	410447.56	3774139.13	6.18872
410467.56	3774139.13	6.01743	410507.56	3774139.13	5.63350

410200.28	3775428.17	0.98128	410220.28	3775428.17	0.97467
410240.28	3775428.17	0.95691	410020.28	3775448.17	0.96471
410040.28	3775448.17	0.99226	410060.28	3775448.17	0.96990
410080.28	3775448.17	0.95809	410100.28	3775448.17	0.95295
410120.28	3775448.17	0.93908	410140.28	3775448.17	0.95456
410160.28	3775448.17	0.93290	410180.28	3775448.17	0.93026

410407.56	3774119.13	0.55458	410427.56	3774119.13	0.54396
410467.56	3774119.13	0.52012	410487.56	3774119.13	0.50841
410507.56	3774119.13	0.49677	410527.56	3774119.13	0.48468
410547.56	3774119.13	0.47545	410567.56	3774119.13	0.46517
410427.56	3774139.13	0.54925	410447.56	3774139.13	0.53680
410467.56	3774139.13	0.52449	410507.56	3774139.13	0.50388

410200.28	3775428.17	1.06714	410220.28	3775428.17	1.05138
410240.28	3775428.17	1.04949	410020.28	3775448.17	1.18666
410040.28	3775448.17	1.15583	410060.28	3775448.17	1.14835
410080.28	3775448.17	1.13828	410100.28	3775448.17	1.12348
410120.28	3775448.17	1.11175	410140.28	3775448.17	1.08877
410160.28	3775448.17	1.08216	410180.28	3775448.17	1.06898

410467.56	3774119.13	1.15571	410487.56	3774119.13	1.12084
410507.56	3774119.13	1.08726	410527.56	3774119.13	1.05548
410547.56	3774119.13	1.02531	410567.56	3774119.13	0.99623
410427.56	3774139.13	1.25664	410447.56	3774139.13	1.21708
410467.56	3774139.13	1.17906	410507.56	3774139.13	1.10880

410240.28	3775428.17	1.01632	410020.28	3775448.17	1.17070
410040.28	3775448.17	1.17142	410060.28	3775448.17	1.13934
410080.28	3775448.17	1.10992	410100.28	3775448.17	1.09124
410120.28	3775448.17	1.07029	410140.28	3775448.17	1.06272
410160.28	3775448.17	1.03854	410180.28	3775448.17	1.02229

410407.56	3774119.13	0.97506	410427.56	3774119.13	0.97553
410467.56	3774119.13	0.97526	410487.56	3774119.13	0.97439
410507.56	3774119.13	0.97303	410527.56	3774119.13	0.97106
410547.56	3774119.13	0.96848	410567.56	3774119.13	0.96539
410427.56	3774139.13	1.00753	410447.56	3774139.13	1.00779
410467.56	3774139.13	1.00753	410507.56	3774139.13	1.00513

410200.28	3775428.17	12.87984	410220.28	3775428.17	12.31634
410240.28	3775428.17	11.75012	410020.28	3775448.17	13.46500
410040.28	3775448.17	13.48408	410060.28	3775448.17	13.40219
410080.28	3775448.17	13.20930	410100.28	3775448.17	12.95268
410120.28	3775448.17	12.63538	410140.28	3775448.17	12.29971
410160.28	3775448.17	11.90759	410180.28	3775448.17	11.50903

410407.56	3774119.13	0.51676	410427.56	3774119.13	0.50985
410467.56	3774119.13	0.49585	410487.56	3774119.13	0.48874
410507.56	3774119.13	0.48131	410527.56	3774119.13	0.47433
410547.56	3774119.13	0.46785	410567.56	3774119.13	0.46104
410427.56	3774139.13	0.51805	410447.56	3774139.13	0.51096
410467.56	3774139.13	0.50353	410507.56	3774139.13	0.48973

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA *** 05/22/23
 *** AERMET - VERSION 16216 *** *** Irwindale, CA *** 13:08:27
 *** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U* *** PAGE 92

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: **ARROWH W** ***
 INCLUDING SOURCE(S): L0000163 , L0000164 , L0000165 , L0000166 , L0000167 ,
 L0000168 , L0000169 , L0000170 , L0000171 , L0000172 , L0000173 , L0000174 , L0000175 ,
 L0000176 , L0000177 , L0000178 , L0000179 , L0000180 , L0000181 , L0000182 , L0000183 ,
 L0000184 , L0000185 , L0000186 , L0000187 , L0000188 , L0000189 , L0000190 , . . . ,

*** 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
410527.56	3774139.13	0.48173	410547.56	3774139.13	0.47457
410567.56	3774139.13	0.46794	410447.56	3774159.13	0.51907
410467.56	3774159.13	0.51178	410487.56	3774159.13	0.50460
410487.56	3774179.13	0.51149	410507.56	3774179.13	0.50370
410527.56	3774179.13	0.49642	410547.56	3774179.13	0.48884
410567.56	3774179.13	0.48174	410587.56	3774179.13	0.47486
410507.56	3774199.13	0.51178 MEIR	410527.56	3774199.13	0.50421
410547.56	3774199.13	0.49637	410567.56	3774199.13	0.48859
410587.56	3774199.13	0.48149	410220.28	3775328.17	2.45247 Max Sports Park Rec
410240.28	3775328.17	2.30746	410260.28	3775328.17	2.17989
410200.28	3775348.17	2.65568	410220.28	3775348.17	2.48334
410240.28	3775348.17	2.33863	410260.28	3775348.17	2.21618
410100.28	3775368.17	3.95399	410120.28	3775368.17	3.61314
410140.28	3775368.17	3.34299	410160.28	3775368.17	3.09024
410180.28	3775368.17	2.86899	410200.28	3775368.17	2.67829
410220.28	3775368.17	2.50935	410240.28	3775368.17	2.36629
410260.28	3775368.17	2.24100	410020.28	3775388.17	6.05974
410040.28	3775388.17	5.29472	410060.28	3775388.17	4.74629
410080.28	3775388.17	4.31425	410100.28	3775388.17	3.93339
410120.28	3775388.17	3.62403	410140.28	3775388.17	3.35797
410160.28	3775388.17	3.10380	410180.28	3775388.17	2.87645
410200.28	3775388.17	2.68637	410220.28	3775388.17	2.52650
410240.28	3775388.17	2.38170	410000.28	3775408.17	6.56930
410020.28	3775408.17	5.78870	410040.28	3775408.17	5.10531
410060.28	3775408.17	4.62408	410080.28	3775408.17	4.23406
410100.28	3775408.17	3.89415	410120.28	3775408.17	3.61198
410140.28	3775408.17	3.33858	410160.28	3775408.17	3.09184
410180.28	3775408.17	2.87229	410200.28	3775408.17	2.67734
410220.28	3775408.17	2.52200	410240.28	3775408.17	2.38444
410000.28	3775428.17	6.08436	410020.28	3775428.17	5.46166
410040.28	3775428.17	4.86409	410060.28	3775428.17	4.45484
410080.28	3775428.17	4.11307	410100.28	3775428.17	3.80254
410120.28	3775428.17	3.53946	410140.28	3775428.17	3.27178
410160.28	3775428.17	3.05777	410180.28	3775428.17	2.85695

410200.28	3775428.17	2.65445	410220.28	3775428.17	2.50215
410240.28	3775428.17	2.39079	410020.28	3775448.17	5.11661
410040.28	3775448.17	4.60806	410060.28	3775448.17	4.26471
410080.28	3775448.17	3.96775	410100.28	3775448.17	3.68577
410120.28	3775448.17	3.43952	410140.28	3775448.17	3.18238
410160.28	3775448.17	3.00314	410180.28	3775448.17	2.82266

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
 *** AERMET - VERSION 16216 *** *** Irwindale, CA

*** 05/22/23
 *** 13:08:27
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*** MODELOPTs: RegDEFAULT CONC ELEV 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
Maximum Exposed Sports Park Receptor										
B3_IDLE	1ST HIGHEST VALUE IS	367.76972	AT (	410220.28,	3775328.17,	129.20,	1648.19,	0.00)	DC	
	2ND HIGHEST VALUE IS	349.69862	AT (	410240.28,	3775328.17,	129.32,	1648.19,	0.00)	DC	
	3RD HIGHEST VALUE IS	329.90733	AT (	410260.28,	3775328.17,	129.60,	1648.19,	0.00)	DC	
	4TH HIGHEST VALUE IS	324.88553	AT (	410200.28,	3775348.17,	129.36,	1648.19,	0.00)	DC	
	5TH HIGHEST VALUE IS	316.05927	AT (	410220.28,	3775348.17,	129.32,	1648.19,	0.00)	DC	
	6TH HIGHEST VALUE IS	306.28843	AT (	410240.28,	3775348.17,	129.58,	1648.19,	0.00)	DC	
	7TH HIGHEST VALUE IS	292.85300	AT (	410260.28,	3775348.17,	130.00,	1648.19,	0.00)	DC	
	8TH HIGHEST VALUE IS	278.02709	AT (	410160.28,	3775368.17,	129.45,	1648.19,	0.00)	DC	
	9TH HIGHEST VALUE IS	276.83471	AT (	410180.28,	3775368.17,	129.46,	1648.19,	0.00)	DC	
	10TH HIGHEST VALUE IS	275.56628	AT (	410200.28,	3775368.17,	129.56,	1648.19,	0.00)	DC	
Maximum Exposed Sports Park Receptor										
B2_IDLE	1ST HIGHEST VALUE IS	399.64442	AT (	410220.28,	3775328.17,	129.20,	1648.19,	0.00)	DC	
	2ND HIGHEST VALUE IS	393.91485	AT (	410240.28,	3775328.17,	129.32,	1648.19,	0.00)	DC	
	3RD HIGHEST VALUE IS	386.88001	AT (	410260.28,	3775328.17,	129.60,	1648.19,	0.00)	DC	
	4TH HIGHEST VALUE IS	372.45763	AT (	410200.28,	3775348.17,	129.36,	1648.19,	0.00)	DC	
	5TH HIGHEST VALUE IS	368.56969	AT (	410220.28,	3775348.17,	129.32,	1648.19,	0.00)	DC	
	6TH HIGHEST VALUE IS	368.50259	AT (	410100.28,	3775368.17,	128.71,	1648.19,	0.00)	DC	
	7TH HIGHEST VALUE IS	368.32018	AT (	410040.28,	3775388.17,	127.32,	1648.19,	0.00)	DC	
	8TH HIGHEST VALUE IS	364.66008	AT (	410020.28,	3775388.17,	127.92,	1648.19,	0.00)	DC	
	9TH HIGHEST VALUE IS	363.24515	AT (	410120.28,	3775368.17,	128.94,	1648.19,	0.00)	DC	
	10TH HIGHEST VALUE IS	362.32068	AT (	410240.28,	3775348.17,	129.58,	1648.19,	0.00)	DC	
Maximum Exposed Sports Park Receptor										
B1_IDLE	1ST HIGHEST VALUE IS	50.04952	AT (	410220.28,	3775328.17,	129.20,	1648.19,	0.00)	DC	
	2ND HIGHEST VALUE IS	49.75800	AT (	410040.28,	3775388.17,	127.32,	1648.19,	0.00)	DC	
	3RD HIGHEST VALUE IS	49.24677	AT (	410240.28,	3775328.17,	129.32,	1648.19,	0.00)	DC	
	4TH HIGHEST VALUE IS	49.04553	AT (	410020.28,	3775388.17,	127.92,	1648.19,	0.00)	DC	
	5TH HIGHEST VALUE IS	48.58215	AT (	410100.28,	3775368.17,	128.71,	1648.19,	0.00)	DC	
	6TH HIGHEST VALUE IS	48.28398	AT (	410260.28,	3775328.17,	129.60,	1648.19,	0.00)	DC	
	7TH HIGHEST VALUE IS	47.94110	AT (	410060.28,	3775388.17,	128.06,	1648.19,	0.00)	DC	
	8TH HIGHEST VALUE IS	47.71611	AT (	410120.28,	3775368.17,	128.94,	1648.19,	0.00)	DC	
	9TH HIGHEST VALUE IS	47.62851	AT (	410200.28,	3775348.17,	129.36,	1648.19,	0.00)	DC	
	10TH HIGHEST VALUE IS	47.08185	AT (	410220.28,	3775348.17,	129.32,	1648.19,	0.00)	DC	
Maximum Exposed Sports Park Receptor										
TR_RUNEX	1ST HIGHEST VALUE IS	3.37097	AT (	410220.28,	3775328.17,	129.20,	1648.19,	0.00)	DC	
	2ND HIGHEST VALUE IS	3.36846	AT (	410240.28,	3775328.17,	129.32,	1648.19,	0.00)	DC	
	3RD HIGHEST VALUE IS	3.35655	AT (	410260.28,	3775328.17,	129.60,	1648.19,	0.00)	DC	
	4TH HIGHEST VALUE IS	2.98269	AT (	410240.28,	3775348.17,	129.58,	1648.19,	0.00)	DC	

5TH HIGHEST VALUE IS 2.97871 AT (410220.28, 3775348.17, 129.32, 1648.19, 0.00) DC
 6TH HIGHEST VALUE IS 2.97803 AT (410260.28, 3775348.17, 130.00, 1648.19, 0.00) DC
 7TH HIGHEST VALUE IS 2.95955 AT (410200.28, 3775348.17, 129.36, 1648.19, 0.00) DC
 8TH HIGHEST VALUE IS 2.65157 AT (410260.28, 3775368.17, 130.26, 1648.19, 0.00) DC
 9TH HIGHEST VALUE IS 2.64575 AT (410240.28, 3775368.17, 129.86, 1648.19, 0.00) DC
 10TH HIGHEST VALUE IS 2.63117 AT (410220.28, 3775368.17, 129.64, 1648.19, 0.00) DC

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA ***
 *** AERMET - VERSION 16216 *** *** Irwindale, CA ***

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*** MODELOPTs: RegDFault CONC ELEV 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
Maximum Exposed Sports Park Receptor				
YARD_EMS	1ST HIGHEST VALUE IS 3.91811 AT (410240.28, 3775328.17, 129.32, 1648.19, 0.00)		DC	
	2ND HIGHEST VALUE IS 3.91479 AT (410260.28, 3775328.17, 129.60, 1648.19, 0.00)		DC	
	3RD HIGHEST VALUE IS 3.91008 AT (410220.28, 3775328.17, 129.20, 1648.19, 0.00)		DC	
	4TH HIGHEST VALUE IS 3.49776 AT (410260.28, 3775348.17, 130.00, 1648.19, 0.00)		DC	
	5TH HIGHEST VALUE IS 3.48835 AT (410240.28, 3775348.17, 129.58, 1648.19, 0.00)		DC	
	6TH HIGHEST VALUE IS 3.46877 AT (410220.28, 3775348.17, 129.32, 1648.19, 0.00)		DC	
	7TH HIGHEST VALUE IS 3.43645 AT (410200.28, 3775348.17, 129.36, 1648.19, 0.00)		DC	
	8TH HIGHEST VALUE IS 3.13021 AT (410260.28, 3775368.17, 130.26, 1648.19, 0.00)		DC	
	9TH HIGHEST VALUE IS 3.10960 AT (410240.28, 3775368.17, 129.86, 1648.19, 0.00)		DC	
	10TH HIGHEST VALUE IS 3.07966 AT (410220.28, 3775368.17, 129.64, 1648.19, 0.00)		DC	
MEIR				
LIVEOAKE	1ST HIGHEST VALUE IS 7.61132 AT (410507.56, 3774199.13, 122.95, 1648.19, 0.00)		DC	
	2ND HIGHEST VALUE IS 7.27185 AT (410527.56, 3774199.13, 123.17, 1648.19, 0.00)		DC	
	3RD HIGHEST VALUE IS 7.10489 AT (410487.56, 3774179.13, 122.77, 1648.19, 0.00)		DC	
	4TH HIGHEST VALUE IS 6.91505 AT (410547.56, 3774199.13, 123.31, 1648.19, 0.00)		DC	
	5TH HIGHEST VALUE IS 6.83480 AT (410507.56, 3774179.13, 122.94, 1648.19, 0.00)		DC	
	6TH HIGHEST VALUE IS 6.82858 AT (410447.56, 3774159.13, 122.11, 1648.19, 0.00)		DC	
	7TH HIGHEST VALUE IS 6.63039 AT (410467.56, 3774159.13, 122.37, 1648.19, 0.00)		DC	
	8TH HIGHEST VALUE IS 6.54851 AT (410527.56, 3774179.13, 123.08, 1648.19, 0.00)		DC	
	9TH HIGHEST VALUE IS 6.54738 AT (410567.56, 3774199.13, 123.54, 1648.19, 0.00)		DC	
	10TH HIGHEST VALUE IS 6.41422 AT (410487.56, 3774159.13, 122.43, 1648.19, 0.00)		DC	
LIVEOAKW	1ST HIGHEST VALUE IS 1.29316 AT (410020.28, 3775388.17, 127.92, 1648.19, 0.00)		DC	
	2ND HIGHEST VALUE IS 1.28098 AT (410000.28, 3775408.17, 127.99, 1648.19, 0.00)		DC	
	3RD HIGHEST VALUE IS 1.25980 AT (410020.28, 3775408.17, 128.19, 1648.19, 0.00)		DC	
	4TH HIGHEST VALUE IS 1.25724 AT (410040.28, 3775388.17, 127.32, 1648.19, 0.00)		DC	
	5TH HIGHEST VALUE IS 1.24557 AT (410060.28, 3775388.17, 128.06, 1648.19, 0.00)		DC	
	6TH HIGHEST VALUE IS 1.24244 AT (410000.28, 3775428.17, 127.98, 1648.19, 0.00)		DC	
	7TH HIGHEST VALUE IS 1.24192 AT (410100.28, 3775368.17, 128.71, 1648.19, 0.00)		DC	
	8TH HIGHEST VALUE IS 1.23216 AT (410080.28, 3775388.17, 128.66, 1648.19, 0.00)		DC	
	9TH HIGHEST VALUE IS 1.22608 AT (410040.28, 3775408.17, 127.52, 1648.19, 0.00)		DC	

10TH HIGHEST VALUE IS 1.22318 AT (410020.28, 3775428.17, 128.23, 1648.19, 0.00) DC
LIVEOAKF 1ST HIGHEST VALUE IS 1.41120 AT (410227.56, 3773999.13, 119.52, 1648.19, 0.00) DC
2ND HIGHEST VALUE IS 1.37793 AT (410287.56, 3774039.13, 120.15, 1648.19, 0.00) DC
3RD HIGHEST VALUE IS 1.37705 AT (410267.56, 3774019.13, 119.96, 1648.19, 0.00) DC
4TH HIGHEST VALUE IS 1.37560 AT (410307.56, 3774059.13, 120.61, 1648.19, 0.00) DC
5TH HIGHEST VALUE IS 1.37378 AT (410247.56, 3773999.13, 119.68, 1648.19, 0.00) DC
6TH HIGHEST VALUE IS 1.37144 AT (410327.56, 3774079.13, 120.74, 1648.19, 0.00) DC
7TH HIGHEST VALUE IS 1.33919 AT (410287.56, 3774019.13, 120.05, 1648.19, 0.00) DC
8TH HIGHEST VALUE IS 1.33853 AT (410307.56, 3774039.13, 120.38, 1648.19, 0.00) DC
9TH HIGHEST VALUE IS 1.33727 AT (410267.56, 3773999.13, 119.82, 1648.19, 0.00) DC
10TH HIGHEST VALUE IS 1.33507 AT (410327.56, 3774059.13, 120.78, 1648.19, 0.00) DC

