APPENDIX E:
HEALTH RISK ASSESSMENT

APPENDIX D
HEALTH RISK ASSESSMENTS

1 CONSTRUCTION HRA

San Leandro Shoreline Development Project

for the City of San Leandro

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1. Introduction

The San Leandro Shoreline Development Project (the Project) is located in the San Leandro Shoreline Recreational Area on the east shore of the San Francisco Bay and the west end of Marina Boulevard. The proposed Project is an integrated master planned development and a public/private partnership between Cal Coast Companies LLC and the City of San Leandro on 52 acres of City-owned property at the San Leandro Marina.

The latest version of the BAAQMD CEQA Air Quality Guidelines requires projects to evaluate the impacts of construction activities on sensitive receptors (BAAQMD, 2012). Construction of the project would be driven by market response and is conservatively assumed to take place starting in January 2016. Construction will involve a minimum of two separate construction phases (Phase 1 and Phase 2). Each phase would include demolition, site preparation, grading, building construction, paving, and architectural coating (painting). Project construction is estimated to take place over a period of 1,755 calendar days (1,255 work days) beginning in January 2016 and ending in October 2020.

The nearest off-site sensitive receptors (single family residences) are located within 20 to 50 feet of portions of the Project. The residences are adjacent to the library construction area along Aurora Drive and adjacent to the North Golf Course residential construction area along Marina Boulevard. The residents at all of these locations could be potentially impacted from the proposed construction activities. Also, residents occupying the residential units built during construction Phase 1 would be exposed to construction emissions generated during the second phase of construction.

The BAAQMD has developed Screening Tables for Air Toxics Evaluation During Construction (2010) that evaluate construction-related health risks associated with residential, commercial, and industrial projects. According to the screening tables, the residences are much closer than the distance of 300 meters (984 feet) that would screen out potential health risks. Therefore, a site-specific construction health risk assessment (HRA) was prepared for the Proposed Project.

This construction HRA considers the health impact of planned construction operations at the Project Site to off-site sensitive receptors (adults and children in the nearby residences) and on-site sensitive receptors (adult and children in the Project residential units built during Phase 1) from diesel equipment exhaust and particulate matter ($PM_{2.5}$).

1. Introduction

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2. Project Description

The Project site totals 52 acres of land and 23 acres of water surface area in the Shoreline Recreational Area. The Project site is generally west of Monarch Bay Drive between Marina Boulevard and Fairway Drive. This area consists of two peninsulas (Mulford Point to the north and Pescador Point to the south) that encircle the boat harbor and includes existing commercial and recreational facilities. The Project site also includes development east of Monarch Bay Drive on portions of the existing 9-hole golf course.

The Shoreline Recreational Area includes three existing commercial enterprises and one demolished restaurant/banquet facility. These include the 131-room Marina Inn opened in 1985; Horatio's Restaurant completed in 1978; and an El Torito Restaurant, which originally opened as part of the Tia Maria chain in 1970. The foundation and deck piers of the former Blue Dolphin Restaurant remain on-site. Boating facilities currently include a 466-slip public boat harbor with a separate boat launch and support operations, and two private yacht clubs. Due to physical constraints caused by build-up of silt both in the harbor and the federal channel, occupancy of the harbor currently stands at approximately 30 percent.

The anticipated construction phasing (dependent on market forces) for the Project will be as follows.

Phase 1

- 200-room limited service hotel (inclusive of pool).
- 15,000-square-foot conference center.
- An approximately 5,000-square-foot full-service restaurant.
- An approximately 8,000-square-foot full-service restaurant.
- Between 50,000 and 100,000 square feet of office along Monarch Bay Drive and a Parking Structure. The office will be approximately 40 feet in height and the parking structure will depend on parking counts, but no more than 32 feet in height.
- Up to 159 multi-family rental units. Parking structure to be shared with the office.
- A mixed-use building (30,000-square-foot) containing a Café/boat rental facility (8,000 square feet) and up to 61 condominium units on the former Boatworks site.
- An approximately 2,500 square-foot Library/Community Building.
- Associated infrastructure.

Phase 2

- 64 two- to three-story townhomes built within the re-designed Marina Golf Course.
- 70 Homes on Fairway Drive built within the redesigned Marina Golf Course:
    - Up to 42 two-story single family-detached homes.
    - Up to 28 Townhomes.
- Associated infrastructure.

2. Project Description

There also is a potential Phase 3, depending on market forces, as described below:

Phase 3

- The balance of the 150,000 square feet of office (unless the market allows it to be absorbed during Phase 2). The parking structure will already have been built during Phase I.
- Associated infrastructure.

For this analysis, the balance of office space and infrastructure planned for Phase 3 was assumed to occur during Phase 2 of construction. Although the construction schedule would be market driven, the start date was conservatively assumed to take place January 2016 and be completed in October 2020.

San Francisco Bay is located directly west of the Project site. To the north of the Project site, from west to east, lay the San Francisco Bay and residential uses along Neptune Drive and Marina Boulevard. Residential uses include single-family homes and multi-family residential units within the Mulford Park neighborhood. Further north of the Project site, across an inlet of the San Francisco Bay is Oakland International Airport and Oyster Bay Regional Shoreline. To the east of the Project site is the Marina Golf Course and residential land use along Aurora Drive, West Avenue 133rd, and West Avenue 134th. Residential land use includes single-family homes and multi-family residential units. The existing Mulford-Marina Branch Library is located at the corner of Aurora Drive and Fairway Drive. To the south of the Project site, west to east, is San Francisco Bay, a small boat lagoon, the City's Marina Park, The Monarch Bay Golf Club, the Seagate residential community, and the Marina Faire neighborhood.

The Project site, construction areas, and site vicinity are depicted in Figure 1 and Figure 2.

PLACEWORKS

Date: July 2014

Source: PlaceWorks, 2014; Google Earth, 2014.

Figure 1

Project Location and ISCST3 Model Configuration - Construction Phase 1

2. Project Description

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PLACEWORKS

Date: July 2014

Source: PlaceWorks, 2014; Google Earth, 2014.

Figure 2

Project Location and ISCST3 Model Configuration - Construction Phase 2

2. Project Description

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3. Methodology and Significance Thresholds

The purpose of the construction HRA is to evaluate the potential health impacts from diesel particulate matter (DPM) and particulate matter less than 2.5 microns ($PM_{2.5}$) emitted during construction activities associated with the proposed project. Construction sources evaluated in this HRA include off-road construction equipment, such as excavators, graders, scrapers, forklifts, pavers, rollers, dozers, tractors, loaders, backhoes, cranes, generator sets, welders, concrete saws, and water trucks.

The BAAQMD's 2010 adopted "Thresholds of Significance" for local community risk impacts were challenged in a lawsuit and subsequently rescinded. However, lead agencies can determine that these are appropriate air quality thresholds for projects they review. The 2010 BAAQMD thresholds that were used for this project are shown below:

- Non-compliance with a qualified risk reduction plan
- Excess cancer risk of more than 10 in a million
- Non-cancer hazard index (chronic or acute) greater than 1.0
- Incremental increase in average annual $PM_{2.5}$ concentration of greater than 0.3 $\mu g/m^3$

Since both the City of San Leandro and Alameda County do not currently have qualified risk reduction plans, a site-specific analysis of DPM and $PM_{2.5}$ impacts on sensitive receptors was conducted.

The methodology used in this HRA is consistent with the following BAAQMD and the Office of Environmental Health Hazard Assessment (OEHHA) guidance documents:

- BAAQMD, 2012. California Environmental Quality Act Air Quality Guidelines. May 2012.
- BAAQMD, 2010. Screening Tables for Air Toxics Evaluation During Construction. May 2010.
- BAAQMD, 2012. Recommended Methods for Screening and Modeling Local Risks and Hazards. Version 3.0. May 2012.
- OEHHA, 2012. Air Toxics Hot Spots Program Risk Assessment Guidelines. Revised Technical Support Document for Exposure Assessment and Stochastic Analysis. August, 2012.

Potential exposures to DPM and $PM_{2.5}$ from proposed project construction activities were evaluated for off-site sensitive receptors in close proximity to the Project and on-site sensitive receptors occupying the residential units built during Phase 1. Using air dispersion models, receptor concentrations were estimated and excess lifetime cancer risks and chronic non-cancer hazard indexes were calculated. These risks were then compared to the significance thresholds identified in the BAAQMD CEQA guidelines.

3. Source Identification

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4. Construction Emissions

Construction emissions were calculated as average daily emissions in pounds per day, using a default construction schedule from the latest version of California Emissions Estimation Model, known as CalEEMod Version 2013.2.2 (CAPCOA, 2013).

Construction of the Project was assumed to take place over 1,755 calendar days (1.255 work days) beginning in January 2016 and ending in October 2020. 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. In addition, emissions from haul trucks traveling to and from the site within a 1,000-foot radius were included as off-site emissions. The modeled average daily emission rates for the construction scenario are summarized in Table 1. The CalEEMod construction emissions output and emission rate calculations are provided in Appendix A.

Table 1 Construction Activity

Parameter – Phase - Year	On-site Emissions (lbs/day)	Total Off-site Emissions (lbs/day)
DPM – Phase 1 Marina Area - 2016	2.606	0.235
DPM – Phase 1 Library Area - 2016	1.441	0.010
DPM – Phase 1 Marina Area - 2017	1.782	0.422
DPM – Phase 1 Marina Area - 2018	1.494	0.394
DPM – Phase 1 Marina Area - 2019	1.742	0.374
DPM – Phase 2 - 2019	1.641	0.041
DPM – Phase 2 - 2020	1.193	0.061
$PM_{2.5}$ - Phase 1 Marina Area - 2016	3.487	1.201
$PM_{2.5}$ - Phase 1 Library Area - 2016	1.415	0.052
$PM_{2.5}$ - Phase 1 Marina Area - 2017	1.673	2.649
$PM_{2.5}$ - Phase 1 Marina Area - 2018	1.405	2.624
$PM_{2.5}$ - Phase 1 Marina Area - 2019	1.634	2.796
$PM_{2.5}$ - Phase 2 - 2019	2.127	0.325
$PM_{2.5}$ - Phase 2 - 2020	1.121	0.523

Presented emission rates are average daily emissions.
Source: CalEEMod 2013.2.2.

4. Source Characterization

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5. Dispersion Modeling

To assess the impact of emitted compounds on sensitive receptors at the Project, air quality modeling using the ISCST3 atmospheric dispersion model was performed. The model is a steady state Gaussian plume model and is an approved model by BAAQMD for estimating ground level impacts from point and fugitive sources in simple and complex terrain. The on-site construction emissions for the project were modeled as poly-area sources. Off-site construction emissions for project related truck traffic were modeled as adjacent volume sources.

The model requires additional input parameters, including chemical emission data and local meteorology. Inputs for the construction phase emission rates are those described in Section 4. Meteorological data obtained from the BAAQMD for the nearest met station (Chabot) and the three latest available years of record (2003-2005) were used to represent local weather conditions and prevailing winds.

DPM emissions were based on the CalEEMod construction runs, using annual exhaust PM_{10} construction emissions presented in lbs/day. The $PM_{2.5}$ emissions were taken from the CalEEMod $PM_{2.5}$ total, which includes exhaust $PM_{2.5}$ as well as fugitive dust $PM_{2.5}$. Off-site construction emissions from haul trucks were also obtained from the CalEEMod construction runs, proportioning the emissions for the haul truck trips of 20 miles to take into account the 0.95 mile route within 1,000 feet of the project site. An emission release height of 4.15 meters was used as representative of the stack exhaust height for off-road construction equipment and off-site haul trucks and an initial vertical dispersion parameter of 1.93 m was used, per CARB guidance (2000). The lateral dispersion parameter for the truck volume sources along Fairway Drive, Monarch Bay Drive, and Marina Boulevard were determined by dividing the width of the traveled roadway by 2.15.

The modeling analysis also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. To accommodate the model's Cartesian grid format, direction-dependent calculations were obtained by identifying the Universal Transverse Mercator (UTM) coordinates for each source location.

To determine contaminant impacts during construction hours, the model's scalar option was invoked to predict flagpole-level concentrations (1.5 m for ground-floor receptors) for emissions generated between the hours of 7:00 AM and 4:00 PM, with a one-hour break for lunch between noon and 1:00 PM. In addition, a scalar factor was applied to the risk calculations to account for the number of days of construction activity per year.

For all modeling runs, a unit emission rate of 1 gm/sec was used. The unit emission rates were proportioned among either the volume sources for truck traffic, or proportioned over the poly-area sources for on-site construction emissions. The maximum ISCST3 concentrations from the output files were then multiplied by the emission rates calculated in Appendix A to obtain the maximum ground-level concentrations at the Project site. The ground level concentrations for the on-site and off-site sources that were used in the risk

5. Exposure Quantification

calculation spreadsheets are provided in Table C1 of Appendix C. The ISCST3 model output for the emission sources is presented in Appendix B. The configuration of the sources and the receptor locations are presented in Figure 1 and Figure 2.

6. Risk Characterizations

6.1 CARCINOGENIC CHEMICAL RISK

The BAAQMD has established a threshold of ten in a million (10E–06) as a level posing no significant risk for exposures to carcinogens.

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

Cancer risks were calculated using BAAQMD recommended methods for a residential receptor. For the inhalation pathway, contaminant dose is multiplied by the cancer potency factor in units of inverse dose expressed in milligrams per kilogram per day $(mg/kg/day)^{-1}$ to derive the cancer risk estimate. To calculate the contaminant dose, the following equation was used:

$$Dose_{AIR} = (C_{air} \times EF \times ED \times [BR/BW] \times A \times CF) / AT$$

Where:

$Dose_{AIR}$	=	dose by inhalation (mg/kg-day)
C_{air}	=	concentration of contaminant in air ($\mu g/m^3$)
EF	=	exposure frequency (days/year)
ED	=	exposure duration (years – construction period)
BR/BW	=	daily breathing rate normalized to body weight (L/kg-day)
A	=	inhalation absorption factor (default = 1)
CF	=	conversion factor ($1x10^{-6}$, µg to mg, L to m^3)
AT	=	averaging time (days)

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. For this assessment, the default value of 1 was used. The daily breathing rate for an adult is 302 L/kg-day and for a child is 581 L/kg-day (BAAQMD, 2012). The residential exposure frequency (EF) is set at 350 days per year to allow for a two week period away from home each year (OEHHA, 2012).

OEHHA and BAAQMD procedures require the incorporation of age sensitivity factors (ASF) into the evaluation. The AT (averaging time) for lifetime cancer risks is 70 years for all cases. The exposure duration (ED) and ASFs for the various age-groups are provided herein:

ED	ASF
0.25 years – third trimester	10
2 years for 0-2 age group	10
7 years for 2-9 age group	3
14 years for 2-16 age group	3
54 years for 16-70 age group	1

To calculate the overall cancer risk, the risk for each appropriate age group is calculated using appropriate age-sensitivity factors (ASFs), and chemical-specific cancer potency factor (CPF) for each chemical of concern as per the following equation:

$$Cancer\ Risk_{AIR} = Dose_{AIR} \times CPF \times ASF$$

The CPFs used in the assessment were obtained from OEHHA guidance. For DPM, a CPF of 1.1 mg/kg-day^{-1} was used.

The excess lifetime cancer risk to the maximally exposed individual (MEI) during the construction period was calculated, based on the factors provided above. For the adult exposure scenario, an ASF of 1.7 was applied to the calculated cancer risk number to give the estimated excess cancer risk over a 70-year lifetime. For the child exposure scenario, a 9-year exposure period was used, as per BAAQMD and OEHHA guidance (BAAQMD, 2012). In addition, an ASF of 4.7 was applied to the excess cancer risk number to account for the increased sensitivity of children to air pollutants during the 9-year exposure period. The calculated results are provided in Appendix C.

6.2 NON-CARCINOGENIC HAZARDS

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

To quantify non-carcinogenic impacts, the hazard index approach was used. The hazard index assumes that chronic sub-threshold exposures adversely affect a specific organ or organ system (toxicological endpoint). For each discrete chemical exposure, target organs presented in regulatory guidance were used. To calculate the hazard index, each chemical concentration or dose is divided by the appropriate toxicity value. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds one, a health hazard is presumed to exist. In a manner consistent with the assessment of carcinogenic exposures, REL/RfC (reference concentration) values were converted to units expressed in mg/kg/day to accommodate the above intake algorithm.

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

6.3 CRITERIA POLLUTANTS

The BAAQMD has recently incorporated $PM_{2.5}$ into the District's CEQA significance thresholds due to recent studies that show adverse health impacts from exposure to this pollutant. An incremental increase of greater than 0.3 $\mu g/m^3$ for the annual average $PM_{2.5}$ concentration is considered to be a significant impact. The modeling results for $PM_{2.5}$ are summarized in Table 2 and Table 4; the model runs are provided in Appendix B.

6. Risk Characterizations

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7. Conclusions

The residential health risk values are based on the maximum modeled receptor concentration over the construction exposure period, conservatively assuming a 24-hour outdoor exposure and averaged over a 70-year lifetime. Results of the health risk assessment indicate that the maximum incremental cancer risk during the construction phase of the Project for a ground-floor off-site adult resident located near the project site is 8.3 per million, which is less than the significance threshold of 10 per million. However, the incremental cancer risk for the child exposure scenario was estimated to be 44 per million for off-site residents, which exceeds the significance threshold of 10 per million. Therefore, mitigation measures are warranted. For on-site residents exposed to emissions generated by construction Phase 2, the incremental cancer risk for the adult and child scenarios were estimated to be 2.6 per million and 14 per million, respectively. The on-site child scenario cancer risk also exceeds the significance threshold.

For non-carcinogenic effects, the hazard index identified for each toxicological endpoint totaled less than one. Therefore, chronic non-carcinogenic hazards are within acceptable limits. Lastly, the $PM_{2.5}$ annual concentrations are greater than the BAAQMD significance threshold. The unmitigated health risk results for residential receptors are summarized in Table 2.

Table 2 Health Risk Assessment Results

Receptor	Cancer Risk		Chronic Hazard Index	$PM_{2.5}$ ($\mu g/m^3$)
	Adult Resident (per million)	Child Resident (per million)		
Maximum Exposed Off-site Receptor	8.3	44	0.22	0.68
Maximum Exposed On-site Receptor [1]	2.6	14	0.07	0.22
BAAQMD Threshold	10	10	1.0	0.3
Exceeds Threshold	No	Yes	No	Yes

1 On-site residents (living in the North Residential Apartments or the South Mixed-Use Condos/Apartments) would only be exposed to construction emissions during the second phase of construction. Off-site residents would be exposed to construction emissions for all construction phases.
Sources: Lakes AERMOD View, 8.7, 2014.

It should be noted that these health impacts were based on conservative (i.e., health protective) assumptions. The USEPA (2005) and OEHHA (2012) 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 at or near a site. The use of conservative assumptions tends to produce upper-bound estimates of risk and usually overestimate exposure and thus risk. For this resident-based risk assessment, the following conservative assumptions were used:

- To determine the Maximum Exposed Individual (MEI) for the unmitigated scenario, as reported in Table 2, it was assumed that children and/or adults stood outside of their residence for 24 hours per day, 350

7. Conclusions

days/year for 9 years (children) or 70 years (adults). In reality, it is likely that children and adults typically will spend just over one hour per day outdoors at their residences (CARB, 1991), which would result in a lower estimated risk value.

- For the MEI scenario, it was assumed that children and adults remained at home one hundred percent of the time. In reality, it is likely that children and adults would only spend a fraction of time at home, which would result in a lower estimated risk value. OEHHA (2012), recommends the following fraction of time at home (FAH) values for estimating health risk values:

Age Range	FAH
Third Trimester – 2	0.85
2-16	0.72
16-70	0.73

- The calculated risk for pregnant women and children from 0-2 years was multiplied by a factor of 10 (age sensitivity factor) and the calculated risk for children from 2-16 years was multiplied by a factor of 3 to account for early life exposure and uncertainty in child vs. adult exposure impacts. Thus, the estimated risks are conservative.

- The calculated health risks are determined using maximum flagpole concentrations of toxic air contaminants for first floor residents. For multi-story residential developments, contaminant concentrations and health risks are reduced at higher floors.

Nevertheless, because the carcinogenic risks for the child scenario and maximum annual $PM_{2.5}$ concentrations are predicted to be above the significance thresholds, mitigation measures are warranted. The following mitigation measures are proposed:

- Applicants for new development projects within the Shoreline Development shall require the construction contractor to use equipment that meets the United States Environmental Protection Agency (EPA)-Certified Tier 3 emissions standards for off-road diesel-powered construction equipment greater than 50 horsepower. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine, as defined by CARB regulations. Prior to construction, the project engineer shall ensure that all demolition and grading plans clearly show the requirement for EPA Tier 3 or higher emissions standards and Level 3 diesel emissions control for construction equipment over 50 horsepower. During construction, the construction contractor shall maintain a list of all operating equipment in use on the project site for verification by the City of San Leandro Building Official or their designee. The construction equipment list shall state the makes, models, and numbers of construction equipment onsite. Equipment shall properly service and maintain construction equipment in accordance with the manufacturer's recommendations. Construction contractors shall also ensure that all nonessential idling of construction equipment is restricted to five minutes or less in compliance with California Air Resources Board's Rule 2449.

7. Conclusions

The above mitigation measures are capable of reducing DPM and $PM_{2.5}$ concentrations by 85 percent (SCAQMD, 2009). The modeled average daily emission rates for the construction scenario with mitigation are summarized in Table 3.

Table 3 Construction Activity – Mitigated Scenario

Parameter – Phase - Year	On-site Emissions (lbs/day)	Total Off-site Emissions (lbs/day)
DPM – Phase 1 Marina Area - 2016	0.205	0.235
DPM – Phase 1 Library Area - 2016	0.448	0.010
DPM – Phase 1 Marina Area - 2017	0.248	0.422
DPM – Phase 1 Marina Area - 2018	0.234	0.394
DPM – Phase 1 Marina Area - 2019	0.270	0.374
DPM – Phase 2 - 2019	0.198	0.041
DPM – Phase 2 - 2020	0.216	0.061
$PM_{2.5}$ - Phase 1 Marina Area - 2016	1.273	1.201
$PM_{2.5}$ - Phase 1 Library Area - 2016	0.481	0.052
$PM_{2.5}$ - Phase 1 Marina Area - 2017	0.248	2.649
$PM_{2.5}$ - Phase 1 Marina Area - 2018	0.234	2.624
$PM_{2.5}$ - Phase 1 Marina Area - 2019	0.270	2.796
$PM_{2.5}$ - Phase 2 - 2019	0.798	0.325
$PM_{2.5}$ - Phase 2 - 2020	0.216	0.523

Mitigation includes Tier 3 Engines and Level 3 Diesel Particulate Filters for off-road equipment rated 50 HP or greater. Presented emission rates are average daily emissions.
Source: CalEEMod 2013.2.2.

Assuming a resident or child would spend only a fraction of time at home, the mitigated risk values were calculated and results are summarized in Table 4. The results indicate that with mitigation, the excess cancer risk for the adult and child exposure scenarios would be less than the threshold values for both off-site and on-site receptors. Additionally, the $PM_{2.5}$ annual concentrations would be below the significance threshold with mitigation. Therefore, with the mitigation measures described above, the Project would have a less than significant impact with respect to excess cancer risk for off-site and on-site adult or child residents, chronic non-hazard impacts, and $PM_{2.5}$ emissions during the 5-year construction period.

7. Conclusions

Table 4 Health Risk Assessment Results – Mitigated Scenario

Receptor	Cancer Risk		Chronic Hazard Index	$PM_{2.5}$ ($\mu g/m^3$)
	Adult Resident (per million)	Child Resident (per million)		
Maximum Exposed Off-site Receptor	1.4	7.9	0.05	0.24
Maximum Exposed On-site Receptor [1]	0.3	1.6	0.01	0.08
BAAQMD Threshold	10	10	1.0	0.3
Exceeds Threshold	No	No	No	No

Mitigation includes Tier 3 Engines and Level 3 Diesel Particulate Filters for equipment 50 HP or greater.
1 On-site residents (living in the North Residential Apartments or the South Mixed-Use Condos/Apartments) would only be exposed to construction emissions during the second phase of construction. Off-site residents would be exposed to construction emissions for all construction phases.
Sources: Lakes AERMOD View, 8.7, 2014.

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Appendix A. Emission Rate Calculations

Appendix

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Construction Emissions - DPM and PM2.5
Input to ISCST3 Model

Onsite Construction Emissions		DPM [1]	$PM_{2.5}$ [2]
2016 Onsite Emissions	Average Daily Emissions (lbs/day)	2.606	3.487
	Average Daily Emissions (lbs/hr)	3.26E-01	4.36E-01
Phase 1	Emission Rate (g/s)	4.10E-02	5.49E-02
2017 Onsite Emissions	Average Daily Emissions (lbs/day)	1.782	1.673
	Average Daily Emissions (lbs/hr)	2.23E-01	2.09E-01
Phase 1	Emission Rate (g/s)	2.81E-02	2.63E-02
2018 Onsite Emissions	Average Daily Emissions (lbs/day)	1.494	1.405
	Average Daily Emissions (lbs/hr)	1.87E-01	1.76E-01
Phase 1	Emission Rate (g/s)	2.35E-02	2.21E-02
2019 Onsite Emissions	Average Daily Emissions (lbs/day)	1.742	1.634
	Average Daily Emissions (lbs/hr)	2.18E-01	2.04E-01
Phase 1	Emission Rate (g/s)	2.74E-02	2.57E-02
2016 Onsite Emissions	Average Daily Emissions (lbs/day)	1.441	1.415
	Average Daily Emissions (lbs/hr)	1.80E-01	1.77E-01
Phase 1 Library	Emission Rate (g/s)	2.27E-02	2.23E-02
2019 Onsite Emissions	Average Daily Emissions (lbs/day)	1.641	2.127
	Average Daily Emissions (lbs/hr)	2.05E-01	2.66E-01
Phase 2	Emission Rate (g/s)	2.58E-02	3.35E-02
2020 Onsite Emissions	Average Daily Emissions (lbs/day)	1.193	1.121
	Average Daily Emissions (lbs/hr)	1.49E-01	1.40E-01
Phase 2	Emission Rate (g/s)	1.88E-02	1.77E-02

Note: Onsite emissions assumed to be evenly distributed over entire construction area

Offsite Construction Emissions		DPM [1]	$PM_{2.5}$ [2]
2016 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.235	1.201
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	1.12E-02	5.70E-02
	Emission Rate (lbs/hr)	1.40E-03	7.13E-03
Phase 1	Emission Rate (g/s)	1.76E-04	8.98E-04
2017 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.422	2.649
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	2.00E-02	1.26E-01
	Emission Rate (lbs/hr)	2.51E-03	1.57E-02
Phase 1	Emission Rate (g/s)	3.16E-04	1.98E-03
2018 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.394	2.624
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	1.87E-02	1.25E-01
	Emission Rate (lbs/hr)	2.34E-03	1.56E-02
Phase 1	Emission Rate (g/s)	2.95E-04	1.96E-03
2019 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.374	2.796
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	1.78E-02	1.33E-01
	Emission Rate (lbs/hr)	2.22E-03	1.66E-02
Phase 1	Emission Rate (g/s)	2.80E-04	2.09E-03
2016 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.010	0.052
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	4.75E-04	2.47E-03
	Emission Rate (lbs/hr)	5.94E-05	3.09E-04
Phase 1 Library	Emission Rate (g/s)	7.48E-06	3.89E-05
2019 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.041	0.325
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	1.95E-03	1.54E-02
	Emission Rate (lbs/hr)	2.43E-04	1.93E-03
Phase 2	Emission Rate (g/s)	3.07E-05	2.43E-04
2020 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.061	0.523
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	2.90E-03	2.48E-02
	Emission Rate (lbs/hr)	3.62E-04	3.11E-03
Phase 2	Emission Rate (g/s)	4.56E-05	3.91E-04

Note: Offsite emissions evenly distributed over 108 modeled volume sources

Hours per work day (7:00 AM to 4:00 PM, 1-hour lunch break)	8

Year	Total days per year	Scalar [4]
Phase 1 2016	365	1.000
Phase 1 2017	365	1.000
Phase 1 2018	365	1.000
Phase 1 2019	157	0.430
Phase 2 2019	208	0.570
Phase 2 2020	295	0.808
Library 2016	315	0.863

Default Hauling Length (miles)	20
Haul Length within 1,000 ft of Site (mile)	0.95

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

[2] $PM_{2.5}$ emissions taken as total $PM_{2.5}$ (exhaust and fugitive dust) emissions from CalEEMod average daily emissions.

[3] Emissions from CalEEMod offsite average daily emissions, which is based on haul truck trips of 20 miles (model default) to evaluate emissions from 0.95 mile route within 1,000 feet of project site.

[4] Scalar for days per year is the fraction of days during one calendar year (365 days) for each construction phase.

Construction Emissions - DPM and PM2.5
Input to ISCST3 Model
with Mitigation (Level 3 DPF, Tier 3 Engines)

Onsite Construction Emissions - Mitigated		DPM [1]	$PM_{2.5}$ [2]
2016 Onsite Emissions	Average Daily Emissions (lbs/day)	0.205	1.273
	Average Daily Emissions (lbs/hr)	2.57E-02	1.59E-01
Phase 1	Emission Rate (g/s)	3.24E-03	2.00E-02
2017 Onsite Emissions	Average Daily Emissions (lbs/day)	0.248	0.248
	Average Daily Emissions (lbs/hr)	3.10E-02	3.10E-02
Phase 1	Emission Rate (g/s)	3.90E-03	3.90E-03
2018 Onsite Emissions	Average Daily Emissions (lbs/day)	0.234	0.234
	Average Daily Emissions (lbs/hr)	2.92E-02	2.92E-02
Phase 1	Emission Rate (g/s)	3.68E-03	3.68E-03
2019 Onsite Emissions	Average Daily Emissions (lbs/day)	0.270	0.270
	Average Daily Emissions (lbs/hr)	3.38E-02	3.38E-02
Phase 1	Emission Rate (g/s)	4.25E-03	4.25E-03
2016 Onsite Emissions	Average Daily Emissions (lbs/day)	0.448	0.481
	Average Daily Emissions (lbs/hr)	5.60E-02	6.01E-02
Phase 1 Library	Emission Rate (g/s)	7.06E-03	7.58E-03
2019 Onsite Emissions	Average Daily Emissions (lbs/day)	0.198	0.798
	Average Daily Emissions (lbs/hr)	2.48E-02	9.98E-02
Phase 2	Emission Rate (g/s)	3.12E-03	1.26E-02
2020 Onsite Emissions	Average Daily Emissions (lbs/day)	0.216	0.216
	Average Daily Emissions (lbs/hr)	2.71E-02	2.71E-02
Phase 2	Emission Rate (g/s)	3.41E-03	3.41E-03

Note: Onsite emissions assumed to be evenly distributed over entire construction area

Offsite Construction Emissions - Mitigated		DPM [1]	$PM_{2.5}$ [2]
2016 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.235	1.201
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	1.12E-02	5.70E-02
	Emission Rate (lbs/hr)	1.40E-03	7.13E-03
Phase 1	Emission Rate (g/s)	1.76E-04	8.98E-04
2017 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.422	2.649
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	2.00E-02	1.26E-01
	Emission Rate (lbs/hr)	2.51E-03	1.57E-02
Phase 1	Emission Rate (g/s)	3.16E-04	1.98E-03
2018 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.394	2.624
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	1.87E-02	1.25E-01
	Emission Rate (lbs/hr)	2.34E-03	1.56E-02
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2019 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.374	2.796
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	1.78E-02	1.33E-01
	Emission Rate (lbs/hr)	2.22E-03	1.66E-02
Phase 1	Emission Rate (g/s)	2.80E-04	2.09E-03
2016 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.010	0.052
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	4.75E-04	2.47E-03
	Emission Rate (lbs/hr)	5.94E-05	3.09E-04
Phase 1 Library	Emission Rate (g/s)	1.76E-04	8.98E-04
2019 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.041	0.325
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	1.95E-03	1.54E-02
	Emission Rate (lbs/hr)	2.43E-04	1.93E-03
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2020 Offsite Emissions	Haul Length Daily Emissions (lbs/day)	0.061	0.523
	Hauling Emissions w/in 1,000 ft (lbs/day)[3]	2.90E-03	2.48E-02
	Emission Rate (lbs/hr)	3.62E-04	3.11E-03
Phase 2	Emission Rate (g/s)	4.56E-05	3.91E-04

Note: Offsite emissions evenly distributed over 108 modeled volume sources

Hours per work day (7:00 AM to 4:00 PM, 1-hour lunch break)	8

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Phase 1 2016	365	1.000
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Phase 1 2018	365	1.000
Phase 1 2019	157	0.430
Phase 2 2019	208	0.570
Phase 2 2020	295	0.808
Library 2016	315	0.863

Default Hauling Length (miles)	20
Haul Length within 1,000 ft of Site (mile	0.95

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

[2] $PM_{2.5}$ emissions taken as total $PM_{2.5}$ (exhaust and fugitive dust) emissions from CalEEMod average daily emissions.

[3] Emissions from CalEEMod offsite average daily emissions, which is based on haul truck trips o20 miles (model default) to evaluate emissions from 0.95 mile route within 1,000 feet of project site.

[4] Scalar for days per year is the fraction of days during one calendar year (365 days) for each construction phase.

Criteria Air Pollutant Emissions Summary - Construction

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total		8.44	30.13	43.82	0.08	3.87	1.28	5.15	1.11	1.19	2.31
Total Mit		7.11	21.71	43.17	0.08	3.87	0.31	4.18	1.11	0.30	1.41

Average Annual Emissions With Best Control Measures for Fugitive Dust

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016	Phase 1	0.98	8.38	9.10	0.01	0.84	0.37	1.22	0.27	0.34	0.61
2017		1.16	7.21	12.29	0.02	1.08	0.29	1.37	0.29	0.27	0.56
2018		1.04	6.46	11.51	0.02	1.08	0.25	1.33	0.30	0.23	0.53
2019		2.39	3.02	5.30	0.01	0.51	0.12	0.63	0.14	0.11	0.25
2019	Phase 2	0.27	2.48	2.42	0.00	0.17	0.12	0.30	0.07	0.12	0.18
2020		2.61	2.58	3.21	0.01	0.18	0.13	0.31	0.05	0.12	0.17

FOR CONSTRUCTION HRA - Unmitigated Run

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	Phase 1	0.61	6.28	4.32	0.01	0.37	0.34	0.71	0.14	0.32	0.46
2016 Offsite		0.37	2.11	4.78	0.01	0.47	0.03	0.50	0.13	0.03	0.16
2017 Onsite		0.40	3.43	2.36	0.00	0.00	0.23	0.23	0.00	0.22	0.22
2017 Offsite		0.75	3.77	9.94	0.02	1.08	0.05	1.13	0.29	0.05	0.34
2018 Onsite		0.35	3.04	2.29	0.00	0.00	0.20	0.20	0.00	0.18	0.18
2018 Offsite		0.69	3.43	9.22	0.02	1.08	0.05	1.14	0.30	0.05	0.34
2019 Onsite		2.10	1.65	1.41	0.00	0.00	0.10	0.10	0.00	0.09	0.09
2019 Offsite		0.29	1.37	3.89	0.01	0.51	0.02	0.53	0.14	0.02	0.16
2019 Onsite	Phase 2	0.23	2.29	1.84	0.00	0.09	0.12	0.22	0.04	0.11	0.16
2019 Offsite		0.04	0.20	0.58	0.00	0.08	0.00	0.08	0.02	0.00	0.02
2020 Onsite		2.52	2.18	1.94	0.00	0.00	0.13	0.13	0.00	0.12	0.12
2020 Offsite		0.09	0.40	1.27	0.00	0.18	0.01	0.19	0.05	0.01	0.06
2016 Onsite	Library	0.39	2.48	1.78	0.00	0.01	0.16	0.17	0.00	0.16	0.16
2016 Offsite		0.01	0.08	0.18	0.00	0.02	0.00	0.02	0.00	0.00	0.01

Migated Run

	tons/yr	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite Mit	Phase 1	0.15	2.63	3.37	0.01	0.37	0.03	0.40	0.14	0.03	0.17
2016 Offsite Mit		0.37	2.11	4.78	0.01	0.47	0.03	0.50	0.13	0.03	0.16
2017 Onsite Mit		0.14	1.85	2.37	0.00	0.00	0.03	0.03	0.00	0.03	0.03
2017 Offsite Mit		0.75	3.77	9.94	0.02	1.08	0.05	1.13	0.29	0.05	0.34
2018 Onsite Mit		0.13	1.85	2.37	0.00	0.00	0.03	0.03	0.00	0.03	0.03
2018 Offsite Mit		0.69	3.43	9.22	0.02	1.08	0.05	1.14	0.30	0.05	0.34
2019 Onsite Mit		1.99	1.14	1.54	0.00	0.00	0.02	0.02	0.00	0.02	0.02
2019 Offsite Mit		0.29	1.37	3.89	0.01	0.51	0.02	0.53	0.14	0.02	0.16
2019 Onsite Mit	Phase 2	0.08	1.35	1.74	0.00	0.09	0.01	0.11	0.04	0.01	0.06
2019 Offsite Mit		0.04	0.20	0.58	0.00	0.08	0.00	0.08	0.02	0.00	0.02
2020 Onsite Mit		2.38	1.61	2.10	0.00	0.00	0.02	0.02	0.00	0.02	0.02
2020 Offsite Mit		0.09	0.40	1.27	0.00	0.18	0.01	0.19	0.05	0.01	0.06
2016 Onsite Mit	Library	0.23	1.42	1.73	0.00	0.01	0.05	0.06	0.00	0.05	0.05
2016 Offsite Mit		0.01	0.08	0.18	0.00	0.02	0.00	0.02	0.00	0.00	0.01

Average Daily Emission Calculations (lbs/day)

Criteria Air Pollutant Emissions Summary - Construction

Annual emissions divided by total construction duration to obtain average daily emissions. Average construction emissions accounts for the duration of each construction phase and the time each piece of construction equipment is onsite.

Unmigated Run

Annual Average Emissions with Best Control Measures for Fugitive Dust

avg lbs/day	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Total	13.46	48.02	69.84	0.13	6.17	2.04	8.21	1.77	1.90	3.67

FOR CONSTRUCTION HRA

Onsite Details with Best Control Measures for Fugitive Dust

avg lbs/day		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	Phase 1	4.65	48.10	33.07	0.04	2.86	2.606	5.46	1.07	2.42	3.487
2017 Onsite		3.10	26.41	18.13	0.03	0.00	1.782	1.78	0.00	1.67	1.673
2018 Onsite		2.67	23.26	17.53	0.03	0.00	1.494	1.49	0.00	1.40	1.405
2019 Onsite		37.16	29.13	25.01	0.04	0.00	1.742	1.74	0.00	1.63	1.634
2019 Onsite	Phase 2	3.11	30.91	24.86	0.04	1.28	1.641	2.92	0.60	1.53	2.127
2020 Onsite		23.78	20.54	18.33	0.03	0.00	1.193	1.19	0.00	1.12	1.121
2016 Onsite	Library	3.49	21.97	15.79	0.02	0.08	1.441	1.52	0.03	1.38	1.415

Offsite Details with Best Control Measures for Fugitive Dust

avg lbs/day		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Offsite	Phase 1	2.83	16.15	36.62	0.07	3.62	0.235	3.85	0.99	0.22	1.201
2017 Offsite		5.79	29.02	76.42	0.15	8.31	0.422	8.73	2.26	0.39	2.649
2018 Offsite		5.30	26.26	70.65	0.15	8.31	0.394	8.70	2.26	0.36	2.624
2019 Offsite		5.07	24.31	68.84	0.16	9.02	0.374	9.39	2.45	0.35	2.796
2019 Offsite	Phase 2	0.57	2.64	7.79	0.02	1.06	0.041	1.10	0.29	0.04	0.325
2020 Offsite		0.86	3.77	11.95	0.03	1.72	0.061	1.78	0.47	0.06	0.523
2016 Offsite	Library	0.12	0.67	1.59	0.00	0.16	0.010	0.17	0.04	0.01	0.052

Migated Run

FOR CONSTRUCTION HRA

Onsite Details with Best Control Measures for Fugitive Dust, Tier 3 Engines, Level 3 Diesel Particulate Filters

avg lbs/day		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Onsite	Phase 1	1.18	20.19	25.86	0.04	2.86	0.205	3.06	1.07	0.21	1.273
2017 Onsite		1.07	14.22	18.23	0.03	0.00	0.248	0.25	0.00	0.25	0.248
2018 Onsite		1.01	14.17	18.18	0.03	0.00	0.234	0.23	0.00	0.23	0.234
2019 Onsite		35.23	20.15	27.26	0.04	0.00	0.270	0.27	0.00	0.27	0.270
2019 Onsite	Phase 2	1.06	18.28	23.46	0.04	1.28	0.198	1.48	0.60	0.20	0.798
2020 Onsite		22.48	15.23	19.86	0.03	0.00	0.216	0.22	0.00	0.22	0.216
2016 Onsite	Library	2.04	12.57	15.28	0.02	0.08	0.448	0.52	0.03	0.45	0.481

Offsite Details with Best Control Measures for Fugitive Dust, Tier 3 Engines, Level 3 Diesel Particulate Filters

avg lbs/day		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
2016 Offsite	Phase 1	2.83	16.15	36.62	0.07	3.62	0.235	3.85	0.99	0.22	1.201
2017 Offsite		5.79	29.02	76.42	0.15	8.31	0.422	8.73	2.26	0.39	2.649
2018 Offsite		5.30	26.26	70.65	0.15	8.31	0.394	8.70	2.26	0.36	2.624
2019 Offsite		5.07	24.31	68.84	0.16	9.02	0.374	9.39	2.45	0.35	2.796
2019 Offsite	Phase 2	0.57	2.64	7.79	0.02	1.06	0.041	1.10	0.29	0.04	0.325
2020 Offsite		0.86	3.77	11.95	0.03	1.72	0.061	1.78	0.47	0.06	0.523
2016 Offsite	Library	0.12	0.67	1.59	0.00	0.16	0.010	0.17	0.04	0.01	0.052

San Leandro Shoreline - Construction Library

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	2.50	1000sqft	0.06	2,500.00	0
Parking Lot	80.00	Space	1.24	32,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Land Use - Project Desciption and TIA (Kittelson, 2014)

Construction Phase - Libary construction conservatively assumed in 2016

Demolition - Library building and parking lot demo only

Grading - Site balanced

Architectural Coating - Modified non-residential interior/exterior painting areas

Construction Off-road Equipment Mitigation - BAAQMD Best Control Measures

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,730.00	3,170.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	5,190.00	3,750.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstructionPhase	PhaseEndDate	11/25/2016	11/11/2016
tblConstructionPhase	PhaseEndDate	11/25/2016	11/11/2016
tblConstructionPhase	PhaseStartDate	11/12/2016	10/31/2016
tblConstructionPhase	PhaseStartDate	11/12/2016	10/31/2016
tblLandUse	LotAcreage	0.72	1.24
tblProjectCharacteristics	OperationalYear	2014	2020

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.4081	2.5588	1.9645	2.9000e-003	0.0390	0.1638	0.2028	0.0138	0.1572	0.1710	0.0000	247.9586	247.9586	0.0507	0.0000	249.0228
Total	**0.4081**	**2.5588**	**1.9645**	**2.9000e-003**	**0.0390**	**0.1638**	**0.2028**	**0.0138**	**0.1572**	**0.1710**	**0.0000**	**247.9586**	**247.9586**	**0.0507**	**0.0000**	**249.0228**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.4081	2.5588	1.9645	2.9000e-003	0.0262	0.1638	0.1900	8.5000e-003	0.1572	0.1657	0.0000	247.9584	247.9584	0.0507	0.0000	249.0226
Total	**0.4081**	**2.5588**	**1.9645**	**2.9000e-003**	**0.0262**	**0.1638**	**0.1900**	**8.5000e-003**	**0.1572**	**0.1657**	**0.0000**	**247.9584**	**247.9584**	**0.0507**	**0.0000**	**249.0226**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**32.93**	**0.00**	**6.33**	**38.45**	**0.00**	**3.11**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	10/31/2016	11/11/2016	5	10	
6	Architectural Coating	Architectural Coating	10/31/2016	11/11/2016	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,750; Non-Residential Outdoor: 3,170 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	40.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	14.00	6.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.3100e-003	0.0000	4.3100e-003	6.5000e-004	0.0000	6.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5629	22.5629	5.7000e-003	0.0000	22.6827
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**	**4.3100e-003**	**0.0175**	**0.0218**	**6.5000e-004**	**0.0163**	**0.0170**	**0.0000**	**22.5629**	**22.5629**	**5.7000e-003**	**0.0000**	**22.6827**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5000e-004	6.0000e-003	4.9000e-003	2.0000e-005	3.4000e-004	8.0000e-005	4.2000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.3801	1.3801	1.0000e-005	0.0000	1.3803
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	7.4000e-004	7.1000e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0733	1.0733	6.0000e-005	0.0000	1.0746
Total	**9.5000e-004**	**6.7400e-003**	**0.0120**	**3.0000e-005**	**1.5200e-003**	**9.0000e-005**	**1.6100e-003**	**4.0000e-004**	**8.0000e-005**	**4.8000e-004**	**0.0000**	**2.4535**	**2.4535**	**7.0000e-005**	**0.0000**	**2.4549**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.8400e-003	0.0000	1.8400e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5628	22.5628	5.7000e-003	0.0000	22.6826
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**	**1.8400e-003**	**0.0175**	**0.0193**	**2.8000e-004**	**0.0163**	**0.0166**	**0.0000**	**22.5628**	**22.5628**	**5.7000e-003**	**0.0000**	**22.6826**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5000e-004	6.0000e-003	4.9000e-003	2.0000e-005	3.1000e-004	8.0000e-005	3.9000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.3801	1.3801	1.0000e-005	0.0000	1.3803
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	7.4000e-004	7.1000e-003	1.0000e-005	1.0900e-003	1.0000e-005	1.1000e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0733	1.0733	6.0000e-005	0.0000	1.0746
Total	**9.5000e-004**	**6.7400e-003**	**0.0120**	**3.0000e-005**	**1.4000e-003**	**9.0000e-005**	**1.4900e-003**	**3.8000e-004**	**8.0000e-005**	**4.6000e-004**	**0.0000**	**2.4535**	**2.4535**	**7.0000e-005**	**0.0000**	**2.4549**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	5.0000e-005	4.4000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0661	0.0661	0.0000	0.0000	0.0661
Total	**3.0000e-005**	**5.0000e-005**	**4.4000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0661**	**0.0661**	**0.0000**	**0.0000**	**0.0661**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4800e-003	0.0000	2.4800e-003	1.2600e-003	0.0000	1.2600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**2.4800e-003**	**1.4000e-003**	**3.8800e-003**	**1.2600e-003**	**1.2900e-003**	**2.5500e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	5.0000e-005	4.4000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0661	0.0661	0.0000	0.0000	0.0661
Total	**3.0000e-005**	**5.0000e-005**	**4.4000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0661**	**0.0661**	**0.0000**	**0.0000**	**0.0661**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.7000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1321	0.1321	1.0000e-005	0.0000	0.1323
Total	**6.0000e-005**	**9.0000e-005**	**8.7000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1321**	**0.1321**	**1.0000e-005**	**0.0000**	**0.1323**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.2000e-003	0.0000	4.2000e-003	2.1600e-003	0.0000	2.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**4.2000e-003**	**2.2800e-003**	**6.4800e-003**	**2.1600e-003**	**2.1000e-003**	**4.2600e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.7000e-004	0.0000	1.3000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1321	0.1321	1.0000e-005	0.0000	0.1323
Total	**6.0000e-005**	**9.0000e-005**	**8.7000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1321**	**0.1321**	**1.0000e-005**	**0.0000**	**0.1323**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6956	185.6956	0.0408	0.0000	186.5527
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6956**	**185.6956**	**0.0408**	**0.0000**	**186.5527**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1900e-003	0.0607	0.0859	1.4000e-004	3.8800e-003	9.1000e-004	4.7900e-003	1.1100e-003	8.4000e-004	1.9500e-003	0.0000	13.0755	13.0755	1.1000e-004	0.0000	13.0777
Worker	5.3600e-003	7.9200e-003	0.0765	1.5000e-004	0.0127	1.1000e-004	0.0128	3.3800e-003	1.0000e-004	3.4800e-003	0.0000	11.5589	11.5589	6.5000e-004	0.0000	11.5727
Total	**0.0126**	**0.0686**	**0.1624**	**2.9000e-004**	**0.0166**	**1.0200e-003**	**0.0176**	**4.4900e-003**	**9.4000e-004**	**5.4300e-003**	**0.0000**	**24.6344**	**24.6344**	**7.6000e-004**	**0.0000**	**24.6504**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6954	185.6954	0.0408	0.0000	186.5525
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6954**	**185.6954**	**0.0408**	**0.0000**	**186.5525**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1900e-003	0.0607	0.0859	1.4000e-004	3.6300e-003	9.1000e-004	4.5400e-003	1.0500e-003	8.4000e-004	1.8900e-003	0.0000	13.0755	13.0755	1.1000e-004	0.0000	13.0777
Worker	5.3600e-003	7.9200e-003	0.0765	1.5000e-004	0.0117	1.1000e-004	0.0118	3.1400e-003	1.0000e-004	3.2400e-003	0.0000	11.5589	11.5589	6.5000e-004	0.0000	11.5727
Total	**0.0126**	**0.0686**	**0.1624**	**2.9000e-004**	**0.0154**	**1.0200e-003**	**0.0164**	**4.1900e-003**	**9.4000e-004**	**5.1300e-003**	**0.0000**	**24.6344**	**24.6344**	**7.6000e-004**	**0.0000**	**24.6504**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	1.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.0600e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.7000e-004	3.5500e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5367	0.5367	3.0000e-005	0.0000	0.5373
Total	**2.5000e-004**	**3.7000e-004**	**3.5500e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5367**	**0.5367**	**3.0000e-005**	**0.0000**	**0.5373**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	1.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.0600e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.7000e-004	3.5500e-003	1.0000e-005	5.4000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5367	0.5367	3.0000e-005	0.0000	0.5373
Total	**2.5000e-004**	**3.7000e-004**	**3.5500e-003**	**1.0000e-005**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5367**	**0.5367**	**3.0000e-005**	**0.0000**	**0.5373**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0197					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.0216**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	8.2000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1239	0.1239	1.0000e-005	0.0000	0.1240
Total	**6.0000e-005**	**8.0000e-005**	**8.2000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1239**	**0.1239**	**1.0000e-005**	**0.0000**	**0.1240**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0197					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.0216**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	8.2000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1239	0.1239	1.0000e-005	0.0000	0.1240
Total	**6.0000e-005**	**8.0000e-005**	**8.2000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1239**	**0.1239**	**1.0000e-005**	**0.0000**	**0.1240**

San Leandro Shoreline - Construction Library

Mitigated Scenario

Alameda County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Library	2.50	1000sqft	0.06	2,500.00	0
Parking Lot	80.00	Space	1.24	32,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2020
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project Desciption and TIA (Kittelson, 2014)

Construction Phase - Libary construction conservatively assumed in 2016

Demolition - Library building and parking lot demo only

Grading - Site balanced

Architectural Coating - Modified non-residential interior/exterior painting areas

Construction Off-road Equipment Mitigation - BAAQMD Best Control Measures

Vehicle Trips -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	ConstArea_Nonresidential_Exterior	1,730.00	3,170.00
tblArchitecturalCoating	ConstArea_Nonresidential_Interior	5,190.00	3,750.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	9
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	DPF	No Change	Level 3
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00

tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	3.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	7.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	PhaseEndDate	11/25/2016	11/11/2016
tblConstructionPhase	PhaseEndDate	11/25/2016	11/11/2016
tblConstructionPhase	PhaseStartDate	11/12/2016	10/31/2016
tblConstructionPhase	PhaseStartDate	11/12/2016	10/31/2016
tblLandUse	LotAcreage	0.72	1.24
tblProjectCharacteristics	OperationalYear	2014	2020

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.4081	2.5588	1.9645	2.9000e-003	0.0390	0.1638	0.2028	0.0138	0.1572	0.1710	0.0000	247.9586	247.9586	0.0507	0.0000	249.0228
Total	**0.4081**	**2.5588**	**1.9645**	**2.9000e-003**	**0.0390**	**0.1638**	**0.2028**	**0.0138**	**0.1572**	**0.1710**	**0.0000**	**247.9586**	**247.9586**	**0.0507**	**0.0000**	**249.0228**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2016	0.2446	1.4965	1.9073	2.9000e-003	0.0262	0.0517	0.0778	8.5000e-003	0.0516	0.0601	0.0000	247.9584	247.9584	0.0507	0.0000	249.0226
Total	**0.2446**	**1.4965**	**1.9073**	**2.9000e-003**	**0.0262**	**0.0517**	**0.0778**	**8.5000e-003**	**0.0516**	**0.0601**	**0.0000**	**247.9584**	**247.9584**	**0.0507**	**0.0000**	**249.0226**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**40.06**	**41.52**	**2.91**	**0.00**	**32.93**	**68.46**	**61.63**	**38.45**	**67.19**	**64.86**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2016	1/28/2016	5	20	
2	Site Preparation	Site Preparation	1/29/2016	2/1/2016	5	2	
3	Grading	Grading	2/2/2016	2/5/2016	5	4	
4	Building Construction	Building Construction	2/6/2016	11/11/2016	5	200	
5	Paving	Paving	10/31/2016	11/11/2016	5	10	
6	Architectural Coating	Architectural Coating	10/31/2016	11/11/2016	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 3,750; Non-Residential Outdoor: 3,170 (Architectural Coating –

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Rubber Tired Dozers	1	8.00	255	0.40
Site Preparation	Rubber Tired Dozers	1	7.00	255	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Graders	1	8.00	174	0.41
Grading	Graders	1	6.00	174	0.41
Grading	Rubber Tired Dozers	1	6.00	255	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Building Construction	Cranes	1	6.00	226	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Pavers	1	6.00	125	0.42
Paving	Paving Equipment	1	8.00	130	0.36
Paving	Rollers	1	7.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	40.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	14.00	6.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	3.00	0.00	0.00	12.40	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Use DPF for Construction Equipment

Replace Ground Cover

Water Exposed Area

Reduce Vehicle Speed on Unpaved Roads

Clean Paved Roads

3.2 Demolition - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.3100e-003	0.0000	4.3100e-003	6.5000e-004	0.0000	6.5000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0291	0.2826	0.2150	2.4000e-004		0.0175	0.0175		0.0163	0.0163	0.0000	22.5629	22.5629	5.7000e-003	0.0000	22.6827
Total	**0.0291**	**0.2826**	**0.2150**	**2.4000e-004**	**4.3100e-003**	**0.0175**	**0.0218**	**6.5000e-004**	**0.0163**	**0.0170**	**0.0000**	**22.5629**	**22.5629**	**5.7000e-003**	**0.0000**	**22.6827**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5000e-004	6.0000e-003	4.9000e-003	2.0000e-005	3.4000e-004	8.0000e-005	4.2000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.3801	1.3801	1.0000e-005	0.0000	1.3803
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	7.4000e-004	7.1000e-003	1.0000e-005	1.1800e-003	1.0000e-005	1.1900e-003	3.1000e-004	1.0000e-005	3.2000e-004	0.0000	1.0733	1.0733	6.0000e-005	0.0000	1.0746
Total	**9.5000e-004**	**6.7400e-003**	**0.0120**	**3.0000e-005**	**1.5200e-003**	**9.0000e-005**	**1.6100e-003**	**4.0000e-004**	**8.0000e-005**	**4.8000e-004**	**0.0000**	**2.4535**	**2.4535**	**7.0000e-005**	**0.0000**	**2.4549**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.8400e-003	0.0000	1.8400e-003	2.8000e-004	0.0000	2.8000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.6900e-003	0.1223	0.1556	2.4000e-004		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003	0.0000	22.5628	22.5628	5.7000e-003	0.0000	22.6826
Total	**5.6900e-003**	**0.1223**	**0.1556**	**2.4000e-004**	**1.8400e-003**	**1.0800e-003**	**2.9200e-003**	**2.8000e-004**	**1.0800e-003**	**1.3600e-003**	**0.0000**	**22.5628**	**22.5628**	**5.7000e-003**	**0.0000**	**22.6826**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	4.5000e-004	6.0000e-003	4.9000e-003	2.0000e-005	3.1000e-004	8.0000e-005	3.9000e-004	9.0000e-005	7.0000e-005	1.6000e-004	0.0000	1.3801	1.3801	1.0000e-005	0.0000	1.3803
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-004	7.4000e-004	7.1000e-003	1.0000e-005	1.0900e-003	1.0000e-005	1.1000e-003	2.9000e-004	1.0000e-005	3.0000e-004	0.0000	1.0733	1.0733	6.0000e-005	0.0000	1.0746
Total	**9.5000e-004**	**6.7400e-003**	**0.0120**	**3.0000e-005**	**1.4000e-003**	**9.0000e-005**	**1.4900e-003**	**3.8000e-004**	**8.0000e-005**	**4.6000e-004**	**0.0000**	**2.4535**	**2.4535**	**7.0000e-005**	**0.0000**	**2.4549**

3.3 Site Preparation - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.4400e-003	0.0258	0.0165	2.0000e-005		1.4000e-003	1.4000e-003		1.2900e-003	1.2900e-003	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**2.4400e-003**	**0.0258**	**0.0165**	**2.0000e-005**	**5.8000e-003**	**1.4000e-003**	**7.2000e-003**	**2.9500e-003**	**1.2900e-003**	**4.2400e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	5.0000e-005	4.4000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0661	0.0661	0.0000	0.0000	0.0661
Total	**3.0000e-005**	**5.0000e-005**	**4.4000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0661**	**0.0661**	**0.0000**	**0.0000**	**0.0661**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.4800e-003	0.0000	2.4800e-003	1.2600e-003	0.0000	1.2600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.2000e-004	8.3100e-003	0.0111	2.0000e-005		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	1.6158	1.6158	4.9000e-004	0.0000	1.6260
Total	**4.2000e-004**	**8.3100e-003**	**0.0111**	**2.0000e-005**	**2.4800e-003**	**6.0000e-005**	**2.5400e-003**	**1.2600e-003**	**6.0000e-005**	**1.3200e-003**	**0.0000**	**1.6158**	**1.6158**	**4.9000e-004**	**0.0000**	**1.6260**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	5.0000e-005	4.4000e-004	0.0000	7.0000e-005	0.0000	7.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0661	0.0661	0.0000	0.0000	0.0661
Total	**3.0000e-005**	**5.0000e-005**	**4.4000e-004**	**0.0000**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0661**	**0.0661**	**0.0000**	**0.0000**	**0.0661**

3.4 Grading - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.9800e-003	0.0421	0.0273	3.0000e-005		2.2800e-003	2.2800e-003		2.1000e-003	2.1000e-003	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**3.9800e-003**	**0.0421**	**0.0273**	**3.0000e-005**	**9.8300e-003**	**2.2800e-003**	**0.0121**	**5.0500e-003**	**2.1000e-003**	**7.1500e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.7000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1321	0.1321	1.0000e-005	0.0000	0.1323
Total	**6.0000e-005**	**9.0000e-005**	**8.7000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1321**	**0.1321**	**1.0000e-005**	**0.0000**	**0.1323**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.2000e-003	0.0000	4.2000e-003	2.1600e-003	0.0000	2.1600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8000e-004	0.0137	0.0181	3.0000e-005		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004	0.0000	2.6541	2.6541	8.0000e-004	0.0000	2.6710
Total	**6.8000e-004**	**0.0137**	**0.0181**	**3.0000e-005**	**4.2000e-003**	**1.0000e-004**	**4.3000e-003**	**2.1600e-003**	**1.0000e-004**	**2.2600e-003**	**0.0000**	**2.6541**	**2.6541**	**8.0000e-004**	**0.0000**	**2.6710**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	9.0000e-005	8.7000e-004	0.0000	1.3000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1321	0.1321	1.0000e-005	0.0000	0.1323
Total	**6.0000e-005**	**9.0000e-005**	**8.7000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1321**	**0.1321**	**1.0000e-005**	**0.0000**	**0.1323**

3.5 Building Construction - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3292	2.0546	1.4707	2.2000e-003		0.1366	0.1366		0.1318	0.1318	0.0000	185.6956	185.6956	0.0408	0.0000	186.5527
Total	**0.3292**	**2.0546**	**1.4707**	**2.2000e-003**		**0.1366**	**0.1366**		**0.1318**	**0.1318**	**0.0000**	**185.6956**	**185.6956**	**0.0408**	**0.0000**	**186.5527**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1900e-003	0.0607	0.0859	1.4000e-004	3.8800e-003	9.1000e-004	4.7900e-003	1.1100e-003	8.4000e-004	1.9500e-003	0.0000	13.0755	13.0755	1.1000e-004	0.0000	13.0777
Worker	5.3600e-003	7.9200e-003	0.0765	1.5000e-004	0.0127	1.1000e-004	0.0128	3.3800e-003	1.0000e-004	3.4800e-003	0.0000	11.5589	11.5589	6.5000e-004	0.0000	11.5727
Total	**0.0126**	**0.0686**	**0.1624**	**2.9000e-004**	**0.0166**	**1.0200e-003**	**0.0176**	**4.4900e-003**	**9.4000e-004**	**5.4300e-003**	**0.0000**	**24.6344**	**24.6344**	**7.6000e-004**	**0.0000**	**24.6504**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2008	1.2367	1.4847	2.2000e-003		0.0490	0.0490		0.0490	0.0490	0.0000	185.6954	185.6954	0.0408	0.0000	186.5525
Total	**0.2008**	**1.2367**	**1.4847**	**2.2000e-003**		**0.0490**	**0.0490**		**0.0490**	**0.0490**	**0.0000**	**185.6954**	**185.6954**	**0.0408**	**0.0000**	**186.5525**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	7.1900e-003	0.0607	0.0859	1.4000e-004	3.6300e-003	9.1000e-004	4.5400e-003	1.0500e-003	8.4000e-004	1.8900e-003	0.0000	13.0755	13.0755	1.1000e-004	0.0000	13.0777
Worker	5.3600e-003	7.9200e-003	0.0765	1.5000e-004	0.0117	1.1000e-004	0.0118	3.1400e-003	1.0000e-004	3.2400e-003	0.0000	11.5589	11.5589	6.5000e-004	0.0000	11.5727
Total	**0.0126**	**0.0686**	**0.1624**	**2.9000e-004**	**0.0154**	**1.0200e-003**	**0.0164**	**4.1900e-003**	**9.4000e-004**	**5.1300e-003**	**0.0000**	**24.6344**	**24.6344**	**7.6000e-004**	**0.0000**	**24.6504**