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA *** 05/22/23
*** AERMET - VERSION 16216 *** *** Irwindale, CA *** 13:08:27
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*** MODELOPTS: RegDEFAULT CONC ELEV 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
Maximum Exposed Sports Park Receptor				
ARROWH_E 1ST HIGHEST VALUE IS	36.19524 AT (	410220.28, 3775328.17,	129.20, 1648.19,	0.00) DC
2ND HIGHEST VALUE IS	33.32869 AT (	410100.28, 3775368.17,	128.71, 1648.19,	0.00) DC
3RD HIGHEST VALUE IS	31.68636 AT (	410240.28, 3775328.17,	129.32, 1648.19,	0.00) DC
4TH HIGHEST VALUE IS	30.92685 AT (	410120.28, 3775368.17,	128.94, 1648.19,	0.00) DC
5TH HIGHEST VALUE IS	29.50038 AT (	410200.28, 3775348.17,	129.36, 1648.19,	0.00) DC
6TH HIGHEST VALUE IS	29.16319 AT (	410020.28, 3775388.17,	127.92, 1648.19,	0.00) DC
7TH HIGHEST VALUE IS	28.65635 AT (	410140.28, 3775368.17,	129.38, 1648.19,	0.00) DC
8TH HIGHEST VALUE IS	28.20019 AT (	410040.28, 3775388.17,	127.32, 1648.19,	0.00) DC
9TH HIGHEST VALUE IS	28.07567 AT (	410260.28, 3775328.17,	129.60, 1648.19,	0.00) DC
10TH HIGHEST VALUE IS	27.12199 AT (	410060.28, 3775388.17,	128.06, 1648.19,	0.00) DC
ARROWH_W 1ST HIGHEST VALUE IS	6.56930 AT (	410000.28, 3775408.17,	127.99, 1648.19,	0.00) DC
2ND HIGHEST VALUE IS	6.08436 AT (	410000.28, 3775428.17,	127.98, 1648.19,	0.00) DC
3RD HIGHEST VALUE IS	6.05974 AT (	410020.28, 3775388.17,	127.92, 1648.19,	0.00) DC
4TH HIGHEST VALUE IS	5.78870 AT (	410020.28, 3775408.17,	128.19, 1648.19,	0.00) DC
5TH HIGHEST VALUE IS	5.46166 AT (	410020.28, 3775428.17,	128.23, 1648.19,	0.00) DC
6TH HIGHEST VALUE IS	5.29472 AT (	410040.28, 3775388.17,	127.32, 1648.19,	0.00) DC
7TH HIGHEST VALUE IS	5.11661 AT (	410020.28, 3775448.17,	128.23, 1648.19,	0.00) DC
8TH HIGHEST VALUE IS	5.10531 AT (	410040.28, 3775408.17,	127.52, 1648.19,	0.00) DC
9TH HIGHEST VALUE IS	4.86409 AT (	410040.28, 3775428.17,	127.38, 1648.19,	0.00) DC
10TH HIGHEST VALUE IS	4.74629 AT (	410060.28, 3775388.17,	128.06, 1648.19,	0.00) DC

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

*** AERMOD - VERSION 22112 *** *** Option 1 - Irwindale Gateway Operational HRA
*** AERMET - VERSION 16216 *** *** Irwindale, CA

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

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

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

A Total of 0 Fatal Error Message(s)
A Total of 159 Warning Message(s)
A Total of 1684 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 75 Calm Hours Identified

A Total of 1609 Missing Hours Identified (3.67 Percent)

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

***** WARNING MESSAGES *****

SO W320	668	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	669	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	670	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	671	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	672	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	673	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	674	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	675	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	676	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	677	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	678	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	679	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	680	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	681	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	682	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	683	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	684	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	685	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	686	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	687	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	688	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	689	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	690	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	691	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	692	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	693	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS

SO W320	796	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	797	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	798	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	799	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	800	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	801	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	802	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	803	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	804	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	805	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	806	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	807	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	808	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	809	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	810	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	811	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	812	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	813	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	814	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	815	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	816	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	817	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	818	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	819	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	820	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	821	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	822	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	823	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	824	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
ME W186	6673	MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used	0.50
ME W187	6673	MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET	

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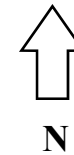
*****
*** AERMOD Finishes Successfully ***
*****

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Irwindale Gateway Specific Plan - Option 1

Irwindale, CA

Operation 24 hours per day, 7 days per week

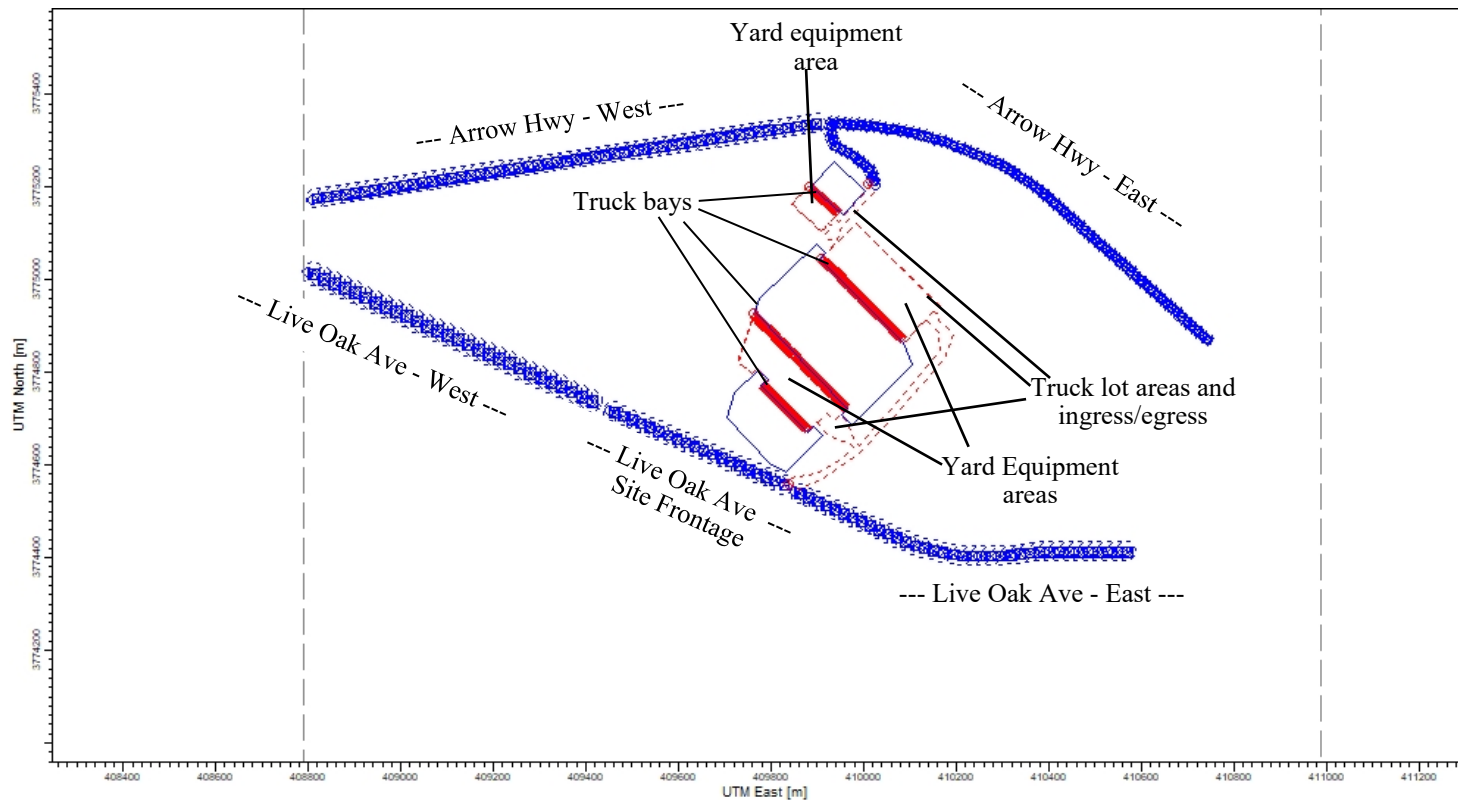


Trucking Operations

Heavy-Heavy Duty Trucks: 275 trucks per day (round trip); Idling 30 min/day

Transport Refrigeration Units (TRUs): 107 trucks per day (round trip), cycling on for 2 hours per day

Additional: 53 forklifts and 4 yard trucks operating 8 hours per day



- Release height of 4.15 m and initial vertical dimension (δy) of 1.93 m is based upon California Air Resources Board's "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles" (2000).

- The following point source specifications were used to model truck idling at loading bays: stack temp 366 K, stack velocity 51.7 m/s, stack diameter 4 in, stack height 4.15 m (CARB Risk Characterization Scenarios, Appendix VII for idling diesel trucks, 2000).

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) = 182.00 ; 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 = 4.4 MB of RAM.

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

**Detailed Error/Message File: IRW04_Op2.err
**File for Summary of Results: IRW04_Op2.sum

STCK39 0 0.10000E+01 410013.4 3774942.7 125.1 4.15 366.00 51.70 0.10 YES YES NO
 STCK40 0 0.10000E+01 410016.6 3774939.5 125.1 4.15 366.00 51.70 0.10 YES YES NO
 *** AERMOD - VERSION 22112 *** *** Option 2 - Irwindale Gateway Operational HRA *** 05/23/23
 *** AERMET - VERSION 16216 *** *** Irwindale, CA *** 10:55:33

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/HOR	EMIS RATE SCALAR VARY BY
STCK41	0	0.10000E+01	410020.4	3774936.0	125.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK42	0	0.10000E+01	409933.3	3775022.2	127.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK43	0	0.10000E+01	409936.2	3775019.7	127.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK44	0	0.10000E+01	409939.1	3775017.0	127.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK45	0	0.10000E+01	409942.2	3775014.2	127.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK46	0	0.10000E+01	409945.4	3775012.1	127.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK47	0	0.10000E+01	409948.5	3775008.9	127.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK48	0	0.10000E+01	409952.4	3775005.4	127.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK49	0	0.10000E+01	410023.3	3774931.8	125.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK50	0	0.10000E+01	410026.3	3774929.3	125.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK51	0	0.10000E+01	410029.2	3774926.6	125.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK52	0	0.10000E+01	410032.3	3774923.8	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK53	0	0.10000E+01	410035.4	3774921.7	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK54	0	0.10000E+01	410038.6	3774918.5	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK55	0	0.10000E+01	410042.5	3774915.0	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK56	0	0.10000E+01	410044.7	3774910.4	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK57	0	0.10000E+01	410047.6	3774907.9	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK58	0	0.10000E+01	410050.5	3774905.2	125.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK59	0	0.10000E+01	410053.6	3774902.4	125.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK60	0	0.10000E+01	410056.8	3774900.3	125.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK61	0	0.10000E+01	410059.9	3774897.2	125.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK62	0	0.10000E+01	410063.8	3774893.7	125.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK63	0	0.10000E+01	410067.9	3774886.9	125.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK64	0	0.10000E+01	410070.8	3774884.4	126.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK65	0	0.10000E+01	410073.7	3774881.7	126.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK66	0	0.10000E+01	410076.8	3774878.9	126.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK67	0	0.10000E+01	410080.0	3774876.8	126.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK68	0	0.10000E+01	409929.1	3775025.2	126.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK69	0	0.10000E+01	409780.1	3774929.1	121.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK70	0	0.10000E+01	409783.0	3774926.6	122.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK71	0	0.10000E+01	409785.9	3774923.9	122.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK72	0	0.10000E+01	409789.0	3774921.1	122.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK73	0	0.10000E+01	409790.9	3774918.3	122.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK74	0	0.10000E+01	409821.1	3774888.4	123.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK75	0	0.10000E+01	409824.1	3774885.9	123.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK76	0	0.10000E+01	409827.0	3774883.2	123.4	4.15	366.00	51.70	0.10	YES	YES	NO	

STCK77	0	0.10000E+01	409830.1	3774880.4	123.5	4.15	366.00	51.70	0.10	YES	YES	NO
STCK78	0	0.10000E+01	409833.2	3774878.3	123.5	4.15	366.00	51.70	0.10	YES	YES	NO
STCK79	0	0.10000E+01	409836.4	3774875.1	123.6	4.15	366.00	51.70	0.10	YES	YES	NO
STCK80	0	0.10000E+01	409840.2	3774871.7	123.8	4.15	366.00	51.70	0.10	YES	YES	NO

*** AERMOD - VERSION 22112 *** *** Option 2 - Irwindale Gateway Operational HRA ***
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*** MODELOPTs: RegDEFAULT CONC ELEV URBAN ADJ_U*

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG. K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
STCK81	0	0.10000E+01	409843.2	3774866.1	123.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK82	0	0.10000E+01	409846.1	3774863.6	124.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK83	0	0.10000E+01	409849.0	3774860.9	124.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK84	0	0.10000E+01	409852.1	3774858.1	124.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK85	0	0.10000E+01	409855.2	3774856.0	124.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK86	0	0.10000E+01	409858.4	3774852.8	124.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK87	0	0.10000E+01	409862.3	3774849.3	125.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK88	0	0.10000E+01	409866.2	3774842.7	126.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK89	0	0.10000E+01	409869.1	3774840.2	127.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK90	0	0.10000E+01	409872.0	3774837.5	128.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK91	0	0.10000E+01	409875.1	3774834.7	129.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK92	0	0.10000E+01	409878.3	3774832.6	130.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK93	0	0.10000E+01	409881.4	3774829.4	131.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK94	0	0.10000E+01	409885.3	3774825.9	132.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK95	0	0.10000E+01	409799.8	3774910.9	122.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK96	0	0.10000E+01	409802.7	3774908.4	122.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK97	0	0.10000E+01	409805.6	3774905.7	122.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK98	0	0.10000E+01	409808.7	3774902.9	122.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK99	0	0.10000E+01	409811.9	3774900.8	123.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK100	0	0.10000E+01	409815.1	3774897.6	123.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK101	0	0.10000E+01	409818.9	3774894.1	123.2	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK102	0	0.10000E+01	409889.3	3774819.2	133.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK103	0	0.10000E+01	409892.2	3774816.7	133.5	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK104	0	0.10000E+01	409895.1	3774814.0	133.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK105	0	0.10000E+01	409898.2	3774811.2	134.1	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK106	0	0.10000E+01	409901.4	3774809.1	134.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK107	0	0.10000E+01	409904.5	3774806.0	134.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK108	0	0.10000E+01	409908.4	3774802.5	134.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK109	0	0.10000E+01	409910.6	3774797.9	134.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK110	0	0.10000E+01	409913.6	3774795.4	134.7	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK111	0	0.10000E+01	409916.5	3774792.7	134.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK112	0	0.10000E+01	409919.5	3774789.9	134.4	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK113	0	0.10000E+01	409922.7	3774787.8	134.3	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK114	0	0.10000E+01	409925.9	3774784.6	134.2	4.15	366.00	51.70	0.10	YES	YES	NO	

STCK115	0	0.10000E+01	409929.7	3774781.1	134.1	4.15	366.00	51.70	0.10	YES	YES	NO
STCK116	0	0.10000E+01	409957.1	3774751.3	133.8	4.15	366.00	51.70	0.10	YES	YES	NO
STCK117	0	0.10000E+01	409960.0	3774748.8	133.8	4.15	366.00	51.70	0.10	YES	YES	NO
STCK118	0	0.10000E+01	409962.9	3774746.1	133.8	4.15	366.00	51.70	0.10	YES	YES	NO
STCK119	0	0.10000E+01	409966.0	3774743.3	133.9	4.15	366.00	51.70	0.10	YES	YES	NO
STCK120	0	0.10000E+01	409969.2	3774741.2	133.9	4.15	366.00	51.70	0.10	YES	YES	NO

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR	EMIS RATE SCALAR VARY BY
STCK121	0	0.10000E+01	409793.9	3774915.1	122.6	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK122	0	0.10000E+01	409933.5	3774775.0	134.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK123	0	0.10000E+01	409936.4	3774772.5	134.0	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK124	0	0.10000E+01	409939.3	3774769.8	133.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK125	0	0.10000E+01	409942.4	3774767.0	133.9	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK126	0	0.10000E+01	409945.6	3774764.9	133.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK127	0	0.10000E+01	409948.7	3774761.8	133.8	4.15	366.00	51.70	0.10	YES	YES	NO	
STCK128	0	0.10000E+01	409952.6	3774758.3	133.7	4.15	366.00	51.70	0.10	YES	YES	NO	

L0000039 0 0.50000E-01 409500.2 3774697.5 113.4 4.15 9.77 3.26 YES
 L0000040 0 0.50000E-01 409519.5 3774689.2 112.9 4.15 9.77 3.26 YES
 *** AERMOD - VERSION 22112 *** *** Option 2 - Irwindale Gateway Operational HRA ***
 *** AERMET - VERSION 16216 *** *** Irwindale, CA ***

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*** MODELOPTs: RegDFAULT CONC ELEV 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	0.50000E-01	409538.8	3774680.9	112.9	4.15	9.77	3.26	YES	
L0000042	0	0.50000E-01	409558.1	3774672.6	116.6	4.15	9.77	3.26	YES	
L0000043	0	0.50000E-01	409577.4	3774664.4	120.6	4.15	9.77	3.26	YES	
L0000044	0	0.50000E-01	409596.7	3774656.1	120.5	4.15	9.77	3.26	YES	
L0000045	0	0.50000E-01	409616.0	3774647.8	120.4	4.15	9.77	3.26	YES	
L0000046	0	0.50000E-01	409635.3	3774639.6	120.4	4.15	9.77	3.26	YES	
L0000047	0	0.50000E-01	409654.6	3774631.3	120.5	4.15	9.77	3.26	YES	
L0000048	0	0.50000E-01	409673.9	3774623.0	120.6	4.15	9.77	3.26	YES	
L0000049	0	0.50000E-01	409693.2	3774614.7	120.5	4.15	9.77	3.26	YES	
L0000050	0	0.50000E-01	409712.5	3774606.5	120.5	4.15	9.77	3.26	YES	
L0000051	0	0.50000E-01	409731.8	3774598.2	120.8	4.15	9.77	3.26	YES	
L0000052	0	0.50000E-01	409751.1	3774589.9	121.0	4.15	9.77	3.26	YES	
L0000053	0	0.50000E-01	409770.4	3774581.6	120.7	4.15	9.77	3.26	YES	
L0000054	0	0.50000E-01	409789.7	3774573.4	120.8	4.15	9.77	3.26	YES	
L0000055	0	0.50000E-01	409809.0	3774565.1	121.2	4.15	9.77	3.26	YES	
L0000056	0	0.50000E-01	409828.3	3774556.8	121.4	4.15	9.77	3.26	YES	
L0000057	0	0.35714E-01	408812.2	3775011.8	115.1	4.15	11.40	3.26	YES	
L0000058	0	0.35714E-01	408834.5	3775001.7	113.8	4.15	11.40	3.26	YES	
L0000059	0	0.35714E-01	408856.8	3774991.5	115.2	4.15	11.40	3.26	YES	
L0000060	0	0.35714E-01	408879.1	3774981.3	116.1	4.15	11.40	3.26	YES	
L0000061	0	0.35714E-01	408901.4	3774971.2	115.8	4.15	11.40	3.26	YES	
L0000062	0	0.35714E-01	408923.7	3774961.0	115.7	4.15	11.40	3.26	YES	
L0000063	0	0.35714E-01	408946.0	3774950.8	115.8	4.15	11.40	3.26	YES	
L0000064	0	0.35714E-01	408968.3	3774940.6	115.9	4.15	11.40	3.26	YES	
L0000065	0	0.35714E-01	408990.6	3774930.5	115.9	4.15	11.40	3.26	YES	
L0000066	0	0.35714E-01	409012.9	3774920.3	116.1	4.15	11.40	3.26	YES	
L0000067	0	0.35714E-01	409035.1	3774910.1	116.1	4.15	11.40	3.26	YES	
L0000068	0	0.35714E-01	409057.4	3774900.0	116.3	4.15	11.40	3.26	YES	
L0000069	0	0.35714E-01	409079.7	3774889.8	116.5	4.15	11.40	3.26	YES	
L0000070	0	0.35714E-01	409102.0	3774879.6	116.7	4.15	11.40	3.26	YES	
L0000071	0	0.35714E-01	409124.3	3774869.5	116.9	4.15	11.40	3.26	YES	
L0000072	0	0.35714E-01	409146.6	3774859.3	117.1	4.15	11.40	3.26	YES	
L0000073	0	0.35714E-01	409168.9	3774849.1	117.5	4.15	11.40	3.26	YES	
L0000074	0	0.35714E-01	409191.2	3774839.0	117.7	4.15	11.40	3.26	YES	
L0000075	0	0.35714E-01	409213.5	3774828.8	117.6	4.15	11.40	3.26	YES	
L0000076	0	0.35714E-01	409235.8	3774818.6	117.9	4.15	11.40	3.26	YES	