3.6 Paving - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.4400e-003	0.0660	0.0454	7.0000e-005		4.0400e-003	4.0400e-003		3.7200e-003	3.7200e-003	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	1.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.0600e-003**	**0.0660**	**0.0454**	**7.0000e-005**		**4.0400e-003**	**4.0400e-003**		**3.7200e-003**	**3.7200e-003**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.7000e-004	3.5500e-003	1.0000e-005	5.9000e-004	1.0000e-005	6.0000e-004	1.6000e-004	0.0000	1.6000e-004	0.0000	0.5367	0.5367	3.0000e-005	0.0000	0.5373
Total	**2.5000e-004**	**3.7000e-004**	**3.5500e-003**	**1.0000e-005**	**5.9000e-004**	**1.0000e-005**	**6.0000e-004**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**0.5367**	**0.5367**	**3.0000e-005**	**0.0000**	**0.5373**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.5700e-003	0.0327	0.0485	7.0000e-005		2.9000e-004	2.9000e-004		2.9000e-004	2.9000e-004	0.0000	6.2071	6.2071	1.8400e-003	0.0000	6.2457
Paving	1.6200e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.1900e-003**	**0.0327**	**0.0485**	**7.0000e-005**		**2.9000e-004**	**2.9000e-004**		**2.9000e-004**	**2.9000e-004**	**0.0000**	**6.2071**	**6.2071**	**1.8400e-003**	**0.0000**	**6.2457**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	3.7000e-004	3.5500e-003	1.0000e-005	5.4000e-004	1.0000e-005	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5367	0.5367	3.0000e-005	0.0000	0.5373
Total	**2.5000e-004**	**3.7000e-004**	**3.5500e-003**	**1.0000e-005**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5367**	**0.5367**	**3.0000e-005**	**0.0000**	**0.5373**

3.7 Architectural Coating - 2016

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0197					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8400e-003	0.0119	9.4200e-003	1.0000e-005		9.8000e-004	9.8000e-004		9.8000e-004	9.8000e-004	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.0216**	**0.0119**	**9.4200e-003**	**1.0000e-005**		**9.8000e-004**	**9.8000e-004**		**9.8000e-004**	**9.8000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	8.2000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1239	0.1239	1.0000e-005	0.0000	0.1240
Total	**6.0000e-005**	**8.0000e-005**	**8.2000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1239**	**0.1239**	**1.0000e-005**	**0.0000**	**0.1240**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0197					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0000e-004	6.7800e-003	9.1600e-003	1.0000e-005		7.0000e-005	7.0000e-005		7.0000e-005	7.0000e-005	0.0000	1.2766	1.2766	1.5000e-004	0.0000	1.2798
Total	**0.0200**	**6.7800e-003**	**9.1600e-003**	**1.0000e-005**		**7.0000e-005**	**7.0000e-005**		**7.0000e-005**	**7.0000e-005**	**0.0000**	**1.2766**	**1.2766**	**1.5000e-004**	**0.0000**	**1.2798**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	8.0000e-005	8.2000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1239	0.1239	1.0000e-005	0.0000	0.1240
Total	**6.0000e-005**	**8.0000e-005**	**8.2000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1239**	**0.1239**	**1.0000e-005**	**0.0000**	**0.1240**

BAAQMD Meteorological Site

Name: Chabot
Site ID: 1903
Start Date: 8/31/1989
End Date: current
Operator: BAAQMD
Latitude: 37.7208
Longitude: 122.0991
Elevation: 170.7 m
Wind Height: 10 m
UTM - East: 579.392
UTM - North: 4175.220
County: Alameda
Sensors: ws,wd,temp

Files for Downloading

Year	ASCII	ISCST3 300 m mixing height	ISCST3 600 m mixing height
2005	metdata1903-05met.zip	metdata1903-05300.zip	metdata1903-05600.zip
2004	metdata1903-04met.zip	metdata1903-04300.zip	metdata1903-04600.zip
2003	metdata1903-03met.zip	metdata1903-03300.zip	metdata1903-03600.zip
2002	metdata1903-02met.zip	metdata1903-02300.zip	metdata1903-02600.zip
2001	metdata1903-01met.zip	A	A
2000	metdata1903-00met.zip	metdata1903-003ra.zip	metdata1903-006ra.zip
1999	metdata1903-99met.zip	A	A
1998	metdata1903-98met.zip	A	A
1997	metdata1903-97met.zip	metdata1903-97300.zip	metdata1903-97600.zip
1996	metdata1903-96met.zip	metdata1903-96300.zip	metdata1903-96600.zip
1995	metdata1903-95met.zip	A	A
1994	metdata1903-94met.zip	A	A
1993	metdata1903-93met.zip	metdata1903-93300.zip	metdata1903-93600.zip
1992	metdata1903-92met.zip	metdata1903-92300.zip	metdata1903-92600.zip
1991	metdata1903-91met.zip	metdata1903-91300.zip	metdata1903-91600.zip
1990	metdata1903-90met.zip	metdata1903-90300.zip	metdata1903-90600.zip

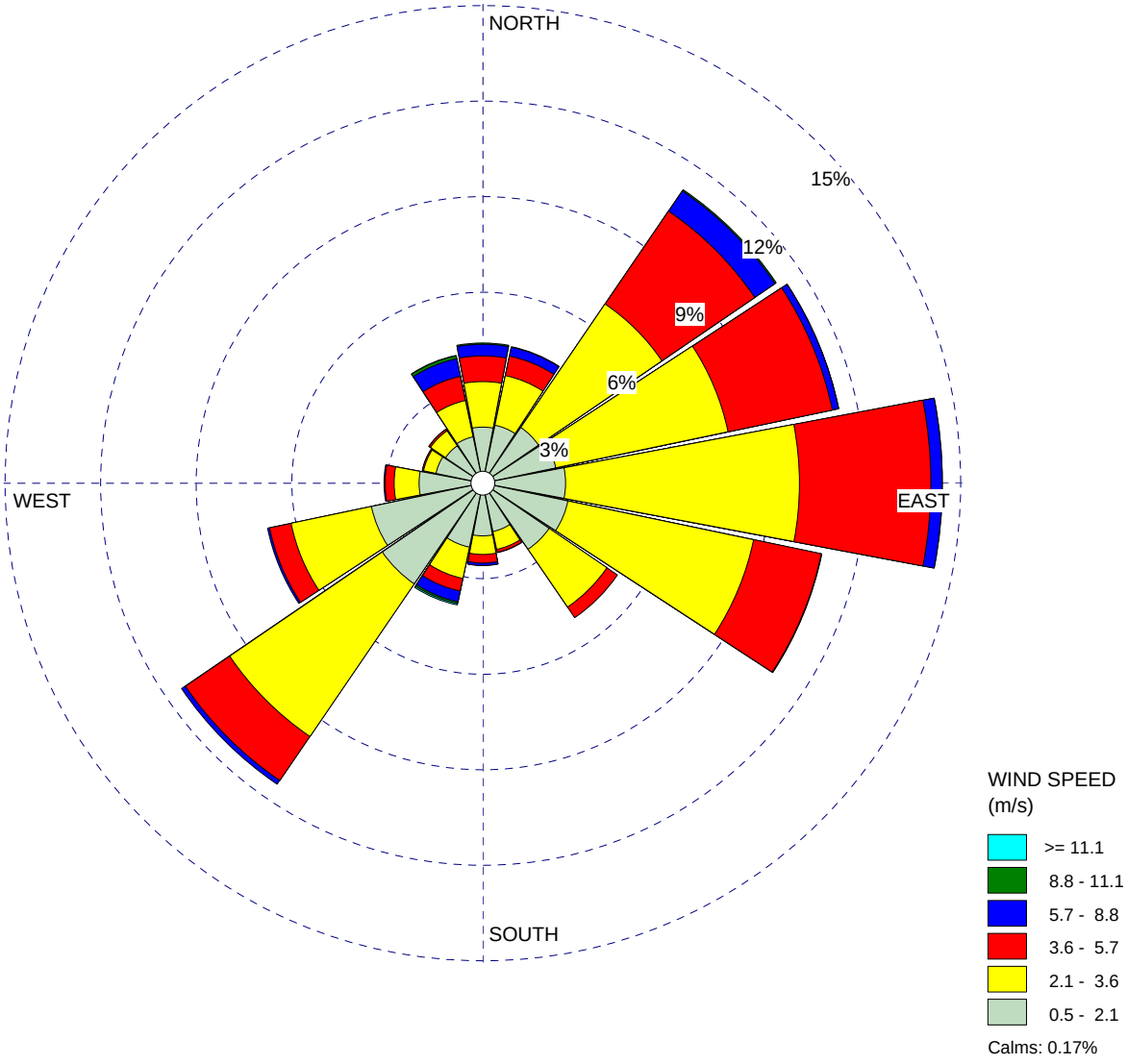
Note: An “A” instead of a filename for any given year in the ASCII column signifies the data are missing. An “A” in the ISCST3 columns indicates the data are either missing or do not meet the EPA 90% data capture rate required for regulatory modeling applications.

WIND ROSE PLOT:

Chabot Monitoring Station
1/1/2003-12/31/2005

DISPLAY:

Wind Speed
Flow Vector (blowing to)



COMMENTS:	DATA PERIOD: **Start Date: 1/1/2003 - 00:00** **End Date: 12/31/2005 - 23:00**	COMPANY NAME:	
		MODELER:	
	CALM WINDS: **0.17%**	TOTAL COUNT: **26304 hrs.**	
	AVG. WIND SPEED: **2.77 m/s**	DATE: **7/18/2014**	PROJECT NO.:

Appendix

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Appendix B. ISCST3 Model Output Files

Appendix

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Phase 1 - Library Output
Unit Emission Rates 1 g/s

Results Summary

C:\!Projects\COSL-02.0 - San Leandro Shoreline\!ConstHRA\B - ISCST3

Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		27.69394	ug/m^3	572129.06	4172623.00	0.00	0.00	0.00	

Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		5.66330	ug/m^3	571626.56	4173021.50	0.00	0.00	0.00	

Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		25.98889	ug/m^3	572129.06	4172623.00	0.00	0.00	0.00	

Phase 1 - Marina Output
Unit Emission Rates 1 g/s

Results Summary

C:\!Projects\COSL-02.0 - San Leandro Shoreline\!ConstHRA\B - ISCST3

Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		6.58068	ug/m^3	571548.75	4172973.50	0.00	0.00	0.00	

Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		5.66330	ug/m^3	571626.56	4173021.50	0.00	0.00	0.00	

Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		1.64682	ug/m^3	571607.81	4172864.00	0.00	0.00	0.00	

Phase 2 - Offsite Residents
Unit Emission Rates 1 g/s

Results Summary

C:\!Projects\COSL-02.0 - San Leandro Shoreline\!ConstHRA\B - ISCST3

Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		15.61768	ug/m^3	571548.75	4172973.50	0.00	0.00	0.00	

Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		5.66330	ug/m^3	571626.56	4173021.50	0.00	0.00	0.00	

Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		10.32960	ug/m^3	571607.81	4172864.00	0.00	0.00	0.00	

Phase 2 - Onsite Residents
Unit Emission Rates 1 g/s

Results Summary

C:\!Projects\COSL-02.0 - San Leandro Shoreline\!ConstHRA\B - ISCST3

Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		13.11994	ug/m^3	571419.81	4172822.50	0.00	0.00	0.00	

Concentration - Source Group: OFFSITE

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		2.12128	ug/m^3	571418.50	4172891.75	0.00	0.00	0.00	

Concentration - Source Group: ONSITE

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
ANNUAL		11.33710	ug/m^3	571419.81	4172822.50	0.00	0.00	0.00	

Phase 1 - Library Area
Model Input

CONC URBAN FLAT FLGPOL DFAULT

*** MODEL SETUP OPTIONS SUMMARY ***

- -

**Intermediate Terrain Processing is Selected

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

  -- SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION. DDPLETE = F
**Model Uses NO WET DEPLETION. WDPLETE = F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses Regulatory DEFAULT Options:
          1. Final Plume Rise.
          2. Stack-tip Downwash.
          3. Buoyancy-induced Dispersion.
          4. Use Calms Processing Routine.
          5. Not Use Missing Data Processing Routine.
          6. Default Wind Profile Exponents.
          7. Default Vertical Potential Temperature Gradients.
          8. "Upper Bound" Values for Supersquat Buildings.
          9. No Exponential Decay for URBAN/Non-SO2

**Model Assumes Receptors on FLAT Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates ANNUAL Averages Only

**This Run Includes: 109 Source(s); 3 Source Group(s); and 206 Receptor(s)

**The Model Assumes A Pollutant Type of: OTHER

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

**Output Options Selected:
        Model Outputs Tables of ANNUAL Averages by Receptor
        Model Outputs External File(s) of High Values for Plotting (PLOTFILE 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:  Anem. Hgt. (m) =    10.00 ;    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 =     1.4 MB of RAM.

**Input Runstream File:          Ph1library.INP
**Output Print File:             Ph1library.OUT
**Detailed Error/Message File:   PH1LIB~1.ERR
```

CONC URBAN FLAT FLGPOL DFAULT

*** 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)	EMISSION RATE SCALAR VARY BY
L0000001	0	0.92593E-02	572100.4	4172582.0	0.0	4.15	6.51	1.93	SHRDOW
L0000002	0	0.92593E-02	572088.2	4172575.3	0.0	4.15	6.51	1.93	SHRDOW
L0000003	0	0.92593E-02	572076.1	4172568.3	0.0	4.15	6.51	1.93	SHRDOW
L0000004	0	0.92593E-02	572063.9	4172561.2	0.0	4.15	6.51	1.93	SHRDOW
L0000005	0	0.92593E-02	572051.8	4172554.2	0.0	4.15	6.51	1.93	SHRDOW
L0000006	0	0.92593E-02	572039.6	4172547.5	0.0	4.15	6.51	1.93	SHRDOW
L0000007	0	0.92593E-02	572027.4	4172540.5	0.0	4.15	6.51	1.93	SHRDOW
L0000008	0	0.92593E-02	572015.3	4172533.5	0.0	4.15	6.51	1.93	SHRDOW
L0000009	0	0.92593E-02	572003.1	4172526.5	0.0	4.15	6.51	1.93	SHRDOW
L0000010	0	0.92593E-02	571991.0	4172519.8	0.0	4.15	6.51	1.93	SHRDOW
L0000011	0	0.92593E-02	571978.8	4172512.8	0.0	4.15	6.51	1.93	SHRDOW
L0000012	0	0.92593E-02	571966.6	4172505.8	0.0	4.15	6.51	1.93	SHRDOW
L0000013	0	0.92593E-02	571954.5	4172499.0	0.0	4.15	6.51	1.93	SHRDOW
L0000014	0	0.92593E-02	571942.3	4172492.0	0.0	4.15	6.51	1.93	SHRDOW
L0000015	0	0.92593E-02	571930.1	4172485.0	0.0	4.15	6.51	1.93	SHRDOW
L0000016	0	0.92593E-02	571918.0	4172478.0	0.0	4.15	6.51	1.93	SHRDOW
L0000017	0	0.92593E-02	571905.8	4172471.2	0.0	4.15	6.51	1.93	SHRDOW
L0000018	0	0.92593E-02	571893.7	4172464.2	0.0	4.15	6.51	1.93	SHRDOW
L0000019	0	0.92593E-02	571881.5	4172457.2	0.0	4.15	6.51	1.93	SHRDOW
L0000020	0	0.92593E-02	571869.3	4172450.2	0.0	4.15	6.51	1.93	SHRDOW
L0000021	0	0.92593E-02	571857.2	4172443.5	0.0	4.15	6.51	1.93	SHRDOW
L0000022	0	0.92593E-02	571845.0	4172436.5	0.0	4.15	6.51	1.93	SHRDOW
L0000023	0	0.92593E-02	571832.8	4172429.5	0.0	4.15	6.51	1.93	SHRDOW
L0000024	0	0.92593E-02	571820.7	4172422.8	0.0	4.15	6.51	1.93	SHRDOW
L0000025	0	0.92593E-02	571808.5	4172415.8	0.0	4.15	6.51	1.93	SHRDOW
L0000026	0	0.92593E-02	571796.4	4172408.8	0.0	4.15	6.51	1.93	SHRDOW
L0000027	0	0.92593E-02	571784.2	4172401.8	0.0	4.15	6.51	1.93	SHRDOW
L0000028	0	0.92593E-02	571772.0	4172395.0	0.0	4.15	6.51	1.93	SHRDOW
L0000029	0	0.92593E-02	571759.9	4172388.0	0.0	4.15	6.51	1.93	SHRDOW
L0000030	0	0.92593E-02	571747.7	4172381.0	0.0	4.15	6.51	1.93	SHRDOW
L0000031	0	0.92593E-02	571735.6	4172374.2	0.0	4.15	6.51	1.93	SHRDOW
L0000032	0	0.92593E-02	571723.4	4172367.2	0.0	4.15	6.51	1.93	SHRDOW
L0000033	0	0.92593E-02	571711.6	4172361.8	0.0	4.15	6.51	1.93	SHRDOW
L0000034	0	0.92593E-02	571703.7	4172373.2	0.0	4.15	6.51	1.93	SHRDOW
L0000035	0	0.92593E-02	571695.8	4172385.0	0.0	4.15	6.51	1.93	SHRDOW
L0000036	0	0.92593E-02	571688.0	4172396.5	0.0	4.15	6.51	1.93	SHRDOW
L0000037	0	0.92593E-02	571680.1	4172408.0	0.0	4.15	6.51	1.93	SHRDOW

L0000038	0	0.92593E-02	571672.3	4172419.8	0.0	4.15	6.51	1.93	SHRDOW
L0000039	0	0.92593E-02	571664.4	4172431.2	0.0	4.15	6.51	1.93	SHRDOW
L0000040	0	0.92593E-02	571656.6	4172442.8	0.0	4.15	6.51	1.93	SHRDOW

*** 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)	EMISSION RATE SCALAR VARY BY
L0000041	0	0.92593E-02	571648.8	4172454.5	0.0	4.15	6.51	1.93	SHRDOW
L0000042	0	0.92593E-02	571640.9	4172466.0	0.0	4.15	6.51	1.93	SHRDOW
L0000043	0	0.92593E-02	571633.1	4172477.5	0.0	4.15	6.51	1.93	SHRDOW
L0000044	0	0.92593E-02	571625.2	4172489.2	0.0	4.15	6.51	1.93	SHRDOW
L0000045	0	0.92593E-02	571617.3	4172500.8	0.0	4.15	6.51	1.93	SHRDOW
L0000046	0	0.92593E-02	571609.5	4172512.5	0.0	4.15	6.51	1.93	SHRDOW
L0000047	0	0.92593E-02	571601.6	4172524.0	0.0	4.15	6.51	1.93	SHRDOW
L0000048	0	0.92593E-02	571594.0	4172535.8	0.0	4.15	6.51	1.93	SHRDOW
L0000049	0	0.92593E-02	571589.1	4172548.8	0.0	4.15	6.51	1.93	SHRDOW
L0000050	0	0.92593E-02	571584.3	4172562.0	0.0	4.15	6.51	1.93	SHRDOW
L0000051	0	0.92593E-02	571579.5	4172575.0	0.0	4.15	6.51	1.93	SHRDOW
L0000052	0	0.92593E-02	571574.7	4172588.2	0.0	4.15	6.51	1.93	SHRDOW
L0000053	0	0.92593E-02	571569.9	4172601.5	0.0	4.15	6.51	1.93	SHRDOW
L0000054	0	0.92593E-02	571564.5	4172614.2	0.0	4.15	6.51	1.93	SHRDOW
L0000055	0	0.92593E-02	571559.2	4172627.2	0.0	4.15	6.51	1.93	SHRDOW
L0000056	0	0.92593E-02	571553.8	4172640.2	0.0	4.15	6.51	1.93	SHRDOW
L0000057	0	0.92593E-02	571548.5	4172653.2	0.0	4.15	6.51	1.93	SHRDOW
L0000058	0	0.92593E-02	571543.2	4172666.0	0.0	4.15	6.51	1.93	SHRDOW
L0000059	0	0.92593E-02	571537.8	4172679.0	0.0	4.15	6.51	1.93	SHRDOW
L0000060	0	0.92593E-02	571532.2	4172691.8	0.0	4.15	6.51	1.93	SHRDOW
L0000061	0	0.92593E-02	571525.4	4172704.0	0.0	4.15	6.51	1.93	SHRDOW
L0000062	0	0.92593E-02	571518.7	4172716.5	0.0	4.15	6.51	1.93	SHRDOW
L0000063	0	0.92593E-02	571511.4	4172728.2	0.0	4.15	6.51	1.93	SHRDOW
L0000064	0	0.92593E-02	571503.5	4172739.8	0.0	4.15	6.51	1.93	SHRDOW
L0000065	0	0.92593E-02	571495.6	4172751.5	0.0	4.15	6.51	1.93	SHRDOW
L0000066	0	0.92593E-02	571487.6	4172763.0	0.0	4.15	6.51	1.93	SHRDOW
L0000067	0	0.92593E-02	571479.8	4172774.5	0.0	4.15	6.51	1.93	SHRDOW
L0000068	0	0.92593E-02	571471.8	4172786.0	0.0	4.15	6.51	1.93	SHRDOW
L0000069	0	0.92593E-02	571465.1	4172798.2	0.0	4.15	6.51	1.93	SHRDOW
L0000070	0	0.92593E-02	571460.9	4172811.5	0.0	4.15	6.51	1.93	SHRDOW
L0000071	0	0.92593E-02	571456.7	4172824.8	0.0	4.15	6.51	1.93	SHRDOW
L0000072	0	0.92593E-02	571452.5	4172838.2	0.0	4.15	6.51	1.93	SHRDOW
L0000073	0	0.92593E-02	571449.1	4172851.8	0.0	4.15	6.51	1.93	SHRDOW
L0000074	0	0.92593E-02	571450.6	4172865.5	0.0	4.15	6.51	1.93	SHRDOW
L0000075	0	0.92593E-02	571452.2	4172879.5	0.0	4.15	6.51	1.93	SHRDOW
L0000076	0	0.92593E-02	571453.8	4172893.5	0.0	4.15	6.51	1.93	SHRDOW
L0000077	0	0.92593E-02	571455.4	4172907.2	0.0	4.15	6.51	1.93	SHRDOW

L0000078	0	0.92593E-02	571462.8	4172919.0	0.0	4.15	6.51	1.93	SHRDOW
L0000079	0	0.92593E-02	571470.7	4172930.5	0.0	4.15	6.51	1.93	SHRDOW
L0000080	0	0.92593E-02	571478.6	4172942.0	0.0	4.15	6.51	1.93	SHRDOW

CONC URBAN FLAT FLGPOL DFAULT

*** 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)	EMISSION RATE SCALAR VARY BY
L0000081	0	0.92593E-02	571486.6	4172953.8	0.0	4.15	6.51	1.93	SHRDOW
L0000082	0	0.92593E-02	571494.4	4172965.2	0.0	4.15	6.51	1.93	SHRDOW
L0000083	0	0.92593E-02	571505.8	4172973.0	0.0	4.15	6.51	1.93	SHRDOW
L0000084	0	0.92593E-02	571518.1	4172979.8	0.0	4.15	6.51	1.93	SHRDOW
L0000085	0	0.92593E-02	571530.4	4172986.2	0.0	4.15	6.51	1.93	SHRDOW
L0000086	0	0.92593E-02	571542.7	4172993.0	0.0	4.15	6.51	1.93	SHRDOW
L0000087	0	0.92593E-02	571554.9	4172999.8	0.0	4.15	6.51	1.93	SHRDOW
L0000088	0	0.92593E-02	571567.3	4173006.5	0.0	4.15	6.51	1.93	SHRDOW
L0000089	0	0.92593E-02	571579.6	4173013.0	0.0	4.15	6.51	1.93	SHRDOW
L0000090	0	0.92593E-02	571591.9	4173019.8	0.0	4.15	6.51	1.93	SHRDOW
L0000091	0	0.92593E-02	571604.2	4173026.5	0.0	4.15	6.51	1.93	SHRDOW
L0000092	0	0.92593E-02	571616.4	4173033.2	0.0	4.15	6.51	1.93	SHRDOW
L0000093	0	0.92593E-02	571628.8	4173039.8	0.0	4.15	6.51	1.93	SHRDOW
L0000094	0	0.92593E-02	571641.1	4173046.5	0.0	4.15	6.51	1.93	SHRDOW
L0000095	0	0.92593E-02	571653.4	4173053.2	0.0	4.15	6.51	1.93	SHRDOW
L0000096	0	0.92593E-02	571665.7	4173060.0	0.0	4.15	6.51	1.93	SHRDOW
L0000097	0	0.92593E-02	571677.9	4173066.5	0.0	4.15	6.51	1.93	SHRDOW
L0000098	0	0.92593E-02	571690.2	4173073.2	0.0	4.15	6.51	1.93	SHRDOW
L0000099	0	0.92593E-02	571702.6	4173080.0	0.0	4.15	6.51	1.93	SHRDOW
L0000100	0	0.92593E-02	571714.9	4173086.8	0.0	4.15	6.51	1.93	SHRDOW
L0000101	0	0.92593E-02	571727.2	4173093.2	0.0	4.15	6.51	1.93	SHRDOW
L0000102	0	0.92593E-02	571739.4	4173100.0	0.0	4.15	6.51	1.93	SHRDOW
L0000103	0	0.92593E-02	571751.8	4173106.8	0.0	4.15	6.51	1.93	SHRDOW
L0000104	0	0.92593E-02	571764.1	4173113.5	0.0	4.15	6.51	1.93	SHRDOW
L0000105	0	0.92593E-02	571776.4	4173120.0	0.0	4.15	6.51	1.93	SHRDOW
L0000106	0	0.92593E-02	571788.7	4173126.8	0.0	4.15	6.51	1.93	SHRDOW
L0000107	0	0.92593E-02	571800.9	4173133.5	0.0	4.15	6.51	1.93	SHRDOW
L0000108	0	0.92593E-02	571813.2	4173140.3	0.0	4.15	6.51	1.93	SHRDOW

*** 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)	EMISSION RATE SCALAR VARY BY
1	0	0.22879E-03	572020.8	4172554.2	0.0	4.15	4	1.93	SHRDOW

CONC URBAN FLAT FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = 1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						SEASON = WINTER;		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	.1000E+01	13	.0000E+00	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
						SEASON = SPRING;		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	.1000E+01	13	.0000E+00	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
						SEASON = SUMMER;		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	.1000E+01	13	.0000E+00	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
						SEASON = FALL ;		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	.1000E+01	13	.0000E+00	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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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
						SEASON = FALL ;		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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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

SEASON = FALL ; 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

CONC URBAN FLAT FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000001 through L0000108; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						SEASON = WINTER;		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	.1000E+01	13	.0000E+00	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
						SEASON = SPRING;		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	.1000E+01	13	.0000E+00	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
						SEASON = SUMMER;		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	.1000E+01	13	.0000E+00	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
						SEASON = FALL ;		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	.1000E+01	13	.0000E+00	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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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
						SEASON = FALL ;		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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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

SEASON = FALL ; 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

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

```
( 571452.8, 4172988.3,       0.0,       1.5);         ( 571492.0, 4172992.2,       0.0,       1.5);
( 571508.4, 4173004.5,       0.0,       1.5);         ( 571525.9, 4173014.5,       0.0,       1.5);
( 571493.8, 4173016.8,       0.0,       1.5);         ( 571543.4, 4173023.8,       0.0,       1.5);
( 571564.5, 4173035.0,       0.0,       1.5);         ( 571554.6, 4173048.5,       0.0,       1.5);
( 571607.2, 4173057.8,       0.0,       1.5);         ( 571621.9, 4173066.5,       0.0,       1.5);
( 571613.7, 4173084.2,       0.0,       1.5);         ( 571587.4, 4173088.8,       0.0,       1.5);
( 571542.3, 4173082.5,       0.0,       1.5);         ( 571524.8, 4173114.5,       0.0,       1.5);
( 571544.6, 4173128.5,       0.0,       1.5);         ( 571562.8, 4173093.0,       0.0,       1.5);
( 571590.2, 4173129.8,       0.0,       1.5);         ( 571569.8, 4173121.5,       0.0,       1.5);
( 571487.9, 4173046.8,       0.0,       1.5);         ( 571518.9, 4173060.2,       0.0,       1.5);
( 571429.4, 4173038.0,       0.0,       1.5);         ( 571486.7, 4173067.8,       0.0,       1.5);
( 571476.8, 4173088.8,       0.0,       1.5);         ( 571436.9, 4173059.0,       0.0,       1.5);
( 571433.4, 4173081.8,       0.0,       1.5);         ( 571408.3, 4173069.5,       0.0,       1.5);
( 571414.1, 4173089.5,       0.0,       1.5);         ( 571430.5, 4173099.2,       0.0,       1.5);
( 571429.9, 4173124.5,       0.0,       1.5);         ( 571418.8, 4173134.5,       0.0,       1.5);
( 571476.2, 4173114.0,       0.0,       1.5);         ( 571482.6, 4173148.0,       0.0,       1.5);
( 571417.6, 4173149.0,       0.0,       1.5);         ( 571593.2, 4173164.2,       0.0,       1.5);
( 571614.9, 4173125.8,       0.0,       1.5);         ( 571642.9, 4173109.2,       0.0,       1.5);
( 571629.5, 4173134.5,       0.0,       1.5);         ( 571673.9, 4173098.2,       0.0,       1.5);
( 571658.8, 4173128.5,       0.0,       1.5);         ( 571710.3, 4173113.5,       0.0,       1.5);
( 571695.0, 4173143.2,       0.0,       1.5);         ( 571548.8, 4172973.5,       0.0,       1.5);
( 571588.5, 4173001.0,       0.0,       1.5);         ( 571612.5, 4173008.0,       0.0,       1.5);
( 571626.6, 4173021.5,       0.0,       1.5);         ( 571616.0, 4172947.8,       0.0,       1.5);
( 571626.0, 4172919.8,       0.0,       1.5);         ( 571609.6, 4172912.0,       0.0,       1.5);
( 571595.6, 4172937.8,       0.0,       1.5);         ( 571651.8, 4172935.5,       0.0,       1.5);
( 571674.6, 4172945.5,       0.0,       1.5);         ( 571693.2, 4172956.0,       0.0,       1.5);
( 571716.1, 4172965.2,       0.0,       1.5);         ( 571607.8, 4172864.0,       0.0,       1.5);
( 571628.9, 4172873.5,       0.0,       1.5);         ( 571651.1, 4172882.2,       0.0,       1.5);
( 571665.8, 4172857.0,       0.0,       1.5);         ( 571687.4, 4172867.0,       0.0,       1.5);
( 571671.6, 4172895.8,       0.0,       1.5);         ( 571737.8, 4172830.2,       0.0,       1.5);
( 571717.9, 4172853.0,       0.0,       1.5);         ( 571756.5, 4172840.8,       0.0,       1.5);
( 571777.6, 4172850.0,       0.0,       1.5);         ( 571802.1, 4172863.5,       0.0,       1.5);
( 571822.6, 4172873.0,       0.0,       1.5);         ( 571695.6, 4172912.0,       0.0,       1.5);
( 571718.4, 4172920.2,       0.0,       1.5);         ( 571740.7, 4172929.8,       0.0,       1.5);
( 571741.8, 4172908.0,       0.0,       1.5);         ( 571727.8, 4172893.2,       0.0,       1.5);
( 571760.6, 4172938.5,       0.0,       1.5);         ( 571775.8, 4172912.8,       0.0,       1.5);
( 571844.8, 4172886.3,       0.0,       1.5);         ( 571788.7, 4172935.5,       0.0,       1.5);
( 571805.6, 4172954.8,       0.0,       1.5);         ( 571824.9, 4172971.8,       0.0,       1.5);
( 571843.1, 4172990.0,       0.0,       1.5);         ( 571851.2, 4172923.2,       0.0,       1.5);
( 571885.2, 4172910.2,       0.0,       1.5);         ( 571861.8, 4172901.5,       0.0,       1.5);
( 571916.2, 4172925.5,       0.0,       1.5);         ( 571866.5, 4173008.0,       0.0,       1.5);
```

```
( 571740.4, 4172976.8,       0.0,       1.5);         ( 571764.6, 4172986.8,       0.0,       1.5);
( 571786.0, 4172999.5,       0.0,       1.5);         ( 571824.5, 4173023.8,       0.0,       1.5);
( 571853.1, 4173036.8,       0.0,       1.5);         ( 571654.8, 4173033.8,       0.0,       1.5);
( 571678.3, 4173041.8,       0.0,       1.5);         ( 571698.3, 4173056.8,       0.0,       1.5);
```

CONC   URBAN FLAT FLGPOL DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(571720.4,	4173068.0,	0.0,	1.5);	(571757.5,	4173051.8,	0.0,	1.5);
(571764.6,	4173088.8,	0.0,	1.5);	(571788.2,	4173105.8,	0.0,	1.5);
(571811.7,	4173115.3,	0.0,	1.5);	(571753.9,	4172795.8,	0.0,	1.5);
(571776.8,	4172800.0,	0.0,	1.5);	(571799.6,	4172812.8,	0.0,	1.5);
(571820.2,	4172825.5,	0.0,	1.5);	(571839.5,	4172837.8,	0.0,	1.5);
(571862.3,	4172851.2,	0.0,	1.5);	(571873.0,	4172831.2,	0.0,	1.5);
(571882.3,	4172863.5,	0.0,	1.5);	(571887.3,	4172801.2,	0.0,	1.5);
(571904.4,	4172773.5,	0.0,	1.5);	(571912.9,	4172753.5,	0.0,	1.5);
(571992.1,	4172609.5,	0.0,	1.5);	(572026.4,	4172623.8,	0.0,	1.5);
(572050.6,	4172637.2,	0.0,	1.5);	(572053.4,	4172665.8,	0.0,	1.5);
(572039.2,	4172691.5,	0.0,	1.5);	(572027.1,	4172715.0,	0.0,	1.5);
(572008.5,	4172705.0,	0.0,	1.5);	(571983.6,	4172691.5,	0.0,	1.5);
(571958.6,	4172703.0,	0.0,	1.5);	(571990.0,	4172716.5,	0.0,	1.5);
(572018.5,	4172734.2,	0.0,	1.5);	(572008.5,	4172756.5,	0.0,	1.5);
(571984.2,	4172746.5,	0.0,	1.5);	(571962.9,	4172735.8,	0.0,	1.5);
(571992.8,	4172779.2,	0.0,	1.5);	(571975.7,	4172768.5,	0.0,	1.5);
(571950.1,	4172755.0,	0.0,	1.5);	(571977.9,	4172810.8,	0.0,	1.5);
(571932.9,	4172789.2,	0.0,	1.5);	(571927.2,	4172820.5,	0.0,	1.5);
(571969.3,	4172830.5,	0.0,	1.5);	(571905.8,	4172814.2,	0.0,	1.5);
(571950.8,	4172860.5,	0.0,	1.5);	(571935.8,	4172897.0,	0.0,	1.5);
(571945.1,	4172878.5,	0.0,	1.5);	(571900.8,	4172839.2,	0.0,	1.5);
(571950.1,	4172727.3,	0.0,	1.5);	(572129.1,	4172623.0,	0.0,	1.5);
(572106.9,	4172656.5,	0.0,	1.5);	(572092.7,	4172685.2,	0.0,	1.5);
(572158.3,	4172633.8,	0.0,	1.5);	(572140.4,	4172649.5,	0.0,	1.5);
(572162.6,	4172665.2,	0.0,	1.5);	(572176.1,	4172644.5,	0.0,	1.5);
(572198.9,	4172661.5,	0.0,	1.5);	(572117.6,	4172698.0,	0.0,	1.5);
(572142.6,	4172711.5,	0.0,	1.5);	(572164.7,	4172725.8,	0.0,	1.5);
(572073.4,	4172725.0,	0.0,	1.5);	(572107.6,	4172741.5,	0.0,	1.5);
(572136.2,	4172748.0,	0.0,	1.5);	(572054.9,	4172745.0,	0.0,	1.5);
(572042.8,	4172776.5,	0.0,	1.5);	(572094.1,	4172768.5,	0.0,	1.5);
(572084.1,	4172791.5,	0.0,	1.5);	(572155.4,	4172761.5,	0.0,	1.5);
(572179.7,	4172775.0,	0.0,	1.5);	(572123.3,	4172777.8,	0.0,	1.5);
(572144.8,	4172786.5,	0.0,	1.5);	(572188.2,	4172734.2,	0.0,	1.5);
(572218.9,	4172673.0,	0.0,	1.5);	(572243.9,	4172690.0,	0.0,	1.5);
(572231.0,	4172708.0,	0.0,	1.5);	(572270.2,	4172698.8,	0.0,	1.5);
(572211.8,	4172745.8,	0.0,	1.5);	(572072.7,	4172513.2,	0.0,	1.5);
(572086.2,	4172486.3,	0.0,	1.5);	(572101.3,	4172457.0,	0.0,	1.5);
(572119.1,	4172467.5,	0.0,	1.5);	(572091.9,	4172519.0,	0.0,	1.5);
(572109.8,	4172554.5,	0.0,	1.5);	(572126.2,	4172525.5,	0.0,	1.5);
(572132.6,	4172501.8,	0.0,	1.5);	(572146.1,	4172482.5,	0.0,	1.5);
(572159.7,	4172460.5,	0.0,	1.5);	(572171.1,	4172447.8,	0.0,	1.5);

```
( 572150.4, 4172581.0,       0.0,       1.5);         ( 572166.8, 4172546.8,       0.0,       1.5);
( 572172.6, 4172597.5,       0.0,       1.5);         ( 572198.2, 4172561.0,       0.0,       1.5);
( 572179.7, 4172551.8,       0.0,       1.5);         ( 572211.8, 4172613.8,       0.0,       1.5);
( 572234.6, 4172623.8,       0.0,       1.5);         ( 572269.5, 4172646.5,       0.0,       1.5);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

```
( 572256.7, 4172596.8,       0.0,       1.5);         ( 572236.0, 4172587.5,       0.0,       1.5);
( 572219.6, 4172581.0,       0.0,       1.5);         ( 572213.9, 4172564.0,       0.0,       1.5);
( 572290.2, 4172619.5,       0.0,       1.5);         ( 572303.1, 4172661.5,       0.0,       1.5);
( 572271.7, 4172557.5,       0.0,       1.5);         ( 572249.6, 4172544.0,       0.0,       1.5);
( 572215.3, 4172524.0,       0.0,       1.5);         ( 572186.8, 4172511.0,       0.0,       1.5);
( 572193.9, 4172493.2,       0.0,       1.5);         ( 572221.8, 4172509.8,       0.0,       1.5);
( 572203.9, 4172479.0,       0.0,       1.5);         ( 572228.2, 4172493.2,       0.0,       1.5);
( 572258.1, 4172529.8,       0.0,       1.5);         ( 572280.9, 4172544.8,       0.0,       1.5);
( 572263.1, 4172511.8,       0.0,       1.5);         ( 572307.3, 4172581.8,       0.0,       1.5);
( 572117.6, 4172433.5,       0.0,       1.5);         ( 572131.2, 4172409.8,       0.0,       1.5);
( 572188.9, 4172419.8,       0.0,       1.5);         ( 572132.6, 4172317.8,       0.0,       1.5);
( 572169.0, 4172340.0,       0.0,       1.5);         ( 572203.9, 4172380.5,       0.0,       1.5);
( 572219.6, 4172452.0,       0.0,       1.5);         ( 572232.4, 4172422.8,       0.0,       1.5);
```

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER OR 3*ZLB IN DISTANCE, OR WITHIN OPEN PIT SOURCE

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000089	571588.5	4173001.0	0.97

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

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

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

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

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00

E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

CONC URBAN FLAT FLGPOL DFAULT

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

FILE: C:\!METFI~1\BAAQMD~1\CHA200~1.ASC
FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.: 1903 UPPER AIR STATION NO.: 1903
NAME: UNKNOWN NAME: UNKNOWN
YEAR: 2003 YEAR: 2003

YR MN DY HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
03 01 01 01	225.9	1.34	280.0	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 02	243.5	1.70	279.3	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 03	231.1	2.10	279.2	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 04	225.9	2.64	279.0	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 05	190.7	1.12	278.6	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 06	229.5	2.91	278.0	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 07	211.0	2.41	278.8	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 08	232.9	3.08	277.8	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 09	237.0	2.68	278.7	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 10	203.4	1.52	280.5	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 11	262.2	1.39	282.8	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 12	153.3	1.65	284.2	1	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 13	232.5	3.00	285.4	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 14	248.8	2.55	285.9	1	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 15	222.4	2.19	286.3	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 16	225.7	2.64	285.8	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 17	252.5	2.68	284.3	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 18	275.8	2.86	283.2	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 19	237.6	3.04	282.3	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 20	225.6	2.95	281.9	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 21	242.3	3.26	281.7	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 22	243.9	1.00	282.1	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 23	273.3	4.83	282.1	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 24	250.3	3.44	282.1	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

CONC   URBAN FLAT FLGPOL DFAULT

*** THE SUMMARY OF MAXIMUM ANNUAL (3 YRS) RESULTS ***

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

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)				OF TYPE	NETWORK GRID-ID
ONSITE	1ST HIGHEST VALUE IS	25.98889 AT (	572129.06,	4172623.00,	0.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	20.95653 AT (	572050.56,	4172637.25,	0.00,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	19.15353 AT (	572106.94,	4172656.50,	0.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	17.69904 AT (	572026.38,	4172623.75,	0.00,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	14.87178 AT (	572140.44,	4172649.50,	0.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	13.49089 AT (	572109.75,	4172554.50,	0.00,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	13.42196 AT (	572150.44,	4172581.00,	0.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	12.53474 AT (	572158.25,	4172633.75,	0.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	10.00950 AT (	572053.44,	4172665.75,	0.00,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	9.77398 AT (	572172.56,	4172597.50,	0.00,	1.50)	DC	NA
OFFSITE	1ST HIGHEST VALUE IS	5.66330 AT (	571626.56,	4173021.50,	0.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	5.44684 AT (	571654.81,	4173033.75,	0.00,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	5.37140 AT (	571588.50,	4173001.00,	0.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	5.31750 AT (	571698.31,	4173056.75,	0.00,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	5.30446 AT (	571548.75,	4172973.50,	0.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	5.21406 AT (	571612.50,	4173008.00,	0.00,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	5.17501 AT (	571720.44,	4173068.00,	0.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	4.86831 AT (	571678.31,	4173041.75,	0.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	4.74504 AT (	571788.19,	4173105.75,	0.00,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	4.53909 AT (	571764.62,	4173088.75,	0.00,	1.50)	DC	NA
ALL	1ST HIGHEST VALUE IS	27.69394 AT (	572129.06,	4172623.00,	0.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	22.13738 AT (	572050.56,	4172637.25,	0.00,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	20.20059 AT (	572106.94,	4172656.50,	0.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	18.93449 AT (	572026.38,	4172623.75,	0.00,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	16.76508 AT (	572109.75,	4172554.50,	0.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	15.97201 AT (	572140.44,	4172649.50,	0.00,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	15.35161 AT (	572150.44,	4172581.00,	0.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	13.73506 AT (	572158.25,	4172633.75,	0.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	11.08913 AT (	572172.56,	4172597.50,	0.00,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	10.91168 AT (	572053.44,	4172665.75,	0.00,	1.50)	DC	NA

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

DP = DISCPOLR
BD = BOUNDARY

```
**MODELOPTs:
CONC                     URBAN FLAT  FLGPOL DFAULT


*** Message Summary : ISCST3 Model Execution ***

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

A Total of            0 Fatal Error Message(s)
A Total of            0 Warning Message(s)
A Total of           44 Informational Message(s)

A Total of           44 Calm Hours Identified


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


   ********   WARNING MESSAGES   ********
              ***  NONE  ***


   ************************************
   *** ISCST3 Finishes Successfully ***
   ************************************
```

Phase 1 - Marina Area
Model Input

```
 *** ISCST3 - VERSION 02035 ***    *** C:\!Projects\COSL-02.0 - San Leandro Shoreline\!ConstHRA\B - ISCST3  ***        07/21/14
                                   ***                                                                    ***        12:10:57
**MODELOPTs:                                                                                                        PAGE   1
CONC                    URBAN FLAT  FLGPOL DFAULT

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

**Intermediate Terrain Processing is Selected

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

  --  SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE =  F
**Model Uses NO WET DEPLETION.  WDPLETE =  F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses Regulatory DEFAULT Options:
           1. Final Plume Rise.
           2. Stack-tip Downwash.
           3. Buoyancy-induced Dispersion.
           4. Use Calms Processing Routine.
           5. Not Use Missing Data Processing Routine.
           6. Default Wind Profile Exponents.
           7. Default Vertical Potential Temperature Gradients.
           8. "Upper Bound" Values for Supersquat Buildings.
           9. No Exponential Decay for URBAN/Non-SO2

**Model Assumes Receptors on FLAT Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates ANNUAL Averages Only

**This Run Includes:   110 Source(s);      3 Source Group(s); and     206 Receptor(s)

**The Model Assumes A Pollutant Type of:  OTHER

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

**Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE 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:  Anem. Hgt. (m) =    10.00 ;    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 =     1.4 MB of RAM.

**Input Runstream File:          Ph1marina.INP
**Output Print File:             Ph1marina.OUT
**Detailed Error/Message File:   PH1MAR~1.ERR
```

CONC URBAN FLAT FLGPOL DFAULT

*** 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)	EMISSION RATE SCALAR VARY BY
L0000001	0	0.92593E-02	572100.4	4172582.0	0.0	4.15	6.51	1.93	SHRDOW
L0000002	0	0.92593E-02	572088.2	4172575.3	0.0	4.15	6.51	1.93	SHRDOW
L0000003	0	0.92593E-02	572076.1	4172568.3	0.0	4.15	6.51	1.93	SHRDOW
L0000004	0	0.92593E-02	572063.9	4172561.2	0.0	4.15	6.51	1.93	SHRDOW
L0000005	0	0.92593E-02	572051.8	4172554.2	0.0	4.15	6.51	1.93	SHRDOW
L0000006	0	0.92593E-02	572039.6	4172547.5	0.0	4.15	6.51	1.93	SHRDOW
L0000007	0	0.92593E-02	572027.4	4172540.5	0.0	4.15	6.51	1.93	SHRDOW
L0000008	0	0.92593E-02	572015.3	4172533.5	0.0	4.15	6.51	1.93	SHRDOW
L0000009	0	0.92593E-02	572003.1	4172526.5	0.0	4.15	6.51	1.93	SHRDOW
L0000010	0	0.92593E-02	571991.0	4172519.8	0.0	4.15	6.51	1.93	SHRDOW
L0000011	0	0.92593E-02	571978.8	4172512.8	0.0	4.15	6.51	1.93	SHRDOW
L0000012	0	0.92593E-02	571966.6	4172505.8	0.0	4.15	6.51	1.93	SHRDOW
L0000013	0	0.92593E-02	571954.5	4172499.0	0.0	4.15	6.51	1.93	SHRDOW
L0000014	0	0.92593E-02	571942.3	4172492.0	0.0	4.15	6.51	1.93	SHRDOW
L0000015	0	0.92593E-02	571930.1	4172485.0	0.0	4.15	6.51	1.93	SHRDOW
L0000016	0	0.92593E-02	571918.0	4172478.0	0.0	4.15	6.51	1.93	SHRDOW
L0000017	0	0.92593E-02	571905.8	4172471.2	0.0	4.15	6.51	1.93	SHRDOW
L0000018	0	0.92593E-02	571893.7	4172464.2	0.0	4.15	6.51	1.93	SHRDOW
L0000019	0	0.92593E-02	571881.5	4172457.2	0.0	4.15	6.51	1.93	SHRDOW
L0000020	0	0.92593E-02	571869.3	4172450.2	0.0	4.15	6.51	1.93	SHRDOW
L0000021	0	0.92593E-02	571857.2	4172443.5	0.0	4.15	6.51	1.93	SHRDOW
L0000022	0	0.92593E-02	571845.0	4172436.5	0.0	4.15	6.51	1.93	SHRDOW
L0000023	0	0.92593E-02	571832.8	4172429.5	0.0	4.15	6.51	1.93	SHRDOW
L0000024	0	0.92593E-02	571820.7	4172422.8	0.0	4.15	6.51	1.93	SHRDOW
L0000025	0	0.92593E-02	571808.5	4172415.8	0.0	4.15	6.51	1.93	SHRDOW
L0000026	0	0.92593E-02	571796.4	4172408.8	0.0	4.15	6.51	1.93	SHRDOW
L0000027	0	0.92593E-02	571784.2	4172401.8	0.0	4.15	6.51	1.93	SHRDOW
L0000028	0	0.92593E-02	571772.0	4172395.0	0.0	4.15	6.51	1.93	SHRDOW
L0000029	0	0.92593E-02	571759.9	4172388.0	0.0	4.15	6.51	1.93	SHRDOW
L0000030	0	0.92593E-02	571747.7	4172381.0	0.0	4.15	6.51	1.93	SHRDOW
L0000031	0	0.92593E-02	571735.6	4172374.2	0.0	4.15	6.51	1.93	SHRDOW
L0000032	0	0.92593E-02	571723.4	4172367.2	0.0	4.15	6.51	1.93	SHRDOW
L0000033	0	0.92593E-02	571711.6	4172361.8	0.0	4.15	6.51	1.93	SHRDOW
L0000034	0	0.92593E-02	571703.7	4172373.2	0.0	4.15	6.51	1.93	SHRDOW
L0000035	0	0.92593E-02	571695.8	4172385.0	0.0	4.15	6.51	1.93	SHRDOW
L0000036	0	0.92593E-02	571688.0	4172396.5	0.0	4.15	6.51	1.93	SHRDOW
L0000037	0	0.92593E-02	571680.1	4172408.0	0.0	4.15	6.51	1.93	SHRDOW

L0000038	0	0.92593E-02	571672.3	4172419.8	0.0	4.15	6.51	1.93	SHRDOW
L0000039	0	0.92593E-02	571664.4	4172431.2	0.0	4.15	6.51	1.93	SHRDOW
L0000040	0	0.92593E-02	571656.6	4172442.8	0.0	4.15	6.51	1.93	SHRDOW

CONC URBAN FLAT FLGPOL DFAULT

*** 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)	EMISSION RATE SCALAR VARY BY
L0000041	0	0.92593E-02	571648.8	4172454.5	0.0	4.15	6.51	1.93	SHRDOW
L0000042	0	0.92593E-02	571640.9	4172466.0	0.0	4.15	6.51	1.93	SHRDOW
L0000043	0	0.92593E-02	571633.1	4172477.5	0.0	4.15	6.51	1.93	SHRDOW
L0000044	0	0.92593E-02	571625.2	4172489.2	0.0	4.15	6.51	1.93	SHRDOW
L0000045	0	0.92593E-02	571617.3	4172500.8	0.0	4.15	6.51	1.93	SHRDOW
L0000046	0	0.92593E-02	571609.5	4172512.5	0.0	4.15	6.51	1.93	SHRDOW
L0000047	0	0.92593E-02	571601.6	4172524.0	0.0	4.15	6.51	1.93	SHRDOW
L0000048	0	0.92593E-02	571594.0	4172535.8	0.0	4.15	6.51	1.93	SHRDOW
L0000049	0	0.92593E-02	571589.1	4172548.8	0.0	4.15	6.51	1.93	SHRDOW
L0000050	0	0.92593E-02	571584.3	4172562.0	0.0	4.15	6.51	1.93	SHRDOW
L0000051	0	0.92593E-02	571579.5	4172575.0	0.0	4.15	6.51	1.93	SHRDOW
L0000052	0	0.92593E-02	571574.7	4172588.2	0.0	4.15	6.51	1.93	SHRDOW
L0000053	0	0.92593E-02	571569.9	4172601.5	0.0	4.15	6.51	1.93	SHRDOW
L0000054	0	0.92593E-02	571564.5	4172614.2	0.0	4.15	6.51	1.93	SHRDOW
L0000055	0	0.92593E-02	571559.2	4172627.2	0.0	4.15	6.51	1.93	SHRDOW
L0000056	0	0.92593E-02	571553.8	4172640.2	0.0	4.15	6.51	1.93	SHRDOW
L0000057	0	0.92593E-02	571548.5	4172653.2	0.0	4.15	6.51	1.93	SHRDOW
L0000058	0	0.92593E-02	571543.2	4172666.0	0.0	4.15	6.51	1.93	SHRDOW
L0000059	0	0.92593E-02	571537.8	4172679.0	0.0	4.15	6.51	1.93	SHRDOW
L0000060	0	0.92593E-02	571532.2	4172691.8	0.0	4.15	6.51	1.93	SHRDOW
L0000061	0	0.92593E-02	571525.4	4172704.0	0.0	4.15	6.51	1.93	SHRDOW
L0000062	0	0.92593E-02	571518.7	4172716.5	0.0	4.15	6.51	1.93	SHRDOW
L0000063	0	0.92593E-02	571511.4	4172728.2	0.0	4.15	6.51	1.93	SHRDOW
L0000064	0	0.92593E-02	571503.5	4172739.8	0.0	4.15	6.51	1.93	SHRDOW
L0000065	0	0.92593E-02	571495.6	4172751.5	0.0	4.15	6.51	1.93	SHRDOW
L0000066	0	0.92593E-02	571487.6	4172763.0	0.0	4.15	6.51	1.93	SHRDOW
L0000067	0	0.92593E-02	571479.8	4172774.5	0.0	4.15	6.51	1.93	SHRDOW
L0000068	0	0.92593E-02	571471.8	4172786.0	0.0	4.15	6.51	1.93	SHRDOW
L0000069	0	0.92593E-02	571465.1	4172798.2	0.0	4.15	6.51	1.93	SHRDOW
L0000070	0	0.92593E-02	571460.9	4172811.5	0.0	4.15	6.51	1.93	SHRDOW
L0000071	0	0.92593E-02	571456.7	4172824.8	0.0	4.15	6.51	1.93	SHRDOW
L0000072	0	0.92593E-02	571452.5	4172838.2	0.0	4.15	6.51	1.93	SHRDOW
L0000073	0	0.92593E-02	571449.1	4172851.8	0.0	4.15	6.51	1.93	SHRDOW
L0000074	0	0.92593E-02	571450.6	4172865.5	0.0	4.15	6.51	1.93	SHRDOW
L0000075	0	0.92593E-02	571452.2	4172879.5	0.0	4.15	6.51	1.93	SHRDOW
L0000076	0	0.92593E-02	571453.8	4172893.5	0.0	4.15	6.51	1.93	SHRDOW
L0000077	0	0.92593E-02	571455.4	4172907.2	0.0	4.15	6.51	1.93	SHRDOW

L0000078	0	0.92593E-02	571462.8	4172919.0	0.0	4.15	6.51	1.93	SHRDOW
L0000079	0	0.92593E-02	571470.7	4172930.5	0.0	4.15	6.51	1.93	SHRDOW
L0000080	0	0.92593E-02	571478.6	4172942.0	0.0	4.15	6.51	1.93	SHRDOW

*** 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)	EMISSION RATE SCALAR VARY BY
L0000081	0	0.92593E-02	571486.6	4172953.8	0.0	4.15	6.51	1.93	SHRDOW
L0000082	0	0.92593E-02	571494.4	4172965.2	0.0	4.15	6.51	1.93	SHRDOW
L0000083	0	0.92593E-02	571505.8	4172973.0	0.0	4.15	6.51	1.93	SHRDOW
L0000084	0	0.92593E-02	571518.1	4172979.8	0.0	4.15	6.51	1.93	SHRDOW
L0000085	0	0.92593E-02	571530.4	4172986.2	0.0	4.15	6.51	1.93	SHRDOW
L0000086	0	0.92593E-02	571542.7	4172993.0	0.0	4.15	6.51	1.93	SHRDOW
L0000087	0	0.92593E-02	571554.9	4172999.8	0.0	4.15	6.51	1.93	SHRDOW
L0000088	0	0.92593E-02	571567.3	4173006.5	0.0	4.15	6.51	1.93	SHRDOW
L0000089	0	0.92593E-02	571579.6	4173013.0	0.0	4.15	6.51	1.93	SHRDOW
L0000090	0	0.92593E-02	571591.9	4173019.8	0.0	4.15	6.51	1.93	SHRDOW
L0000091	0	0.92593E-02	571604.2	4173026.5	0.0	4.15	6.51	1.93	SHRDOW
L0000092	0	0.92593E-02	571616.4	4173033.2	0.0	4.15	6.51	1.93	SHRDOW
L0000093	0	0.92593E-02	571628.8	4173039.8	0.0	4.15	6.51	1.93	SHRDOW
L0000094	0	0.92593E-02	571641.1	4173046.5	0.0	4.15	6.51	1.93	SHRDOW
L0000095	0	0.92593E-02	571653.4	4173053.2	0.0	4.15	6.51	1.93	SHRDOW
L0000096	0	0.92593E-02	571665.7	4173060.0	0.0	4.15	6.51	1.93	SHRDOW
L0000097	0	0.92593E-02	571677.9	4173066.5	0.0	4.15	6.51	1.93	SHRDOW
L0000098	0	0.92593E-02	571690.2	4173073.2	0.0	4.15	6.51	1.93	SHRDOW
L0000099	0	0.92593E-02	571702.6	4173080.0	0.0	4.15	6.51	1.93	SHRDOW
L0000100	0	0.92593E-02	571714.9	4173086.8	0.0	4.15	6.51	1.93	SHRDOW
L0000101	0	0.92593E-02	571727.2	4173093.2	0.0	4.15	6.51	1.93	SHRDOW
L0000102	0	0.92593E-02	571739.4	4173100.0	0.0	4.15	6.51	1.93	SHRDOW
L0000103	0	0.92593E-02	571751.8	4173106.8	0.0	4.15	6.51	1.93	SHRDOW
L0000104	0	0.92593E-02	571764.1	4173113.5	0.0	4.15	6.51	1.93	SHRDOW
L0000105	0	0.92593E-02	571776.4	4173120.0	0.0	4.15	6.51	1.93	SHRDOW
L0000106	0	0.92593E-02	571788.7	4173126.8	0.0	4.15	6.51	1.93	SHRDOW
L0000107	0	0.92593E-02	571800.9	4173133.5	0.0	4.15	6.51	1.93	SHRDOW
L0000108	0	0.92593E-02	571813.2	4173140.3	0.0	4.15	6.51	1.93	SHRDOW

*** 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)	EMISSION RATE SCALAR VARY BY
1	0	0.11447E-04	571116.4	4172259.2	0.0	4.15	20	1.93	SHRDOW
2	0	0.28033E-04	571207.1	4172343.5	0.0	4.15	13	1.93	SHRDOW

CONC URBAN FLAT FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = 1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						SEASON = WINTER;		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	.1000E+01	13	.0000E+00	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
						SEASON = SPRING;		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	.1000E+01	13	.0000E+00	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
						SEASON = SUMMER;		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	.1000E+01	13	.0000E+00	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
						SEASON = FALL ;		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	.1000E+01	13	.0000E+00	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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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
						SEASON = FALL ;		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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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

SEASON = FALL ; 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

CONC   URBAN FLAT FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = 2   ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; 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	.1000E+01	13	.0000E+00	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
SEASON = SPRING; 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	.1000E+01	13	.0000E+00	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
SEASON = SUMMER; 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	.1000E+01	13	.0000E+00	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
SEASON = FALL ; 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	.1000E+01	13	.0000E+00	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
SEASON = WINTER; 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
SEASON = SPRING; 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
SEASON = SUMMER; 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
SEASON = FALL ; 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
SEASON = WINTER; 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
SEASON = SPRING; 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
SEASON = SUMMER; 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

SEASON = FALL ; 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

CONC URBAN FLAT FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000001 through L0000108; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; 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	.1000E+01	13	.0000E+00	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
SEASON = SPRING; 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	.1000E+01	13	.0000E+00	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
SEASON = SUMMER; 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	.1000E+01	13	.0000E+00	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
SEASON = FALL ; 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	.1000E+01	13	.0000E+00	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
SEASON = WINTER; 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
SEASON = SPRING; 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
SEASON = SUMMER; 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
SEASON = FALL ; 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
SEASON = WINTER; 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
SEASON = SPRING; 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
SEASON = SUMMER; 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