L0000077	0	0.35714E-01	409258.0	3774808.5	118.0	4.15	11.40	3.26	YES
L0000078	0	0.35714E-01	409280.3	3774798.3	118.1	4.15	11.40	3.26	YES
L0000079	0	0.35714E-01	409302.6	3774788.1	118.3	4.15	11.40	3.26	YES
L0000080	0	0.35714E-01	409324.9	3774777.9	118.3	4.15	11.40	3.26	YES

*** AERMOD - VERSION 22112 *** *** Option 2 - Irwindale Gateway Operational HRA
 *** AERMET - VERSION 16216 *** *** Irwindale, CA

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*** MODELOPTs: RegDFault CONC ELEV 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
L0000081	0	0.35714E-01	409347.2	3774767.8	118.8	4.15	11.40	3.26	YES	
L0000082	0	0.35714E-01	409369.5	3774757.6	119.2	4.15	11.40	3.26	YES	
L0000083	0	0.35714E-01	409391.8	3774747.4	119.4	4.15	11.40	3.26	YES	
L0000084	0	0.35714E-01	409414.1	3774737.3	119.5	4.15	11.40	3.26	YES	
L0000085	0	0.12821E-01	410022.8	3775212.1	127.4	4.15	6.88	3.26	YES	
L0000086	0	0.12821E-01	410018.6	3775226.2	127.5	4.15	6.88	3.26	YES	
L0000087	0	0.12821E-01	410012.5	3775239.2	128.0	4.15	6.88	3.26	YES	
L0000088	0	0.12821E-01	410001.1	3775248.7	127.9	4.15	6.88	3.26	YES	
L0000089	0	0.12821E-01	409989.7	3775258.1	127.4	4.15	6.88	3.26	YES	
L0000090	0	0.12821E-01	409978.4	3775267.6	127.5	4.15	6.88	3.26	YES	
L0000091	0	0.12821E-01	409965.4	3775274.8	127.4	4.15	6.88	3.26	YES	
L0000092	0	0.12821E-01	409952.3	3775281.7	127.3	4.15	6.88	3.26	YES	
L0000093	0	0.12821E-01	409939.2	3775288.6	127.3	4.15	6.88	3.26	YES	
L0000094	0	0.12821E-01	409934.6	3775301.8	128.0	4.15	6.88	3.26	YES	
L0000095	0	0.12821E-01	409931.8	3775316.3	128.9	4.15	6.88	3.26	YES	
L0000096	0	0.12821E-01	409928.9	3775330.8	129.4	4.15	6.88	3.26	YES	
L0000097	0	0.12821E-01	409934.4	3775338.0	129.3	4.15	6.88	3.26	YES	
L0000098	0	0.12821E-01	409949.1	3775336.8	128.9	4.15	6.88	3.26	YES	
L0000099	0	0.12821E-01	409963.9	3775335.7	128.6	4.15	6.88	3.26	YES	
L0000100	0	0.12821E-01	409978.6	3775334.5	127.1	4.15	6.88	3.26	YES	
L0000101	0	0.12821E-01	409993.4	3775333.4	125.9	4.15	6.88	3.26	YES	
L0000102	0	0.12821E-01	410008.1	3775332.2	127.2	4.15	6.88	3.26	YES	
L0000103	0	0.12821E-01	410022.9	3775331.1	128.0	4.15	6.88	3.26	YES	
L0000104	0	0.12821E-01	410037.5	3775328.5	127.9	4.15	6.88	3.26	YES	
L0000105	0	0.12821E-01	410052.0	3775325.9	127.9	4.15	6.88	3.26	YES	
L0000106	0	0.12821E-01	410066.6	3775323.3	127.9	4.15	6.88	3.26	YES	
L0000107	0	0.12821E-01	410081.2	3775320.7	128.0	4.15	6.88	3.26	YES	
L0000108	0	0.12821E-01	410095.7	3775318.1	128.2	4.15	6.88	3.26	YES	
L0000109	0	0.12821E-01	410110.2	3775314.8	128.4	4.15	6.88	3.26	YES	
L0000110	0	0.12821E-01	410124.5	3775311.1	128.6	4.15	6.88	3.26	YES	
L0000111	0	0.12821E-01	410138.9	3775307.5	128.6	4.15	6.88	3.26	YES	
L0000112	0	0.12821E-01	410153.2	3775303.9	128.8	4.15	6.88	3.26	YES	
L0000113	0	0.12821E-01	410167.5	3775300.2	129.2	4.15	6.88	3.26	YES	
L0000114	0	0.12821E-01	410181.6	3775295.7	129.0	4.15	6.88	3.26	YES	

L0000115	0	0.12821E-01	410195.3	3775290.1	128.6	4.15	6.88	3.26	YES
L0000116	0	0.12821E-01	410209.0	3775284.6	128.9	4.15	6.88	3.26	YES
L0000117	0	0.12821E-01	410222.7	3775279.0	129.1	4.15	6.88	3.26	YES
L0000118	0	0.12821E-01	410236.4	3775273.4	129.3	4.15	6.88	3.26	YES
L0000119	0	0.12821E-01	410250.1	3775267.8	129.5	4.15	6.88	3.26	YES
L0000120	0	0.12821E-01	410263.9	3775262.2	129.3	4.15	6.88	3.26	YES

*** AERMOD - VERSION 22112 *** *** Option 2 - Irwindale Gateway Operational HRA
 *** AERMET - VERSION 16216 *** *** Irwindale, CA

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*** MODELOPTs: RegDEFAULT CONC ELEV 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
L0000121	0	0.12821E-01	410277.6	3775256.6	129.1	4.15	6.88	3.26	YES	
L0000122	0	0.12821E-01	410291.3	3775251.1	129.3	4.15	6.88	3.26	YES	
L0000123	0	0.12821E-01	410304.1	3775243.8	129.5	4.15	6.88	3.26	YES	
L0000124	0	0.12821E-01	410316.6	3775235.9	129.5	4.15	6.88	3.26	YES	
L0000125	0	0.12821E-01	410329.1	3775228.0	129.3	4.15	6.88	3.26	YES	
L0000126	0	0.12821E-01	410341.7	3775220.1	129.5	4.15	6.88	3.26	YES	
L0000127	0	0.12821E-01	410354.2	3775212.2	129.7	4.15	6.88	3.26	YES	
L0000128	0	0.12821E-01	410366.7	3775204.3	129.7	4.15	6.88	3.26	YES	
L0000129	0	0.12821E-01	410378.8	3775195.9	129.6	4.15	6.88	3.26	YES	
L0000130	0	0.12821E-01	410389.8	3775186.0	129.8	4.15	6.88	3.26	YES	
L0000131	0	0.12821E-01	410400.9	3775176.2	129.9	4.15	6.88	3.26	YES	
L0000132	0	0.12821E-01	410411.9	3775166.3	130.0	4.15	6.88	3.26	YES	
L0000133	0	0.12821E-01	410422.9	3775156.4	130.0	4.15	6.88	3.26	YES	
L0000134	0	0.12821E-01	410434.0	3775146.6	130.2	4.15	6.88	3.26	YES	
L0000135	0	0.12821E-01	410445.0	3775136.7	130.4	4.15	6.88	3.26	YES	
L0000136	0	0.12821E-01	410456.1	3775126.9	130.6	4.15	6.88	3.26	YES	
L0000137	0	0.12821E-01	410467.1	3775117.0	130.9	4.15	6.88	3.26	YES	
L0000138	0	0.12821E-01	410478.1	3775107.1	131.4	4.15	6.88	3.26	YES	
L0000139	0	0.12821E-01	410489.2	3775097.3	131.1	4.15	6.88	3.26	YES	
L0000140	0	0.12821E-01	410500.2	3775087.4	130.3	4.15	6.88	3.26	YES	
L0000141	0	0.12821E-01	410511.2	3775077.6	130.5	4.15	6.88	3.26	YES	
L0000142	0	0.12821E-01	410522.3	3775067.7	131.6	4.15	6.88	3.26	YES	
L0000143	0	0.12821E-01	410533.3	3775057.8	131.1	4.15	6.88	3.26	YES	
L0000144	0	0.12821E-01	410544.4	3775048.0	128.1	4.15	6.88	3.26	YES	
L0000145	0	0.12821E-01	410555.4	3775038.1	124.5	4.15	6.88	3.26	YES	
L0000146	0	0.12821E-01	410566.4	3775028.3	124.9	4.15	6.88	3.26	YES	
L0000147	0	0.12821E-01	410577.5	3775018.4	124.5	4.15	6.88	3.26	YES	
L0000148	0	0.12821E-01	410588.5	3775008.5	127.8	4.15	6.88	3.26	YES	
L0000149	0	0.12821E-01	410599.5	3774998.7	131.6	4.15	6.88	3.26	YES	
L0000150	0	0.12821E-01	410610.6	3774988.8	132.2	4.15	6.88	3.26	YES	
L0000151	0	0.12821E-01	410621.6	3774979.0	132.0	4.15	6.88	3.26	YES	
L0000152	0	0.12821E-01	410632.7	3774969.1	131.2	4.15	6.88	3.26	YES	

L0000153	0	0.12821E-01	410643.7	3774959.2	130.9	4.15	6.88	3.26	YES
L0000154	0	0.12821E-01	410654.7	3774949.4	131.1	4.15	6.88	3.26	YES
L0000155	0	0.12821E-01	410665.8	3774939.5	130.5	4.15	6.88	3.26	YES
L0000156	0	0.12821E-01	410676.8	3774929.7	130.3	4.15	6.88	3.26	YES
L0000157	0	0.12821E-01	410687.8	3774919.8	130.4	4.15	6.88	3.26	YES
L0000158	0	0.12821E-01	410698.9	3774909.9	129.8	4.15	6.88	3.26	YES
L0000159	0	0.12821E-01	410709.9	3774900.1	130.0	4.15	6.88	3.26	YES
L0000160	0	0.12821E-01	410721.0	3774890.2	130.1	4.15	6.88	3.26	YES

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*** MODELOPTs: RegDFAULT CONC ELEV 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
L0000161	0	0.12821E-01	410732.0	3774880.4	129.9	4.15	6.88	3.26	YES	
L0000162	0	0.12821E-01	410743.0	3774870.5	130.3	4.15	6.88	3.26	YES	
L0000163	0	0.18868E-01	408818.6	3775175.0	116.7	4.15	9.77	3.26	YES	
L0000164	0	0.18868E-01	408839.4	3775178.1	117.0	4.15	9.77	3.26	YES	
L0000165	0	0.18868E-01	408860.2	3775181.3	117.5	4.15	9.77	3.26	YES	
L0000166	0	0.18868E-01	408880.9	3775184.4	117.5	4.15	9.77	3.26	YES	
L0000167	0	0.18868E-01	408901.7	3775187.5	117.7	4.15	9.77	3.26	YES	
L0000168	0	0.18868E-01	408922.5	3775190.7	117.9	4.15	9.77	3.26	YES	
L0000169	0	0.18868E-01	408943.2	3775193.8	118.2	4.15	9.77	3.26	YES	
L0000170	0	0.18868E-01	408964.0	3775196.9	118.5	4.15	9.77	3.26	YES	
L0000171	0	0.18868E-01	408984.8	3775200.1	118.7	4.15	9.77	3.26	YES	
L0000172	0	0.18868E-01	409005.5	3775203.2	118.8	4.15	9.77	3.26	YES	
L0000173	0	0.18868E-01	409026.3	3775206.3	119.0	4.15	9.77	3.26	YES	
L0000174	0	0.18868E-01	409047.1	3775209.5	119.6	4.15	9.77	3.26	YES	
L0000175	0	0.18868E-01	409067.8	3775212.6	119.6	4.15	9.77	3.26	YES	
L0000176	0	0.18868E-01	409088.6	3775215.7	119.8	4.15	9.77	3.26	YES	
L0000177	0	0.18868E-01	409109.4	3775218.9	120.1	4.15	9.77	3.26	YES	
L0000178	0	0.18868E-01	409130.1	3775222.0	120.2	4.15	9.77	3.26	YES	
L0000179	0	0.18868E-01	409150.9	3775225.1	120.0	4.15	9.77	3.26	YES	
L0000180	0	0.18868E-01	409171.6	3775228.3	120.0	4.15	9.77	3.26	YES	
L0000181	0	0.18868E-01	409192.4	3775231.4	120.0	4.15	9.77	3.26	YES	
L0000182	0	0.18868E-01	409213.2	3775234.6	120.0	4.15	9.77	3.26	YES	
L0000183	0	0.18868E-01	409233.9	3775237.7	120.1	4.15	9.77	3.26	YES	
L0000184	0	0.18868E-01	409254.7	3775240.8	120.3	4.15	9.77	3.26	YES	
L0000185	0	0.18868E-01	409275.5	3775244.0	120.5	4.15	9.77	3.26	YES	
L0000186	0	0.18868E-01	409296.2	3775247.1	120.8	4.15	9.77	3.26	YES	
L0000187	0	0.18868E-01	409317.0	3775250.2	121.2	4.15	9.77	3.26	YES	
L0000188	0	0.18868E-01	409337.8	3775253.4	121.4	4.15	9.77	3.26	YES	
L0000189	0	0.18868E-01	409358.5	3775256.5	121.5	4.15	9.77	3.26	YES	

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	LOCATION OF AREA Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
PAREA3	0	0.17075E-04	410011.1	3775205.9	127.3	4.15	15	1.93	YES	
PAREA4	0	0.22966E-04	409883.7	3775201.6	125.5	4.15	4	1.93	YES	
PAREA5	0	0.22931E-04	409907.1	3775046.5	126.5	4.15	4	1.93	YES	
PAREA7	0	0.17584E-04	409834.2	3774562.8	121.8	4.15	31	1.93	YES	
PAREA8	0	0.22710E-04	409774.9	3774944.0	120.6	4.15	5	1.93	YES	

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs															
-----	-----															
B2_IDLE	STCK1	,	STCK2	,	STCK3	,	STCK4	,	STCK5	,	STCK6	,	STCK7	,	STCK8	,
	STCK9	,	STCK10	,	STCK11	,	STCK12	,	STCK13	,	STCK14	,	STCK15	,		
B1_IDLE	STCK16	,	STCK17	,	STCK18	,	STCK19	,	STCK20	,	STCK21	,	STCK22	,	STCK23	,
	STCK24	,	STCK25	,	STCK26	,	STCK27	,	STCK28	,	STCK29	,	STCK30	,	STCK31	,
	STCK32	,	STCK33	,	STCK34	,	STCK35	,	STCK36	,	STCK37	,	STCK38	,	STCK39	,
	STCK40	,	STCK41	,	STCK42	,	STCK43	,	STCK44	,	STCK45	,	STCK46	,	STCK47	,
	STCK48	,	STCK49	,	STCK50	,	STCK51	,	STCK52	,	STCK53	,	STCK54	,	STCK55	,
	STCK56	,	STCK57	,	STCK58	,	STCK59	,	STCK60	,	STCK61	,	STCK62	,	STCK63	,
	STCK64	,	STCK65	,	STCK66	,	STCK67	,	STCK68	,	STCK69	,	STCK70	,	STCK71	,
	STCK72	,	STCK73	,	STCK74	,	STCK75	,	STCK76	,	STCK77	,	STCK78	,	STCK79	,
	STCK80	,	STCK81	,	STCK82	,	STCK83	,	STCK84	,	STCK85	,	STCK86	,	STCK87	,
	STCK88	,	STCK89	,	STCK90	,	STCK91	,	STCK92	,	STCK93	,	STCK94	,	STCK95	,
	STCK96	,	STCK97	,	STCK98	,	STCK99	,	STCK100	,	STCK101	,	STCK102	,	STCK103	,
	STCK104	,	STCK105	,	STCK106	,	STCK107	,	STCK108	,	STCK109	,	STCK110	,	STCK111	,
	STCK112	,	STCK113	,	STCK114	,	STCK115	,	STCK116	,	STCK117	,	STCK118	,	STCK119	,
	STCK120	,	STCK121	,	STCK122	,	STCK123	,	STCK124	,	STCK125	,	STCK126	,	STCK127	,
	STCK128	,														
TR_RUNEX	PAREA3	,	PAREA7	,												
YARD_EMS	PAREA4	,	PAREA5	,	PAREA8	,										
LIVEOAKE	L0000001	,	L0000002	,	L0000003	,	L0000004	,	L0000005	,	L0000006	,	L0000007	,	L0000008	,

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*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID -----	SOURCE IDs -----								
	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	,				
LIVEOAKW	L0000057	, L0000058	, L0000059	, L0000060	, L0000061	, L0000062	, L0000063	, L0000064	,
	L0000065	, L0000066	, L0000067	, L0000068	, L0000069	, L0000070	, L0000071	, L0000072	,
	L0000073	, L0000074	, L0000075	, L0000076	, L0000077	, L0000078	, L0000079	, L0000080	,
	L0000081	, L0000082	, L0000083	, L0000084	,				
LIVEOAKF	L0000037	, L0000038	, L0000039	, L0000040	, L0000041	, L0000042	, L0000043	, L0000044	,
	L0000045	, L0000046	, L0000047	, L0000048	, L0000049	, L0000050	, L0000051	, L0000052	,
	L0000053	, L0000054	, L0000055	, L0000056	,				
ARROWH_E	L0000085	, L0000086	, L0000087	, L0000088	, L0000089	, L0000090	, L0000091	, L0000092	,
	L0000093	, L0000094	, L0000095	, L0000096	, L0000097	, L0000098	, L0000099	, L0000100	,
	L0000101	, L0000102	, L0000103	, L0000104	, L0000105	, L0000106	, L0000107	, L0000108	,
	L0000109	, L0000110	, L0000111	, L0000112	, L0000113	, L0000114	, L0000115	, L0000116	,
	L0000117	, L0000118	, L0000119	, L0000120	, L0000121	, L0000122	, L0000123	, L0000124	,
	L0000125	, L0000126	, L0000127	, L0000128	, L0000129	, L0000130	, L0000131	, L0000132	,
	L0000133	, L0000134	, L0000135	, L0000136	, L0000137	, L0000138	, L0000139	, L0000140	,
	L0000141	, L0000142	, L0000143	, L0000144	, L0000145	, L0000146	, L0000147	, L0000148	,
	L0000149	, L0000150	, L0000151	, L0000152	, L0000153	, L0000154	, L0000155	, L0000156	,