SEASON = FALL ; 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

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

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( 571452.8, 4172988.3,       0.0,       1.5);         ( 571492.0, 4172992.2,       0.0,       1.5);
( 571508.4, 4173004.5,       0.0,       1.5);         ( 571525.9, 4173014.5,       0.0,       1.5);
( 571493.8, 4173016.8,       0.0,       1.5);         ( 571543.4, 4173023.8,       0.0,       1.5);
( 571564.5, 4173035.0,       0.0,       1.5);         ( 571554.6, 4173048.5,       0.0,       1.5);
( 571607.2, 4173057.8,       0.0,       1.5);         ( 571621.9, 4173066.5,       0.0,       1.5);
( 571613.7, 4173084.2,       0.0,       1.5);         ( 571587.4, 4173088.8,       0.0,       1.5);
( 571542.3, 4173082.5,       0.0,       1.5);         ( 571524.8, 4173114.5,       0.0,       1.5);
( 571544.6, 4173128.5,       0.0,       1.5);         ( 571562.8, 4173093.0,       0.0,       1.5);
( 571590.2, 4173129.8,       0.0,       1.5);         ( 571569.8, 4173121.5,       0.0,       1.5);
( 571487.9, 4173046.8,       0.0,       1.5);         ( 571518.9, 4173060.2,       0.0,       1.5);
( 571429.4, 4173038.0,       0.0,       1.5);         ( 571486.7, 4173067.8,       0.0,       1.5);
( 571476.8, 4173088.8,       0.0,       1.5);         ( 571436.9, 4173059.0,       0.0,       1.5);
( 571433.4, 4173081.8,       0.0,       1.5);         ( 571408.3, 4173069.5,       0.0,       1.5);
( 571414.1, 4173089.5,       0.0,       1.5);         ( 571430.5, 4173099.2,       0.0,       1.5);
( 571429.9, 4173124.5,       0.0,       1.5);         ( 571418.8, 4173134.5,       0.0,       1.5);
( 571476.2, 4173114.0,       0.0,       1.5);         ( 571482.6, 4173148.0,       0.0,       1.5);
( 571417.6, 4173149.0,       0.0,       1.5);         ( 571593.2, 4173164.2,       0.0,       1.5);
( 571614.9, 4173125.8,       0.0,       1.5);         ( 571642.9, 4173109.2,       0.0,       1.5);
( 571629.5, 4173134.5,       0.0,       1.5);         ( 571673.9, 4173098.2,       0.0,       1.5);
( 571658.8, 4173128.5,       0.0,       1.5);         ( 571710.3, 4173113.5,       0.0,       1.5);
( 571695.0, 4173143.2,       0.0,       1.5);         ( 571548.8, 4172973.5,       0.0,       1.5);
( 571588.5, 4173001.0,       0.0,       1.5);         ( 571612.5, 4173008.0,       0.0,       1.5);
( 571626.6, 4173021.5,       0.0,       1.5);         ( 571616.0, 4172947.8,       0.0,       1.5);
( 571626.0, 4172919.8,       0.0,       1.5);         ( 571609.6, 4172912.0,       0.0,       1.5);
( 571595.6, 4172937.8,       0.0,       1.5);         ( 571651.8, 4172935.5,       0.0,       1.5);
( 571674.6, 4172945.5,       0.0,       1.5);         ( 571693.2, 4172956.0,       0.0,       1.5);
( 571716.1, 4172965.2,       0.0,       1.5);         ( 571607.8, 4172864.0,       0.0,       1.5);
( 571628.9, 4172873.5,       0.0,       1.5);         ( 571651.1, 4172882.2,       0.0,       1.5);
( 571665.8, 4172857.0,       0.0,       1.5);         ( 571687.4, 4172867.0,       0.0,       1.5);
( 571671.6, 4172895.8,       0.0,       1.5);         ( 571737.8, 4172830.2,       0.0,       1.5);
( 571717.9, 4172853.0,       0.0,       1.5);         ( 571756.5, 4172840.8,       0.0,       1.5);
( 571777.6, 4172850.0,       0.0,       1.5);         ( 571802.1, 4172863.5,       0.0,       1.5);
( 571822.6, 4172873.0,       0.0,       1.5);         ( 571695.6, 4172912.0,       0.0,       1.5);
( 571718.4, 4172920.2,       0.0,       1.5);         ( 571740.7, 4172929.8,       0.0,       1.5);
( 571741.8, 4172908.0,       0.0,       1.5);         ( 571727.8, 4172893.2,       0.0,       1.5);
( 571760.6, 4172938.5,       0.0,       1.5);         ( 571775.8, 4172912.8,       0.0,       1.5);
( 571844.8, 4172886.3,       0.0,       1.5);         ( 571788.7, 4172935.5,       0.0,       1.5);
( 571805.6, 4172954.8,       0.0,       1.5);         ( 571824.9, 4172971.8,       0.0,       1.5);
( 571843.1, 4172990.0,       0.0,       1.5);         ( 571851.2, 4172923.2,       0.0,       1.5);
( 571885.2, 4172910.2,       0.0,       1.5);         ( 571861.8, 4172901.5,       0.0,       1.5);
( 571916.2, 4172925.5,       0.0,       1.5);         ( 571866.5, 4173008.0,       0.0,       1.5);
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( 571740.4, 4172976.8,       0.0,       1.5);         ( 571764.6, 4172986.8,       0.0,       1.5);
( 571786.0, 4172999.5,       0.0,       1.5);         ( 571824.5, 4173023.8,       0.0,       1.5);
( 571853.1, 4173036.8,       0.0,       1.5);         ( 571654.8, 4173033.8,       0.0,       1.5);
( 571678.3, 4173041.8,       0.0,       1.5);         ( 571698.3, 4173056.8,       0.0,       1.5);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

```
( 571720.4, 4173068.0,       0.0,       1.5);         ( 571757.5, 4173051.8,       0.0,       1.5);
( 571764.6, 4173088.8,       0.0,       1.5);         ( 571788.2, 4173105.8,       0.0,       1.5);
( 571811.7, 4173115.3,       0.0,       1.5);         ( 571753.9, 4172795.8,       0.0,       1.5);
( 571776.8, 4172800.0,       0.0,       1.5);         ( 571799.6, 4172812.8,       0.0,       1.5);
( 571820.2, 4172825.5,       0.0,       1.5);         ( 571839.5, 4172837.8,       0.0,       1.5);
( 571862.3, 4172851.2,       0.0,       1.5);         ( 571873.0, 4172831.2,       0.0,       1.5);
( 571882.3, 4172863.5,       0.0,       1.5);         ( 571887.3, 4172801.2,       0.0,       1.5);
( 571904.4, 4172773.5,       0.0,       1.5);         ( 571912.9, 4172753.5,       0.0,       1.5);
( 571992.1, 4172609.5,       0.0,       1.5);         ( 572026.4, 4172623.8,       0.0,       1.5);
( 572050.6, 4172637.2,       0.0,       1.5);         ( 572053.4, 4172665.8,       0.0,       1.5);
( 572039.2, 4172691.5,       0.0,       1.5);         ( 572027.1, 4172715.0,       0.0,       1.5);
( 572008.5, 4172705.0,       0.0,       1.5);         ( 571983.6, 4172691.5,       0.0,       1.5);
( 571958.6, 4172703.0,       0.0,       1.5);         ( 571990.0, 4172716.5,       0.0,       1.5);
( 572018.5, 4172734.2,       0.0,       1.5);         ( 572008.5, 4172756.5,       0.0,       1.5);
( 571984.2, 4172746.5,       0.0,       1.5);         ( 571962.9, 4172735.8,       0.0,       1.5);
( 571992.8, 4172779.2,       0.0,       1.5);         ( 571975.7, 4172768.5,       0.0,       1.5);
( 571950.1, 4172755.0,       0.0,       1.5);         ( 571977.9, 4172810.8,       0.0,       1.5);
( 571932.9, 4172789.2,       0.0,       1.5);         ( 571927.2, 4172820.5,       0.0,       1.5);
( 571969.3, 4172830.5,       0.0,       1.5);         ( 571905.8, 4172814.2,       0.0,       1.5);
( 571950.8, 4172860.5,       0.0,       1.5);         ( 571935.8, 4172897.0,       0.0,       1.5);
( 571945.1, 4172878.5,       0.0,       1.5);         ( 571900.8, 4172839.2,       0.0,       1.5);
( 571950.1, 4172727.3,       0.0,       1.5);         ( 572129.1, 4172623.0,       0.0,       1.5);
( 572106.9, 4172656.5,       0.0,       1.5);         ( 572092.7, 4172685.2,       0.0,       1.5);
( 572158.3, 4172633.8,       0.0,       1.5);         ( 572140.4, 4172649.5,       0.0,       1.5);
( 572162.6, 4172665.2,       0.0,       1.5);         ( 572176.1, 4172644.5,       0.0,       1.5);
( 572198.9, 4172661.5,       0.0,       1.5);         ( 572117.6, 4172698.0,       0.0,       1.5);
( 572142.6, 4172711.5,       0.0,       1.5);         ( 572164.7, 4172725.8,       0.0,       1.5);
( 572073.4, 4172725.0,       0.0,       1.5);         ( 572107.6, 4172741.5,       0.0,       1.5);
( 572136.2, 4172748.0,       0.0,       1.5);         ( 572054.9, 4172745.0,       0.0,       1.5);
( 572042.8, 4172776.5,       0.0,       1.5);         ( 572094.1, 4172768.5,       0.0,       1.5);
( 572084.1, 4172791.5,       0.0,       1.5);         ( 572155.4, 4172761.5,       0.0,       1.5);
( 572179.7, 4172775.0,       0.0,       1.5);         ( 572123.3, 4172777.8,       0.0,       1.5);
( 572144.8, 4172786.5,       0.0,       1.5);         ( 572188.2, 4172734.2,       0.0,       1.5);
( 572218.9, 4172673.0,       0.0,       1.5);         ( 572243.9, 4172690.0,       0.0,       1.5);
( 572231.0, 4172708.0,       0.0,       1.5);         ( 572270.2, 4172698.8,       0.0,       1.5);
( 572211.8, 4172745.8,       0.0,       1.5);         ( 572072.7, 4172513.2,       0.0,       1.5);
( 572086.2, 4172486.3,       0.0,       1.5);         ( 572101.3, 4172457.0,       0.0,       1.5);
( 572119.1, 4172467.5,       0.0,       1.5);         ( 572091.9, 4172519.0,       0.0,       1.5);
( 572109.8, 4172554.5,       0.0,       1.5);         ( 572126.2, 4172525.5,       0.0,       1.5);
( 572132.6, 4172501.8,       0.0,       1.5);         ( 572146.1, 4172482.5,       0.0,       1.5);
( 572159.7, 4172460.5,       0.0,       1.5);         ( 572171.1, 4172447.8,       0.0,       1.5);
```

```
( 572150.4, 4172581.0,       0.0,       1.5);         ( 572166.8, 4172546.8,       0.0,       1.5);
( 572172.6, 4172597.5,       0.0,       1.5);         ( 572198.2, 4172561.0,       0.0,       1.5);
( 572179.7, 4172551.8,       0.0,       1.5);         ( 572211.8, 4172613.8,       0.0,       1.5);
( 572234.6, 4172623.8,       0.0,       1.5);         ( 572269.5, 4172646.5,       0.0,       1.5);
```

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

```
( 572256.7, 4172596.8,       0.0,       1.5);         ( 572236.0, 4172587.5,       0.0,       1.5);
( 572219.6, 4172581.0,       0.0,       1.5);         ( 572213.9, 4172564.0,       0.0,       1.5);
( 572290.2, 4172619.5,       0.0,       1.5);         ( 572303.1, 4172661.5,       0.0,       1.5);
( 572271.7, 4172557.5,       0.0,       1.5);         ( 572249.6, 4172544.0,       0.0,       1.5);
( 572215.3, 4172524.0,       0.0,       1.5);         ( 572186.8, 4172511.0,       0.0,       1.5);
( 572193.9, 4172493.2,       0.0,       1.5);         ( 572221.8, 4172509.8,       0.0,       1.5);
( 572203.9, 4172479.0,       0.0,       1.5);         ( 572228.2, 4172493.2,       0.0,       1.5);
( 572258.1, 4172529.8,       0.0,       1.5);         ( 572280.9, 4172544.8,       0.0,       1.5);
( 572263.1, 4172511.8,       0.0,       1.5);         ( 572307.3, 4172581.8,       0.0,       1.5);
( 572117.6, 4172433.5,       0.0,       1.5);         ( 572131.2, 4172409.8,       0.0,       1.5);
( 572188.9, 4172419.8,       0.0,       1.5);         ( 572132.6, 4172317.8,       0.0,       1.5);
( 572169.0, 4172340.0,       0.0,       1.5);         ( 572203.9, 4172380.5,       0.0,       1.5);
( 572219.6, 4172452.0,       0.0,       1.5);         ( 572232.4, 4172422.8,       0.0,       1.5);
```

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER OR 3*ZLB IN DISTANCE, OR WITHIN OPEN PIT SOURCE

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000089	571588.5	4173001.0	0.97

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

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

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

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

1.54,   3.09,   5.14,   8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00

E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

CONC URBAN FLAT FLGPOL DFAULT

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

FILE: C:\!METFI~1\BAAQMD~1\CHA200~1.ASC
FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.: 1903 UPPER AIR STATION NO.: 1903
NAME: UNKNOWN NAME: UNKNOWN
YEAR: 2003 YEAR: 2003

YR MN DY HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
03 01 01 01	225.9	1.34	280.0	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 02	243.5	1.70	279.3	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 03	231.1	2.10	279.2	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 04	225.9	2.64	279.0	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 05	190.7	1.12	278.6	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 06	229.5	2.91	278.0	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 07	211.0	2.41	278.8	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 08	232.9	3.08	277.8	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 09	237.0	2.68	278.7	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 10	203.4	1.52	280.5	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 11	262.2	1.39	282.8	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 12	153.3	1.65	284.2	1	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 13	232.5	3.00	285.4	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 14	248.8	2.55	285.9	1	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 15	222.4	2.19	286.3	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 16	225.7	2.64	285.8	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 17	252.5	2.68	284.3	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 18	275.8	2.86	283.2	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 19	237.6	3.04	282.3	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 20	225.6	2.95	281.9	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 21	242.3	3.26	281.7	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 22	243.9	1.00	282.1	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 23	273.3	4.83	282.1	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 24	250.3	3.44	282.1	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

CONC URBAN FLAT FLGPOL DFAULT

*** THE SUMMARY OF MAXIMUM ANNUAL (3 YRS) RESULTS ***

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

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)				OF TYPE	NETWORK GRID-ID
ONSITE	1ST HIGHEST VALUE IS	1.64682 AT (	571607.81,	4172864.00,	0.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	1.44642 AT (	571628.88,	4172873.50,	0.00,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	1.36933 AT (	571609.56,	4172912.00,	0.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	1.30598 AT (	571452.75,	4172988.25,	0.00,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	1.29931 AT (	571595.56,	4172937.75,	0.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	1.29869 AT (	571665.75,	4172857.00,	0.00,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	1.28313 AT (	571651.13,	4172882.25,	0.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	1.27623 AT (	571548.75,	4172973.50,	0.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	1.25066 AT (	571492.00,	4172992.25,	0.00,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	1.24473 AT (	571626.00,	4172919.75,	0.00,	1.50)	DC	NA
OFFSITE	1ST HIGHEST VALUE IS	5.66330 AT (	571626.56,	4173021.50,	0.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	5.44684 AT (	571654.81,	4173033.75,	0.00,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	5.37140 AT (	571588.50,	4173001.00,	0.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	5.31750 AT (	571698.31,	4173056.75,	0.00,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	5.30446 AT (	571548.75,	4172973.50,	0.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	5.21406 AT (	571612.50,	4173008.00,	0.00,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	5.17501 AT (	571720.44,	4173068.00,	0.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	4.86831 AT (	571678.31,	4173041.75,	0.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	4.74504 AT (	571788.19,	4173105.75,	0.00,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	4.53909 AT (	571764.62,	4173088.75,	0.00,	1.50)	DC	NA
ALL	1ST HIGHEST VALUE IS	6.58068 AT (	571548.75,	4172973.50,	0.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	6.47747 AT (	571626.56,	4173021.50,	0.00,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	6.34648 AT (	571588.50,	4173001.00,	0.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	6.18059 AT (	571654.81,	4173033.75,	0.00,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	6.10638 AT (	571612.50,	4173008.00,	0.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	5.94466 AT (	571698.31,	4173056.75,	0.00,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	5.75976 AT (	571720.44,	4173068.00,	0.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	5.55191 AT (	571678.31,	4173041.75,	0.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	5.22454 AT (	571788.19,	4173105.75,	0.00,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	5.05680 AT (	571764.62,	4173088.75,	0.00,	1.50)	DC	NA

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

DP = DISCPOLR
BD = BOUNDARY

*** Message Summary : ISCST3 Model Execution ***

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

A Total of 0 Fatal Error Message(s)
A Total of 0 Warning Message(s)
A Total of 44 Informational Message(s)

A Total of 44 Calm Hours Identified

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

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST3 Finishes Successfully ***
****

Phase 2 - Offsite Receptors
Model Input

```
*** ISCST3 - VERSION 02035 ***    *** C:\!Projects\COSL-02.0 - San Leandro Shoreline\!ConstHRA\B - ISCST3  ***        07/18/14
                                   ***                                                                  ***         15:22:48
**MODELOPTs:                                                                                                        PAGE   1
CONC                    URBAN FLAT  FLGPOL DFAULT

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

**Intermediate Terrain Processing is Selected

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

  --  SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE =  F
**Model Uses NO WET DEPLETION.  WDPLETE =  F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses Regulatory DEFAULT Options:
           1. Final Plume Rise.
           2. Stack-tip Downwash.
           3. Buoyancy-induced Dispersion.
           4. Use Calms Processing Routine.
           5. Not Use Missing Data Processing Routine.
           6. Default Wind Profile Exponents.
           7. Default Vertical Potential Temperature Gradients.
           8. "Upper Bound" Values for Supersquat Buildings.
           9. No Exponential Decay for URBAN/Non-SO2

**Model Assumes Receptors on FLAT Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates ANNUAL Averages Only

**This Run Includes:   111 Source(s);      3 Source Group(s); and     206 Receptor(s)

**The Model Assumes A Pollutant Type of:  OTHER

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

**Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE 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:  Anem. Hgt. (m) =    10.00 ;    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 =     1.4 MB of RAM.

**Input Runstream File:          shorelinePh2.INP
**Output Print File:             shorelinePh2.OUT
**Detailed Error/Message File:   SHOREL~2.ERR
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CONC URBAN FLAT FLGPOL DFAULT

*** 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)	EMISSION RATE SCALAR VARY BY
L0000001	0	0.92593E-02	572100.4	4172582.0	0.0	4.15	6.51	1.93	SHRDOW
L0000002	0	0.92593E-02	572088.2	4172575.3	0.0	4.15	6.51	1.93	SHRDOW
L0000003	0	0.92593E-02	572076.1	4172568.3	0.0	4.15	6.51	1.93	SHRDOW
L0000004	0	0.92593E-02	572063.9	4172561.2	0.0	4.15	6.51	1.93	SHRDOW
L0000005	0	0.92593E-02	572051.8	4172554.2	0.0	4.15	6.51	1.93	SHRDOW
L0000006	0	0.92593E-02	572039.6	4172547.5	0.0	4.15	6.51	1.93	SHRDOW
L0000007	0	0.92593E-02	572027.4	4172540.5	0.0	4.15	6.51	1.93	SHRDOW
L0000008	0	0.92593E-02	572015.3	4172533.5	0.0	4.15	6.51	1.93	SHRDOW
L0000009	0	0.92593E-02	572003.1	4172526.5	0.0	4.15	6.51	1.93	SHRDOW
L0000010	0	0.92593E-02	571991.0	4172519.8	0.0	4.15	6.51	1.93	SHRDOW
L0000011	0	0.92593E-02	571978.8	4172512.8	0.0	4.15	6.51	1.93	SHRDOW
L0000012	0	0.92593E-02	571966.6	4172505.8	0.0	4.15	6.51	1.93	SHRDOW
L0000013	0	0.92593E-02	571954.5	4172499.0	0.0	4.15	6.51	1.93	SHRDOW
L0000014	0	0.92593E-02	571942.3	4172492.0	0.0	4.15	6.51	1.93	SHRDOW
L0000015	0	0.92593E-02	571930.1	4172485.0	0.0	4.15	6.51	1.93	SHRDOW
L0000016	0	0.92593E-02	571918.0	4172478.0	0.0	4.15	6.51	1.93	SHRDOW
L0000017	0	0.92593E-02	571905.8	4172471.2	0.0	4.15	6.51	1.93	SHRDOW
L0000018	0	0.92593E-02	571893.7	4172464.2	0.0	4.15	6.51	1.93	SHRDOW
L0000019	0	0.92593E-02	571881.5	4172457.2	0.0	4.15	6.51	1.93	SHRDOW
L0000020	0	0.92593E-02	571869.3	4172450.2	0.0	4.15	6.51	1.93	SHRDOW
L0000021	0	0.92593E-02	571857.2	4172443.5	0.0	4.15	6.51	1.93	SHRDOW
L0000022	0	0.92593E-02	571845.0	4172436.5	0.0	4.15	6.51	1.93	SHRDOW
L0000023	0	0.92593E-02	571832.8	4172429.5	0.0	4.15	6.51	1.93	SHRDOW
L0000024	0	0.92593E-02	571820.7	4172422.8	0.0	4.15	6.51	1.93	SHRDOW
L0000025	0	0.92593E-02	571808.5	4172415.8	0.0	4.15	6.51	1.93	SHRDOW
L0000026	0	0.92593E-02	571796.4	4172408.8	0.0	4.15	6.51	1.93	SHRDOW
L0000027	0	0.92593E-02	571784.2	4172401.8	0.0	4.15	6.51	1.93	SHRDOW
L0000028	0	0.92593E-02	571772.0	4172395.0	0.0	4.15	6.51	1.93	SHRDOW
L0000029	0	0.92593E-02	571759.9	4172388.0	0.0	4.15	6.51	1.93	SHRDOW
L0000030	0	0.92593E-02	571747.7	4172381.0	0.0	4.15	6.51	1.93	SHRDOW
L0000031	0	0.92593E-02	571735.6	4172374.2	0.0	4.15	6.51	1.93	SHRDOW
L0000032	0	0.92593E-02	571723.4	4172367.2	0.0	4.15	6.51	1.93	SHRDOW
L0000033	0	0.92593E-02	571711.6	4172361.8	0.0	4.15	6.51	1.93	SHRDOW
L0000034	0	0.92593E-02	571703.7	4172373.2	0.0	4.15	6.51	1.93	SHRDOW
L0000035	0	0.92593E-02	571695.8	4172385.0	0.0	4.15	6.51	1.93	SHRDOW
L0000036	0	0.92593E-02	571688.0	4172396.5	0.0	4.15	6.51	1.93	SHRDOW
L0000037	0	0.92593E-02	571680.1	4172408.0	0.0	4.15	6.51	1.93	SHRDOW

L0000038	0	0.92593E-02	571672.3	4172419.8	0.0	4.15	6.51	1.93	SHRDOW
L0000039	0	0.92593E-02	571664.4	4172431.2	0.0	4.15	6.51	1.93	SHRDOW
L0000040	0	0.92593E-02	571656.6	4172442.8	0.0	4.15	6.51	1.93	SHRDOW
L0000041	0	0.92593E-02	571648.8	4172454.5	0.0	4.15	6.51	1.93	SHRDOW
L0000042	0	0.92593E-02	571640.9	4172466.0	0.0	4.15	6.51	1.93	SHRDOW
L0000043	0	0.92593E-02	571633.1	4172477.5	0.0	4.15	6.51	1.93	SHRDOW
L0000044	0	0.92593E-02	571625.2	4172489.2	0.0	4.15	6.51	1.93	SHRDOW
L0000045	0	0.92593E-02	571617.3	4172500.8	0.0	4.15	6.51	1.93	SHRDOW
L0000046	0	0.92593E-02	571609.5	4172512.5	0.0	4.15	6.51	1.93	SHRDOW
L0000047	0	0.92593E-02	571601.6	4172524.0	0.0	4.15	6.51	1.93	SHRDOW
L0000048	0	0.92593E-02	571594.0	4172535.8	0.0	4.15	6.51	1.93	SHRDOW
L0000049	0	0.92593E-02	571589.1	4172548.8	0.0	4.15	6.51	1.93	SHRDOW
L0000050	0	0.92593E-02	571584.3	4172562.0	0.0	4.15	6.51	1.93	SHRDOW
L0000051	0	0.92593E-02	571579.5	4172575.0	0.0	4.15	6.51	1.93	SHRDOW
L0000052	0	0.92593E-02	571574.7	4172588.2	0.0	4.15	6.51	1.93	SHRDOW
L0000053	0	0.92593E-02	571569.9	4172601.5	0.0	4.15	6.51	1.93	SHRDOW
L0000054	0	0.92593E-02	571564.5	4172614.2	0.0	4.15	6.51	1.93	SHRDOW
L0000055	0	0.92593E-02	571559.2	4172627.2	0.0	4.15	6.51	1.93	SHRDOW
L0000056	0	0.92593E-02	571553.8	4172640.2	0.0	4.15	6.51	1.93	SHRDOW
L0000057	0	0.92593E-02	571548.5	4172653.2	0.0	4.15	6.51	1.93	SHRDOW
L0000058	0	0.92593E-02	571543.2	4172666.0	0.0	4.15	6.51	1.93	SHRDOW
L0000059	0	0.92593E-02	571537.8	4172679.0	0.0	4.15	6.51	1.93	SHRDOW
L0000060	0	0.92593E-02	571532.2	4172691.8	0.0	4.15	6.51	1.93	SHRDOW
L0000061	0	0.92593E-02	571525.4	4172704.0	0.0	4.15	6.51	1.93	SHRDOW
L0000062	0	0.92593E-02	571518.7	4172716.5	0.0	4.15	6.51	1.93	SHRDOW
L0000063	0	0.92593E-02	571511.4	4172728.2	0.0	4.15	6.51	1.93	SHRDOW
L0000064	0	0.92593E-02	571503.5	4172739.8	0.0	4.15	6.51	1.93	SHRDOW
L0000065	0	0.92593E-02	571495.6	4172751.5	0.0	4.15	6.51	1.93	SHRDOW
L0000066	0	0.92593E-02	571487.6	4172763.0	0.0	4.15	6.51	1.93	SHRDOW
L0000067	0	0.92593E-02	571479.8	4172774.5	0.0	4.15	6.51	1.93	SHRDOW
L0000068	0	0.92593E-02	571471.8	4172786.0	0.0	4.15	6.51	1.93	SHRDOW
L0000069	0	0.92593E-02	571465.1	4172798.2	0.0	4.15	6.51	1.93	SHRDOW
L0000070	0	0.92593E-02	571460.9	4172811.5	0.0	4.15	6.51	1.93	SHRDOW
L0000071	0	0.92593E-02	571456.7	4172824.8	0.0	4.15	6.51	1.93	SHRDOW
L0000072	0	0.92593E-02	571452.5	4172838.2	0.0	4.15	6.51	1.93	SHRDOW
L0000073	0	0.92593E-02	571449.1	4172851.8	0.0	4.15	6.51	1.93	SHRDOW
L0000074	0	0.92593E-02	571450.6	4172865.5	0.0	4.15	6.51	1.93	SHRDOW
L0000075	0	0.92593E-02	571452.2	4172879.5	0.0	4.15	6.51	1.93	SHRDOW
L0000076	0	0.92593E-02	571453.8	4172893.5	0.0	4.15	6.51	1.93	SHRDOW
L0000077	0	0.92593E-02	571455.4	4172907.2	0.0	4.15	6.51	1.93	SHRDOW
L0000078	0	0.92593E-02	571462.8	4172919.0	0.0	4.15	6.51	1.93	SHRDOW
L0000079	0	0.92593E-02	571470.7	4172930.5	0.0	4.15	6.51	1.93	SHRDOW
L0000080	0	0.92593E-02	571478.6	4172942.0	0.0	4.15	6.51	1.93	SHRDOW

CONC URBAN FLAT FLGPOL DFAULT

*** 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)	EMISSION RATE SCALAR VARY BY
L0000081	0	0.92593E-02	571486.6	4172953.8	0.0	4.15	6.51	1.93	SHRDOW
L0000082	0	0.92593E-02	571494.4	4172965.2	0.0	4.15	6.51	1.93	SHRDOW
L0000083	0	0.92593E-02	571505.8	4172973.0	0.0	4.15	6.51	1.93	SHRDOW
L0000084	0	0.92593E-02	571518.1	4172979.8	0.0	4.15	6.51	1.93	SHRDOW
L0000085	0	0.92593E-02	571530.4	4172986.2	0.0	4.15	6.51	1.93	SHRDOW
L0000086	0	0.92593E-02	571542.7	4172993.0	0.0	4.15	6.51	1.93	SHRDOW
L0000087	0	0.92593E-02	571554.9	4172999.8	0.0	4.15	6.51	1.93	SHRDOW
L0000088	0	0.92593E-02	571567.3	4173006.5	0.0	4.15	6.51	1.93	SHRDOW
L0000089	0	0.92593E-02	571579.6	4173013.0	0.0	4.15	6.51	1.93	SHRDOW
L0000090	0	0.92593E-02	571591.9	4173019.8	0.0	4.15	6.51	1.93	SHRDOW
L0000091	0	0.92593E-02	571604.2	4173026.5	0.0	4.15	6.51	1.93	SHRDOW
L0000092	0	0.92593E-02	571616.4	4173033.2	0.0	4.15	6.51	1.93	SHRDOW
L0000093	0	0.92593E-02	571628.8	4173039.8	0.0	4.15	6.51	1.93	SHRDOW
L0000094	0	0.92593E-02	571641.1	4173046.5	0.0	4.15	6.51	1.93	SHRDOW
L0000095	0	0.92593E-02	571653.4	4173053.2	0.0	4.15	6.51	1.93	SHRDOW
L0000096	0	0.92593E-02	571665.7	4173060.0	0.0	4.15	6.51	1.93	SHRDOW
L0000097	0	0.92593E-02	571677.9	4173066.5	0.0	4.15	6.51	1.93	SHRDOW
L0000098	0	0.92593E-02	571690.2	4173073.2	0.0	4.15	6.51	1.93	SHRDOW
L0000099	0	0.92593E-02	571702.6	4173080.0	0.0	4.15	6.51	1.93	SHRDOW
L0000100	0	0.92593E-02	571714.9	4173086.8	0.0	4.15	6.51	1.93	SHRDOW
L0000101	0	0.92593E-02	571727.2	4173093.2	0.0	4.15	6.51	1.93	SHRDOW
L0000102	0	0.92593E-02	571739.4	4173100.0	0.0	4.15	6.51	1.93	SHRDOW
L0000103	0	0.92593E-02	571751.8	4173106.8	0.0	4.15	6.51	1.93	SHRDOW
L0000104	0	0.92593E-02	571764.1	4173113.5	0.0	4.15	6.51	1.93	SHRDOW
L0000105	0	0.92593E-02	571776.4	4173120.0	0.0	4.15	6.51	1.93	SHRDOW
L0000106	0	0.92593E-02	571788.7	4173126.8	0.0	4.15	6.51	1.93	SHRDOW
L0000107	0	0.92593E-02	571800.9	4173133.5	0.0	4.15	6.51	1.93	SHRDOW
L0000108	0	0.92593E-02	571813.2	4173140.3	0.0	4.15	6.51	1.93	SHRDOW

*** 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)	EMISSION RATE SCALAR VARY BY
1	0	0.11613E-03	571323.7	4172679.5	0.0	4.15	7	1.93	SHRDOW
2	0	0.60107E-04	571520.2	4172972.2	0.0	4.15	14	1.93	SHRDOW
3	0	0.36225E-04	571762.9	4172408.2	0.0	4.15	14	1.93	SHRDOW

CONC URBAN FLAT FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000001 through L0000108; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
							SEASON = WINTER;	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	.1000E+01	13	.0000E+00	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
							SEASON = SPRING;	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	.1000E+01	13	.0000E+00	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
							SEASON = SUMMER;	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	.1000E+01	13	.0000E+00	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
							SEASON = FALL ;	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	.1000E+01	13	.0000E+00	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
							SEASON = WINTER;	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
							SEASON = SPRING;	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
							SEASON = SUMMER;	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
							SEASON = FALL ;	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
							SEASON = WINTER;	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
							SEASON = SPRING;	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
							SEASON = SUMMER;	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

SEASON = FALL ; 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

CONC URBAN FLAT FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = 1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						SEASON = WINTER;		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	.1000E+01	13	.0000E+00	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
						SEASON = SPRING;		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	.1000E+01	13	.0000E+00	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
						SEASON = SUMMER;		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	.1000E+01	13	.0000E+00	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
						SEASON = FALL ;		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	.1000E+01	13	.0000E+00	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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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
						SEASON = FALL ;		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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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

SEASON = FALL ; 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

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = 2 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						SEASON = WINTER;		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	.1000E+01	13	.0000E+00	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
						SEASON = SPRING;		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	.1000E+01	13	.0000E+00	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
						SEASON = SUMMER;		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	.1000E+01	13	.0000E+00	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
						SEASON = FALL ;		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	.1000E+01	13	.0000E+00	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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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
						SEASON = FALL ;		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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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

SEASON = FALL ; 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

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = 3 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						SEASON = WINTER;		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	.1000E+01	13	.0000E+00	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
						SEASON = SPRING;		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	.1000E+01	13	.0000E+00	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
						SEASON = SUMMER;		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	.1000E+01	13	.0000E+00	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
						SEASON = FALL ;		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	.1000E+01	13	.0000E+00	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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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
						SEASON = FALL ;		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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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

SEASON = FALL ; 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

CONC URBAN FLAT FLGPOL DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(571452.8,	4172988.3,	0.0,	1.5);	(571492.0,	4172992.2,	0.0,	1.5);
(571508.4,	4173004.5,	0.0,	1.5);	(571525.9,	4173014.5,	0.0,	1.5);
(571493.8,	4173016.8,	0.0,	1.5);	(571543.4,	4173023.8,	0.0,	1.5);
(571564.5,	4173035.0,	0.0,	1.5);	(571554.6,	4173048.5,	0.0,	1.5);
(571607.2,	4173057.8,	0.0,	1.5);	(571621.9,	4173066.5,	0.0,	1.5);
(571613.7,	4173084.2,	0.0,	1.5);	(571587.4,	4173088.8,	0.0,	1.5);
(571542.3,	4173082.5,	0.0,	1.5);	(571524.8,	4173114.5,	0.0,	1.5);
(571544.6,	4173128.5,	0.0,	1.5);	(571562.8,	4173093.0,	0.0,	1.5);
(571590.2,	4173129.8,	0.0,	1.5);	(571569.8,	4173121.5,	0.0,	1.5);
(571487.9,	4173046.8,	0.0,	1.5);	(571518.9,	4173060.2,	0.0,	1.5);
(571429.4,	4173038.0,	0.0,	1.5);	(571486.7,	4173067.8,	0.0,	1.5);
(571476.8,	4173088.8,	0.0,	1.5);	(571436.9,	4173059.0,	0.0,	1.5);
(571433.4,	4173081.8,	0.0,	1.5);	(571408.3,	4173069.5,	0.0,	1.5);
(571414.1,	4173089.5,	0.0,	1.5);	(571430.5,	4173099.2,	0.0,	1.5);
(571429.9,	4173124.5,	0.0,	1.5);	(571418.8,	4173134.5,	0.0,	1.5);
(571476.2,	4173114.0,	0.0,	1.5);	(571482.6,	4173148.0,	0.0,	1.5);
(571417.6,	4173149.0,	0.0,	1.5);	(571593.2,	4173164.2,	0.0,	1.5);
(571614.9,	4173125.8,	0.0,	1.5);	(571642.9,	4173109.2,	0.0,	1.5);
(571629.5,	4173134.5,	0.0,	1.5);	(571673.9,	4173098.2,	0.0,	1.5);
(571658.8,	4173128.5,	0.0,	1.5);	(571710.3,	4173113.5,	0.0,	1.5);
(571695.0,	4173143.2,	0.0,	1.5);	(571548.8,	4172973.5,	0.0,	1.5);
(571588.5,	4173001.0,	0.0,	1.5);	(571612.5,	4173008.0,	0.0,	1.5);
(571626.6,	4173021.5,	0.0,	1.5);	(571616.0,	4172947.8,	0.0,	1.5);
(571626.0,	4172919.8,	0.0,	1.5);	(571609.6,	4172912.0,	0.0,	1.5);
(571595.6,	4172937.8,	0.0,	1.5);	(571651.8,	4172935.5,	0.0,	1.5);
(571674.6,	4172945.5,	0.0,	1.5);	(571693.2,	4172956.0,	0.0,	1.5);
(571716.1,	4172965.2,	0.0,	1.5);	(571607.8,	4172864.0,	0.0,	1.5);
(571628.9,	4172873.5,	0.0,	1.5);	(571651.1,	4172882.2,	0.0,	1.5);
(571665.8,	4172857.0,	0.0,	1.5);	(571687.4,	4172867.0,	0.0,	1.5);
(571671.6,	4172895.8,	0.0,	1.5);	(571737.8,	4172830.2,	0.0,	1.5);
(571717.9,	4172853.0,	0.0,	1.5);	(571756.5,	4172840.8,	0.0,	1.5);
(571777.6,	4172850.0,	0.0,	1.5);	(571802.1,	4172863.5,	0.0,	1.5);
(571822.6,	4172873.0,	0.0,	1.5);	(571695.6,	4172912.0,	0.0,	1.5);
(571718.4,	4172920.2,	0.0,	1.5);	(571740.7,	4172929.8,	0.0,	1.5);
(571741.8,	4172908.0,	0.0,	1.5);	(571727.8,	4172893.2,	0.0,	1.5);
(571760.6,	4172938.5,	0.0,	1.5);	(571775.8,	4172912.8,	0.0,	1.5);
(571844.8,	4172886.3,	0.0,	1.5);	(571788.7,	4172935.5,	0.0,	1.5);
(571805.6,	4172954.8,	0.0,	1.5);	(571824.9,	4172971.8,	0.0,	1.5);
(571843.1,	4172990.0,	0.0,	1.5);	(571851.2,	4172923.2,	0.0,	1.5);
(571885.2,	4172910.2,	0.0,	1.5);	(571861.8,	4172901.5,	0.0,	1.5);
(571916.2,	4172925.5,	0.0,	1.5);	(571866.5,	4173008.0,	0.0,	1.5);

```
( 571740.4, 4172976.8,       0.0,       1.5);         ( 571764.6, 4172986.8,       0.0,       1.5);
( 571786.0, 4172999.5,       0.0,       1.5);         ( 571824.5, 4173023.8,       0.0,       1.5);
( 571853.1, 4173036.8,       0.0,       1.5);         ( 571654.8, 4173033.8,       0.0,       1.5);
( 571678.3, 4173041.8,       0.0,       1.5);         ( 571698.3, 4173056.8,       0.0,       1.5);
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

```
( 571720.4, 4173068.0,       0.0,       1.5);         ( 571757.5, 4173051.8,       0.0,       1.5);
( 571764.6, 4173088.8,       0.0,       1.5);         ( 571788.2, 4173105.8,       0.0,       1.5);
( 571811.7, 4173115.3,       0.0,       1.5);         ( 571753.9, 4172795.8,       0.0,       1.5);
( 571776.8, 4172800.0,       0.0,       1.5);         ( 571799.6, 4172812.8,       0.0,       1.5);
( 571820.2, 4172825.5,       0.0,       1.5);         ( 571839.5, 4172837.8,       0.0,       1.5);
( 571862.3, 4172851.2,       0.0,       1.5);         ( 571873.0, 4172831.2,       0.0,       1.5);
( 571882.3, 4172863.5,       0.0,       1.5);         ( 571887.3, 4172801.2,       0.0,       1.5);
( 571904.4, 4172773.5,       0.0,       1.5);         ( 571912.9, 4172753.5,       0.0,       1.5);
( 571992.1, 4172609.5,       0.0,       1.5);         ( 572026.4, 4172623.8,       0.0,       1.5);
( 572050.6, 4172637.2,       0.0,       1.5);         ( 572053.4, 4172665.8,       0.0,       1.5);
( 572039.2, 4172691.5,       0.0,       1.5);         ( 572027.1, 4172715.0,       0.0,       1.5);
( 572008.5, 4172705.0,       0.0,       1.5);         ( 571983.6, 4172691.5,       0.0,       1.5);
( 571958.6, 4172703.0,       0.0,       1.5);         ( 571990.0, 4172716.5,       0.0,       1.5);
( 572018.5, 4172734.2,       0.0,       1.5);         ( 572008.5, 4172756.5,       0.0,       1.5);
( 571984.2, 4172746.5,       0.0,       1.5);         ( 571962.9, 4172735.8,       0.0,       1.5);
( 571992.8, 4172779.2,       0.0,       1.5);         ( 571975.7, 4172768.5,       0.0,       1.5);
( 571950.1, 4172755.0,       0.0,       1.5);         ( 571977.9, 4172810.8,       0.0,       1.5);
( 571932.9, 4172789.2,       0.0,       1.5);         ( 571927.2, 4172820.5,       0.0,       1.5);
( 571969.3, 4172830.5,       0.0,       1.5);         ( 571905.8, 4172814.2,       0.0,       1.5);
( 571950.8, 4172860.5,       0.0,       1.5);         ( 571935.8, 4172897.0,       0.0,       1.5);
( 571945.1, 4172878.5,       0.0,       1.5);         ( 571900.8, 4172839.2,       0.0,       1.5);
( 571950.1, 4172727.3,       0.0,       1.5);         ( 572129.1, 4172623.0,       0.0,       1.5);
( 572106.9, 4172656.5,       0.0,       1.5);         ( 572092.7, 4172685.2,       0.0,       1.5);
( 572158.3, 4172633.8,       0.0,       1.5);         ( 572140.4, 4172649.5,       0.0,       1.5);
( 572162.6, 4172665.2,       0.0,       1.5);         ( 572176.1, 4172644.5,       0.0,       1.5);
( 572198.9, 4172661.5,       0.0,       1.5);         ( 572117.6, 4172698.0,       0.0,       1.5);
( 572142.6, 4172711.5,       0.0,       1.5);         ( 572164.7, 4172725.8,       0.0,       1.5);
( 572073.4, 4172725.0,       0.0,       1.5);         ( 572107.6, 4172741.5,       0.0,       1.5);
( 572136.2, 4172748.0,       0.0,       1.5);         ( 572054.9, 4172745.0,       0.0,       1.5);
( 572042.8, 4172776.5,       0.0,       1.5);         ( 572094.1, 4172768.5,       0.0,       1.5);
( 572084.1, 4172791.5,       0.0,       1.5);         ( 572155.4, 4172761.5,       0.0,       1.5);
( 572179.7, 4172775.0,       0.0,       1.5);         ( 572123.3, 4172777.8,       0.0,       1.5);
( 572144.8, 4172786.5,       0.0,       1.5);         ( 572188.2, 4172734.2,       0.0,       1.5);
( 572218.9, 4172673.0,       0.0,       1.5);         ( 572243.9, 4172690.0,       0.0,       1.5);
( 572231.0, 4172708.0,       0.0,       1.5);         ( 572270.2, 4172698.8,       0.0,       1.5);
( 572211.8, 4172745.8,       0.0,       1.5);         ( 572072.7, 4172513.2,       0.0,       1.5);
( 572086.2, 4172486.3,       0.0,       1.5);         ( 572101.3, 4172457.0,       0.0,       1.5);
( 572119.1, 4172467.5,       0.0,       1.5);         ( 572091.9, 4172519.0,       0.0,       1.5);
( 572109.8, 4172554.5,       0.0,       1.5);         ( 572126.2, 4172525.5,       0.0,       1.5);
( 572132.6, 4172501.8,       0.0,       1.5);         ( 572146.1, 4172482.5,       0.0,       1.5);
( 572159.7, 4172460.5,       0.0,       1.5);         ( 572171.1, 4172447.8,       0.0,       1.5);
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( 572150.4, 4172581.0,       0.0,       1.5);         ( 572166.8, 4172546.8,       0.0,       1.5);
( 572172.6, 4172597.5,       0.0,       1.5);         ( 572198.2, 4172561.0,       0.0,       1.5);
( 572179.7, 4172551.8,       0.0,       1.5);         ( 572211.8, 4172613.8,       0.0,       1.5);
( 572234.6, 4172623.8,       0.0,       1.5);         ( 572269.5, 4172646.5,       0.0,       1.5);
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CONC URBAN FLAT FLGPOL DFAULT

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

(	572256.7,	4172596.8,	0.0, 1.5);	(	572236.0,	4172587.5,	0.0, 1.5);
(	572219.6,	4172581.0,	0.0, 1.5);	(	572213.9,	4172564.0,	0.0, 1.5);
(	572290.2,	4172619.5,	0.0, 1.5);	(	572303.1,	4172661.5,	0.0, 1.5);
(	572271.7,	4172557.5,	0.0, 1.5);	(	572249.6,	4172544.0,	0.0, 1.5);
(	572215.3,	4172524.0,	0.0, 1.5);	(	572186.8,	4172511.0,	0.0, 1.5);
(	572193.9,	4172493.2,	0.0, 1.5);	(	572221.8,	4172509.8,	0.0, 1.5);
(	572203.9,	4172479.0,	0.0, 1.5);	(	572228.2,	4172493.2,	0.0, 1.5);
(	572258.1,	4172529.8,	0.0, 1.5);	(	572280.9,	4172544.8,	0.0, 1.5);
(	572263.1,	4172511.8,	0.0, 1.5);	(	572307.3,	4172581.8,	0.0, 1.5);
(	572117.6,	4172433.5,	0.0, 1.5);	(	572131.2,	4172409.8,	0.0, 1.5);
(	572188.9,	4172419.8,	0.0, 1.5);	(	572132.6,	4172317.8,	0.0, 1.5);
(	572169.0,	4172340.0,	0.0, 1.5);	(	572203.9,	4172380.5,	0.0, 1.5);
(	572219.6,	4172452.0,	0.0, 1.5);	(	572232.4,	4172422.8,	0.0, 1.5);

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER OR 3*ZLB IN DISTANCE, OR WITHIN OPEN PIT SOURCE

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000089	571588.5	4173001.0	0.97

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

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

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

1.54,   3.09,   5.14,   8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY CATEGORY	WIND SPEED CATEGORY 1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00

E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

CONC URBAN FLAT FLGPOL DFAULT

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

FILE: C:\!METFI~1\BAAQMD~1\CHA200~1.ASC
FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.: 1903 UPPER AIR STATION NO.: 1903
NAME: UNKNOWN NAME: UNKNOWN
YEAR: 2003 YEAR: 2003

YR MN DY HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
03 01 01 01	225.9	1.34	280.0	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 02	243.5	1.70	279.3	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 03	231.1	2.10	279.2	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 04	225.9	2.64	279.0	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 05	190.7	1.12	278.6	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 06	229.5	2.91	278.0	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 07	211.0	2.41	278.8	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 08	232.9	3.08	277.8	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 09	237.0	2.68	278.7	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 10	203.4	1.52	280.5	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 11	262.2	1.39	282.8	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 12	153.3	1.65	284.2	1	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 13	232.5	3.00	285.4	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 14	248.8	2.55	285.9	1	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 15	222.4	2.19	286.3	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 16	225.7	2.64	285.8	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 17	252.5	2.68	284.3	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 18	275.8	2.86	283.2	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 19	237.6	3.04	282.3	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 20	225.6	2.95	281.9	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 21	242.3	3.26	281.7	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 22	243.9	1.00	282.1	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 23	273.3	4.83	282.1	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03 01 01 24	250.3	3.44	282.1	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

CONC URBAN FLAT FLGPOL DFAULT

*** THE SUMMARY OF MAXIMUM ANNUAL (3 YRS) RESULTS ***

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

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)				OF TYPE	NETWORK GRID-ID
OFFSITE	1ST HIGHEST VALUE IS	5.66330	AT (571626.56,	4173021.50,	0.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	5.44684	AT (571654.81,	4173033.75,	0.00,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	5.37140	AT (571588.50,	4173001.00,	0.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	5.31750	AT (571698.31,	4173056.75,	0.00,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	5.30446	AT (571548.75,	4172973.50,	0.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	5.21406	AT (571612.50,	4173008.00,	0.00,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	5.17501	AT (571720.44,	4173068.00,	0.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	4.86831	AT (571678.31,	4173041.75,	0.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	4.74504	AT (571788.19,	4173105.75,	0.00,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	4.53909	AT (571764.62,	4173088.75,	0.00,	1.50)	DC	NA
ONSITE	1ST HIGHEST VALUE IS	10.32960	AT (571607.81,	4172864.00,	0.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	10.31350	AT (571548.75,	4172973.50,	0.00,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	8.84760	AT (571595.56,	4172937.75,	0.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	8.59042	AT (571609.56,	4172912.00,	0.00,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	8.38157	AT (571628.88,	4172873.50,	0.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	7.15780	AT (571626.00,	4172919.75,	0.00,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	6.85753	AT (571651.13,	4172882.25,	0.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	6.75256	AT (571616.00,	4172947.75,	0.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	6.68723	AT (571665.75,	4172857.00,	0.00,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	5.68083	AT (571671.62,	4172895.75,	0.00,	1.50)	DC	NA
ALL	1ST HIGHEST VALUE IS	15.61768	AT (571548.75,	4172973.50,	0.00,	1.50)	DC	NA
	2ND HIGHEST VALUE IS	11.67350	AT (571607.81,	4172864.00,	0.00,	1.50)	DC	NA
	3RD HIGHEST VALUE IS	10.77714	AT (571595.56,	4172937.75,	0.00,	1.50)	DC	NA
	4TH HIGHEST VALUE IS	10.40378	AT (571588.50,	4173001.00,	0.00,	1.50)	DC	NA
	5TH HIGHEST VALUE IS	10.08401	AT (571609.56,	4172912.00,	0.00,	1.50)	DC	NA
	6TH HIGHEST VALUE IS	9.59944	AT (571628.88,	4172873.50,	0.00,	1.50)	DC	NA
	7TH HIGHEST VALUE IS	9.43580	AT (571612.50,	4173008.00,	0.00,	1.50)	DC	NA
	8TH HIGHEST VALUE IS	9.20485	AT (571626.56,	4173021.50,	0.00,	1.50)	DC	NA
	9TH HIGHEST VALUE IS	8.59105	AT (571616.00,	4172947.75,	0.00,	1.50)	DC	NA
	10TH HIGHEST VALUE IS	8.57681	AT (571626.00,	4172919.75,	0.00,	1.50)	DC	NA

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

**MODELOPTs:
CONC   URBAN FLAT FLGPOL DFAULT

*** Message Summary : ISCST3 Model Execution ***

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

A Total of   0 Fatal Error Message(s)
A Total of   0 Warning Message(s)
A Total of   44 Informational Message(s)

A Total of   44 Calm Hours Identified

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

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST3 Finishes Successfully ***
****

Phase 2 - Onsite Residents
Model Input

```
*** ISCST3 - VERSION 02035 ***    *** C:\!Projects\COSL-02.0 - San Leandro Shoreline\!ConstHRA\B - ISCST3  ***        07/18/14
                                   ***                                                                    ***        15:19:17
**MODELOPTs:                                                                                                        PAGE   1
CONC                    URBAN FLAT  FLGPOL DFAULT

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

**Intermediate Terrain Processing is Selected

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

  --  SCAVENGING/DEPOSITION LOGIC --
**Model Uses NO DRY DEPLETION.  DDPLETE =  F
**Model Uses NO WET DEPLETION.  WDPLETE =  F
**NO WET SCAVENGING Data Provided.
**NO GAS DRY DEPOSITION Data Provided.
**Model Does NOT Use GRIDDED TERRAIN Data for Depletion Calculations

**Model Uses URBAN Dispersion.

**Model Uses Regulatory DEFAULT Options:
           1. Final Plume Rise.
           2. Stack-tip Downwash.
           3. Buoyancy-induced Dispersion.
           4. Use Calms Processing Routine.
           5. Not Use Missing Data Processing Routine.
           6. Default Wind Profile Exponents.
           7. Default Vertical Potential Temperature Gradients.
           8. "Upper Bound" Values for Supersquat Buildings.
           9. No Exponential Decay for URBAN/Non-SO2

**Model Assumes Receptors on FLAT Terrain.

**Model Accepts FLAGPOLE Receptor Heights.

**Model Calculates ANNUAL Averages Only

**This Run Includes:   111 Source(s);      3 Source Group(s); and      22 Receptor(s)

**The Model Assumes A Pollutant Type of:  OTHER

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

**Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE 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:  Anem. Hgt. (m) =    10.00 ;    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 =     1.4 MB of RAM.

**Input Runstream File:          OnsitePh2.INP
**Output Print File:             OnsitePh2.OUT
**Detailed Error/Message File:   ONSITE~1.ERR
```

CONC URBAN FLAT FLGPOL DFAULT

*** 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)	EMISSION RATE SCALAR VARY BY
L0000001	0	0.92593E-02	572100.4	4172582.0	0.0	4.15	6.51	1.93	SHRDOW
L0000002	0	0.92593E-02	572088.2	4172575.3	0.0	4.15	6.51	1.93	SHRDOW
L0000003	0	0.92593E-02	572076.1	4172568.3	0.0	4.15	6.51	1.93	SHRDOW
L0000004	0	0.92593E-02	572063.9	4172561.2	0.0	4.15	6.51	1.93	SHRDOW
L0000005	0	0.92593E-02	572051.8	4172554.2	0.0	4.15	6.51	1.93	SHRDOW
L0000006	0	0.92593E-02	572039.6	4172547.5	0.0	4.15	6.51	1.93	SHRDOW
L0000007	0	0.92593E-02	572027.4	4172540.5	0.0	4.15	6.51	1.93	SHRDOW
L0000008	0	0.92593E-02	572015.3	4172533.5	0.0	4.15	6.51	1.93	SHRDOW
L0000009	0	0.92593E-02	572003.1	4172526.5	0.0	4.15	6.51	1.93	SHRDOW
L0000010	0	0.92593E-02	571991.0	4172519.8	0.0	4.15	6.51	1.93	SHRDOW
L0000011	0	0.92593E-02	571978.8	4172512.8	0.0	4.15	6.51	1.93	SHRDOW
L0000012	0	0.92593E-02	571966.6	4172505.8	0.0	4.15	6.51	1.93	SHRDOW
L0000013	0	0.92593E-02	571954.5	4172499.0	0.0	4.15	6.51	1.93	SHRDOW
L0000014	0	0.92593E-02	571942.3	4172492.0	0.0	4.15	6.51	1.93	SHRDOW
L0000015	0	0.92593E-02	571930.1	4172485.0	0.0	4.15	6.51	1.93	SHRDOW
L0000016	0	0.92593E-02	571918.0	4172478.0	0.0	4.15	6.51	1.93	SHRDOW
L0000017	0	0.92593E-02	571905.8	4172471.2	0.0	4.15	6.51	1.93	SHRDOW
L0000018	0	0.92593E-02	571893.7	4172464.2	0.0	4.15	6.51	1.93	SHRDOW
L0000019	0	0.92593E-02	571881.5	4172457.2	0.0	4.15	6.51	1.93	SHRDOW
L0000020	0	0.92593E-02	571869.3	4172450.2	0.0	4.15	6.51	1.93	SHRDOW
L0000021	0	0.92593E-02	571857.2	4172443.5	0.0	4.15	6.51	1.93	SHRDOW
L0000022	0	0.92593E-02	571845.0	4172436.5	0.0	4.15	6.51	1.93	SHRDOW
L0000023	0	0.92593E-02	571832.8	4172429.5	0.0	4.15	6.51	1.93	SHRDOW
L0000024	0	0.92593E-02	571820.7	4172422.8	0.0	4.15	6.51	1.93	SHRDOW
L0000025	0	0.92593E-02	571808.5	4172415.8	0.0	4.15	6.51	1.93	SHRDOW
L0000026	0	0.92593E-02	571796.4	4172408.8	0.0	4.15	6.51	1.93	SHRDOW
L0000027	0	0.92593E-02	571784.2	4172401.8	0.0	4.15	6.51	1.93	SHRDOW
L0000028	0	0.92593E-02	571772.0	4172395.0	0.0	4.15	6.51	1.93	SHRDOW
L0000029	0	0.92593E-02	571759.9	4172388.0	0.0	4.15	6.51	1.93	SHRDOW
L0000030	0	0.92593E-02	571747.7	4172381.0	0.0	4.15	6.51	1.93	SHRDOW
L0000031	0	0.92593E-02	571735.6	4172374.2	0.0	4.15	6.51	1.93	SHRDOW
L0000032	0	0.92593E-02	571723.4	4172367.2	0.0	4.15	6.51	1.93	SHRDOW
L0000033	0	0.92593E-02	571711.6	4172361.8	0.0	4.15	6.51	1.93	SHRDOW
L0000034	0	0.92593E-02	571703.7	4172373.2	0.0	4.15	6.51	1.93	SHRDOW
L0000035	0	0.92593E-02	571695.8	4172385.0	0.0	4.15	6.51	1.93	SHRDOW
L0000036	0	0.92593E-02	571688.0	4172396.5	0.0	4.15	6.51	1.93	SHRDOW
L0000037	0	0.92593E-02	571680.1	4172408.0	0.0	4.15	6.51	1.93	SHRDOW

L0000038	0	0.92593E-02	571672.3	4172419.8	0.0	4.15	6.51	1.93	SHRDOW
L0000039	0	0.92593E-02	571664.4	4172431.2	0.0	4.15	6.51	1.93	SHRDOW
L0000040	0	0.92593E-02	571656.6	4172442.8	0.0	4.15	6.51	1.93	SHRDOW
L0000041	0	0.92593E-02	571648.8	4172454.5	0.0	4.15	6.51	1.93	SHRDOW
L0000042	0	0.92593E-02	571640.9	4172466.0	0.0	4.15	6.51	1.93	SHRDOW
L0000043	0	0.92593E-02	571633.1	4172477.5	0.0	4.15	6.51	1.93	SHRDOW
L0000044	0	0.92593E-02	571625.2	4172489.2	0.0	4.15	6.51	1.93	SHRDOW
L0000045	0	0.92593E-02	571617.3	4172500.8	0.0	4.15	6.51	1.93	SHRDOW
L0000046	0	0.92593E-02	571609.5	4172512.5	0.0	4.15	6.51	1.93	SHRDOW
L0000047	0	0.92593E-02	571601.6	4172524.0	0.0	4.15	6.51	1.93	SHRDOW
L0000048	0	0.92593E-02	571594.0	4172535.8	0.0	4.15	6.51	1.93	SHRDOW
L0000049	0	0.92593E-02	571589.1	4172548.8	0.0	4.15	6.51	1.93	SHRDOW
L0000050	0	0.92593E-02	571584.3	4172562.0	0.0	4.15	6.51	1.93	SHRDOW
L0000051	0	0.92593E-02	571579.5	4172575.0	0.0	4.15	6.51	1.93	SHRDOW
L0000052	0	0.92593E-02	571574.7	4172588.2	0.0	4.15	6.51	1.93	SHRDOW
L0000053	0	0.92593E-02	571569.9	4172601.5	0.0	4.15	6.51	1.93	SHRDOW
L0000054	0	0.92593E-02	571564.5	4172614.2	0.0	4.15	6.51	1.93	SHRDOW
L0000055	0	0.92593E-02	571559.2	4172627.2	0.0	4.15	6.51	1.93	SHRDOW
L0000056	0	0.92593E-02	571553.8	4172640.2	0.0	4.15	6.51	1.93	SHRDOW
L0000057	0	0.92593E-02	571548.5	4172653.2	0.0	4.15	6.51	1.93	SHRDOW
L0000058	0	0.92593E-02	571543.2	4172666.0	0.0	4.15	6.51	1.93	SHRDOW
L0000059	0	0.92593E-02	571537.8	4172679.0	0.0	4.15	6.51	1.93	SHRDOW
L0000060	0	0.92593E-02	571532.2	4172691.8	0.0	4.15	6.51	1.93	SHRDOW
L0000061	0	0.92593E-02	571525.4	4172704.0	0.0	4.15	6.51	1.93	SHRDOW
L0000062	0	0.92593E-02	571518.7	4172716.5	0.0	4.15	6.51	1.93	SHRDOW
L0000063	0	0.92593E-02	571511.4	4172728.2	0.0	4.15	6.51	1.93	SHRDOW
L0000064	0	0.92593E-02	571503.5	4172739.8	0.0	4.15	6.51	1.93	SHRDOW
L0000065	0	0.92593E-02	571495.6	4172751.5	0.0	4.15	6.51	1.93	SHRDOW
L0000066	0	0.92593E-02	571487.6	4172763.0	0.0	4.15	6.51	1.93	SHRDOW
L0000067	0	0.92593E-02	571479.8	4172774.5	0.0	4.15	6.51	1.93	SHRDOW
L0000068	0	0.92593E-02	571471.8	4172786.0	0.0	4.15	6.51	1.93	SHRDOW
L0000069	0	0.92593E-02	571465.1	4172798.2	0.0	4.15	6.51	1.93	SHRDOW
L0000070	0	0.92593E-02	571460.9	4172811.5	0.0	4.15	6.51	1.93	SHRDOW
L0000071	0	0.92593E-02	571456.7	4172824.8	0.0	4.15	6.51	1.93	SHRDOW
L0000072	0	0.92593E-02	571452.5	4172838.2	0.0	4.15	6.51	1.93	SHRDOW
L0000073	0	0.92593E-02	571449.1	4172851.8	0.0	4.15	6.51	1.93	SHRDOW
L0000074	0	0.92593E-02	571450.6	4172865.5	0.0	4.15	6.51	1.93	SHRDOW
L0000075	0	0.92593E-02	571452.2	4172879.5	0.0	4.15	6.51	1.93	SHRDOW
L0000076	0	0.92593E-02	571453.8	4172893.5	0.0	4.15	6.51	1.93	SHRDOW
L0000077	0	0.92593E-02	571455.4	4172907.2	0.0	4.15	6.51	1.93	SHRDOW
L0000078	0	0.92593E-02	571462.8	4172919.0	0.0	4.15	6.51	1.93	SHRDOW
L0000079	0	0.92593E-02	571470.7	4172930.5	0.0	4.15	6.51	1.93	SHRDOW
L0000080	0	0.92593E-02	571478.6	4172942.0	0.0	4.15	6.51	1.93	SHRDOW

*** 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)	EMISSION RATE SCALAR VARY BY
L0000081	0	0.92593E-02	571486.6	4172953.8	0.0	4.15	6.51	1.93	SHRDOW
L0000082	0	0.92593E-02	571494.4	4172965.2	0.0	4.15	6.51	1.93	SHRDOW
L0000083	0	0.92593E-02	571505.8	4172973.0	0.0	4.15	6.51	1.93	SHRDOW
L0000084	0	0.92593E-02	571518.1	4172979.8	0.0	4.15	6.51	1.93	SHRDOW
L0000085	0	0.92593E-02	571530.4	4172986.2	0.0	4.15	6.51	1.93	SHRDOW
L0000086	0	0.92593E-02	571542.7	4172993.0	0.0	4.15	6.51	1.93	SHRDOW
L0000087	0	0.92593E-02	571554.9	4172999.8	0.0	4.15	6.51	1.93	SHRDOW
L0000088	0	0.92593E-02	571567.3	4173006.5	0.0	4.15	6.51	1.93	SHRDOW
L0000089	0	0.92593E-02	571579.6	4173013.0	0.0	4.15	6.51	1.93	SHRDOW
L0000090	0	0.92593E-02	571591.9	4173019.8	0.0	4.15	6.51	1.93	SHRDOW
L0000091	0	0.92593E-02	571604.2	4173026.5	0.0	4.15	6.51	1.93	SHRDOW
L0000092	0	0.92593E-02	571616.4	4173033.2	0.0	4.15	6.51	1.93	SHRDOW
L0000093	0	0.92593E-02	571628.8	4173039.8	0.0	4.15	6.51	1.93	SHRDOW
L0000094	0	0.92593E-02	571641.1	4173046.5	0.0	4.15	6.51	1.93	SHRDOW
L0000095	0	0.92593E-02	571653.4	4173053.2	0.0	4.15	6.51	1.93	SHRDOW
L0000096	0	0.92593E-02	571665.7	4173060.0	0.0	4.15	6.51	1.93	SHRDOW
L0000097	0	0.92593E-02	571677.9	4173066.5	0.0	4.15	6.51	1.93	SHRDOW
L0000098	0	0.92593E-02	571690.2	4173073.2	0.0	4.15	6.51	1.93	SHRDOW
L0000099	0	0.92593E-02	571702.6	4173080.0	0.0	4.15	6.51	1.93	SHRDOW
L0000100	0	0.92593E-02	571714.9	4173086.8	0.0	4.15	6.51	1.93	SHRDOW
L0000101	0	0.92593E-02	571727.2	4173093.2	0.0	4.15	6.51	1.93	SHRDOW
L0000102	0	0.92593E-02	571739.4	4173100.0	0.0	4.15	6.51	1.93	SHRDOW
L0000103	0	0.92593E-02	571751.8	4173106.8	0.0	4.15	6.51	1.93	SHRDOW
L0000104	0	0.92593E-02	571764.1	4173113.5	0.0	4.15	6.51	1.93	SHRDOW
L0000105	0	0.92593E-02	571776.4	4173120.0	0.0	4.15	6.51	1.93	SHRDOW
L0000106	0	0.92593E-02	571788.7	4173126.8	0.0	4.15	6.51	1.93	SHRDOW
L0000107	0	0.92593E-02	571800.9	4173133.5	0.0	4.15	6.51	1.93	SHRDOW
L0000108	0	0.92593E-02	571813.2	4173140.3	0.0	4.15	6.51	1.93	SHRDOW

*** 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)	EMISSION RATE SCALAR VARY BY
1	0	0.11613E-03	571323.7	4172679.5	0.0	4.15	7	1.93	SHRDOW
2	0	0.60107E-04	571520.2	4172972.2	0.0	4.15	14	1.93	SHRDOW
3	0	0.36225E-04	571762.9	4172408.2	0.0	4.15	14	1.93	SHRDOW

CONC URBAN FLAT FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = L0000001 through L0000108; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; 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	.1000E+01	13	.0000E+00	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
SEASON = SPRING; 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	.1000E+01	13	.0000E+00	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
SEASON = SUMMER; 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	.1000E+01	13	.0000E+00	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
SEASON = FALL ; 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	.1000E+01	13	.0000E+00	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
SEASON = WINTER; 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
SEASON = SPRING; 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
SEASON = SUMMER; 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
SEASON = FALL ; 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
SEASON = WINTER; 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
SEASON = SPRING; 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
SEASON = SUMMER; 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

SEASON = FALL ; 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

CONC URBAN FLAT FLGPOL DFAULT

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = 1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						SEASON = WINTER;		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	.1000E+01	13	.0000E+00	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
						SEASON = SPRING;		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	.1000E+01	13	.0000E+00	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
						SEASON = SUMMER;		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	.1000E+01	13	.0000E+00	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
						SEASON = FALL ;		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	.1000E+01	13	.0000E+00	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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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
						SEASON = FALL ;		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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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

SEASON = FALL ; 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

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = 2 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
SEASON = WINTER; 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	.1000E+01	13	.0000E+00	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
SEASON = SPRING; 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	.1000E+01	13	.0000E+00	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
SEASON = SUMMER; 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	.1000E+01	13	.0000E+00	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
SEASON = FALL ; 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	.1000E+01	13	.0000E+00	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
SEASON = WINTER; 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
SEASON = SPRING; 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
SEASON = SUMMER; 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
SEASON = FALL ; 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
SEASON = WINTER; 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
SEASON = SPRING; 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
SEASON = SUMMER; 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

SEASON = FALL ; 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

* SOURCE EMISSION RATE SCALARS WHICH VARY SEASONALLY, DIURNALLY AND BY DAY OF WEEK (SHRDOW) *

SOURCE ID = 3 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
						SEASON = WINTER;		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	.1000E+01	13	.0000E+00	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
						SEASON = SPRING;		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	.1000E+01	13	.0000E+00	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
						SEASON = SUMMER;		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	.1000E+01	13	.0000E+00	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
						SEASON = FALL ;		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	.1000E+01	13	.0000E+00	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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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
						SEASON = FALL ;		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
						SEASON = WINTER;		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
						SEASON = SPRING;		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
						SEASON = SUMMER;		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

SEASON = FALL ; 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

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZFLAG)
(METERS)