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*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs																
-----	-----																
	L0000157	,	L0000158	,	L0000159	,	L0000160	,	L0000161	,	L0000162	,					
ARROWH_W	L0000163	,	L0000164	,	L0000165	,	L0000166	,	L0000167	,	L0000168	,	L0000169	,	L0000170	,	
	L0000171	,	L0000172	,	L0000173	,	L0000174	,	L0000175	,	L0000176	,	L0000177	,	L0000178	,	
	L0000179	,	L0000180	,	L0000181	,	L0000182	,	L0000183	,	L0000184	,	L0000185	,	L0000186	,	
	L0000187	,	L0000188	,	L0000189	,	L0000190	,	L0000191	,	L0000192	,	L0000193	,	L0000194	,	
	L0000195	,	L0000196	,	L0000197	,	L0000198	,	L0000199	,	L0000200	,	L0000201	,	L0000202	,	
	L0000203	,	L0000204	,	L0000205	,	L0000206	,	L0000207	,	L0000208	,	L0000209	,	L0000210	,	
	L0000211	,	L0000212	,	L0000213	,	L0000214	,	L0000215	,							

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

URBAN ID	URBAN POP	SOURCE IDs									
-----	-----	-----									
STCK8	9818605.	STCK1	, STCK2	, STCK3	, STCK4	, STCK5	, STCK6	, STCK7	,		
		STCK9	, STCK10	, STCK11	, STCK12	, STCK13	, STCK14	, STCK15	, STCK16	,	
		STCK17	, STCK18	, STCK19	, STCK20	, STCK21	, STCK22	, STCK23	, STCK24	,	
		STCK25	, STCK26	, STCK27	, STCK28	, STCK29	, STCK30	, STCK31	, STCK32	,	
		STCK33	, STCK34	, STCK35	, STCK36	, STCK37	, STCK38	, STCK39	, STCK40	,	
		STCK41	, STCK42	, STCK43	, STCK44	, STCK45	, STCK46	, STCK47	, STCK48	,	
		STCK49	, STCK50	, STCK51	, STCK52	, STCK53	, STCK54	, STCK55	, STCK56	,	
		STCK57	, STCK58	, STCK59	, STCK60	, STCK61	, STCK62	, STCK63	, STCK64	,	
		STCK65	, STCK66	, STCK67	, STCK68	, STCK69	, STCK70	, STCK71	, STCK72	,	
		STCK73	, STCK74	, STCK75	, STCK76	, STCK77	, STCK78	, STCK79	, STCK80	,	
		STCK81	, STCK82	, STCK83	, STCK84	, STCK85	, STCK86	, STCK87	, STCK88	,	
		STCK89	, STCK90	, STCK91	, STCK92	, STCK93	, STCK94	, STCK95	, STCK96	,	
		STCK97	, STCK98	, STCK99	, STCK100	, STCK101	, STCK102	, STCK103	, STCK104	,	
		STCK105	, STCK106	, STCK107	, STCK108	, STCK109	, STCK110	, STCK111	, STCK112	,	
		STCK113	, STCK114	, STCK115	, STCK116	, STCK117	, STCK118	, STCK119	, STCK120	,	
		STCK121	, STCK122	, STCK123	, STCK124	, STCK125	, STCK126	, STCK127	, STCK128	,	
		PAREA3	, PAREA4	, PAREA5	, 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	,	

*** AERMOD - VERSION 22112 *** *** Option 2 - Irwindale Gateway Operational HRA
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

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

URBAN ID	URBAN POP	SOURCE IDs							
-----	-----	-----							
L000030		, L000031	, L000032	, L000033	, L000034	, L000035	, L000036	, L000037	,
L000038		, L000039	, L000040	, L000041	, L000042	, L000043	, L000044	, L000045	,
L000046		, L000047	, L000048	, L000049	, L000050	, L000051	, L000052	, L000053	,
L000054		, L000055	, L000056	, L000057	, L000058	, L000059	, L000060	, L000061	,
L000062		, L000063	, L000064	, L000065	, L000066	, L000067	, L000068	, L000069	,
L000070		, L000071	, L000072	, L000073	, L000074	, L000075	, L000076	, L000077	,
L000078		, L000079	, L000080	, L000081	, L000082	, L000083	, L000084	, L000085	,
L000086		, L000087	, L000088	, L000089	, L000090	, L000091	, L000092	, L000093	,
L000094		, L000095	, L000096	, L000097	, L000098	, L000099	, L000100	, L000101	,
L000102		, L000103	, L000104	, L000105	, L000106	, L000107	, L000108	, L000109	,
L000110		, L000111	, L000112	, L000113	, L000114	, L000115	, L000116	, L000117	,
L000118		, L000119	, L000120	, L000121	, L000122	, L000123	, L000124	, L000125	,
L000126		, L000127	, L000128	, L000129	, L000130	, L000131	, L000132	, L000133	,
L000134		, L000135	, L000136	, L000137	, L000138	, L000139	, L000140	, L000141	,
L000142		, L000143	, L000144	, L000145	, L000146	, L000147	, L000148	, L000149	,
L000150		, L000151	, L000152	, L000153	, L000154	, L000155	, L000156	, L000157	,
L000158		, L000159	, L000160	, L000161	, L000162	, L000163	, L000164	, L000165	,
L000166		, L000167	, L000168	, L000169	, L000170	, L000171	, L000172	, L000173	,
L000174		, L000175	, L000176	, L000177	, L000178	, L000179	, L000180	, L000181	,
L000182		, L000183	, L000184	, L000185	, L000186	, L000187	, L000188	, L000189	,

*** AERMOD - VERSION 22112 *** *** Option 2 - Irwindale Gateway Operational HRA
 *** AERMET - VERSION 16216 *** *** Irwindale, CA
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*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
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L0000190	, L0000191	, L0000192 , L0000193 , L0000194 , L0000195 , L0000196 , L0000197 ,
L0000198	, L0000199	, L0000200 , L0000201 , L0000202 , L0000203 , L0000204 , L0000205 ,
L0000206	, L0000207	, L0000208 , L0000209 , L0000210 , L0000211 , L0000212 , L0000213 ,
L0000214	, L0000215	, PAREA7 , PAREA8 ,

410467.56	3774119.13	11.61009	410487.56	3774119.13	11.46088
410507.56	3774119.13	11.31226	410527.56	3774119.13	11.16078
410547.56	3774119.13	11.00754	410567.56	3774119.13	10.85544
410427.56	3774139.13	12.22219	410447.56	3774139.13	12.06452
410467.56	3774139.13	11.90717	410507.56	3774139.13	11.58574

410240.28	3775428.17	165.30523	410020.28	3775448.17	150.73492
410040.28	3775448.17	156.42531	410060.28	3775448.17	150.74925
410080.28	3775448.17	147.65869	410100.28	3775448.17	146.69697
410120.28	3775448.17	146.60224	410140.28	3775448.17	147.76888
410160.28	3775448.17	146.36360	410180.28	3775448.17	144.92551

410407.56	3774119.13	149.27108	410427.56	3774119.13	145.51820
410467.56	3774119.13	138.42118	410487.56	3774119.13	135.05494
410507.56	3774119.13	131.78480	410527.56	3774119.13	128.52862
410547.56	3774119.13	125.33412	410567.56	3774119.13	122.23236
410427.56	3774139.13	150.80883	410447.56	3774139.13	146.97827
410467.56	3774139.13	143.29248	410507.56	3774139.13	136.08717

410200.28	3775428.17	288.35347
410240.28	3775428.17	275.33988
410040.28	3775448.17	315.77444
410080.28	3775448.17	294.68272
410120.28	3775448.17	283.48581
410160.28	3775448.17	274.95202

410220.28	3775428.17	283.91670
410020.28	3775448.17	310.22268
410060.28	3775448.17	304.04984
410100.28	3775448.17	289.72659
410140.28	3775448.17	283.06926
410180.28	3775448.17	270.19726

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*** AERMOD - VERSION 22112 ***   *** Option 2 - Irwindale Gateway Operational HRA           ***   05/23/23
*** AERMET - VERSION 16216 ***   *** Irwindale, CA                                   ***   10:55:33
                                                                                                     ***   PAGE 61

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*** MODELOPTs:   RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

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*** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: B1_IDLE ***
      INCLUDING SOURCE(S):   STCK16   , STCK17   , STCK18   , STCK19   , STCK20   ,
STCK21   , STCK22   , STCK23   , STCK24   , STCK25   , STCK26   , STCK27   , STCK28   ,
STCK29   , STCK30   , STCK31   , STCK32   , STCK33   , STCK34   , STCK35   , STCK36   ,
STCK37   , STCK38   , STCK39   , STCK40   , STCK41   , STCK42   , STCK43   , . . .

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*** 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
410200.28	3775448.17	271.13779	410220.28	3775448.17	266.27330
410040.28	3775468.17	289.61417	410060.28	3775468.17	283.42988
410080.28	3775468.17	277.90003	410100.28	3775468.17	273.17853
410120.28	3775468.17	267.74992	410140.28	3775468.17	266.33276
410160.28	3775468.17	261.59163	410180.28	3775468.17	257.10227
410200.28	3775468.17	253.58755	410220.28	3775468.17	246.20898
410060.28	3775488.17	265.98080	410080.28	3775488.17	260.74879
410100.28	3775488.17	254.07517	410120.28	3775488.17	250.80784
410140.28	3775488.17	242.96799	410160.28	3775488.17	238.07910
410180.28	3775488.17	236.45447	410200.28	3775488.17	236.72969
410220.28	3775488.17	229.61586	410080.28	3775508.17	243.35652
410100.28	3775508.17	235.56758	410120.28	3775508.17	234.79382
410140.28	3775508.17	222.88995	410160.28	3775508.17	217.52117
410180.28	3775508.17	218.01288	410200.28	3775508.17	221.96017
410220.28	3775508.17	215.26605	410120.28	3775528.17	222.54550
410140.28	3775528.17	218.01513	410160.28	3775528.17	214.41358
410180.28	3775528.17	212.71038	410200.28	3775528.17	211.90505
410140.28	3775548.17	205.84105	410160.28	3775548.17	203.30199
410180.28	3775548.17	200.64363	410260.01	3775389.35	309.57383

*** AERMOD - VERSION 22112 ***
 *** AERMET - VERSION 16216 ***

*** Option 2 - Irwindale Gateway Operational HRA
 *** Irwindale, CA

*** 05/23/23
 *** 10:55:33
 PAGE 62

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TR_RUNEX ***
 INCLUDING SOURCE(S): PAREA3 , PAREA7 ,

*** 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
410227.56	3773999.13	0.97423	410247.56	3773999.13	0.94052
410267.56	3773999.13	0.90855	410287.56	3773999.13	0.87831
410327.56	3773999.13	0.82309	410347.56	3773999.13	0.79804
410367.56	3773999.13	0.77459	410387.56	3773999.13	0.75268
410407.56	3773999.13	0.73226	410427.56	3773999.13	0.71320
410447.56	3773999.13	0.69545	410467.56	3773999.13	0.67895
410487.56	3773999.13	0.66359	410527.56	3773999.13	0.63604
410547.56	3773999.13	0.62368	410567.56	3773999.13	0.61217
410267.56	3774019.13	0.93814	410287.56	3774019.13	0.90659
410327.56	3774019.13	0.84910	410347.56	3774019.13	0.82306
410367.56	3774019.13	0.79871	410387.56	3774019.13	0.77601
410407.56	3774019.13	0.75493	410427.56	3774019.13	0.73529
410447.56	3774019.13	0.71697	410467.56	3774019.13	0.69997
410487.56	3774019.13	0.68415	410529.05	3774026.09	0.66200
410549.05	3774026.09	0.64928	410569.05	3774026.09	0.63743
410287.56	3774039.13	0.93649	410307.56	3774039.13	0.90559
410367.56	3774039.13	0.82425	410387.56	3774039.13	0.80075
410407.56	3774039.13	0.77894	410427.56	3774039.13	0.75862
410447.56	3774039.13	0.73976	410467.56	3774039.13	0.72222
410487.56	3774039.13	0.70596	410307.56	3774059.13	0.93601
410327.56	3774059.13	0.90583	410347.56	3774059.13	0.87761
410387.56	3774059.13	0.82704	410407.56	3774059.13	0.80442
410447.56	3774059.13	0.76396	410467.56	3774059.13	0.74591
410487.56	3774059.13	0.72915	410327.56	3774079.13	0.93682
410347.56	3774079.13	0.90753	410367.56	3774079.13	0.88027
410407.56	3774079.13	0.83153	410447.56	3774079.13	0.78974
410467.56	3774079.13	0.77114	410487.56	3774079.13	0.75388
410530.05	3774073.66	0.71461	410550.05	3774073.66	0.70109
410570.05	3774073.66	0.68844	410367.56	3774099.13	0.91105
410387.56	3774099.13	0.88487	410407.56	3774099.13	0.86055
410447.56	3774099.13	0.81730	410467.56	3774099.13	0.79807
410487.56	3774099.13	0.78030	410507.56	3774099.13	0.76379
410530.05	3774093.66	0.73958	410550.05	3774093.66	0.72556
410570.05	3774093.66	0.71257	410387.56	3774119.13	0.91681
410407.56	3774119.13	0.89160	410427.56	3774119.13	0.86830
410467.56	3774119.13	0.82693	410487.56	3774119.13	0.80853
410507.56	3774119.13	0.79148	410527.56	3774119.13	0.77565

410547.56	3774119.13	0.76102
410427.56	3774139.13	0.90069
410467.56	3774139.13	0.85785

410567.56	3774119.13	0.74736
410447.56	3774139.13	0.87844
410507.56	3774139.13	0.82121

*** AERMOD - VERSION 22112 ***
*** AERMET - VERSION 16216 ***

*** Option 2 - Irwindale Gateway Operational HRA
*** Irwindale, CA

*** 05/23/23
*** 10:55:33
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TR_RUNEX ***
INCLUDING SOURCE(S): PAREA3 , PAREA7 ,

*** 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
410527.56	3774139.13	0.80487	410547.56	3774139.13	0.78966
410567.56	3774139.13	0.77556	410447.56	3774159.13	0.91240
410467.56	3774159.13	0.89107	410487.56	3774159.13	0.87135
410487.56	3774179.13	0.90627	410507.56	3774179.13	0.88733
410527.56	3774179.13	0.86978	410547.56	3774179.13	0.85348
410567.56	3774179.13	0.83828	410587.56	3774179.13	0.82413
410507.56	3774199.13	0.92430	410527.56	3774199.13	0.90603
410547.56	3774199.13	0.88902	410567.56	3774199.13	0.87318
410587.56	3774199.13	0.85840	410220.28	3775328.17	3.90177
410240.28	3775328.17	3.89548	410260.28	3775328.17	3.87778
410200.28	3775348.17	3.41294	410220.28	3775348.17	3.43351
410240.28	3775348.17	3.43601	410260.28	3775348.17	3.42780
410100.28	3775368.17	2.78740	410120.28	3775368.17	2.84462
410140.28	3775368.17	2.88375	410160.28	3775368.17	2.92708
410180.28	3775368.17	2.96573	410200.28	3775368.17	2.99510
410220.28	3775368.17	3.02038	410240.28	3775368.17	3.03577
410260.28	3775368.17	3.04056	410020.28	3775388.17	2.10276
410040.28	3775388.17	2.20405	410060.28	3775388.17	2.27644
410080.28	3775388.17	2.34097	410100.28	3775388.17	2.40418
410120.28	3775388.17	2.45804	410140.28	3775388.17	2.50171
410160.28	3775388.17	2.55380	410180.28	3775388.17	2.60228
410200.28	3775388.17	2.63990	410220.28	3775388.17	2.66777
410240.28	3775388.17	2.69091	410000.28	3775408.17	1.74849
410020.28	3775408.17	1.82235	410040.28	3775408.17	1.91186
410060.28	3775408.17	1.97409	410080.28	3775408.17	2.03315
410100.28	3775408.17	2.09041	410120.28	3775408.17	2.13576
410140.28	3775408.17	2.18930	410160.28	3775408.17	2.24272
410180.28	3775408.17	2.29369	410200.28	3775408.17	2.33885
410220.28	3775408.17	2.37088	410240.28	3775408.17	2.39527
410000.28	3775428.17	1.54032	410020.28	3775428.17	1.60096
410040.28	3775428.17	1.67965	410060.28	3775428.17	1.73142
410080.28	3775428.17	1.78272	410100.28	3775428.17	1.83679
410120.28	3775428.17	1.88246	410140.28	3775428.17	1.93949
410160.28	3775428.17	1.98219	410180.28	3775428.17	2.02700
410200.28	3775428.17	2.08080	410220.28	3775428.17	2.11703
410240.28	3775428.17	2.13223	410020.28	3775448.17	1.42113
410040.28	3775448.17	1.48811	410060.28	3775448.17	1.53125

410080.28	3775448.17	1.57611	410100.28	3775448.17	1.62673
410120.28	3775448.17	1.67238	410140.28	3775448.17	1.72816
410160.28	3775448.17	1.76302	410180.28	3775448.17	1.80253

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TR_RUNEX ***
 INCLUDING SOURCE(S): PAREA3 , PAREA7 ,

*** 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
410200.28	3775448.17	1.85652	410220.28	3775448.17	1.89108
410040.28	3775468.17	1.31706	410060.28	3775468.17	1.35998
410080.28	3775468.17	1.40405	410100.28	3775468.17	1.44889
410120.28	3775468.17	1.49127	410140.28	3775468.17	1.54010
410160.28	3775468.17	1.58032	410180.28	3775468.17	1.61891
410200.28	3775468.17	1.65768	410220.28	3775468.17	1.68249
410060.28	3775488.17	1.21927	410080.28	3775488.17	1.25722
410100.28	3775488.17	1.29298	410120.28	3775488.17	1.33364
410140.28	3775488.17	1.36497	410160.28	3775488.17	1.39965
410180.28	3775488.17	1.44000	410200.28	3775488.17	1.48451
410220.28	3775488.17	1.50823	410080.28	3775508.17	1.13120
410100.28	3775508.17	1.15998	410120.28	3775508.17	1.19909
410140.28	3775508.17	1.21864	410160.28	3775508.17	1.17401
410180.28	3775508.17	1.28791	410200.28	3775508.17	1.33680
410220.28	3775508.17	1.35962	410120.28	3775528.17	1.08791
410140.28	3775528.17	1.11715	410160.28	3775528.17	1.14753
410180.28	3775528.17	1.18117	410200.28	3775528.17	1.21658
410140.28	3775548.17	1.01655	410160.28	3775548.17	1.04526
410180.28	3775548.17	1.07378	410260.01	3775389.35	2.68611

*** AERMOD - VERSION 22112 *** *** Option 2 - Irwindale Gateway Operational HRA *** 05/23/23
*** AERMET - VERSION 16216 *** *** Irwindale, CA *** 10:55:33
*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U* PAGE 65