```
( 571418.5, 4172891.8,       0.0,       1.5);         ( 571402.7, 4172901.0,       0.0,       1.5);
( 571396.8, 4172885.2,       0.0,       1.5);         ( 571380.3, 4172891.8,       0.0,       1.5);
( 571373.0, 4172877.2,       0.0,       1.5);         ( 571355.2, 4172885.2,       0.0,       1.5);
( 571349.9, 4172871.2,       0.0,       1.5);         ( 571332.1, 4172873.2,       0.0,       1.5);
( 571412.6, 4172866.8,       0.0,       1.5);         ( 571415.2, 4172843.0,       0.0,       1.5);
( 571419.8, 4172822.5,       0.0,       1.5);         ( 571390.8, 4172842.2,       0.0,       1.5);
( 571356.5, 4172841.8,       0.0,       1.5);         ( 571330.8, 4172837.8,       0.0,       1.5);
( 571329.4, 4172807.5,       0.0,       1.5);         ( 571330.1, 4172780.2,       0.0,       1.5);
( 571330.1, 4172755.2,       0.0,       1.5);         ( 571489.1, 4172360.8,       0.0,       1.5);
( 571502.9, 4172329.2,       0.0,       1.5);         ( 571493.7, 4172344.2,       0.0,       1.5);
( 571518.1, 4172337.8,       0.0,       1.5);         ( 571535.9, 4172346.3,       0.0,       1.5);
```

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

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

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

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

1.54, 3.09, 5.14, 8.23, 10.80,

*** WIND PROFILE EXPONENTS ***

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
B	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00	.15000E+00
C	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00	.20000E+00
D	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00	.25000E+00
E	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00
F	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00	.30000E+00

*** VERTICAL POTENTIAL TEMPERATURE GRADIENTS ***
(DEGREES KELVIN PER METER)

STABILITY	WIND SPEED CATEGORY					
CATEGORY	1	2	3	4	5	6
A	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
B	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
C	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00
D	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00	.00000E+00

E	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01	.20000E-01
F	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01	.35000E-01

CONC URBAN FLAT FLGPOL DFAULT

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

FILE: C:\!METFI~1\BAAQMD~1\CHA200~1.ASC
FORMAT: (4I2,2F9.4,F6.1,I2,2F7.1,f9.4,f10.1,f8.4,i4,f7.2)
SURFACE STATION NO.: 1903 UPPER AIR STATION NO.: 1903
NAME: UNKNOWN NAME: UNKNOWN
YEAR: 2003 YEAR: 2003

YR	MN	DY	HR	FLOW VECTOR	SPEED (M/S)	TEMP (K)	STAB CLASS	MIXING HEIGHT (M) RURAL	URBAN	USTAR (M/S)	M-O LENGTH (M)	Z-0 (M)	IPCODE	PRATE (mm/HR)
03	01	01	01	225.9	1.34	280.0	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	02	243.5	1.70	279.3	6	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	03	231.1	2.10	279.2	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	04	225.9	2.64	279.0	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	05	190.7	1.12	278.6	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	06	229.5	2.91	278.0	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	07	211.0	2.41	278.8	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	08	232.9	3.08	277.8	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	09	237.0	2.68	278.7	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	10	203.4	1.52	280.5	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	11	262.2	1.39	282.8	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	12	153.3	1.65	284.2	1	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	13	232.5	3.00	285.4	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	14	248.8	2.55	285.9	1	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	15	222.4	2.19	286.3	2	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	16	225.7	2.64	285.8	3	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	17	252.5	2.68	284.3	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	18	275.8	2.86	283.2	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	19	237.6	3.04	282.3	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	20	225.6	2.95	281.9	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	21	242.3	3.26	281.7	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	22	243.9	1.00	282.1	5	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	23	273.3	4.83	282.1	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00
03	01	01	24	250.3	3.44	282.1	4	300.0	300.0	0.0000	0.0	0.0000	0	0.00

*** NOTES: STABILITY CLASS 1=A, 2=B, 3=C, 4=D, 5=E AND 6=F.
FLOW VECTOR IS DIRECTION TOWARD WHICH WIND IS BLOWING.

CONC URBAN FLAT FLGPOL DFAULT

*** THE SUMMARY OF MAXIMUM ANNUAL (3 YRS) RESULTS ***

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

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZFLAG)	OF TYPE	NETWORK GRID-ID
OFFSITE	1ST HIGHEST VALUE IS	2.12128	AT (571418.50, 4172891.75, 0.00, 1.50)	DC	NA
	2ND HIGHEST VALUE IS	1.87752	AT (571412.56, 4172866.75, 0.00, 1.50)	DC	NA
	3RD HIGHEST VALUE IS	1.84756	AT (571415.19, 4172843.00, 0.00, 1.50)	DC	NA
	4TH HIGHEST VALUE IS	1.78299	AT (571419.81, 4172822.50, 0.00, 1.50)	DC	NA
	5TH HIGHEST VALUE IS	1.44908	AT (571402.69, 4172901.00, 0.00, 1.50)	DC	NA
	6TH HIGHEST VALUE IS	1.39410	AT (571396.75, 4172885.25, 0.00, 1.50)	DC	NA
	7TH HIGHEST VALUE IS	1.29053	AT (571390.81, 4172842.25, 0.00, 1.50)	DC	NA
	8TH HIGHEST VALUE IS	1.03133	AT (571380.25, 4172891.75, 0.00, 1.50)	DC	NA
	9TH HIGHEST VALUE IS	0.98745	AT (571373.00, 4172877.25, 0.00, 1.50)	DC	NA
	10TH HIGHEST VALUE IS	0.86689	AT (571356.50, 4172841.75, 0.00, 1.50)	DC	NA
ONSITE	1ST HIGHEST VALUE IS	11.33710	AT (571419.81, 4172822.50, 0.00, 1.50)	DC	NA
	2ND HIGHEST VALUE IS	8.89192	AT (571415.19, 4172843.00, 0.00, 1.50)	DC	NA
	3RD HIGHEST VALUE IS	6.90904	AT (571412.56, 4172866.75, 0.00, 1.50)	DC	NA
	4TH HIGHEST VALUE IS	6.34572	AT (571390.81, 4172842.25, 0.00, 1.50)	DC	NA
	5TH HIGHEST VALUE IS	5.93895	AT (571330.13, 4172755.25, 0.00, 1.50)	DC	NA
	6TH HIGHEST VALUE IS	5.72719	AT (571418.50, 4172891.75, 0.00, 1.50)	DC	NA
	7TH HIGHEST VALUE IS	4.61720	AT (571396.75, 4172885.25, 0.00, 1.50)	DC	NA
	8TH HIGHEST VALUE IS	4.50853	AT (571330.13, 4172780.25, 0.00, 1.50)	DC	NA
	9TH HIGHEST VALUE IS	4.19636	AT (571402.69, 4172901.00, 0.00, 1.50)	DC	NA
	10TH HIGHEST VALUE IS	3.89147	AT (571356.50, 4172841.75, 0.00, 1.50)	DC	NA
ALL	1ST HIGHEST VALUE IS	13.11994	AT (571419.81, 4172822.50, 0.00, 1.50)	DC	NA
	2ND HIGHEST VALUE IS	10.73935	AT (571415.19, 4172843.00, 0.00, 1.50)	DC	NA
	3RD HIGHEST VALUE IS	8.78647	AT (571412.56, 4172866.75, 0.00, 1.50)	DC	NA
	4TH HIGHEST VALUE IS	7.84838	AT (571418.50, 4172891.75, 0.00, 1.50)	DC	NA
	5TH HIGHEST VALUE IS	7.63616	AT (571390.81, 4172842.25, 0.00, 1.50)	DC	NA
	6TH HIGHEST VALUE IS	6.55012	AT (571330.13, 4172755.25, 0.00, 1.50)	DC	NA
	7TH HIGHEST VALUE IS	6.01123	AT (571396.75, 4172885.25, 0.00, 1.50)	DC	NA
	8TH HIGHEST VALUE IS	5.64540	AT (571402.69, 4172901.00, 0.00, 1.50)	DC	NA
	9TH HIGHEST VALUE IS	5.16068	AT (571330.13, 4172780.25, 0.00, 1.50)	DC	NA
	10TH HIGHEST VALUE IS	4.75828	AT (571356.50, 4172841.75, 0.00, 1.50)	DC	NA

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

**MODELOPTs:
CONC   URBAN FLAT FLGPOL DFAULT

*** Message Summary : ISCST3 Model Execution ***

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

A Total of   0 Fatal Error Message(s)
A Total of   0 Warning Message(s)
A Total of   44 Informational Message(s)

A Total of   44 Calm Hours Identified

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

******** WARNING MESSAGES ********
*** NONE ***

****
*** ISCST3 Finishes Successfully ***
****

Appendix

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Appendix C. Risk Calculation Worksheets

Appendix

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Table C1
Model Output Calculations

Model Output Calculations - Unmitigated Scenario - Offsite Residents					
Source	ISCST3 Output [1] ($\mu g/m^3$)	Pollutant	Emission Rates [2] (g/s)	Scalar [3]	Mass GLC ($\mu g/m^3$)
(a)	(c)	(b)	(d)	(e)	(f)
	Annual Average		Average Daily		Annual Average
2016 Onsite	1.65	DPM	4.10E-02	1.000	**6.76E-02**
Phase 1		$PM_{2.5}$	5.49E-02	1.000	**9.04E-02**
2016 Offsite	5.66	DPM	1.76E-04	1.000	**9.96E-04**
Phase 1		$PM_{2.5}$	8.98E-04	1.000	**5.09E-03**
2017 Onsite	1.65	DPM	2.81E-02	1.000	**4.62E-02**
Phase 1		$PM_{2.5}$	2.63E-02	1.000	**4.34E-02**
2017 Offsite	5.66	DPM	3.16E-04	1.000	**1.79E-03**
Phase 1		$PM_{2.5}$	1.98E-03	1.000	**1.12E-02**
2018 Onsite	1.65	DPM	2.35E-02	1.000	**3.88E-02**
Phase 1		$PM_{2.5}$	2.21E-02	1.000	**3.64E-02**
2018 Offsite	5.66	DPM	2.95E-04	1.000	**1.67E-03**
Phase 1		$PM_{2.5}$	1.96E-03	1.000	**1.11E-02**
2019 Onsite	1.65	DPM	2.74E-02	0.430	**1.94E-02**
Phase 1		$PM_{2.5}$	2.57E-02	0.430	**1.82E-02**
2019 Offsite	5.66	DPM	2.80E-04	0.430	**6.81E-04**
Phase 1		$PM_{2.5}$	2.09E-03	0.430	**5.09E-03**
2016 Onsite	25.99	DPM	2.27E-02	1.000	**5.90E-01**
Library		$PM_{2.5}$	2.23E-02	1.000	**5.80E-01**
2016 Offsite	5.66	DPM	7.48E-06	1.000	**4.24E-05**
Library		$PM_{2.5}$	3.89E-05	1.000	**2.20E-04**
2019 Onsite	10.33	DPM	2.58E-02	0.570	**1.52E-01**
Phase 2		$PM_{2.5}$	3.35E-02	0.570	**1.97E-01**
2019 Offsite	5.66	DPM	3.07E-05	0.570	**9.90E-05**
Phase 2		$PM_{2.5}$	2.43E-04	0.570	**7.85E-04**
2020 Onsite	10.33	DPM	1.88E-02	0.808	**1.57E-01**
Phase 2		$PM_{2.5}$	1.77E-02	0.808	**1.47E-01**
2020 Offsite	5.66	DPM	4.56E-05	0.808	**2.09E-04**
Phase 2		$PM_{2.5}$	3.91E-04	0.808	**1.79E-03**
Model Output Calculations - Unmitigated Scenario - Onsite Residents (during Phase 2 of Construction)					
Source	ISCST3 Output [1] ($\mu g/m^3$)	Pollutant	Emission Rates [2] (g/s)	Scalar [3]	Mass GLC ($\mu g/m^3$)
(a)	(c)	(b)	(d)	(e)	(f)
	Annual Average		Average Daily		Annual Average
2019 Onsite	11.34	DPM	2.58E-02	0.570	**1.67E-01**
Phase 2		$PM_{2.5}$	3.35E-02	0.570	**2.16E-01**
2019 Offsite	2.12	DPM	3.07E-05	0.570	**3.71E-05**
Phase 2		$PM_{2.5}$	2.43E-04	0.570	**2.94E-04**
2020 Onsite	11.34	DPM	1.88E-02	0.808	**1.72E-01**
Phase 2		$PM_{2.5}$	1.77E-02	0.808	**1.62E-01**
2020 Offsite	2.12	DPM	4.56E-05	0.808	**7.82E-05**
Phase 2		$PM_{2.5}$	3.91E-04	0.808	**6.71E-04**

[1] ISCST3 Output based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Input to ISCST3 Model).

[3] Scalar applied to adjust yearly ISCST3 emissions to actual number of days construction emissions occur.

Table C1
Model Output Calculations

Model Output Calculations - with Mitigation (Level 3 DPF, Tier 3 Engines) - Offsite Residents					
Source	ISCST3 Output [1] ($\mu g/m^3$)	Pollutant	Emission Rates [2] (g/s)	Scalar [3]	Mass GLC ($\mu g/m^3$)
(a)	(c)	(b)	(d)	(e)	(f)
	Annual Average		Average Daily		Annual Average
2016 Onsite	1.65	DPM	3.24E-03	1.000	**5.33E-03**
Phase 1		$PM_{2.5}$	2.00E-02	1.000	**3.30E-02**
2016 Offsite	5.66	DPM	1.76E-04	1.000	**9.96E-04**
Phase 1		$PM_{2.5}$	8.98E-04	1.000	**5.09E-03**
2017 Onsite	1.65	DPM	3.90E-03	1.000	**6.42E-03**
Phase 1		$PM_{2.5}$	3.90E-03	1.000	**6.42E-03**
2017 Offsite	5.66	DPM	3.16E-04	1.000	**1.79E-03**
Phase 1		$PM_{2.5}$	1.98E-03	1.000	**1.12E-02**
2018 Onsite	1.65	DPM	3.68E-03	1.000	**6.06E-03**
Phase 1		$PM_{2.5}$	3.68E-03	1.000	**6.06E-03**
2018 Offsite	5.66	DPM	2.95E-04	1.000	**1.67E-03**
Phase 1		$PM_{2.5}$	1.96E-03	1.000	**1.11E-02**
2019 Onsite	1.65	DPM	4.25E-03	0.430	**3.01E-03**
Phase 1		$PM_{2.5}$	4.25E-03	0.430	**3.01E-03**
2019 Offsite	5.66	DPM	2.80E-04	0.430	**6.81E-04**
Phase 1		$PM_{2.5}$	2.09E-03	0.430	**5.09E-03**
2016 Onsite	25.99	DPM	7.06E-03	1.000	**1.83E-01**
Library		$PM_{2.5}$	7.58E-03	1.000	**1.97E-01**
2016 Offsite	5.66	DPM	1.76E-04	1.000	**9.96E-04**
Library		$PM_{2.5}$	8.98E-04	1.000	**5.09E-03**
2019 Onsite	10.33	DPM	3.12E-03	0.570	**1.84E-02**
Phase 2		$PM_{2.5}$	1.26E-02	0.570	**7.40E-02**
2019 Offsite	5.66	DPM	3.07E-05	0.570	**9.90E-05**
Phase 2		$PM_{2.5}$	2.43E-04	0.570	**7.85E-04**
2020 Onsite	10.33	DPM	3.41E-03	0.808	**2.84E-02**
Phase 2		$PM_{2.5}$	3.41E-03	0.808	**2.84E-02**
2020 Offsite	5.66	DPM	4.56E-05	0.808	**2.09E-04**
Phase 2		$PM_{2.5}$	3.91E-04	0.808	**1.79E-03**
Model Output Calculations - with Mitigation - Onsite Residents (during Phase 2 of Construction)					
Source	ISCST3 Output [1] ($\mu g/m^3$)	Pollutant	Emission Rates [2] (g/s)	Scalar [3]	Mass GLC ($\mu g/m^3$)
(a)	(c)	(b)	(d)	(e)	(f)
	Annual Average		Average Daily		Annual Average
2019 Onsite	11.34	DPM	3.12E-03	0.570	**2.02E-02**
Phase 2		$PM_{2.5}$	1.26E-02	0.570	**8.13E-02**
2019 Offsite	2.12	DPM	3.07E-05	0.570	**3.71E-05**
Phase 2		$PM_{2.5}$	2.43E-04	0.570	**2.94E-04**
2020 Onsite	11.34	DPM	3.41E-03	0.808	**3.12E-02**
Phase 2		$PM_{2.5}$	3.41E-03	0.808	**3.12E-02**
2020 Offsite	2.12	DPM	4.56E-05	0.808	**7.82E-05**
Phase 2		$PM_{2.5}$	3.91E-04	0.808	**6.71E-04**

[1] ISCST3 Output based on unit emission rates for sources (1 g/s).

[2] Emission Rates from Emission Rate Calculations (Appendix A - Input to ISCST3 Model).

[3] Scalar applied to adjust yearly ISCST3 emissions to actual number of days construction emissions occur.

Construction Risk Assessment - Table C2
Adult Exposure Scenario - 70 Years
Offsite Resident - Unmitigated Scenario

Source	Mass GLC	Weight Fraction	Contaminant	Carcinogenic Risk			Noncarcinogenic Hazards/ Toxicological Endpoints*												
				CPF	DOSE **	RISK	REL	ALI	BONE	CARDIO	DEV	ENDO	EYE	HEME	IMM	KID	NERV	REPRO	RESP	SKIN
	($\mu g/m^3$)			$(mg/kg/day)^{-1}$	(mg/kg/day)		($\mu g/m^3$)													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
PHASE 1 - Marina																				
2016 On-Site Emissions	6.76E-02	1.00E+00	Diesel Particulate	1.1E+00	2.8E-07	3.1E-07	5.0E+00												1.4E-02	
2016 Truck Route	9.96E-04	1.00E+00	Diesel Particulate	1.1E+00	4.1E-09	4.5E-09	5.0E+00												2.0E-04	
2017 On-Site Emissions	4.62E-02	1.00E+00	Diesel Particulate	1.1E+00	1.9E-07	2.1E-07	5.0E+00												9.2E-03	
2017 Truck Route	1.79E-03	1.00E+00	Diesel Particulate	1.1E+00	7.4E-09	8.1E-09	5.0E+00												3.6E-04	
2018 On-Site Emissions	3.88E-02	1.00E+00	Diesel Particulate	1.1E+00	1.6E-07	1.8E-07	5.0E+00												7.8E-03	
2018 Truck Route	1.67E-03	1.00E+00	Diesel Particulate	1.1E+00	6.9E-09	7.6E-09	5.0E+00												3.3E-04	
2019 On-Site Emissions	1.94E-02	1.00E+00	Diesel Particulate	1.1E+00	8.0E-08	8.8E-08	5.0E+00												3.9E-03	
2019 Truck Route	6.81E-04	1.00E+00	Diesel Particulate	1.1E+00	2.8E-09	3.1E-09	5.0E+00												1.4E-04	
PHASE 1 - Library																				
2016 On-Site Emissions	5.90E-01	1.00E+00	Diesel Particulate	1.1E+00	2.4E-06	2.7E-06	5.0E+00												1.2E-01	
2016 Truck Route	4.24E-05	1.00E+00	Diesel Particulate	1.1E+00	1.8E-10	1.9E-10	5.0E+00												8.5E-06	
PHASE 2																				
2019 On-Site Emissions	1.52E-01	1.00E+00	Diesel Particulate	1.1E+00	6.3E-07	6.9E-07	5.0E+00												3.0E-02	
2019 Truck Route	9.90E-05	1.00E+00	Diesel Particulate	1.1E+00	4.1E-10	4.5E-10	5.0E+00												2.0E-05	
2020 On-Site Emissions	1.57E-01	1.00E+00	Diesel Particulate	1.1E+00	6.5E-07	7.1E-07	5.0E+00												3.1E-02	
2020 Truck Route	2.09E-04	1.00E+00	Diesel Particulate	1.1E+00	8.6E-10	9.5E-10	5.0E+00												4.2E-05	
			TOTAL			4.9E-06		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.2E-01	0.0E+00
			BAAQMD Cancer Risk Adjustment Factor - 70-year Adult Scenario			1.7														
			Adjusted Cancer Risk			8.3E-06														

* Key to Toxicological Endpoints

ALI	Alimentary
BONE	Bone
CARDIO	Cardiovascular
DEV	Developmental
ENDO	Endocrine
EYE	Eye
HEME	Hematologic
IMM	Immune
KID	Kidney
NERV	Nervous
REPRO	Reproductive
RESP	Respiratory
SKIN	Skin

** Exposure factors used to calculate dose

daily breathing rate (L/kg-day) - adult residen	302
inhalation absorption factor	1.0
exposure frequency (days/year) - residents	350
exposure duration (years)	1.0
averaging time (days) - 70 year duration	25550
fraction of time at home	1.0
2016 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.68
2017 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.05
2018 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.05
2019 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.22
2020 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.15

Construction Risk Assessment - Table C3
Adult Exposure Scenario - 70 Years
Offsite Resident - Mitigated Scenario
Tier 3 Engines/Level 3 Diesel Particulate Filters

Source	Mass GLC	Weight Fraction	Contaminant	Carcinogenic Risk			Noncarcinogenic Hazards/ Toxicological Endpoints*												
				CPF	DOSE **	RISK	REL	ALI	BONE	CARDIO	DEV	ENDO	EYE	HEME	IMM	KID	NERV	REPRO	RESP	SKIN
	($\mu g/m^3$)			$(mg/kg/day)^{-1}$	(mg/kg/day)		($\mu g/m^3$)													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
PHASE 1 - Marina																				
2016 On-Site Emissions	5.33E-03	1.00E+00	Diesel Particulate	1.1E+00	2.2E-08	1.8E-08	5.0E+00												1.1E-03	
2016 Truck Route	9.96E-04	1.00E+00	Diesel Particulate	1.1E+00	4.1E-09	3.3E-09	5.0E+00												2.0E-04	
2017 On-Site Emissions	6.42E-03	1.00E+00	Diesel Particulate	1.1E+00	2.7E-08	2.1E-08	5.0E+00												1.3E-03	
2017 Truck Route	1.79E-03	1.00E+00	Diesel Particulate	1.1E+00	7.4E-09	6.0E-09	5.0E+00												3.6E-04	
2018 On-Site Emissions	6.06E-03	1.00E+00	Diesel Particulate	1.1E+00	2.5E-08	2.0E-08	5.0E+00												1.2E-03	
2018 Truck Route	1.67E-03	1.00E+00	Diesel Particulate	1.1E+00	6.9E-09	5.6E-09	5.0E+00												3.3E-04	
2019 On-Site Emissions	3.01E-03	1.00E+00	Diesel Particulate	1.1E+00	1.2E-08	1.0E-08	5.0E+00												6.0E-04	
2019 Truck Route	6.81E-04	1.00E+00	Diesel Particulate	1.1E+00	2.8E-09	2.3E-09	5.0E+00												1.4E-04	
PHASE 1 - Library																				
2016 On-Site Emissions	1.83E-01	1.00E+00	Diesel Particulate	1.1E+00	7.6E-07	6.1E-07	5.0E+00												3.7E-02	
2016 Truck Route	9.96E-04	1.00E+00	Diesel Particulate	1.1E+00	4.1E-09	3.3E-09	5.0E+00												2.0E-04	
PHASE 2																				
2019 On-Site Emissions	1.84E-02	1.00E+00	Diesel Particulate	1.1E+00	7.6E-08	6.1E-08	5.0E+00												3.7E-03	
2019 Truck Route	9.90E-05	1.00E+00	Diesel Particulate	1.1E+00	4.1E-10	3.3E-10	5.0E+00												2.0E-05	
2020 On-Site Emissions	2.84E-02	1.00E+00	Diesel Particulate	1.1E+00	1.2E-07	9.5E-08	5.0E+00												5.7E-03	
2020 Truck Route	2.09E-04	1.00E+00	Diesel Particulate	1.1E+00	8.6E-10	7.0E-10	5.0E+00												4.2E-05	
			TOTAL			8.6E-07		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.2E-02	0.0E+00
			BAAQMD Cancer Risk Adjustment Factor - 70-year Adult Scenario			1.7														
			Adjusted Cancer Risk			1.4E-06														

* Key to Toxicological Endpoints

ALI	Alimentary
BONE	Bone
CARDIO	Cardiovascular
DEV	Developmental
ENDO	Endocrine
EYE	Eye
HEME	Hematologic
IMM	Immune
KID	Kidney
NERV	Nervous
REPRO	Reproductive
RESP	Respiratory
SKIN	Skin

** Exposure factors used to calculate dose

daily breathing rate (L/kg-day) - adult residen	302
inhalation absorption factor	1.0
exposure frequency (days/year) - residents	350
exposure duration (years)	1.0
averaging time (days) - 70 year duration	25550
fraction of time at home	0.73
2016 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.24
2017 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.02
2018 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.02
2019 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.08
2020 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.03

Construction Risk Assessment - Table C4
Child Exposure Scenario - 9 Years
Offsite Resident - Unmitigated Scenario

Source	Mass GLC	Weight Fraction	Contaminant	Carcinogenic Risk			Noncarcinogenic Hazards/ Toxicological Endpoints*												
				CPF	DOSE **	RISK	REL	ALI	BONE	CARDIO	DEV	ENDO	EYE	HEME	IMM	KID	NERV	REPRO	RESP	SKIN
	($\mu g/m^3$)			$(mg/kg/day)^{-1}$	(mg/kg/day)		($\mu g/m^3$)													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
PHASE 1 - Marina																				
2016 On-Site Emissions	6.76E-02	1.00E+00	Diesel Particulate	1.1E+00	5.4E-07	5.9E-07	5.0E+00												1.4E-02	
2016 Truck Route	9.96E-04	1.00E+00	Diesel Particulate	1.1E+00	7.9E-09	8.7E-09	5.0E+00												2.0E-04	
2017 On-Site Emissions	4.62E-02	1.00E+00	Diesel Particulate	1.1E+00	3.7E-07	4.0E-07	5.0E+00												9.2E-03	
2017 Truck Route	1.79E-03	1.00E+00	Diesel Particulate	1.1E+00	1.4E-08	1.6E-08	5.0E+00												3.6E-04	
2018 On-Site Emissions	3.88E-02	1.00E+00	Diesel Particulate	1.1E+00	3.1E-07	3.4E-07	5.0E+00												7.8E-03	
2018 Truck Route	1.67E-03	1.00E+00	Diesel Particulate	1.1E+00	1.3E-08	1.5E-08	5.0E+00												3.3E-04	
2019 On-Site Emissions	1.94E-02	1.00E+00	Diesel Particulate	1.1E+00	1.5E-07	1.7E-07	5.0E+00												3.9E-03	
2019 Truck Route	6.81E-04	1.00E+00	Diesel Particulate	1.1E+00	5.4E-09	6.0E-09	5.0E+00												1.4E-04	
PHASE 1 - Library																				
2016 On-Site Emissions	5.90E-01	1.00E+00	Diesel Particulate	1.1E+00	4.7E-06	5.2E-06	5.0E+00												1.2E-01	
2016 Truck Route	4.24E-05	1.00E+00	Diesel Particulate	1.1E+00	3.4E-10	3.7E-10	5.0E+00												8.5E-06	
PHASE 2																				
2019 On-Site Emissions	1.52E-01	1.00E+00	Diesel Particulate	1.1E+00	1.2E-06	1.3E-06	5.0E+00												3.0E-02	
2019 Truck Route	9.90E-05	1.00E+00	Diesel Particulate	1.1E+00	7.9E-10	8.7E-10	5.0E+00												2.0E-05	
2020 On-Site Emissions	1.57E-01	1.00E+00	Diesel Particulate	1.1E+00	1.2E-06	1.4E-06	5.0E+00												3.1E-02	
2020 Truck Route	2.09E-04	1.00E+00	Diesel Particulate	1.1E+00	1.7E-09	1.8E-09	5.0E+00												4.2E-05	
			TOTAL			9.4E-06		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.2E-01	0.0E+00
			BAAQMD Cancer Risk Adjustment Factor - 9-year Child Scenario			4.7														
			Adjusted Cancer Risk			4.4E-05														

* Key to Toxicological Endpoints

ALI	Alimentary
BONE	Bone
CARDIO	Cardiovascular
DEV	Developmental
ENDO	Endocrine
EYE	Eye
HEME	Hematologic
IMM	Immune
KID	Kidney
NERV	Nervous
REPRO	Reproductive
RESP	Respiratory
SKIN	Skin

** Exposure factors used to calculate dose

daily breathing rate (L/kg-day) - child residen	581
inhalation absorption factor	1.0
exposure frequency (days/year) - residents	350
exposure duration (years)	1.0
averaging time (days) - 70 year duration	25550
fraction of time at home	1.0
2016 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.68
2017 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.05
2018 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.05
2019 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.22
2020 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.15

Construction Risk Assessment - Table C5
Child Exposure Scenario - 9 Years
Offsite Resident - Mitigated Scenario
Tier 3 Engines/Level 3 Diesel Particulate Filters

Source	Mass GLC	Weight Fraction	Contaminant	Carcinogenic Risk			Noncarcinogenic Hazards/ Toxicological Endpoints*												
				CPF	DOSE **	RISK	REL	ALI	BONE	CARDIO	DEV	ENDO	EYE	HEME	IMM	KID	NERV	REPRO	RESP	SKIN
	($\mu g/m^3$)			$(mg/kg/day)^{-1}$	(mg/kg/day)		($\mu g/m^3$)													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
PHASE 1 - Marina																				
2016 On-Site Emissions	5.33E-03	1.00E+00	Diesel Particulate	1.1E+00	4.2E-08	3.5E-08	5.0E+00												1.1E-03	
2016 Truck Route	9.96E-04	1.00E+00	Diesel Particulate	1.1E+00	7.9E-09	6.5E-09	5.0E+00												2.0E-04	
2017 On-Site Emissions	6.42E-03	1.00E+00	Diesel Particulate	1.1E+00	5.1E-08	4.2E-08	5.0E+00												1.3E-03	
2017 Truck Route	1.79E-03	1.00E+00	Diesel Particulate	1.1E+00	1.4E-08	1.2E-08	5.0E+00												3.6E-04	
2018 On-Site Emissions	6.06E-03	1.00E+00	Diesel Particulate	1.1E+00	4.8E-08	4.0E-08	5.0E+00												1.2E-03	
2018 Truck Route	1.67E-03	1.00E+00	Diesel Particulate	1.1E+00	1.3E-08	1.1E-08	5.0E+00												3.3E-04	
2019 On-Site Emissions	3.01E-03	1.00E+00	Diesel Particulate	1.1E+00	2.4E-08	2.0E-08	5.0E+00												6.0E-04	
2019 Truck Route	6.81E-04	1.00E+00	Diesel Particulate	1.1E+00	5.4E-09	4.5E-09	5.0E+00												1.4E-04	
PHASE 1 - Library																				
2016 On-Site Emissions	1.83E-01	1.00E+00	Diesel Particulate	1.1E+00	1.5E-06	1.2E-06	5.0E+00												3.7E-02	
2016 Truck Route	9.96E-04	1.00E+00	Diesel Particulate	1.1E+00	7.9E-09	6.5E-09	5.0E+00												2.0E-04	
PHASE 2																				
2019 On-Site Emissions	1.84E-02	1.00E+00	Diesel Particulate	1.1E+00	1.5E-07	1.2E-07	5.0E+00												3.7E-03	
2019 Truck Route	9.90E-05	1.00E+00	Diesel Particulate	1.1E+00	7.9E-10	6.5E-10	5.0E+00												2.0E-05	
2020 On-Site Emissions	2.84E-02	1.00E+00	Diesel Particulate	1.1E+00	2.3E-07	1.9E-07	5.0E+00												5.7E-03	
2020 Truck Route	2.09E-04	1.00E+00	Diesel Particulate	1.1E+00	1.7E-09	1.4E-09	5.0E+00												4.2E-05	
			TOTAL			1.7E-06		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	5.2E-02	0.0E+00
			BAAQMD Cancer Risk Adjustment Factor - 9-year Child Scenario			4.7														
			Adjusted Cancer Risk			7.9E-06														

* Key to Toxicological Endpoints

ALI	Alimentary
BONE	Bone
CARDIO	Cardiovascular
DEV	Developmental
ENDO	Endocrine