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: YARD_EMS ***
INCLUDING SOURCE(S): PAREA4 , PAREA5 , PAREA8 ,

*** 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
410227.56	3773999.13	0.87715	410247.56	3773999.13	0.84813
410267.56	3773999.13	0.82049	410287.56	3773999.13	0.79424
410327.56	3773999.13	0.74602	410347.56	3773999.13	0.72403
410367.56	3773999.13	0.70337	410387.56	3773999.13	0.68400
410407.56	3773999.13	0.66590	410427.56	3773999.13	0.64892
410447.56	3773999.13	0.63307	410467.56	3773999.13	0.61830
410487.56	3773999.13	0.60452	410527.56	3773999.13	0.57975
410547.56	3773999.13	0.56862	410567.56	3773999.13	0.55828
410267.56	3774019.13	0.84488	410287.56	3774019.13	0.81755
410327.56	3774019.13	0.76746	410347.56	3774019.13	0.74466
410367.56	3774019.13	0.72324	410387.56	3774019.13	0.70320
410407.56	3774019.13	0.68455	410427.56	3774019.13	0.66709
410447.56	3774019.13	0.65079	410467.56	3774019.13	0.63559
410487.56	3774019.13	0.62143	410529.05	3774026.09	0.60101
410549.05	3774026.09	0.58964	410569.05	3774026.09	0.57901
410287.56	3774039.13	0.84203	410307.56	3774039.13	0.81524
410367.56	3774039.13	0.74410	410387.56	3774039.13	0.72340
410407.56	3774039.13	0.70414	410427.56	3774039.13	0.68613
410447.56	3774039.13	0.66936	410467.56	3774039.13	0.65376
410487.56	3774039.13	0.63924	410307.56	3774059.13	0.83997
410327.56	3774059.13	0.81372	410347.56	3774059.13	0.78908
410387.56	3774059.13	0.74470	410407.56	3774059.13	0.72475
410447.56	3774059.13	0.68894	410467.56	3774059.13	0.67295
410487.56	3774059.13	0.65804	410327.56	3774079.13	0.83863
410347.56	3774079.13	0.81313	410367.56	3774079.13	0.78930
410407.56	3774079.13	0.74650	410447.56	3774079.13	0.70964
410467.56	3774079.13	0.69323	410487.56	3774079.13	0.67793
410530.05	3774073.66	0.64367	410550.05	3774073.66	0.63173
410570.05	3774073.66	0.62057	410367.56	3774099.13	0.81379
410387.56	3774099.13	0.79091	410407.56	3774099.13	0.76960
410447.56	3774099.13	0.73157	410467.56	3774099.13	0.71468
410487.56	3774099.13	0.69902	410507.56	3774099.13	0.68447
410530.05	3774093.66	0.66375	410550.05	3774093.66	0.65149
410570.05	3774093.66	0.64011	410387.56	3774119.13	0.81609
410407.56	3774119.13	0.79407	410427.56	3774119.13	0.77369
410467.56	3774119.13	0.73747	410487.56	3774119.13	0.72138
410507.56	3774119.13	0.70654	410527.56	3774119.13	0.69275

410547.56	3774119.13	0.67999
410427.56	3774139.13	0.79898
410467.56	3774139.13	0.76172

410567.56	3774119.13	0.66814
410447.56	3774139.13	0.77962
410507.56	3774139.13	0.72990

*** AERMOD - VERSION 22112 ***
*** AERMET - VERSION 16216 ***

*** Option 2 - Irwindale Gateway Operational HRA
*** Irwindale, CA

*** 05/23/23
*** 10:55:33
PAGE 66

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: YARD_EMS ***
INCLUDING SOURCE(S): PAREA4 , PAREA5 , PAREA8 ,

*** 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
410527.56	3774139.13	0.71581	410547.56	3774139.13	0.70275
410567.56	3774139.13	0.69062	410447.56	3774159.13	0.80596
410467.56	3774159.13	0.78757	410487.56	3774159.13	0.77055
410487.56	3774179.13	0.79768	410507.56	3774179.13	0.78157
410527.56	3774179.13	0.76669	410547.56	3774179.13	0.75293
410567.56	3774179.13	0.74015	410587.56	3774179.13	0.72825
410507.56	3774199.13	0.81007	410527.56	3774199.13	0.79480
410547.56	3774199.13	0.78063	410567.56	3774199.13	0.76752
410587.56	3774199.13	0.75527	410220.28	3775328.17	4.61143
410240.28	3775328.17	4.61685	410260.28	3775328.17	4.60850
410200.28	3775348.17	4.04285	410220.28	3775348.17	4.07876
410240.28	3775348.17	4.09970	410260.28	3775348.17	4.10837
410100.28	3775368.17	3.22351	410120.28	3775368.17	3.30683
410140.28	3775368.17	3.37927	410160.28	3775368.17	3.44955
410180.28	3775368.17	3.51256	410200.28	3775368.17	3.56577
410220.28	3775368.17	3.61060	410240.28	3775368.17	3.64466
410260.28	3775368.17	3.66754	410020.28	3775388.17	2.40590
410040.28	3775388.17	2.52484	410060.28	3775388.17	2.61856
410080.28	3775388.17	2.70856	410100.28	3775388.17	2.79593
410120.28	3775388.17	2.87692	410140.28	3775388.17	2.95115
410160.28	3775388.17	3.02570	410180.28	3775388.17	3.09433
410200.28	3775388.17	3.15359	410220.28	3775388.17	3.20362
410240.28	3775388.17	3.24593	410000.28	3775408.17	1.99046
410020.28	3775408.17	2.08540	410040.28	3775408.17	2.18983
410060.28	3775408.17	2.27488	410080.28	3775408.17	2.35851
410100.28	3775408.17	2.44004	410120.28	3775408.17	2.51471
410140.28	3775408.17	2.59137	410160.28	3775408.17	2.66539
410180.28	3775408.17	2.73487	410200.28	3775408.17	2.79792
410220.28	3775408.17	2.85147	410240.28	3775408.17	2.89738
410000.28	3775428.17	1.74989	410020.28	3775428.17	1.82925
410040.28	3775428.17	1.92102	410060.28	3775428.17	1.99457
410080.28	3775428.17	2.06949	410100.28	3775428.17	2.14538
410120.28	3775428.17	2.21654	410140.28	3775428.17	2.29160
410160.28	3775428.17	2.35857	410180.28	3775428.17	2.42415
410200.28	3775428.17	2.49007	410220.28	3775428.17	2.54555
410240.28	3775428.17	2.57444	410020.28	3775448.17	1.62047
410040.28	3775448.17	1.69894	410060.28	3775448.17	1.76253

410080.28	3775448.17	1.82911	410100.28	3775448.17	1.89867
410120.28	3775448.17	1.96564	410140.28	3775448.17	2.03639
410160.28	3775448.17	2.09691	410180.28	3775448.17	2.15789

*** MODELOPTS: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: YARD_EMS ***
INCLUDING SOURCE(S): PAREA4 , PAREA5 , PAREA8 ,

*** 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
410200.28	3775448.17	2.22243	410220.28	3775448.17	2.27658
410040.28	3775468.17	1.50703	410060.28	3775468.17	1.56667
410080.28	3775468.17	1.62789	410100.28	3775468.17	1.68999
410120.28	3775468.17	1.75113	410140.28	3775468.17	1.81491
410160.28	3775468.17	1.87427	410180.28	3775468.17	1.93194
410200.28	3775468.17	1.98820	410220.28	3775468.17	1.99325
410060.28	3775488.17	1.40381	410080.28	3775488.17	1.45725
410100.28	3775488.17	1.51058	410120.28	3775488.17	1.56673
410140.28	3775488.17	1.54392	410160.28	3775488.17	1.59934
410180.28	3775488.17	1.66268	410200.28	3775488.17	1.73011
410220.28	3775488.17	1.77824	410080.28	3775508.17	1.31178
410100.28	3775508.17	1.28702	410120.28	3775508.17	1.34023
410140.28	3775508.17	1.26720	410160.28	3775508.17	1.29547
410180.28	3775508.17	1.35100	410200.28	3775508.17	1.54992
410220.28	3775508.17	1.44981	410120.28	3775528.17	1.21333
410140.28	3775528.17	1.25487	410160.28	3775528.17	1.29965
410180.28	3775528.17	1.34962	410200.28	3775528.17	1.40236
410140.28	3775548.17	1.13897	410160.28	3775548.17	1.17977
410180.28	3775548.17	1.22180	410260.01	3775389.35	3.25670

410407.56	3774119.13	5.90403	410427.56	3774119.13	5.77909
410467.56	3774119.13	5.49311	410487.56	3774119.13	5.33282
410507.56	3774119.13	5.16260	410527.56	3774119.13	4.98314
410547.56	3774119.13	4.79650	410567.56	3774119.13	4.60531
410427.56	3774139.13	6.34549	410447.56	3774139.13	6.18872
410467.56	3774139.13	6.01743	410507.56	3774139.13	5.63350


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*** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LIVEOAKE ***
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 , . . .

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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

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X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
410527.56	3774139.13	5.42606	410547.56	3774139.13	5.21016
410567.56	3774139.13	4.98804	410447.56	3774159.13	6.82858
410467.56	3774159.13	6.63039	410487.56	3774159.13	6.41422
410487.56	3774179.13	7.10489	410507.56	3774179.13	6.83480
410527.56	3774179.13	6.54851	410547.56	3774179.13	6.24946
410567.56	3774179.13	5.94190	410587.56	3774179.13	5.62953
410507.56	3774199.13	7.61132	410527.56	3774199.13	7.27185
410547.56	3774199.13	6.91505	410567.56	3774199.13	6.54738
410587.56	3774199.13	6.17353	410220.28	3775328.17	1.18225
410240.28	3775328.17	1.17772			Max Sports Park Rec
410200.28	3775348.17	1.13655	410260.28	3775328.17	1.16594
410240.28	3775348.17	1.12667	410220.28	3775348.17	1.13705
410100.28	3775368.17	1.10798	410260.28	3775348.17	1.10684
410140.28	3775368.17	1.09337	410120.28	3775368.17	1.10460
410180.28	3775368.17	1.09346	410160.28	3775368.17	1.09236
410220.28	3775368.17	1.08575	410200.28	3775368.17	1.08882
410260.28	3775368.17	1.06254	410240.28	3775368.17	1.07417
410040.28	3775388.17	1.09475	410020.28	3775388.17	1.07612
410080.28	3775388.17	1.06772	410060.28	3775388.17	1.07891
410120.28	3775388.17	1.05188	410100.28	3775388.17	1.06146
410160.28	3775388.17	1.03995	410140.28	3775388.17	1.03531
410200.28	3775388.17	1.04670	410180.28	3775388.17	1.04852
410240.28	3775388.17	1.03094	410220.28	3775388.17	1.03840
410020.28	3775408.17	1.03093	410000.28	3775408.17	1.03108
410060.28	3775408.17	1.03781	410040.28	3775408.17	1.05572
410100.28	3775408.17	1.01728	410080.28	3775408.17	1.02875
410140.28	3775408.17	0.99390	410120.28	3775408.17	0.99486
410180.28	3775408.17	1.00629	410160.28	3775408.17	0.99900
410220.28	3775408.17	1.00403	410200.28	3775408.17	1.01204
410000.28	3775428.17	0.99833	410240.28	3775408.17	0.99508
410040.28	3775428.17	1.02454	410020.28	3775428.17	0.99595
410080.28	3775428.17	0.99045	410060.28	3775428.17	1.00223
410120.28	3775428.17	0.96368	410100.28	3775428.17	0.98392
410160.28	3775428.17	0.96344	410140.28	3775428.17	0.97135
			410180.28	3775428.17	0.96394

410200.28	3775428.17	0.98128	410220.28	3775428.17	0.97467
410240.28	3775428.17	0.95691	410020.28	3775448.17	0.96471
410040.28	3775448.17	0.99226	410060.28	3775448.17	0.96990
410080.28	3775448.17	0.95809	410100.28	3775448.17	0.95295
410120.28	3775448.17	0.93908	410140.28	3775448.17	0.95456
410160.28	3775448.17	0.93290	410180.28	3775448.17	0.93026

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*** AERMOD - VERSION 22112 ***   *** Option 2 - Irwindale Gateway Operational HRA   ***   05/23/23
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*** MODELOPTs:   RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

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*** THE PERIOD ( 43848 HRS) AVERAGE CONCENTRATION   VALUES FOR SOURCE GROUP: LIVEOAKE ***
      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   , . . .

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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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** CONC OF OTHER			IN MICROGRAMS/M**3			**		
X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
410200.28	3775448.17	0.94592	410220.28	3775448.17	0.94009			
410040.28	3775468.17	0.93577	410060.28	3775468.17	0.93263			
410080.28	3775468.17	0.92400	410100.28	3775468.17	0.92054			
410120.28	3775468.17	0.90939	410140.28	3775468.17	0.91976			
410160.28	3775468.17	0.91036	410180.28	3775468.17	0.90714			
410200.28	3775468.17	0.90690	410220.28	3775468.17	0.89480			
410060.28	3775488.17	0.89651	410080.28	3775488.17	0.88923			
410100.28	3775488.17	0.87322	410120.28	3775488.17	0.87248			
410140.28	3775488.17	0.86231	410160.28	3775488.17	0.85737			
410180.28	3775488.17	0.86108	410200.28	3775488.17	0.87014			
410220.28	3775488.17	0.85794	410080.28	3775508.17	0.84503			
410100.28	3775508.17	0.83452	410120.28	3775508.17	0.83995			
410140.28	3775508.17	0.81487	410160.28	3775508.17	0.80425			
410180.28	3775508.17	0.81597	410200.28	3775508.17	0.83751			
410220.28	3775508.17	0.82492	410120.28	3775528.17	0.81440			
410140.28	3775528.17	0.81025	410160.28	3775528.17	0.80804			
410180.28	3775528.17	0.81102	410200.28	3775528.17	0.81653			
410140.28	3775548.17	0.78313	410160.28	3775548.17	0.78335			
410180.28	3775548.17	0.78309	410260.01	3775389.35	1.02109			

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LIVEOAK ***
INCLUDING SOURCE(S): L0000057 , L0000058 , L0000059 , L0000060 , L0000061 ,
L0000062 , L0000063 , L0000064 , L0000065 , L0000066 , L0000067 , L0000068 , L0000069 ,
L0000070 , L0000071 , L0000072 , L0000073 , L0000074 , L0000075 , L0000076 , L0000077 ,
L0000078 , L0000079 , L0000080 , L0000081 , L0000082 , L0000083 , L0000084 ,

*** 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
410227.56	3773999.13	0.62219	410247.56	3773999.13	0.61043
410267.56	3773999.13	0.59896	410287.56	3773999.13	0.58777
410327.56	3773999.13	0.56536	410347.56	3773999.13	0.55403
410367.56	3773999.13	0.54381	410387.56	3773999.13	0.53115
410407.56	3773999.13	0.51664	410427.56	3773999.13	0.50612
410447.56	3773999.13	0.49699	410467.56	3773999.13	0.48818
410487.56	3773999.13	0.47973	410527.56	3773999.13	0.46284
410547.56	3773999.13	0.45366	410567.56	3773999.13	0.44444
410267.56	3774019.13	0.60807	410287.56	3774019.13	0.59651
410327.56	3774019.13	0.57244	410347.56	3774019.13	0.56162
410367.56	3774019.13	0.55020	410387.56	3774019.13	0.53630
410407.56	3774019.13	0.52151	410427.56	3774019.13	0.50926
410447.56	3774019.13	0.49998	410467.56	3774019.13	0.49124
410487.56	3774019.13	0.48376	410529.05	3774026.09	0.46820
410549.05	3774026.09	0.45725	410569.05	3774026.09	0.44924
410287.56	3774039.13	0.60449	410307.56	3774039.13	0.59187
410367.56	3774039.13	0.55766	410387.56	3774039.13	0.54324
410407.56	3774039.13	0.52722	410427.56	3774039.13	0.51592
410447.56	3774039.13	0.50625	410467.56	3774039.13	0.49582
410487.56	3774039.13	0.48818	410307.56	3774059.13	0.60028
410327.56	3774059.13	0.58755	410347.56	3774059.13	0.57622
410387.56	3774059.13	0.54732	410407.56	3774059.13	0.53541
410447.56	3774059.13	0.51290	410467.56	3774059.13	0.50164
410487.56	3774059.13	0.49270	410327.56	3774079.13	0.59585
410347.56	3774079.13	0.58010	410367.56	3774079.13	0.56869
410407.56	3774079.13	0.54388	410447.56	3774079.13	0.52041
410467.56	3774079.13	0.50753	410487.56	3774079.13	0.49816
410530.05	3774073.66	0.47914	410550.05	3774073.66	0.46742
410570.05	3774073.66	0.45758	410367.56	3774099.13	0.57631
410387.56	3774099.13	0.56032	410407.56	3774099.13	0.54941
410447.56	3774099.13	0.52696	410467.56	3774099.13	0.51383
410487.56	3774099.13	0.50268	410507.56	3774099.13	0.49448
410530.05	3774093.66	0.48157	410550.05	3774093.66	0.47065
410570.05	3774093.66	0.45960	410387.56	3774119.13	0.56718

410407.56	3774119.13	0.55458	410427.56	3774119.13	0.54396
410467.56	3774119.13	0.52012	410487.56	3774119.13	0.50841
410507.56	3774119.13	0.49677	410527.56	3774119.13	0.48468
410547.56	3774119.13	0.47545	410567.56	3774119.13	0.46517
410427.56	3774139.13	0.54925	410447.56	3774139.13	0.53680
410467.56	3774139.13	0.52449	410507.56	3774139.13	0.50388

410200.28	3775428.17	1.06714	410220.28	3775428.17	1.05138
410240.28	3775428.17	1.04949	410020.28	3775448.17	1.18666
410040.28	3775448.17	1.15583	410060.28	3775448.17	1.14835
410080.28	3775448.17	1.13828	410100.28	3775448.17	1.12348
410120.28	3775448.17	1.11175	410140.28	3775448.17	1.08877
410160.28	3775448.17	1.08216	410180.28	3775448.17	1.06898

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LIVEOAK ***
INCLUDING SOURCE(S): L0000057 , L0000058 , L0000059 , L0000060 , L0000061 ,
L0000062 , L0000063 , L0000064 , L0000065 , L0000066 , L0000067 , L0000068 , L0000069 ,
L0000070 , L0000071 , L0000072 , L0000073 , L0000074 , L0000075 , L0000076 , L0000077 ,
L0000078 , L0000079 , L0000080 , L0000081 , L0000082 , L0000083 , L0000084 ,

*** 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
410200.28	3775448.17	1.04136	410220.28	3775448.17	1.02808
410040.28	3775468.17	1.13413	410060.28	3775468.17	1.12017
410080.28	3775468.17	1.10661	410100.28	3775468.17	1.09278
410120.28	3775468.17	1.08064	410140.28	3775468.17	1.06122
410160.28	3775468.17	1.04838	410180.28	3775468.17	1.03532
410200.28	3775468.17	1.02031	410220.28	3775468.17	1.01590
410060.28	3775488.17	1.09002	410080.28	3775488.17	1.07779
410100.28	3775488.17	1.06843	410120.28	3775488.17	1.05414
410140.28	3775488.17	1.04872	410160.28	3775488.17	1.03889
410180.28	3775488.17	1.02228	410200.28	3775488.17	1.00049
410220.28	3775488.17	0.99717	410080.28	3775508.17	1.05084
410100.28	3775508.17	1.04437	410120.28	3775508.17	1.02793
410140.28	3775508.17	1.03043	410160.28	3775508.17	1.02283
410180.28	3775508.17	1.00534	410200.28	3775508.17	0.97820
410220.28	3775508.17	0.97489	410120.28	3775528.17	0.99745
410140.28	3775528.17	0.98809	410160.28	3775528.17	0.97764
410180.28	3775528.17	0.96375	410200.28	3775528.17	0.94764
410140.28	3775548.17	0.96022	410160.28	3775548.17	0.94911
410180.28	3775548.17	0.93825	410260.01	3775389.35	1.07834

*** AERMOD - VERSION 22112 *** *** Option 2 - Irwindale Gateway Operational HRA *** 05/23/23
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LIVEOAKF ***
INCLUDING SOURCE(S): L0000037 , L0000038 , L0000039 , L0000040 , L0000041 ,
L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 , L0000049 ,
L0000050 , L0000051 , L0000052 , L0000053 , L0000054 , L0000055 , L0000056 ,

*** 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
410227.56	3773999.13	1.41120	410247.56	3773999.13	1.37378
410267.56	3773999.13	1.33727	410287.56	3773999.13	1.30173
410327.56	3773999.13	1.23336	410347.56	3773999.13	1.20038
410367.56	3773999.13	1.16830	410387.56	3773999.13	1.13697
410407.56	3773999.13	1.10650	410427.56	3773999.13	1.07729
410447.56	3773999.13	1.04925	410467.56	3773999.13	1.02220
410487.56	3773999.13	0.99619	410527.56	3773999.13	0.94601
410547.56	3773999.13	0.91964	410567.56	3773999.13	0.89618
410267.56	3774019.13	1.37705	410287.56	3774019.13	1.33919
410327.56	3774019.13	1.26640	410347.56	3774019.13	1.23133
410367.56	3774019.13	1.19746	410387.56	3774019.13	1.16471
410407.56	3774019.13	1.13171	410427.56	3774019.13	1.09774
410447.56	3774019.13	1.06845	410467.56	3774019.13	1.04051
410487.56	3774019.13	1.01359	410529.05	3774026.09	0.96652
410549.05	3774026.09	0.94065	410569.05	3774026.09	0.91657
410287.56	3774039.13	1.37793	410307.56	3774039.13	1.33853
410367.56	3774039.13	1.22780	410387.56	3774039.13	1.19294
410407.56	3774039.13	1.15851	410427.56	3774039.13	1.12317
410447.56	3774039.13	1.09226	410467.56	3774039.13	1.06247
410487.56	3774039.13	1.03429	410307.56	3774059.13	1.37560
410327.56	3774059.13	1.33507	410347.56	3774059.13	1.29632
410387.56	3774059.13	1.22178	410407.56	3774059.13	1.18631
410447.56	3774059.13	1.11691	410467.56	3774059.13	1.08505
410487.56	3774059.13	1.05547	410327.56	3774079.13	1.37144
410347.56	3774079.13	1.32985	410367.56	3774079.13	1.29012
410407.56	3774079.13	1.21497	410447.56	3774079.13	1.14173
410467.56	3774079.13	1.10800	410487.56	3774079.13	1.07685
410530.05	3774073.66	1.00990	410550.05	3774073.66	0.98138
410570.05	3774073.66	0.95463	410367.56	3774099.13	1.32269
410387.56	3774099.13	1.28152	410407.56	3774099.13	1.24300
410447.56	3774099.13	1.16700	410467.56	3774099.13	1.13171
410487.56	3774099.13	1.09864	410507.56	3774099.13	1.06746
410530.05	3774093.66	1.02823	410550.05	3774093.66	0.99879
410570.05	3774093.66	0.97114	410387.56	3774119.13	1.31202
410407.56	3774119.13	1.26800	410427.56	3774119.13	1.22958

410467.56	3774119.13	1.15571	410487.56	3774119.13	1.12084
410507.56	3774119.13	1.08726	410527.56	3774119.13	1.05548
410547.56	3774119.13	1.02531	410567.56	3774119.13	0.99623
410427.56	3774139.13	1.25664	410447.56	3774139.13	1.21708
410467.56	3774139.13	1.17906	410507.56	3774139.13	1.10880

*** AERMOD - VERSION 22112 *** *** Option 2 - Irwindale Gateway Operational HRA *** 05/23/23
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*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: LIVEOAKF ***
 INCLUDING SOURCE(S): L0000037 , L0000038 , L0000039 , L0000040 , L0000041 ,
 L0000042 , L0000043 , L0000044 , L0000045 , L0000046 , L0000047 , L0000048 , L0000049 ,
 L0000050 , L0000051 , L0000052 , L0000053 , L0000054 , L0000055 , L0000056 ,

*** 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
410527.56	3774139.13	1.07545	410547.56	3774139.13	1.04364
410567.56	3774139.13	1.01350	410447.56	3774159.13	1.24252
410467.56	3774159.13	1.20289	410487.56	3774159.13	1.16563
410487.56	3774179.13	1.18764	410507.56	3774179.13	1.15032
410527.56	3774179.13	1.11478	410547.56	3774179.13	1.08087
410567.56	3774179.13	1.04623	410587.56	3774179.13	1.01579
410507.56	3774199.13	1.17193 MEIR	410527.56	3774199.13	1.13481
410547.56	3774199.13	1.09740	410567.56	3774199.13	1.06359
410587.56	3774199.13	1.03207	410220.28	3775328.17	1.25457 Max Sports Park Rec
410240.28	3775328.17	1.23463	410260.28	3775328.17	1.21348
410200.28	3775348.17	1.22333	410220.28	3775348.17	1.20660
410240.28	3775348.17	1.18603	410260.28	3775348.17	1.16451
410100.28	3775368.17	1.27750	410120.28	3775368.17	1.25472
410140.28	3775368.17	1.22844	410160.28	3775368.17	1.21033
410180.28	3775368.17	1.19356	410200.28	3775368.17	1.17559
410220.28	3775368.17	1.15835	410240.28	3775368.17	1.13965
410260.28	3775368.17	1.11951	410020.28	3775388.17	1.31616
410040.28	3775388.17	1.30880	410060.28	3775388.17	1.27874
410080.28	3775388.17	1.24824	410100.28	3775388.17	1.22339
410120.28	3775388.17	1.19888	410140.28	3775388.17	1.17451
410160.28	3775388.17	1.16057	410180.28	3775388.17	1.14761
410200.28	3775388.17	1.13172	410220.28	3775388.17	1.11390
410240.28	3775388.17	1.09643	410000.28	3775408.17	1.28153
410020.28	3775408.17	1.26132	410040.28	3775408.17	1.25733
410060.28	3775408.17	1.22756	410080.28	3775408.17	1.19793
410100.28	3775408.17	1.17258	410120.28	3775408.17	1.14383
410140.28	3775408.17	1.12781	410160.28	3775408.17	1.11563
410180.28	3775408.17	1.10453	410200.28	3775408.17	1.09215
410220.28	3775408.17	1.07515	410240.28	3775408.17	1.05695
410000.28	3775428.17	1.23436	410020.28	3775428.17	1.21422
410040.28	3775428.17	1.21415	410060.28	3775428.17	1.18264
410080.28	3775428.17	1.15244	410100.28	3775428.17	1.13011
410120.28	3775428.17	1.10462	410140.28	3775428.17	1.09407
410160.28	3775428.17	1.07505	410180.28	3775428.17	1.06122
410200.28	3775428.17	1.05529	410220.28	3775428.17	1.04020

410240.28	3775428.17	1.01632	410020.28	3775448.17	1.17070
410040.28	3775448.17	1.17142	410060.28	3775448.17	1.13934
410080.28	3775448.17	1.10992	410100.28	3775448.17	1.09124
410120.28	3775448.17	1.07029	410140.28	3775448.17	1.06272
410160.28	3775448.17	1.03854	410180.28	3775448.17	1.02229

410407.56	3774119.13	0.97506	410427.56	3774119.13	0.97553
410467.56	3774119.13	0.97526	410487.56	3774119.13	0.97439
410507.56	3774119.13	0.97303	410527.56	3774119.13	0.97106
410547.56	3774119.13	0.96848	410567.56	3774119.13	0.96539
410427.56	3774139.13	1.00753	410447.56	3774139.13	1.00779
410467.56	3774139.13	1.00753	410507.56	3774139.13	1.00513

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ARROWH_E ***
INCLUDING SOURCE(S): L0000085 , L0000086 , L0000087 , L0000088 , L0000089 ,
L0000090 , L0000091 , L0000092 , L0000093 , L0000094 , L0000095 , L0000096 , L0000097 ,
L0000098 , L0000099 , L0000100 , L0000101 , L0000102 , L0000103 , L0000104 , L0000105 ,
L0000106 , L0000107 , L0000108 , L0000109 , L0000110 , L0000111 , L0000112 , . . .

*** 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
410527.56	3774139.13	1.00319	410547.56	3774139.13	1.00063
410567.56	3774139.13	0.99743	410447.56	3774159.13	1.04169
410467.56	3774159.13	1.04153	410487.56	3774159.13	1.04063
410487.56	3774179.13	1.07673	410507.56	3774179.13	1.07532
410527.56	3774179.13	1.07323	410547.56	3774179.13	1.07046
410567.56	3774179.13	1.06704	410587.56	3774179.13	1.06280
410507.56	3774199.13	1.11332 MEIR	410527.56	3774199.13	1.11128
410547.56	3774199.13	1.10846	410567.56	3774199.13	1.10497
410587.56	3774199.13	1.10056	410220.28	3775328.17	36.19524 Max Sports Park Rec
410240.28	3775328.17	31.68636	410260.28	3775328.17	28.07567
410200.28	3775348.17	29.50038	410220.28	3775348.17	26.60190
410240.28	3775348.17	24.10925	410260.28	3775348.17	21.95574
410100.28	3775368.17	33.32869	410120.28	3775368.17	30.92685
410140.28	3775368.17	28.65635	410160.28	3775368.17	26.51832
410180.28	3775368.17	24.51345	410200.28	3775368.17	22.63896
410220.28	3775368.17	20.91565	410240.28	3775368.17	19.34689
410260.28	3775368.17	17.92361	410020.28	3775388.17	29.16319
410040.28	3775388.17	28.20019	410060.28	3775388.17	27.12199
410080.28	3775388.17	25.86898	410100.28	3775388.17	24.56251
410120.28	3775388.17	23.24418	410140.28	3775388.17	21.92670
410160.28	3775388.17	20.66270	410180.28	3775388.17	19.43133
410200.28	3775388.17	18.24449	410220.28	3775388.17	17.11306
410240.28	3775388.17	16.04980	410000.28	3775408.17	21.49127
410020.28	3775408.17	21.44608	410040.28	3775408.17	21.09958
410060.28	3775408.17	20.59516	410080.28	3775408.17	19.93355
410100.28	3775408.17	19.19119	410120.28	3775408.17	18.38560
410140.28	3775408.17	17.58173	410160.28	3775408.17	16.77294
410180.28	3775408.17	15.96675	410200.28	3775408.17	15.16554
410220.28	3775408.17	14.37934	410240.28	3775408.17	13.62146
410000.28	3775428.17	16.55008	410020.28	3775428.17	16.67119
410040.28	3775428.17	16.57659	410060.28	3775428.17	16.35549
410080.28	3775428.17	15.99705	410100.28	3775428.17	15.56231
410120.28	3775428.17	15.05954	410140.28	3775428.17	14.54722
410160.28	3775428.17	13.99366	410180.28	3775428.17	13.43493

410200.28	3775428.17	12.87984
410240.28	3775428.17	11.75012
410040.28	3775448.17	13.48408
410080.28	3775448.17	13.20930
410120.28	3775448.17	12.63538
410160.28	3775448.17	11.90759

410220.28	3775428.17	12.31634
410020.28	3775448.17	13.46500
410060.28	3775448.17	13.40219
410100.28	3775448.17	12.95268
410140.28	3775448.17	12.29971
410180.28	3775448.17	11.50903

410407.56	3774119.13	0.51676	410427.56	3774119.13	0.50985
410467.56	3774119.13	0.49585	410487.56	3774119.13	0.48874
410507.56	3774119.13	0.48131	410527.56	3774119.13	0.47433
410547.56	3774119.13	0.46785	410567.56	3774119.13	0.46104
410427.56	3774139.13	0.51805	410447.56	3774139.13	0.51096
410467.56	3774139.13	0.50353	410507.56	3774139.13	0.48973

410200.28	3775428.17	2.65445	410220.28	3775428.17	2.50215
410240.28	3775428.17	2.39079	410020.28	3775448.17	5.11661
410040.28	3775448.17	4.60806	410060.28	3775448.17	4.26471
410080.28	3775448.17	3.96775	410100.28	3775448.17	3.68577
410120.28	3775448.17	3.43952	410140.28	3775448.17	3.18238
410160.28	3775448.17	3.00314	410180.28	3775448.17	2.82266

5TH HIGHEST VALUE IS 4.09970 AT (410240.28, 3775348.17, 129.58, 1648.19, 0.00) DC
 6TH HIGHEST VALUE IS 4.07876 AT (410220.28, 3775348.17, 129.32, 1648.19, 0.00) DC
 7TH HIGHEST VALUE IS 4.04285 AT (410200.28, 3775348.17, 129.36, 1648.19, 0.00) DC
 8TH HIGHEST VALUE IS 3.66754 AT (410260.28, 3775368.17, 130.26, 1648.19, 0.00) DC
 9TH HIGHEST VALUE IS 3.64466 AT (410240.28, 3775368.17, 129.86, 1648.19, 0.00) DC
 10TH HIGHEST VALUE IS 3.61060 AT (410220.28, 3775368.17, 129.64, 1648.19, 0.00) DC

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*** MODELOPTs: RegDFault CONC ELEV 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
LIVEOAKE	1ST HIGHEST VALUE IS 7.61132 AT (410507.56, 3774199.13, 122.95, 1648.19, 0.00)	DC		
	2ND HIGHEST VALUE IS 7.27185 AT (410527.56, 3774199.13, 123.17, 1648.19, 0.00)	DC		
	3RD HIGHEST VALUE IS 7.10489 AT (410487.56, 3774179.13, 122.77, 1648.19, 0.00)	DC		
	4TH HIGHEST VALUE IS 6.91505 AT (410547.56, 3774199.13, 123.31, 1648.19, 0.00)	DC		
	5TH HIGHEST VALUE IS 6.83480 AT (410507.56, 3774179.13, 122.94, 1648.19, 0.00)	DC		
	6TH HIGHEST VALUE IS 6.82858 AT (410447.56, 3774159.13, 122.11, 1648.19, 0.00)	DC		
	7TH HIGHEST VALUE IS 6.63039 AT (410467.56, 3774159.13, 122.37, 1648.19, 0.00)	DC		
	8TH HIGHEST VALUE IS 6.54851 AT (410527.56, 3774179.13, 123.08, 1648.19, 0.00)	DC		
	9TH HIGHEST VALUE IS 6.54738 AT (410567.56, 3774199.13, 123.54, 1648.19, 0.00)	DC		
	10TH HIGHEST VALUE IS 6.41422 AT (410487.56, 3774159.13, 122.43, 1648.19, 0.00)	DC		
LIVEOAKW	1ST HIGHEST VALUE IS 1.29316 AT (410020.28, 3775388.17, 127.92, 1648.19, 0.00)	DC		
	2ND HIGHEST VALUE IS 1.28098 AT (410000.28, 3775408.17, 127.99, 1648.19, 0.00)	DC		
	3RD HIGHEST VALUE IS 1.25980 AT (410020.28, 3775408.17, 128.19, 1648.19, 0.00)	DC		
	4TH HIGHEST VALUE IS 1.25724 AT (410040.28, 3775388.17, 127.32, 1648.19, 0.00)	DC		
	5TH HIGHEST VALUE IS 1.24557 AT (410060.28, 3775388.17, 128.06, 1648.19, 0.00)	DC		
	6TH HIGHEST VALUE IS 1.24244 AT (410000.28, 3775428.17, 127.98, 1648.19, 0.00)	DC		
	7TH HIGHEST VALUE IS 1.24192 AT (410100.28, 3775368.17, 128.71, 1648.19, 0.00)	DC		
	8TH HIGHEST VALUE IS 1.23216 AT (410080.28, 3775388.17, 128.66, 1648.19, 0.00)	DC		
	9TH HIGHEST VALUE IS 1.22608 AT (410040.28, 3775408.17, 127.52, 1648.19, 0.00)	DC		
	10TH HIGHEST VALUE IS 1.22318 AT (410020.28, 3775428.17, 128.23, 1648.19, 0.00)	DC		
LIVEOAKF	1ST HIGHEST VALUE IS 1.41120 AT (410227.56, 3773999.13, 119.52, 1648.19, 0.00)	DC		
	2ND HIGHEST VALUE IS 1.37793 AT (410287.56, 3774039.13, 120.15, 1648.19, 0.00)	DC		
	3RD HIGHEST VALUE IS 1.37705 AT (410267.56, 3774019.13, 119.96, 1648.19, 0.00)	DC		
	4TH HIGHEST VALUE IS 1.37560 AT (410307.56, 3774059.13, 120.61, 1648.19, 0.00)	DC		
	5TH HIGHEST VALUE IS 1.37378 AT (410247.56, 3773999.13, 119.68, 1648.19, 0.00)	DC		
	6TH HIGHEST VALUE IS 1.37144 AT (410327.56, 3774079.13, 120.74, 1648.19, 0.00)	DC		
	7TH HIGHEST VALUE IS 1.33919 AT (410287.56, 3774019.13, 120.05, 1648.19, 0.00)	DC		
	8TH HIGHEST VALUE IS 1.33853 AT (410307.56, 3774039.13, 120.38, 1648.19, 0.00)	DC		
	9TH HIGHEST VALUE IS 1.33727 AT (410267.56, 3773999.13, 119.82, 1648.19, 0.00)	DC		

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*
*** Message Summary : AERMOD Model Execution ***
----- Summary of Total Messages -----

A Total of 0 Fatal Error Message(s)
A Total of 130 Warning Message(s)
A Total of 1684 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 75 Calm Hours Identified

A Total of 1609 Missing Hours Identified (3.67 Percent)

***** FATAL ERROR MESSAGES *****

*** NONE ***

***** WARNING MESSAGES *****

SO W320	610	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	611	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	612	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	613	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	614	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	615	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	616	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	617	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	618	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	619	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	620	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	621	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	622	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	623	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	624	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	625	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	626	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	627	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	628	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	629	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	630	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	631	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	632	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	633	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	634	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	635	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	636	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	637	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	638	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	639	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	640	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS

SO W320	692	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	693	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	694	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	695	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	696	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	697	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	698	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	699	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	700	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	701	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	702	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	703	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	704	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	705	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	706	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	707	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	708	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	709	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	710	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	711	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	712	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	713	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	714	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	715	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	716	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	717	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	718	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	719	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	720	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	721	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	722	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	723	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	724	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	725	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	726	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	727	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	728	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	729	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	730	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	731	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	732	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	733	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	734	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	735	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	736	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
SO W320	737	PPARM: Input Parameter May Be Out-of-Range for Parameter	VS
ME W186	5561	MEOPEN: THRESH_LMIN 1-min ASOS wind speed threshold used	0.50
ME W187	5561	MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET	