EYE	Eye
HEME	Hematologic
IMM	Immune
KID	Kidney
NERV	Nervous
REPRO	Reproductive
RESP	Respiratory
SKIN	Skin

** Exposure factors used to calculate dose

daily breathing rate (L/kg-day) - child residen	581
inhalation absorption factor	1.0
exposure frequency (days/year) - residents	350
exposure duration (years)	1.0
averaging time (days) - 70 year duration	25550
fraction of time at home	0.75
2016 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.24
2017 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.02
2018 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.02
2019 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.08
2020 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.03

Construction Risk Assessment - Table C6
Adult Exposure Scenario - 70 Years
Onsite Resident - Unmitigated Scenario

Source	Mass GLC	Weight Fraction	Contaminant	Carcinogenic Risk			Noncarcinogenic Hazards/ Toxicological Endpoints*												
				CPF	DOSE **	RISK	REL	ALI	BONE	CARDIO	DEV	ENDO	EYE	HEME	IMM	KID	NERV	REPRO	RESP	SKIN
	($\mu g/m^3$)			$(mg/kg/day)^{-1}$	(mg/kg/day)		($\mu g/m^3$)													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
PHASE 2																				
2019 On-Site Emissions	1.67E-01	1.00E+00	Diesel Particulate	1.1E+00	6.9E-07	7.6E-07	5.0E+00												3.3E-02	
2019 Truck Route	3.71E-05	1.00E+00	Diesel Particulate	1.1E+00	1.5E-10	1.7E-10	5.0E+00												7.4E-06	
2020 On-Site Emissions	1.72E-01	1.00E+00	Diesel Particulate	1.1E+00	7.1E-07	7.8E-07	5.0E+00												3.4E-02	
2020 Truck Route	7.82E-05	1.00E+00	Diesel Particulate	1.1E+00	3.2E-10	3.6E-10	5.0E+00												1.6E-05	
			TOTAL			1.5E-06		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.8E-02	0.0E+00
			BAAQMD Cancer Risk Adjustment Factor - 70-year Adult Scenario			1.7														
			Adjusted Cancer Risk			2.6E-06														

* Key to Toxicological Endpoints

ALI	Alimentary
BONE	Bone
CARDIO	Cardiovascular
DEV	Developmental
ENDO	Endocrine
EYE	Eye
HEME	Hematologic
IMM	Immune
KID	Kidney
NERV	Nervous
REPRO	Reproductive
RESP	Respiratory
SKIN	Skin

** Exposure factors used to calculate dose

daily breathing rate (L/kg-day) - adult resident	302
inhalation absorption factor	1.0
exposure frequency (days/year) - residents	350
exposure duration (years)	1.0
averaging time (days) - 70 year duration	25550
fraction of time at home	1.0
2019 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.22
2020 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.16

Construction Risk Assessment - Table C7
Adult Exposure Scenario - 70 Years
Onsite Resident - Mitigated Scenario
Tier 3 Engines/Level 3 Diesel Particulate Filters

Source	Mass GLC	Weight Fraction	Contaminant	Carcinogenic Risk			Noncarcinogenic Hazards/ Toxicological Endpoints*												
				CPF	DOSE **	RISK	REL	ALI	BONE	CARDIO	DEV	ENDO	EYE	HEME	IMM	KID	NERV	REPRO	RESP	SKIN
	($\mu g/m^3$)			$(mg/kg/day)^{-1}$	(mg/kg/day)		($\mu g/m^3$)													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
PHASE 2																				
2019 On-Site Emissions	2.02E-02	1.00E+00	Diesel Particulate	1.1E+00	8.4E-08	6.7E-08	5.0E+00												4.0E-03	
2019 Truck Route	3.71E-05	1.00E+00	Diesel Particulate	1.1E+00	1.5E-10	1.2E-10	5.0E+00												7.4E-06	
2020 On-Site Emissions	3.12E-02	1.00E+00	Diesel Particulate	1.1E+00	1.3E-07	1.0E-07	5.0E+00												6.2E-03	
2020 Truck Route	7.82E-05	1.00E+00	Diesel Particulate	1.1E+00	3.2E-10	2.6E-10	5.0E+00												1.6E-05	
			TOTAL			1.7E-07		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.0E-02	0.0E+00
			BAAQMD Cancer Risk Adjustment Factor - 70-year Adult Scenario			1.7														
			Adjusted Cancer Risk			2.9E-07														

* Key to Toxicological Endpoints

ALI	Alimentary
BONE	Bone
CARDIO	Cardiovascular
DEV	Developmental
ENDO	Endocrine
EYE	Eye
HEME	Hematologic
IMM	Immune
KID	Kidney
NERV	Nervous
REPRO	Reproductive
RESP	Respiratory
SKIN	Skin

** Exposure factors used to calculate dose

daily breathing rate (L/kg-day) - adult resident	302
inhalation absorption factor	1.0
exposure frequency (days/year) - residents	350
exposure duration (years)	1.0
averaging time (days) - 70 year duration	25550
fraction of time at home	0.73
2019 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.08
2020 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.03

Construction Risk Assessment - Table C8
Child Exposure Scenario - 9 Years
Onsite Resident - Unmitigated Scenario

Source	Mass GLC	Weight Fraction	Contaminant	Carcinogenic Risk			Noncarcinogenic Hazards/ Toxicological Endpoints*												
				CPF	DOSE **	RISK	REL	ALI	BONE	CARDIO	DEV	ENDO	EYE	HEME	IMM	KID	NERV	REPRO	RESP	SKIN
	($\mu g/m^3$)			$(mg/kg/day)^{-1}$	(mg/kg/day)		($\mu g/m^3$)													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
PHASE 2																				
2019 On-Site Emissions	1.67E-01	1.00E+00	Diesel Particulate	1.1E+00	1.3E-06	1.5E-06	5.0E+00												3.3E-02	
2019 Truck Route	3.71E-05	1.00E+00	Diesel Particulate	1.1E+00	3.0E-10	3.2E-10	5.0E+00												7.4E-06	
2020 On-Site Emissions	1.72E-01	1.00E+00	Diesel Particulate	1.1E+00	1.4E-06	1.5E-06	5.0E+00												3.4E-02	
2020 Truck Route	7.82E-05	1.00E+00	Diesel Particulate	1.1E+00	6.2E-10	6.8E-10	5.0E+00												1.6E-05	
			TOTAL			3.0E-06		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	6.8E-02	0.0E+00
			BAAQMD Cancer Risk Adjustment Factor - 9-year Child Scenario			4.7														
			Adjusted Cancer Risk			1.4E-05														

* Key to Toxicological Endpoints

ALI	Alimentary
BONE	Bone
CARDIO	Cardiovascular
DEV	Developmental
ENDO	Endocrine
EYE	Eye
HEME	Hematologic
IMM	Immune
KID	Kidney
NERV	Nervous
REPRO	Reproductive
RESP	Respiratory
SKIN	Skin

** Exposure factors used to calculate dose

daily breathing rate (L/kg-day) - child residen	581
inhalation absorption factor	1.0
exposure frequency (days/year) - residents	350
exposure duration (years)	1.0
averaging time (days) - 70 year duration	25550
fraction of time at home	1.0
2019 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.22
2020 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.16

Construction Risk Assessment - Table C9
Child Exposure Scenario - 9 Years
Onsite Resident - Mitigated Scenario
Tier 3 Engines/Level 3 Diesel Particulate Filters

Source	Mass GLC	Weight Fraction	Contaminant	Carcinogenic Risk			Noncarcinogenic Hazards/ Toxicological Endpoints*												
				CPF	DOSE **	RISK	REL	ALI	BONE	CARDIO	DEV	ENDO	EYE	HEME	IMM	KID	NERV	REPRO	RESP	SKIN
	($\mu g/m^3$)			$(mg/kg/day)^{-1}$	(mg/kg/day)		($\mu g/m^3$)													
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)	(t)	(u)
PHASE 2																				
2019 On-Site Emissions	2.02E-02	1.00E+00	Diesel Particulate	1.1E+00	1.6E-07	1.3E-07	5.0E+00												4.0E-03	
2019 Truck Route	3.71E-05	1.00E+00	Diesel Particulate	1.1E+00	3.0E-10	2.4E-10	5.0E+00												7.4E-06	
2020 On-Site Emissions	3.12E-02	1.00E+00	Diesel Particulate	1.1E+00	2.5E-07	2.0E-07	5.0E+00												6.2E-03	
2020 Truck Route	7.82E-05	1.00E+00	Diesel Particulate	1.1E+00	6.2E-10	5.1E-10	5.0E+00												1.6E-05	
			TOTAL			3.4E-07		0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.0E-02	0.0E+00
			BAAQMD Cancer Risk Adjustment Factor - 9-year Child Scenario			4.7														
			Adjusted Cancer Risk			1.6E-06														

* Key to Toxicological Endpoints

ALI	Alimentary
BONE	Bone
CARDIO	Cardiovascular
DEV	Developmental
ENDO	Endocrine
EYE	Eye
HEME	Hematologic
IMM	Immune
KID	Kidney
NERV	Nervous
REPRO	Reproductive
RESP	Respiratory
SKIN	Skin

** Exposure factors used to calculate dose

daily breathing rate (L/kg-day) - child residen	581
inhalation absorption factor	1.0
exposure frequency (days/year) - residents	350
exposure duration (years)	1.0
averaging time (days) - 70 year duration	25550
fraction of time at home	0.75
2019 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.08
2020 maximum annual PM2.5 concentration ($\mu g/m^3$)	0.03

2 OPERATIONAL HRA

PLACEWORKS

MEMORANDUM

DATE July 18, 2014

TO Sally Barros, Principal Planner, Community Development Department
City of San Leandro

FROM Dr. Cathleen Fitzgerald, P.E. and Steven Bush, E.I.T.

SUBJECT Technical Memorandum, Operational Health Risk Assessment for San Leandro Shoreline Development Project

Dear Ms. Barros:

PlaceWorks was retained by the City of San Leandro to conduct an Air Quality Analysis and evaluate health risk issues related to the construction and operation of the planned development and public/private partnership between Cal Coast Companies LLC and the City of San Leandro on 52 acres of City-owned property at the San Leandro Marina.

Guidance from the California Environmental Protection Agency (Cal/EPA), Office of Environmental Health Hazard Assessment (OEHHA), and California Air Pollution Control Officers Association (CAPCOA) recommend the completion of health risk assessments to determine the impacts of hazardous air emissions upon land use projects that place receptors in the vicinity of existing sources. The procedures described in the Bay Area Air Quality Management District's (BAAQMD's) *Recommended Methods for Screening and Modeling Local Risks and Hazards* (2012), the CAPCOA guidance document *Health Risk Assessments for Proposed Land Use Projects* (2009), and exposure parameters specified in the OEHHA guidance document, *Air Toxics Hot Spots Program Risk Assessment Guidelines* (2012), were used for this evaluation.

The project is located in the San Leandro Shoreline Recreational Area, which is situated on the eastern shore of the San Francisco Bay at the western end of Marina Boulevard. San Francisco Bay is located directly west, north, and south of the Project site. The Oakland Airport is approximately one mile to the northwest. To the north are single family residences along Neptune Drive and Marina Boulevard. To the east is the Marina Golf Course and residential land use. To the south is a small boat lagoon, Marina Park, Monarch Bay Golf Club, and residential homes. The Project site is within the City of San Leandro, Alameda County, California.

SOURCE IDENTIFICATION

Properties within a 1,000-foot radius were surveyed to identify facilities that have the potential to generate hazardous and acutely hazardous air emissions. In addition, the BAAQMD has developed screening analysis tools for identifying stationary and mobile sources proximate to the Project site. For identification of high volume roadways with annual average daily traffic volumes exceeding 10,000 vehicles per day, the traffic volume linkage tool from the California Environmental Health Tracking Program (CEHTP) was used (CEHTP, 2007).

Based on a review of stationary and mobile sources using BAAQMD's screening tools, two stationary emission sources were identified within 1,000 feet of the Project site:

- County of Alameda Public Works, emergency gasoline generator, at the H pump station at the intersection of Monarch Bay Drive and Neptune Avenue, and
- San Leandro Marina, Gasoline Dispensing, at 40 Mulford Point Drive.

Potential emissions from these sources include emissions of volatile organic compounds (VOCs) from the emergency gasoline generator testing at the County of Alameda Public Works pump station, and from gasoline dispensing (e.g., San Leandro Marina). A survey of the surrounding area by PlaceWorks indicated no additional non-permitted emission sources and no mobile sources within a 1,000-foot radius of the Site.

Based on a review of the CEHTP traffic linkage tool, no high volume roadways were identified within a 1,000-foot radius of the Site. The closest high volume roadway, Marina Boulevard, has a traffic volume larger than 10,000 vehicles per day east of Aurora Drive. West of Aurora Drive, the traffic volumes are less than 10,000 vehicles per day. Additionally, the Transportation Impact Analysis for the Project (Kittelson & Associates, Inc., 2014) indicated that the twenty-four hour vehicle counts for the portion of Marina Boulevard west of Aurora Drive would be less than 10,000 vehicles. Because the traffic volumes are less than 10,000 vehicles per day west of Aurora Drive and the intersection of Marina Boulevard and Aurora Drive is located more than 1,000 feet from the Project site, emissions of vehicles on Marina Boulevard do not require additional evaluation.

Lastly, the Oakland International Airport (Airport) is located approximately 1 mile west of the Project site. Although the Airport is located over 1,000 feet away from the Project site, air emissions from aircraft, ground service equipment (GSE), auxiliary power units, and fuel storage and handling have the potential to impact areas over 1,000 feet away. The results of a Health Risk Assessment conducted for the Oakland Airport in 2003 indicated that the incremental cancer risk to off-site residents and children in the Project site area was less than 10 in a million (i.e., BAAQMD's significance threshold)

and therefore, no adverse health impacts are expected (Port of Oakland, 2003). In addition, a mitigation measure requiring the conversion of all diesel GSE at the Airport, which accounted for 60% of the cancer risk, to alternative fuels by 2010 results in lower incremental cancer risks than previously predicted. Based on these results, air emissions from the Airport were not evaluated further.

Figure 1, Site Location and Emission Sources, provides an aerial view of the project site, surrounding land uses and shows the locations of the emission sources with respect to the project site.

SOURCE CHARACTERIZATION AND RISK – STATIONARY SOURCES

As discussed in the previous section, stationary sources within 1,000 feet of the Project site were identified using BAAQMD's Stationary Source Screening Analysis Tools (BAAQMD, 2014). Inquiry forms were submitted to BAAQMD, who provided screening level health risk and hazard values for the emission sources. The Stationary Source Inquiry Form and screening health risk values are provided in the attachment to this memorandum.

Two stationary sources were identified (one emergency gasoline generator and one gas station). The gas station is located at the San Leandro Marina and will be removed as part of the proposed Project. Therefore, there will be no emissions from this source in the future. The Alameda County Department of Public Works maintains an emergency gasoline generator at the H pump station, which is located west of the intersection of Monarch Bay Drive and Neptune Drive. It is approximately 50 feet north of the proposed Project site. Most emergency generators are operated intermittently (typically once a week or once a month), during times of periodic testing and maintenance. Emissions of VOCs would only occur during these testing periods or during power outages. Therefore, exposure to exhaust emissions from emergency generators is generally very low. Results from the BAAQMD inquiry form indicate no cancer risk, no chronic hazard, and no $PM_{2.5}$ emissions associated with this facility.

CONCLUSIONS

Only two stationary sources were identified within 1,000 feet of the Project site; no high volume roadways were within 1,000 feet. The gas station at the San Leandro Marina would be removed as part of the project and there is no health risk associated with the Alameda County Public Works pump station, which is located approximately 50 feet north of the Project site, according to BAAQMD records. Therefore, there are no facilities within a 1,000-foot radius of the Project site that would pose an adverse health risk to site occupants.

Three new restaurants are proposed as part of the Project. One or more of these restaurants could have charbroilers, which produce VOCs and PM_{10} emissions. However, the charbroilers would be subject to permitting by BAAQMD under Rule 2, *Commercial Cooking Equipment*, and would be

required to install control devices in order to reduce emissions. All commercial cooking operations that are subject to the rule must also register their charbroiler and control equipment with the BAAQMD and pay applicable fees. With implementation of these requirements, emissions from the charbroilers would be less than significant and would not pose a health risk to Project occupants.

Based on the information presented in this memorandum, hazardous air emissions generated from facilities within 1,000 feet from the Project site are not anticipated to pose an actual or potential endangerment to occupants of the Project.

REFERENCES

California Environmental Health Tracking Program (CEHTP), 2007. Traffic linkage tool. Website accessed on June 17, 2014 at http://www.ehib.org/traffic_tool.jsp.

Kittelson & Associates, 2014. *Transportation Impact Analysis, San Leandro Shoreline Development Project*. Prepared for PlaceWorks, dated June 2014.

Port of Oakland, 2003. *Draft Ambient Air Quality Human Health Risk Assessment for the Oakland International Airport.* Prepared for the Port of Oakland by CDM. Dated September 24, 2003.

Bay Area Air Quality Management District (BAAQMD). 2014. *Stationary Source Screening Analysis Tool and Risk and Hazard Stationary Source Inquiry Form (SSIF)*. Website accessed on June 17, 2014 at http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx

Respectfully submitted,

PLACEWORKS

Steven J. Bush, E.I.T.
Project Scientist

Cathleen M. Fitzgerald, P.E.
Senior Engineer

Attachments

PLACEWORKS

Date: July 2014

Source: PlaceWorks, 2014; Google Earth, 2014.

Figure 1
Site Location and Emission Sources

Bay Area Air Quality Management District
Risk & Hazard Stationary Source Inquiry Form

This form is required when users request stationary source data from BAAQMD. This form is to be used with the BAAQMD's Google Earth stationary source screening tables.

For guidance on conducting a risk & hazard screening, including for roadways & freeways, refer to the District's Risk & Hazard Analysis flow chart

Also see the District's Recommended Methods for Screening and Modeling Local Risks and Hazards document

Table A: Requestor Contact Information	
Contact Name:	Steve Bush
Affiliation:	PlaceWorks
Phone:	510-848-3815, ext. 316
Email:	sbush@placeworks.com
Date of Request	6/17/2014
Project Name:	San Leandro Shoreline Development
Address:	Shoreline Recreational Area
City:	San Leandro
County:	Alameda
Type (residential, commercial, mixed use, industrial, etc.):	Mixed Use
Project size (# of units, or building square feet):	75 acres
Comments:	
Please provide emission rate and generator testing information, or risk values for any additionally identified sources. See attached map.	

For Air District assistance, the following steps must be completed:

1. Complete all the contact and project information requested in Table A. Incomplete forms will not be processed. Please include a project site map.
2. Download and install the free program Google Earth, http://www.google.com/earth/download/ge/, and then download the county specific Google Earth stationary source application files from the District's website, http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx. The small points on the map represent stationary sources permitted by the District (Map A on right). These permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc. Click on a point to view the source's Information Table, including the name, location, and preliminary estimated cancer risk, hazard index, and PM2.5 concentration.
3. Find the project site in Google Earth by inputting the site's address in the Google Earth search box.
4. Identify stationary sources near the project. Verify that the location of the source on the map matches with the source's address in the Information Table, by using the Google Earth address search box to confirm the source's address location. Please report any mapping errors to the District.
5. List the stationary source information in Table B Section 1 below.
6. Note that a small percentage of the stationary sources have Health Risk Screening Assessment (HRSA) data INSTEAD of screening level data. These sources will be noted by an asterisk next to the Plant Name (Map B on right). If HRSA values are presented, these values have already been modeled and cannot be adjusted further.
7. Email this completed form to District staff. District staff will provide the most recent risk, hazard, and PM2.5 data that are available for the source(s). If this information or data are not available, source emissions data will be provided. Staff will respond to inquiries within three weeks.

Note that a public records request received for the same stationary source information will cancel the processing of your SSIF request.

Submit forms, maps, and questions to Alison Kirk at 415-749-5169, or akirk@baaqmd.gov .

Map B: Snapshot of Google Earth with Plant G8736 Information Table Selected Showing HRSA Values

Note the asterisk next to the plant name. This means that the values that appear below are from the HRSA. These values cannot be further adjusted using our screening tools, such as the diesel multiplier sheet. These values are based on modeling. If the Information Table says "Contact District Staff" include in Table B below.

Table B: Stationary Sources

Table B Section 1: Requestor fills out these columns based on Google Earth data							Table B Section 2: BAAQMD returns form with additional information in these columns as needed												
Distance from Receptor (feet)	**Plant # or Gas Dispensary #**	**Facility Name**	**Street Address**	**Screening Level Cancer Risk (1)**	**Screening Level Hazard Index (1)**	**Screening Level PM2.5 (1)**	**Permit #s (2)**	**Source #s (2)**	**Fuel Code (3)**	**Type of Source(s) (4)**	**HRSA Ap # (5)**	**HRSA Date (6)**	**HRSA Engineer (7)**	**HRSA Cancer Risk in a million**	**Age Sensitivity Factor (8)**	**HRSA Adjusted Cancer Risk**	**HRSA Chronic Health (9)**	**HRSA PM2.5 Risk**	**Status/Comments**
Site	6993	County of Alameda Public Works	Marina Blvd & Neptune Ave	0.00	0.000	0.000												0	
Site	G11406	San Leandro Marina - Del Marie Snodgrass	40 San Leandro Marina Dr	na	na	na												0	
																		0	
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Footnotes:
1. These Cancer Risk, Hazard Index, and PM2.5 columns represent the values in the Google Earth Plant Information Table.

2. Each plant may have multiple permits and sources.
3. Fuel codes: 98 = diesel, 189 = Natural Gas.
4. Permitted sources include diesel back-up generators, gas stations, dry cleaners, boilers, printers, auto spray booths, etc.
5. If a Health Risk Screening Assessment (HRSA) was completed for the source, the application number will be listed here.
6. The date that the HRSA was completed.
7. Engineer who completed the HRSA. For District purposes only.
8. All HRSA completed before 1/5/2010 need to be multiplied by an age sensitivity factor of 1.7.
9. The HRSA "Chronic Health" number represents the Hazard Index.
10. Further information about common sources:
   a. Sources that only include diesel internal combustion engines can be adjusted using the BAAQMD's Diesel Multiplier worksheet.
   b. The risk from natural gas boilers used for space heating when <25 MM BTU/hr would have an estimated cancer risk of one in a million or less, and a chronic hazard index of 0.003 or less. To be conservative, requestor should assume the cancer risk is 1 in a million and the hazard index is 0.003 for these sources.
   c. BAAQMD Reg 11 Rule 16 required that all co-residential (sharing a wall, floor, ceiling or is in the same building as a residential unit) dry cleaners cease use of perc on July 1, 2010. Therefore, there is no cancer risk, hazard or PM2.5 concentrations from co-residential dry cleaning businesses in the BAAQMD.
   d. Non co-residential dry cleaners must phase out use of perc by Jan. 1, 2023. Therefore, the risk from these dry cleaners does not need to be factored in over a 70-year period, but instead should reflect the number of years perc use will continue after the project's residents or other sensitive receptors (such as students, patients, etc) take occupancy.
   e. Gas stations can be adjusted using BAAQMD's Gas Station Distance Mulitplier worksheet.
   f. Unless otherwise noted, exempt sources are considered insignificant. See BAAQMD Reg 2 Rule 1 for a list of exempt sources.
   g. This spray booth is considered to be insignificant.

Date last updated:
5/30/12

Stationary Source Screening
Health Risk Values

Stationary Source - Screening Evaluation

Screening Level Risk Values - 70-Year Residential Exposure Scenario

Source No.	Source	Facility ID	Distance Multiplier	Cancer Risk (per million)	Chronic HI	PM2.5 ($\mu g/m^3$)	Methodology
1	County of Alameda Public Works	6993		0.00	0.000	0.000	BAAQMD Screening Level values
BAAQMD Significance Threshold				10.0	1.0	0.30	For each individual source
Exceeds Threhold?				No	No	No	

Sources: BAAQMD Stationary Source Screening Analysis Tool, 2012.