 *** AERMOD Finishes Successfully ***

Irwindale Gateway Specific Plan - Option 2

Irwindale, CA

Operation 24 hours per day, 7 days per week

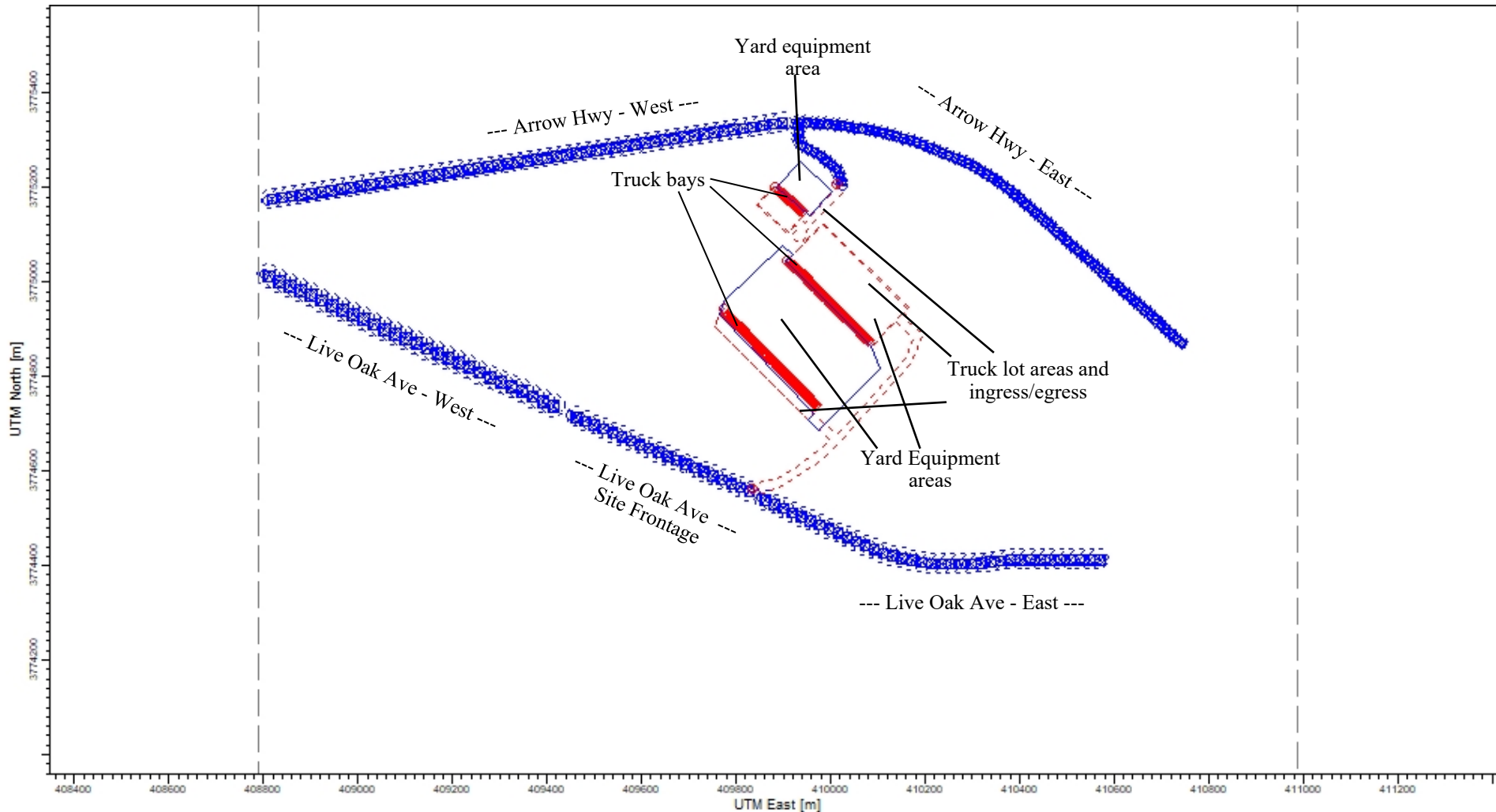


Trucking Operations

Heavy-Heavy Duty Trucks: 209 trucks per day (round trip); Idling 30 min/day

Transport Refrigeration Units (TRUs): 115 trucks per day (round trip), cycling on for 2 hours per day

Additional: 37 forklifts and 3 yard trucks operating 8 hours per day



- Release height of 4.15 m and initial vertical dimension (δy) of 1.93 m is based upon California Air Resources Board's "Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles" (2000).

- The following point source specifications were used to model truck idling at loading bays: stack temp 366 K, stack velocity 51.7 m/s, stack diameter 4 in, stack height 4.15 m (CARB, Risk Characterization Scenarios, Appendix VII for idling diesel trucks, 2000).

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Attachment E. Construction Risk Calculations

**Table E1
MEIR Concentrations for Risk Calculations - Option 1**

Contaminant (a)	Source (b)	Model Output ¹ ($\mu\text{g}/\text{m}^3$) (c)	Emission Rates ² (g/s) (d)	MEIR Conc. ($\mu\text{g}/\text{m}^3$) (e)	Total MEIR Conc. Annual Average ($\mu\text{g}/\text{m}^3$) (f)	
Residential Receptors - Option 1						
DPM	2024	On-Site Emissions	0.02	1.80E-02	4.03E-04	4.07E-04
		Truck Route	0.06	6.20E-05	3.50E-06	
	2025	On-Site Emissions	0.02	7.23E-02	1.62E-03	1.63E-03
		Truck Route	0.06	8.20E-05	4.63E-06	
	2026	On-Site Emissions	0.02	4.84E-02	1.09E-03	1.09E-03
		Truck Route	0.06	8.09E-05	4.56E-06	
2027	On-Site Emissions	0.02	4.33E-02	9.71E-04	9.73E-04	
	Truck Route	0.06	3.43E-05	1.93E-06		

Total DPM concentrations used for Cancer Risk and Chronic Hazard calculations

MEIR UTM: 410507.56E, 3774199.13N

¹ Model Output at the maximum exposed individual resident (MEIR) based on unit emission rates for sources (1 g/s).

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

Table E2
MEIR Health Risk Calculations
Option 1

Source (a)	MEIR Conc. (µg/m ³) (b)	Weight Fraction (c)	Contaminant (d)	URF (µg/m ³) ⁻¹ (e)	CPF (mg/kg/day) ⁻¹ (f)	Dose (by age bin)			Carcinogenic Risks (by age bin)			Total Cancer per million (m)	Chronic Hazards ³	
						3rd Trimester	0 < 2 years	2 < 9 years	3rd Trimester	0 < 2 years	2 < 9 years		REL (µg/m ³) (n)	RESP (o)
						(mg/kg-day) (g)	(mg/kg-day) (h)	(mg/kg-day) (i)	per million (j)	per million (k)	per million (l)			
Residential Receptors - Option 1														
2024	On & Off-Site Emissions	1.0E+00	DPM	3.0E-04	1.1E+00	1.41E-07	4.25E-07		4.49E-03	1.17E-02		0.02	5.0E+00	8.14E-05
2025							1.70E-06			2.17E-01		0.22		
2026							1.14E-06	9.01E-07		1.11E-03	8.72E-03	0.01		
2027								8.03E-07			1.61E-02	0.02		
Total											0.3	0.001		

		OEHHA age bin exposure year(s)	3rd Trimester 2024	0 < 2 years 2024-2026	2 < 9 years 2026-2027
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

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.

exposure durations per age bin		exposure durations (year)		
Construction Year	Const Duration ²	3rd Trimester	0 < 2 years	2 < 9 years
2024	0.47	0.25	0.22	
2025	1.00		1.00	
2026	0.31		0.01	0.30
2027	0.62			0.62
Total	2.39	0.25	1.22	0.92

**Table E3
Youth Sports Park MER Concentrations for Risk Calculations - Option 1**

Contaminant (a)	Source (b)		Model Output ¹ ($\mu\text{g}/\text{m}^3$) (c)	Emission Rates ² (g/s) (d)	Maximum Exposed School Receptor Conc. ($\mu\text{g}/\text{m}^3$) (e)	Total Maximum Exposed School Receptor Conc Annual Average ($\mu\text{g}/\text{m}^3$) (f)
Youth Sports Park Receptors - Option 1						
DPM	2024	On-Site Emissions	0.52	1.80E-02	9.43E-03	9.48E-03
		Truck Route	0.80	6.20E-05	4.95E-05	
	2025	On-Site Emissions	0.52	7.23E-02	3.80E-02	3.80E-02
		Truck Route	0.80	8.20E-05	6.55E-05	
	2026	On-Site Emissions	0.52	4.84E-02	2.54E-02	2.55E-02
		Truck Route	0.80	8.09E-05	6.46E-05	
	2027	On-Site Emissions	0.52	4.33E-02	2.27E-02	2.27E-02
		Truck Route	0.80	3.43E-05	2.74E-05	

Maximum Exposed Sports Park Receptor (Kare Youth League Irwindale) UTM coordinates: 410100.28E, 3775368.17 N

¹ Model Output at the Maximum Exposed Sports Park Receptor based on unit emission rates for sources (1 g/s).

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

**Table E4
Youth Sports Park Health Risk Calculations - Option 1**

Source (a)	MER	Weight Fraction (c)	Contaminant (d)	URF ($\mu\text{g}/\text{m}^3$) ⁻¹ (e)	CPF ($\text{mg}/\text{kg}/\text{day}$) ⁻¹ (f)	Dose (by age bin)	Exposure Duration ³ (yr) (h)	Carcinogenic Risks	Chronic Hazards ⁴		
	Conc. ($\mu\text{g}/\text{m}^3$) (b)					Youth Sports Park 2 < 9 years		Youth Sports Park 2 < 9 years	REL	RESP	
						($\text{mg}/\text{kg}/\text{day}$) (g)		per million (i)	($\mu\text{g}/\text{m}^3$) (j)	(k)	
Youth Sports Park Receptors - Option 1											
2024	On & Off-Site Emissions	9.48E-03	1.0E+00	DPM	3.0E-04	1.1E+00	1.90E-06	0.47	0.04	5.0E+00	1.90E-03
2025		3.80E-02					7.61E-06	1.00	0.34		7.61E-03
2026		2.55E-02					5.10E-06	0.31	0.07		5.09E-03
2027		2.27E-02					4.55E-06	0.62	0.13		4.55E-03
Total								0.6			0.019

		OEHHA age bin exposure year(s)	Youth Sports Park User 2 < 9 years 2024 to 2027
Dose Exposure Factors:	exposure frequency (days/year)		180
	fraction of time at the park (4 hrs/day) ¹		0.5
	8-hour inhalation rate (L/kg-day) ²		812
	inhalation absorption factor		1
	conversion factor (mg/ μg ; m^3/L)		1.0E-06
Risk Calculation Factors:	age sensitivity factor		3
	averaging time (years) per million		70 1.0E+06

¹ Typical youth sport schedule consists of 1-2.5 hours/week for practice and games (ref). Conservatively, youth sport users assumed to be present at the park 4 hours per day over the 8-hour construction work day modeled in AERMOD. Therefore, fraction of time at the park is 0.5 (4 hours of the 8-hour exposure

² Inhalation rate taken as the 8-hour 95th percentile breathing rates multiplied by the mean METS distribution for walk/bike/jog of 5.8 to represent exercise at youth park (OEHHA, 2015). For ages 2 < 9, 140 L/kg-day x 5.8 = 812 L/kg-day.

³ Construction durations determined for each year to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions).

⁴ Chronic Hazards for DPM using the chronic reference exposure level (REL) for the Respiratory Toxicological Endpoint.

**Table E5
MEIR Concentrations for Risk Calculations - Option 2**

Contaminant (a)	Source (b)		Model Output ¹ ($\mu\text{g}/\text{m}^3$) (c)	Emission Rates ² (g/s) (d)	MEIR Conc. ($\mu\text{g}/\text{m}^3$) (e)
Residential Receptors - Option 2					
DPM	2024	On-Site Emissions	0.02	1.80E-02	4.03E-04
		Truck Route	0.06	4.44E-05	2.50E-06
	2025	On-Site Emissions	0.02	7.19E-02	1.61E-03
		Truck Route	0.06	6.45E-05	3.64E-06
	2026	On-Site Emissions	0.02	4.84E-02	1.09E-03
		Truck Route	0.06	6.33E-05	3.57E-06
	2027	On-Site Emissions	0.02	4.48E-02	1.00E-03
		Truck Route	0.06	2.55E-05	1.44E-06

MEIR UTM: 410507.56E, 3774199.13N

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 E6
MEIR Health Risk Calculations
Option 2

Source (a)	MEIR Conc. (µg/m ³) (b)	Weight Fraction (c)	Contaminant (d)	URF (µg/m ³) ⁻¹ (e)	CPF (mg/kg/day) ⁻¹ (f)	Dose (by age bin)			Carcinogenic Risks (by age bin)			Total Cancer per million (m)	Chronic Hazards ³	
						3rd Trimester	0 < 2 years	2 < 9 years	3rd Trimester	0 < 2 years	2 < 9 years		REL (µg/m ³) (n)	RESP (o)
						(mg/kg-day) (g)	(mg/kg-day) (h)	(mg/kg-day) (i)	per million (j)	per million (k)	per million (l)			
Residential Receptors - Option 2														
2024	On & Off-Site Emissions	1.0E+00	DPM	3.0E-04	1.1E+00	1.40E-07	4.24E-07		4.48E-03	1.17E-02		0.0	5.0E+00	8.12E-05
2025							1.69E-06			2.16E-01		0.2		
2026							1.14E-06	9.00E-07		1.11E-03	8.71E-03	0.0		
2027								8.31E-07			1.66E-02	0.0		
Total											0.3	0.001		

		OEHHA age bin exposure year(s)	3rd Trimester 2024	0 < 2 years 2024-2026	2 < 9 years 2026-2027
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

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.

exposure durations per age bin		exposure durations (year)		
Construction Year	Const Duration ²	3rd Trimester	0 < 2 years	2 < 9 years
2024	0.47	0.25	0.22	
2025	1.00		1.00	
2026	0.31		0.01	0.30
2027	0.62			0.62
Total	2.39	0.25	1.22	0.92

**Table E7
Youth Sports Park MER Concentrations for Risk Calculations - Option 2**

Contaminant (a)	Source (b)		Model Output ¹ ($\mu\text{g}/\text{m}^3$) (c)	Emission Rates ² (g/s) (d)	Maximum Exposed School Receptor Conc. ($\mu\text{g}/\text{m}^3$) (e)	Total Maximum Exposed School Receptor Conc Annual Average ($\mu\text{g}/\text{m}^3$) (f)
Youth Sports Park Receptors - Option 2						
DPM	2024	On-Site Emissions	0.52	1.80E-02	9.43E-03	9.47E-03
		Truck Route	0.80	4.44E-05	3.54E-05	
	2025	On-Site Emissions	0.52	7.19E-02	3.77E-02	3.78E-02
		Truck Route	0.80	6.45E-05	5.15E-05	
	2026	On-Site Emissions	0.52	4.84E-02	2.54E-02	2.55E-02
		Truck Route	0.80	6.33E-05	5.05E-05	
	2027	On-Site Emissions	0.52	4.48E-02	2.35E-02	2.35E-02
		Truck Route	0.80	2.55E-05	2.03E-05	

Maximum Exposed Sports Park Receptor (Kare Youth League Irwindale) UTM coordinates: 410100.28E, 3775368.17 N

¹ Model Output at the Maximum Exposed Park Receptor based on unit emission rates for sources (1 g/s).

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

**Table E8
Youth Sports Park Health Risk Calculations - Option 2**

Source (a)	MER	Weight	Contaminant (d)	URF ($\mu\text{g}/\text{m}^3$) ⁻¹ (e)	CPF ($\text{mg}/\text{kg}/\text{day}$) ⁻¹ (f)	Dose (by age bin)	Exposure Duration ³ (yr) (h)	Carcinogenic Risks	Chronic Hazards ⁴		
	Conc. ($\mu\text{g}/\text{m}^3$) (b)	Fraction (c)				Youth Sports Park 2 < 9 years ($\text{mg}/\text{kg}/\text{day}$) (g)		Youth Sports Park 2 < 9 years per million (i)	REL ($\mu\text{g}/\text{m}^3$) (j)	RESP (k)	
	Youth Sports Park Receptors - Option 2										
2024	On & Off- Site Emissions	9.47E-03	1.0E+00	DPM	3.0E-04	1.1E+00	1.90E-06	0.47	0.04	5.0E+00	1.89E-03
2025		3.78E-02					7.57E-06	1.00	0.34		7.56E-03
2026		2.55E-02					5.10E-06	0.31	0.07		5.09E-03
2027		2.35E-02					4.71E-06	0.62	0.13		4.70E-03
Total								0.6			0.019

		OEHHA age bin exposure year(s)	2 < 9 years 2024 to 2027
Dose Exposure Factors:	exposure frequency (days/year)		180
	fraction of time at the park (4 hrs/day) ¹		0.5
	8-hour inhalation rate (L/kg-day) ²		812
	inhalation absorption factor		1
	conversion factor ($\text{mg}/\mu\text{g}; \text{m}^3/\text{L}$)		1.0E-06
Risk Calculation Factors:	age sensitivity factor		3
	averaging time (years)		70
	per million		1.0E+06

¹ Typical youth sport schedule consists of 1-2.5 hours/week for practice and games (ref). Conservatively, youth sport users assumed to be present at the park 4 hours per day over the 8-hour construction work day modeled in AERMOD. Therefore, fraction of time at the park is 0.5 (4 hours of the 8-hour exposure).

² Inhalation rate taken as the 8-hour 95th percentile breathing rates multiplied by the mean METS distribution for walk/bike/jog of 5.8 to represent exercise at youth park (OEHHA, 2015). For ages 2 < 9, 140 L/kg-day x 5.8 = 812 L/kg-day.

³ Construction durations determined for each year to adjust receptor exposures to the exposure durations for each construction year (see App A - Construction Emissions).

⁴ Chronic Hazards for DPM using the chronic reference exposure level (REL) for the Respiratory Toxicological Endpoint.

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Attachment F. Operational Risk Calculations

**Table F1 - Option 1
MEIR Concentration Worksheet
Input into HARP2**

Source No.	Source	Contaminant	Weight Fraction	Emission Rates ¹ Annual Avg (g/s) (e)	AERMOD Output ² Annual Avg (µg/m ³) (f)	Annual Average MER Concentration (µg/m ³) (g)
(a)	(b)	(c)	(d)			
Maximum Exposed Individual Residential (MEIR)						
1	Trucks (on-site running)	DPM	1.0E+00	7.91E-05	0.966	7.65E-05
2	Truck/TRU Idling - Bldg 1	DPM	1.0E+00	7.23E-06	40.47	2.92E-04
3	Truck/TRU Idling - Bldg 2	DPM	1.0E+00	7.23E-06	150.5	1.09E-03
4	Truck/TRU Idling - Bldg 3	DPM	1.0E+00	7.23E-06	12.49	9.02E-05
5	Yard Emissions	DPM	1.0E+00	8.12E-03	0.869	7.06E-03
6	Arrowhead HWY, east	DPM	1.0E+00	2.29E-06	1.113	2.55E-06
7	Arrowhead HWY, west	DPM	1.0E+00	8.82E-07	0.512	4.52E-07
8	Live Oak Ave, site frontage	DPM	1.0E+00	3.34E-06	1.172	3.91E-06
9	Live Oak Ave, east	DPM	1.0E+00	3.02E-06	7.611	2.30E-05
10	Live Oak Ave, west	DPM	1.0E+00	3.21E-06	0.515	1.65E-06
Note: Maximum Exposed Individual Residential (MEIR) UTM: 410507.56, 3774199.13						For Cancer/Chronic Calculation

¹ Emission Rates, per source, from Source Emissions Inventories (Appendix A).

² AERMOD Output (Appendix B) at the maximum exposed receptor (MER) are based on unit emission rates for emission sources (1 g/s per source).

*HARP - HRACalc v22118 5/23/2023 12:55:40 PM - Cancer Risk - Input File: C:\!AERMOD\!HARP_Output\IRWOP\MEIR_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBR	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_R	MMILK_RIS
1			9901	DieselExhP	7.65E-05	5.22E-08	30YrCancel	*	5.22E-08	0.00E+00	0.00E+00	0.00E+00
2			9901	DieselExhP	0.000292	1.99E-07	30YrCancel	*	1.99E-07	0.00E+00	0.00E+00	0.00E+00
3			9901	DieselExhP	0.00109	7.43E-07	30YrCancel	*	7.43E-07	0.00E+00	0.00E+00	0.00E+00
4			9901	DieselExhP	9.02E-05	6.15E-08	30YrCancel	*	6.15E-08	0.00E+00	0.00E+00	0.00E+00
5			9901	DieselExhP	0.00706	4.81E-06	30YrCancel	*	4.81E-06	0.00E+00	0.00E+00	0.00E+00
6			9901	DieselExhP	2.55E-06	1.74E-09	30YrCancel	*	1.74E-09	0.00E+00	0.00E+00	0.00E+00
7			9901	DieselExhP	4.52E-07	3.08E-10	30YrCancel	*	3.08E-10	0.00E+00	0.00E+00	0.00E+00
8			9901	DieselExhP	3.91E-06	2.67E-09	30YrCancel	*	2.67E-09	0.00E+00	0.00E+00	0.00E+00
9			9901	DieselExhP	2.30E-05	1.57E-08	30YrCancel	*	1.57E-08	0.00E+00	0.00E+00	0.00E+00
10			9901	DieselExhP	1.65E-06	1.13E-09	30YrCancel	*	1.13E-09	0.00E+00	0.00E+00	0.00E+00
SUM						5.89E-06						
							5.9 per million					

*HARP - HRACalc v22118 5/23/2023 12:55:40 PM - Chronic Risk - Input File: C:\!AERMOD\!HARP_Output\IRWOP\MEIR_HRAInput.hra

INDEX	(POLID	POLABBRE	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEV	RESP	SKIN
1	9901	DieselExhP	7.65E-05	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.53E-05	0.00E+00
2	9901	DieselExhP	0.000292	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.84E-05	0.00E+00
3	9901	DieselExhP	0.00109	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-04	0.00E+00
4	9901	DieselExhP	9.02E-05	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.80E-05	0.00E+00
5	9901	DieselExhP	0.00706	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.41E-03	0.00E+00
6	9901	DieselExhP	2.55E-06	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.10E-07	0.00E+00
7	9901	DieselExhP	4.52E-07	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	9.04E-08	0.00E+00
8	9901	DieselExhP	3.91E-06	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.82E-07	0.00E+00
9	9901	DieselExhP	2.30E-05	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.60E-06	0.00E+00
10	9901	DieselExhP	1.65E-06	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.30E-07	0.00E+00
				SUM	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.73E-03	0.00E+00
				MAX	1.73E-03							

HARP2 - HRACalc (dated 22118) 5/23/2023 12:55:40 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: All
Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: ON
16 years to 70 years: ON

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: FAH changed|

Calculating cancer risk

Cancer risk saved to: C:\!AERMOD\!HARP_Output\IRWOP\MEIR_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\!AERMOD\!HARP_Output\IRWOP\MEIR_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\!AERMOD\!HARP_Output\IRWOP\MEIR_NCAcuteRisk.csv

HRA ran successfully

**Table F2 - Option 1
MER Concentration Worksheet
Youth Sports Park User**

Source No.	Source	Contaminant	Weight Fraction	Emission Rates ¹ Annual Avg	AERMOD Output ² Annual Avg	Annual Average MER Concentration
(a)	(b)	(c)	(d)	(g/s) (e)	(µg/m ³) (f)	(µg/m ³) (g)
Youth Sports Park - Maximum Exposed Receptor (MER)						
1	Trucks (on-site running)	DPM	1.0E+00	7.91E-05	3.371	2.67E-04
2	Truck/TRU Idling - Bldg 1	DPM	1.0E+00	7.23E-06	50.05	3.62E-04
3	Truck/TRU Idling - Bldg 2	DPM	1.0E+00	7.23E-06	399.6	2.89E-03
4	Truck/TRU Idling - Bldg 3	DPM	1.0E+00	7.23E-06	367.8	2.66E-03
5	Yard Emissions	DPM	1.0E+00	8.12E-03	3.918	3.18E-02
6	Arrowhead HWY, east	DPM	1.0E+00	2.29E-06	36.20	8.28E-05
7	Arrowhead HWY, west	DPM	1.0E+00	8.82E-07	2.452	2.16E-06
8	Live Oak Ave, site frontage	DPM	1.0E+00	3.34E-06	1.255	4.19E-06
9	Live Oak Ave, east	DPM	1.0E+00	3.02E-06	1.182	3.57E-06
10	Live Oak Ave, west	DPM	1.0E+00	3.21E-06	1.162	3.73E-06
Note: Maximum Exposed Receptor (MER) UTM: 410220.28, 3775328.17						For Cancer/Chronic Calculation

¹ Emission Rates, per source, from Source Emissions Inventories (Appendix A).

² AERMOD Output (Appendix B) at the maximum exposed receptor (MER) are based on unit emission rates for emission sources (1 g/s per source).

**Table F3 - Option 1
Youth Sports Park - Maximum Exposed Receptor
Health Risk Calculations**

Source (a)		MER	Weight	Contaminant	URF (e) ($\mu\text{g}/\text{m}^3$) ⁻¹	CPF (f) ($\text{mg}/\text{kg}/\text{day}$) ⁻¹	Dose (by age bin)	Carcinogenic Risks	Chronic Hazards ³	
		Conc. (b) ($\mu\text{g}/\text{m}^3$)	Fraction (c)				Youth Sports Park 2 < 9 years	Youth Sports Park 2 < 9 years	REL	RESP
							(g) ($\text{mg}/\text{kg}/\text{day}$)	(i) per million	(j) ($\mu\text{g}/\text{m}^3$)	(k)
Youth Sports Park - Maximum Exposed Receptor (MER)										
1	Trucks (on-site running)	2.67E-04	1.0E+00	DPM	3.0E-04	1.1E+00	1.53E-08	9.67E-03	5.0E+00	5.34E-05
2	Truck/TRU Idling - Bldg 1	3.62E-04					2.08E-08	1.31E-02		7.23E-05
3	Truck/TRU Idling - Bldg 2	2.89E-03					1.66E-07	1.05E-01		5.78E-04
4	Truck/TRU Idling - Bldg 3	2.66E-03					1.53E-07	9.63E-02		5.31E-04
5	Yard Emissions	3.18E-02					1.83E-06	1.15E+00		6.36E-03
6	Arrowhead HWY, east	8.28E-05					4.77E-09	3.00E-03		1.66E-05
7	Arrowhead HWY, west	2.16E-06					1.24E-10	7.84E-05		4.33E-07
8	Live Oak Ave, site frontage	4.19E-06					2.41E-10	1.52E-04		8.38E-07
9	Live Oak Ave, east	3.57E-06					2.05E-10	1.29E-04		7.13E-07
10	Live Oak Ave, west	3.73E-06					2.14E-10	1.35E-04		7.46E-07
							Total	1.4		0.008

	OEHHA age bin exposure year(s)	180	1 Typical youth sport schedule consists of 1-2.5 hours/week for practice and games (ref). Conservatively, youth sport users assumed to be present at the park 4 hours per day over the 24-hour period modeled in AERMOD. Therefore, fraction of time at the park is 0.167 (4 hours of the 24-hour exposure period).
Dose Exposure Factors:	exposure frequency (days/year)	180	
	fraction of time at the park (4 hrs/day) ¹	0.167	
	8-hour inhalation rate (L/kg-day) ²	700	2 Inhalation rate taken as the 8-hour 95th percentile breathing rates multiplied by the mean METS distribution for walk/bike/jog of 5.8 to represent exercise at youth park (OEHHA, 2015). For ages 2 < 16, 120 L/kg-day x 5.8 = 700 L/kg-day.
	inhalation absorption factor	1	
	conversion factor (mg/ μg ; m^3/L)	1.0E-06	
Risk Calculation Factors:	age sensitivity factor	3	3 Chronic Hazards for DPM using the chronic reference exposure level (REL) for the Respiratory Toxicological Endpoint.
	exposure duration (years)	14	
	averaging time (years)	70	
	per million	1.0E+06	

**Table F4 - Option 2
MEIR Concentration Worksheet
Input into HARP2**

Source No.	Source	Contaminant	Weight Fraction	Emission Rates ¹ Annual Avg	AERMOD Output ² Annual Avg	Annual Average MER Concentration
(a)	(b)	(c)	(d)	(g/s) (e)	($\mu\text{g}/\text{m}^3$) (f)	($\mu\text{g}/\text{m}^3$) (g)
Maximum Exposed Individual Residential (MEIR)						
1	Trucks (on-site running)	DPM	1.0E+00	6.01E-05	0.937	5.63E-05
2	Truck/TRU Idling - Bldg 1	DPM	1.0E+00	9.47E-06	150.5	1.43E-03
3	Truck/TRU Idling - Bldg 2	DPM	1.0E+00	9.47E-06	12.49	1.18E-04
4	Yard Emissions	DPM	1.0E+00	5.67E-03	0.839	4.76E-03
5	Arrowhead HWY, east	DPM	1.0E+00	1.74E-06	1.113	1.94E-06
6	Arrowhead HWY, west	DPM	1.0E+00	6.71E-07	0.512	3.43E-07
7	Live Oak Ave, site frontage	DPM	1.0E+00	2.54E-06	1.172	2.97E-06
8	Live Oak Ave, east	DPM	1.0E+00	2.29E-06	7.611	1.74E-05
9	Live Oak Ave, west	DPM	1.0E+00	2.44E-06	0.515	1.26E-06
Note: Maximum Exposed Individual Residential (MEIR) UTM: 410507.56, 3774199.13						For Cancer/Chronic Calculation

¹ Emission Rates, per source, from Source Emissions Inventories (Appendix A).

² AERMOD Output (Appendix B) at the maximum exposed receptor (MER) are based on unit emission rates for emission sources (1 g/s per source).

*HARP - HRACalc v22118 5/23/2023 12:57:16 PM - Cancer Risk - Input File: C:\!AERMOD\!HARP_Output\IRWOP\MEIR_Op2_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBR	CONC	RISK_SUM	SCENARIO	DETAILS	INH_RISK	SOIL_RISK	DERMAL_R	MILK_RIS
1			9901	DieselExhP	5.65E-05	3.85E-08	30YrCancel	*	3.85E-08	0.00E+00	0.00E+00	0.00E+00
2			9901	DieselExhP	0.00143	9.75E-07	30YrCancel	*	9.75E-07	0.00E+00	0.00E+00	0.00E+00
3			9901	DieselExhP	0.000118	8.05E-08	30YrCancel	*	8.05E-08	0.00E+00	0.00E+00	0.00E+00
5			9901	DieselExhP	0.00476	3.25E-06	30YrCancel	*	3.25E-06	0.00E+00	0.00E+00	0.00E+00
6			9901	DieselExhP	1.94E-06	1.32E-09	30YrCancel	*	1.32E-09	0.00E+00	0.00E+00	0.00E+00
7			9901	DieselExhP	3.43E-07	2.34E-10	30YrCancel	*	2.34E-10	0.00E+00	0.00E+00	0.00E+00
8			9901	DieselExhP	2.97E-06	2.03E-09	30YrCancel	*	2.03E-09	0.00E+00	0.00E+00	0.00E+00
9			9901	DieselExhP	1.74E-05	1.19E-08	30YrCancel	*	1.19E-08	0.00E+00	0.00E+00	0.00E+00
10			9901	DieselExhP	1.26E-06	8.59E-10	30YrCancel	*	8.59E-10	0.00E+00	0.00E+00	0.00E+00
SUM						4.36E-06						
							4.4 per million					

*HARP - HRACalc v22118 5/23/2023 12:57:16 PM - Chronic Risk - Input File: C:\!AERMOD\!HARP_Output\IRWOP\MEIR_Op2_HRAInput.hra

INDEX	GRP1	GRP2	POLID	POLABBR	CONC	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEV
1			9901	DieselExhP	5.65E-05	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2			9901	DieselExhP	0.00143	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3			9901	DieselExhP	0.000118	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5			9901	DieselExhP	0.00476	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6			9901	DieselExhP	1.94E-06	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7			9901	DieselExhP	3.43E-07	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8			9901	DieselExhP	2.97E-06	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9			9901	DieselExhP	1.74E-05	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10			9901	DieselExhP	1.26E-06	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
						SUM	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
						MAX	1.28E-03					

HARP2 - HRACalc (dated 22118) 5/23/2023 12:57:16 PM - Output Log

GLCs loaded successfully

Pollutants loaded successfully

RISK SCENARIO SETTINGS

Receptor Type: Resident

Scenario: All

Calculation Method: HighEnd

EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25

Total Exposure Duration: 30

Exposure Duration Bin Distribution

3rd Trimester Bin: 0.25

0<2 Years Bin: 2

2<9 Years Bin: 0

2<16 Years Bin: 14

16<30 Years Bin: 14

16 to 70 Years Bin: 0

PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True

Soil: True

Dermal: True

Mother's milk: True

Water: False

Fish: False

Homegrown crops: False

Beef: False

Dairy: False

Pig: False

Chicken: False

Egg: False

INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors

Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: ON
16 years to 70 years: ON

SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

TIER 2 SETTINGS

Tier2 adjustments were used in this assessment. Please see the input file for details.

Tier2 - What was changed: FAH changed|

Calculating cancer risk

Cancer risk saved to: C:\!AERMOD\!HARP_Output\IRWOP\MEIR_Op2_CancerRisk.csv

Calculating chronic risk

Chronic risk saved to: C:\!AERMOD\!HARP_Output\IRWOP\MEIR_Op2_NCChronicRisk.csv

Calculating acute risk

Acute risk saved to: C:\!AERMOD\!HARP_Output\IRWOP\MEIR_Op2_NCAcuteRisk.csv

HRA ran successfully

**Table F5 - Option 2
MER Concentration Worksheet
Youth Sports Park User**

Source No.	Source	Contaminant	Weight Fraction	Emission Rates ¹ Annual Avg	AERMOD Output ² Annual Avg	Annual Average MER Concentration
(a)	(b)	(c)	(d)	(g/s) (e)	(µg/m ³) (f)	(µg/m ³) (g)
Youth Sports Park - Maximum Exposed Receptor (MER)						
1	Trucks (on-site running)	DPM	1.0E+00	6.01E-05	3.902	2.35E-04
2	Truck/TRU Idling - Bldg 1	DPM	1.0E+00	9.47E-06	409.2	3.88E-03
3	Truck/TRU Idling - Bldg 2	DPM	1.0E+00	9.47E-06	367.8	3.48E-03
4	Yard Emissions	DPM	1.0E+00	5.67E-03	4.617	2.62E-02
5	Arrowhead HWY, east	DPM	1.0E+00	1.74E-06	36.20	6.29E-05
6	Arrowhead HWY, west	DPM	1.0E+00	6.71E-07	2.452	1.64E-06
7	Live Oak Ave, site frontage	DPM	1.0E+00	2.54E-06	1.255	3.18E-06
8	Live Oak Ave, east	DPM	1.0E+00	2.29E-06	1.182	2.71E-06
9	Live Oak Ave, west	DPM	1.0E+00	2.44E-06	1.162	2.83E-06
Note: Maximum Exposed Receptor (MER) UTM: 410220.28, 3775328.17						For Cancer/Chronic Calculation

¹ Emission Rates, per source, from Source Emissions Inventories (Appendix A).

² AERMOD Output (Appendix B) at the maximum exposed receptor (MER) are based on unit emission rates for emission sources (1 g/s per source).

**Table F6 - Option 2
Youth Sports Park - Maximum Exposed Receptor
Health Risk Calculations**

Source (a)		MER	Weight Fraction	Contaminant (d)	URF ($\mu\text{g}/\text{m}^3$) ⁻¹ (e)	CPF ($\text{mg}/\text{kg}/\text{day}$) ⁻¹ (f)	Dose (by age bin)	Carcinogenic Risks	Chronic Hazards ³	
		Conc. ($\mu\text{g}/\text{m}^3$) (b)					Youth Sports Park 2 < 9 years ($\text{mg}/\text{kg}/\text{day}$) (g)	Youth Sports Park 2 < 9 years per million (i)	REL ($\mu\text{g}/\text{m}^3$) (j)	RESP (k)
		Youth Sports Park - Maximum Exposed Receptor (MER)								
1	Trucks (on-site running)	2.35E-04	1.0E+00	DPM	3.0E-04	1.1E+00	1.35E-08	8.51E-03	5.0E+00	4.69E-05
2	Truck/TRU Idling - Bldg 1	3.88E-03					2.23E-07	1.40E-01		7.75E-04
3	Truck/TRU Idling - Bldg 2	3.48E-03					2.00E-07	1.26E-01		6.97E-04
		0.00E+00					0.00E+00	0.00E+00		0.00E+00
4	Yard Emissions	2.62E-02					1.51E-06	9.50E-01		5.24E-03
5	Arrowhead HWY, east	6.29E-05					3.62E-09	2.28E-03		1.26E-05
6	Arrowhead HWY, west	1.64E-06					9.46E-11	5.96E-05		3.29E-07
7	Live Oak Ave, site frontage	3.18E-06					1.83E-10	1.15E-04		6.37E-07
8	Live Oak Ave, east	2.71E-06					1.56E-10	9.82E-05		5.42E-07
9	Live Oak Ave, west	2.83E-06					1.63E-10	1.03E-04		5.67E-07
							Total	1.2		0.007

		OEHHA age bin exposure year(s)	Youth Sports Park User 2 < 16 years 2024 to 2027	1 Typical youth sport schedule consists of 1-2.5 hours/week for practice and games (ref). Conservatively, youth sport users assumed to be present at the park 4 hours per day over the 24-hour period modeled in AERMOD. Therefore, fraction of time at the park is 0.167 (4 hours of the 24-hour exposure period).
Dose Exposure Factors:	exposure frequency (days/year)		180	
	fraction of time at the park (4 hrs/day) ¹		0.167	
	8-hour inhalation rate (L/kg-day) ²		700	2 Inhalation rate taken as the 8-hour 95th percentile breathing rates multiplied by the mean METS distribution for walk/bike/jog of 5.8 to represent exercise at youth park (OEHHA, 2015). For ages 2 < 16, 120 L/kg-day x 5.8 = 700 L/kg-day.
	inhalation absorption factor		1	
	conversion factor (mg/ μg ; m^3/L)		1.0E-06	
Risk Calculation Factors:	age sensitivity factor		3	3 Chronic Hazards for DPM using the chronic reference exposure level (REL) for the Respiratory Toxicological Endpoint.
	exposure duration (years)		14	
	averaging time (years)		70	
	per million		1.0E+06	

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